ARIDEXIA

A History from the Diaspora to the Last War

The complete chronicle and encyclopedia of the Aridexian Planetary System, from deep prehistory to the year 1371 AE: the nations, the wars, the weapons and the people.

Compiled by the Historical and Cartographic Division
Deep Space Human Preservation
With full-page plates and maps, an encyclopedia, a chronology, datasheets of every canon machine, and an index

A Note on the Record

This book follows one running calendar. **AE** (Aridexian Era) year 0 is the treaty that ended the ancient war between Luluke and Christonia. Everything before it is deep prehistory and is left deliberately vague. Everything after it is dated in AE.

The population figures in the record were revised upward, by one to two orders of magnitude, to match the technology and military capacity the history describes. Treat the numbers as the book gives them.

Planetary data comes from the APS Stellar System dossier. The plates in this book are drawn from the same sources as the text. Where a plate shows something the text does not state, it is marked as an interpretation on the plate itself.

The book has eight parts. Parts One to Five tell the story in order. Part Six describes how the world looked and what it fought with. Part Seven is the encyclopedia: nations, people, organisations, places, a glossary, a chronology and a datasheet for every canon machine. Part Eight, The People, gives portraits of the figures behind the events. Appendices and an index of names and places close the book.

Contents

Prologue: A Star and Seven Worlds 7

Part One: The First World 9

1. Deep Time 10
2. The Classical Age 11
3. The Poison Crop and the Four Ships 14

Part Two: The Long Ascent 18

4. Savorus Under the Fiefs 19
5. The Long Ascent 30
6. Iron and Water: Anestria 33
7. The Skarnovian Scramble 47
8. Drozdov, Numaria, and the First Marshal 49
9. The Unconquered 64
10. Candrasia and the Nichozh Years 69

Part Three: The Age of War 75

11. The Thirty-Day War 76
12. The Second War and the Crippled Union 81
13. Talona and the Space Age 84
14. The Seventeenth of January 94

Part Four: Ashes and Peace 97

15. What Came After 98
16. Solenne and the Jakaar 106
17. The Alliances 118
18. The Long Peace 122
19. Fenwick and the Reclamation War 137

Part Five: The Last War 147

20. Malakor 148
21. The Typhon Rush 154
22. The Last War 158
23. The Fracture and the Excavation 175
24. What the Skull Meant 179

Epilogue: The Species Does Not End Here 194

Part Six: The Look of a World 195

25. The Names and the Ground 196
26. Arms of the Wars 200
27. What They Wore 217
28. Machines 243
29. Flags and Seals 267

Part Seven: The Encyclopedia 281

30. Nations A to Z 282
31. People 314
32. Organisations, Wars and Events 326
33. Places and Features 388
34. Glossary 431
35. Chronology 460
36. Datasheets of the Canon Machines 477

Part Eight: The People 589

37. The Leads 590
38. The Founding Bargains 610
39. Anestria, Numaria and the Question 618
40. The Ledger's Last Half Century 625

41. Occupation, Exile and Revolution 636
42. The Night of 17 January 1300 640
43. Northland 647
44. Solenne 651
45. The Alliances and the Turncoat War 660
46. Typhon 668

Appendices 674

Appendix A: The Planetary System Dossier 675
Appendix B: The Calendar 700
Appendix C: Story Hooks by Era 702
Appendix D: Open Questions 708
Appendix E: A Guide to Tone and Look 712
Appendix F: The Balance of Power by Era 717

Index 719

PROLOGUE

A Star and Seven Worlds

The star is called Solis, and it is a little hotter and more restless than the sun we know. It has a nine-and-a-half-year cycle of spots and storms, and once in a long while it throws a flare large enough to blind a satellite.

Around it go seven worlds and a great many smaller things. One of them is a stormworld whose moon is green. One is a world of ice over an ocean. One is a gas giant with a family of moons like a small solar system of its own. And one, at exactly one astronomical unit, has a moon that is a captured piece of something else, and a surface that looks a great deal like a place you could live.

That world is called Aridexia. This book is about the people who live there, how they got there, what they did, and what happened to them. It is a long book, because the history is long, and because the last twelve hundred years have been unusually busy.

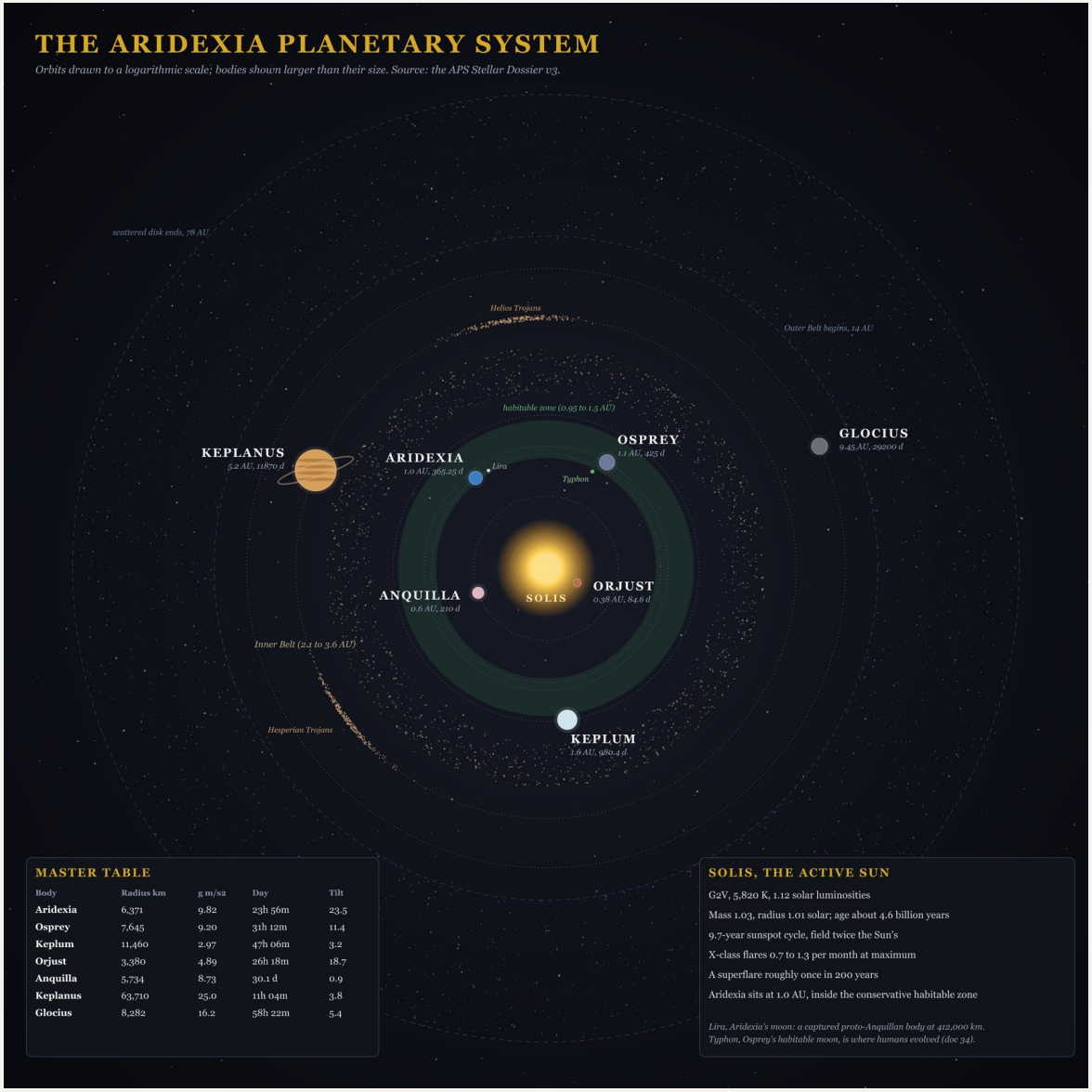


Plate: the Aridexia Planetary System.

PART ONE

The First World

1
Deep Time

The oldest part of the record is the part we know least about, and the people who compiled it say so plainly. Everything before the treaty that opened the Classical Age is held loosely. The numbers that survived the old drafts could not all be true at once, so they were set aside rather than patched.

What remains is a shape. A planet of Earth's mass and density, a quiet moon, and long ages in which life climbed and nobody was there to write it down.

Aridexian life followed an ordinary evolutionary path. It began with early chemosynthetic microbes, went on to marine life and then to land animals, and arrived at a rich native fauna that, on the surface, looks as though it should include a hominid line of its own. Specific dates for these stages are not given here. The records that attempt them contradict one another, and the political history that follows does not need them. The first true civilizations emerge directly into Chapter 2.

A standing gap, not a settled fact. No confirmed transitional fossil has ever linked Aridexia's native primate-analogue fauna to Ardekai, the modern human population this whole history is about. The two lineages share no meaningful genetic continuity that anyone has been able to demonstrate, and the fossil record goes quiet at the very point where a connection should exist. This is no minor academic footnote. It is one of the most publicly recognized open questions in Aridexian science, known in the literature and well outside it as **the Aridexian Descendant Problem**. It is a live scientific and cultural question in its own right, and more than a line in a political history, so it is treated in full elsewhere. The answer, when it comes, comes from off-world, and it is there that the gap eventually stops being just a gap.

2
The Classical Age

Year zero is a signature. Two peoples who had been at war for longer than anyone could remember put their names to a treaty, and the record begins counting from that day.

The age that followed was a good one, as ages go. It did not last.

Luluke was the first durable civilization. It was a loose union of independent city-states in the south of the Central Continent, bound by a shared culture built around a staple crop called luminonion, a root vegetable central to both diet and religious life. Further north, a second community coalesced under Christian Palazzolo, founder of what would become the Christonian Empire. He instilled early law, communal food-sharing, and the beginnings of a written language, Christonian. Palazzolo is still venerated by the Christonian people, whose calendar marks his memory every June 15th.

The river between them

The border between the two ran along the Solvane, the one river system draining the Central Continent's interior highlands into the sea on either side, and every acre of farmland that could reliably grow luminonion sat inside its floodplain. The border was chosen for no reason of prestige or old grudge. The Solvane was the only water source either civilization had.

A slower problem made things worse. Tree-ring and lakebed sediment records recovered centuries later show that the Central Continent's interior went through a multi-generational drying trend across almost the entire span of the war. There was no single catastrophic drought, only a slow tightening, and the Solvane's flow was measurably lower in most decades of the war than in the two centuries before it started. Neither side ever framed it that way at the time, because nobody alive lived long enough to notice a trend measured in tree rings. What they noticed, generation after generation, was that the harvest was worse than their parents' had been, and that the people on the other bank had the water their own crops needed. A dispute that reads, from the outside, like two neighbors fighting over where to draw a line on a map was two civilizations fighting over the only reliable water source either of them had, during the centuries when that source was shrinking.

The two-hundred-year war

For roughly two centuries the two powers fought an intermittent, grinding war over that same stretch of river. It was an arms race as much as a shooting war, escalating from swords and early muskets to cannon and rifled firearms. The turning point came in the war's final years, when an armaments firm founded during the conflict fielded the first practical internal-combustion engine, the first rechargeable battery, and the first semi-automatic rifle, the AG-01. The firm was Irwin's, later renamed AVMS (Armored Vehicle Manufacturing System). Mounted on a brass-armored chassis, the resulting AV-1 was the first true armored fighting vehicle in Aridexian history, and it gave Luluke a decisive military edge.

The Treaty

By Year 0, a broken Christonian Empire agreed to the Treaty of the 200-Year War. Its terms were reparations, ceded southern territory including the Solvane's richest floodplain reaches, a capped military, and free movement for Luluke citizens into Christonian lands, though not the reverse. The drying trend itself eased not long after, on its own slow geological schedule, with no war able to take credit for it. Later Luluke court historians were not always careful to mention this. Luluke's ruling family, drawn from its largest founding city-state, formalized into a monarchy. This period is remembered as the birthplace of Aridexian civilization.

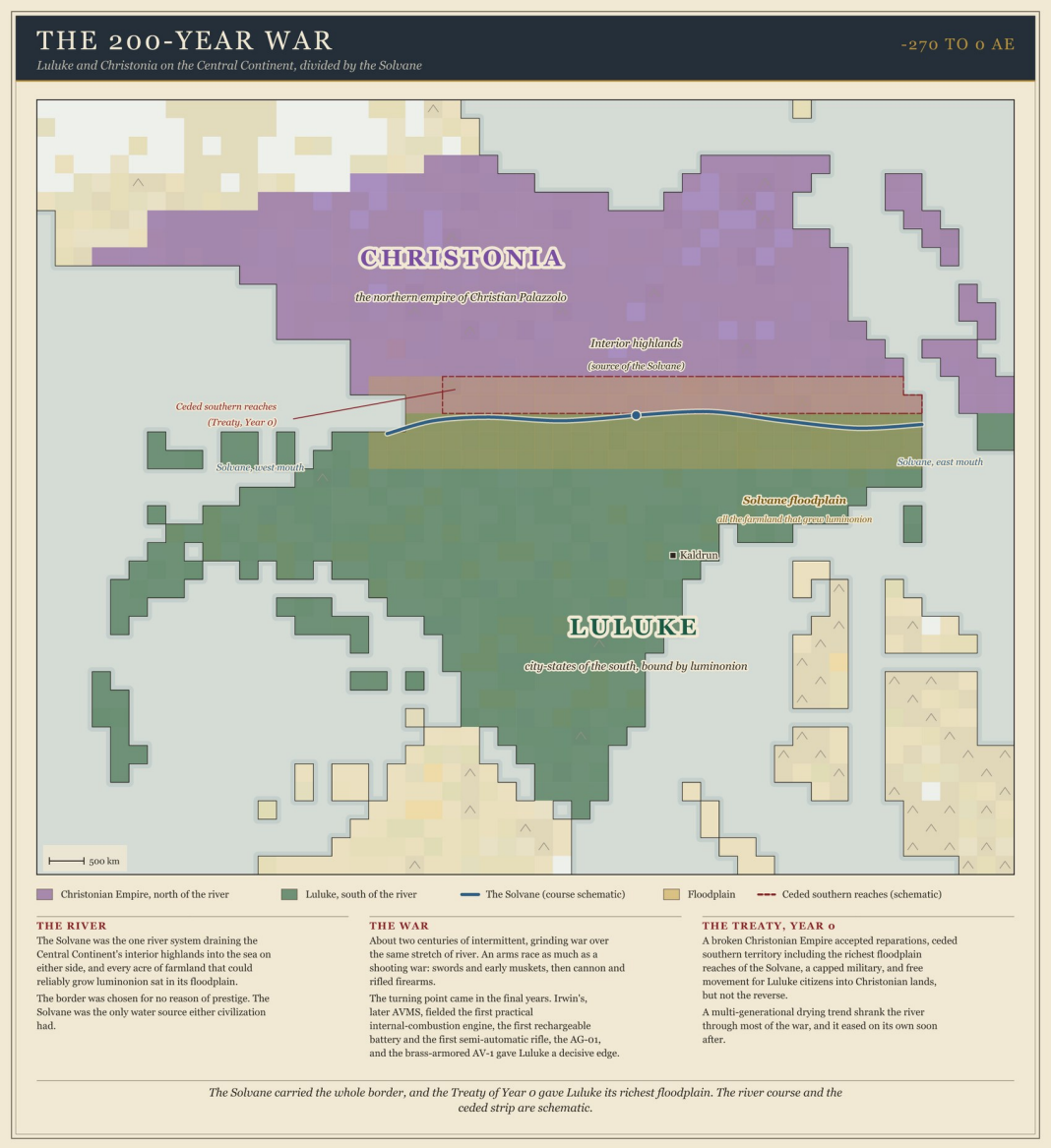


Plate: The Solvane carried the whole border, and the Treaty of Year 0 gave Luluke its richest floodplain. The river course and the ceded strip are schematic.

3
The Poison Crop and the Four Ships

It began with a pesticide. Someone on Luluke developed a better way to protect the luminonion crop, and the crop that fed a nation turned out to carry a toxin that nobody had tested for.

Within a few seasons the famine had a name, Carina-11, and a neighbour had closed its border. People left by sea. They left in four directions, and the four places they landed would shape everything that came after.

Luluke's post-war prosperity was short-lived. Around 3 AE, a newly developed agricultural pesticide, viriditas, poisoned luminonion crops with a toxin now known as Carina-11. The toxin was deadly, food-borne, and highly contagious as it spread through the food supply. With luminonion central to the Luluke diet and economy, the result was famine, disease, and a mass exodus. The Christonian Empire, previously bound to accept Luluke travelers freely, revoked the arrangement to keep the outbreak contained.

The four ships

The refugees founded four new nations.

- **The Syndicate** was the largest group. It sailed west to a temperate, mountainous continent.
- **The All-Finian Empire** sailed east and settled a chain of large islands. "Settling" is the accurate word, and no euphemism, but the same islands had once supported a civilization of their own, the **Phaeshan Federation**, a loose union of trading city-states, and "settling" would have been a very different word had it still existed. It did not. Korut's own geology (a fast-spinning, young volcanic island-arc microplate) is unusually active even by the standards of island chains. Sometime around -40 AE, a chain-wide sequence of eruptions and associated tsunamis hit most of the Federation's coastal city-states within the same handful of years. The timing is uncertain. It is reconstructed only from disrupted stratigraphy and from a conspicuous population-wide silence in what few written Phaeshan records survive at all. What happened to the Federation's population afterward (death, scattering, some mixture of both)

cannot be recovered from the evidence available. All that is known is that by the time All-Finian sails reached the same coastline, some four decades later and in the years just after the 3 AE diaspora, the cities were ruins and the harbors were reshaped. There was nobody left to ask.

- **Anestria** traveled south into a desert continent of oases. It later fractured into three founding kingdoms: Antares, Imperium, and Anestria proper.
- **The Pechorian Federation** was a smaller group that followed the Syndicate's own route west but kept sailing north once landfall was made. It settled a long, cold coastal strip above the Syndicate's own territory rather than competing for the same warmer ground. Founded the same year as the Syndicate, it has stayed fully independent ever since of the Syndicate/USN/Solenne lineage that grew up just south of it. It was never conquered and never absorbed. A string of bigger neighbors simply left it alone, having bigger fights to have with each other.

Luluke after the fall

Luluke itself survived, but at a fraction of its former population, and spent the next two centuries in slow, deliberate recovery. It found new crops and rebuilt a building industry, and by the 700s AE it had developed the first practical electric motor, independently of the Christonian and Luluke war-era combustion work. A major gold, copper, and rare-mineral strike around 900 AE gave Luluke's economy a second wind and opened its first international trade relationship, with the All-Finian Empire, by 980 AE.

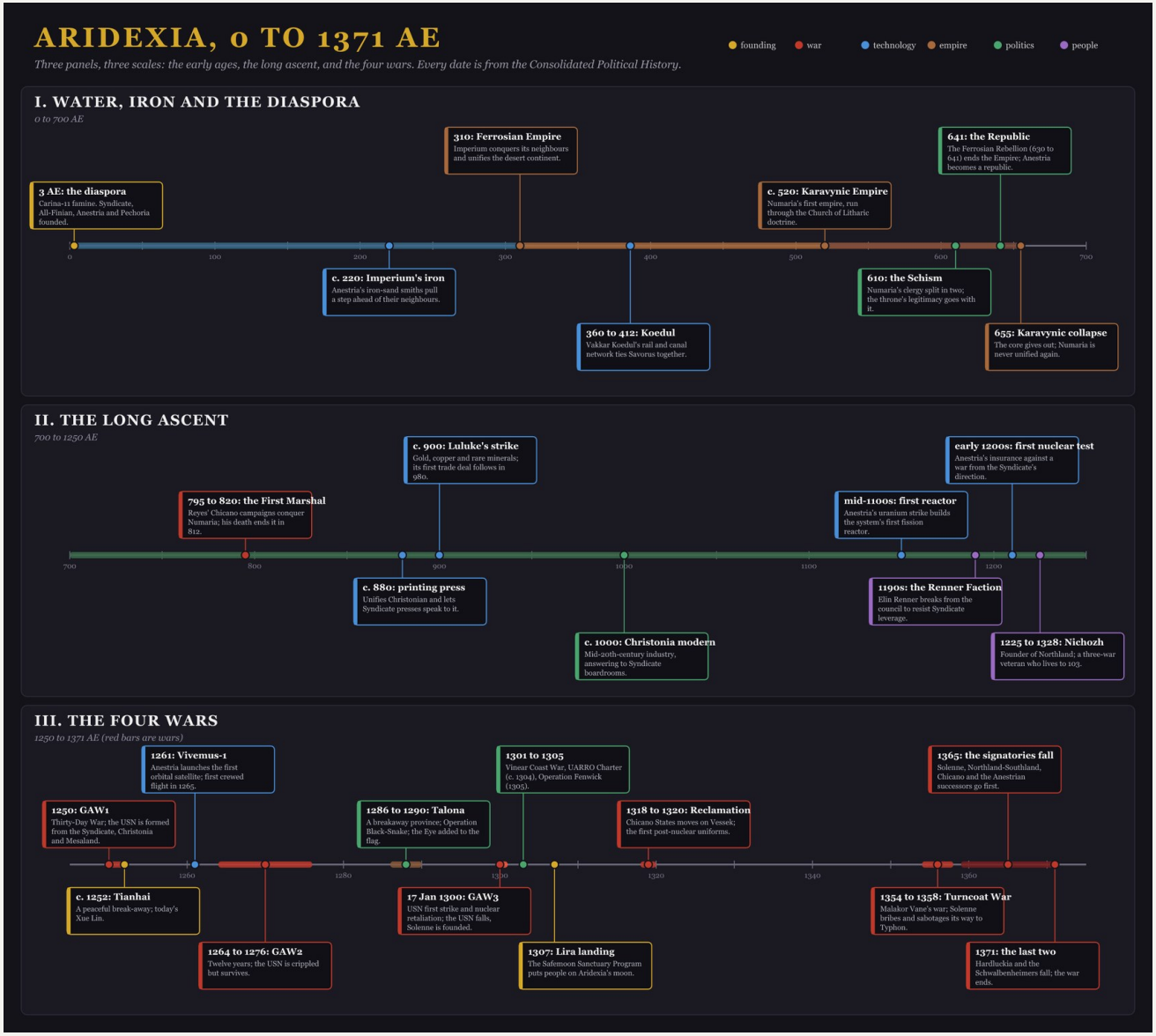


Plate: the whole record, 0 to 1371 AE, in three panels.

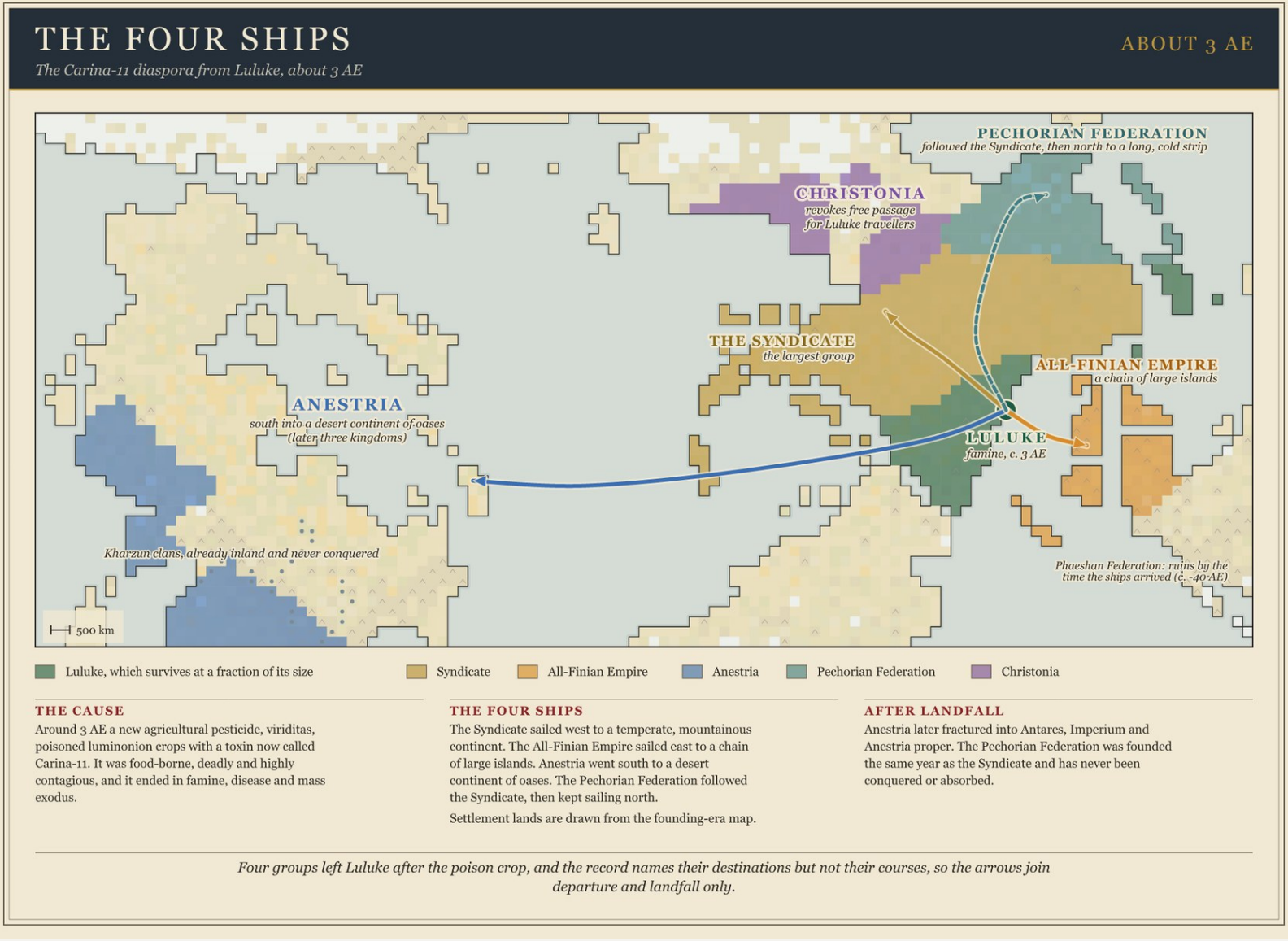


Plate: Four groups left Luluke after the poison crop, and the record names their destinations but not their courses, so the arrows join departure and landfall only.

PART TWO

The Long Ascent

4
Savorus Under the Fiefs

The largest of the four ships landed on a temperate, mountainous continent and found that being clever was not the same as being safe. The people who came ashore had books and a trade, and almost nothing else.

So they built a kingdom out of contracts. A lord held his land by a signed bond, and so did the knight under him, and so did the farmer under the knight. The Syndicate's habit of running a country like a ledger began here, three centuries before it had a railway.

The Syndicate's story is usually told from the middle, with the rail and canal network of Vakkar Koedul, dated to about 360 to 412 AE (Chapter 5), and a continent that was "industrialized end to end" by 400 AE. The beginning is simpler to state. The largest group of the Luluke diaspora (Chapter 3) landed on a temperate, mountainous continent, Savorus, in 3 AE. The roughly three centuries between that landing and the great network are the subject of this chapter. They were the fief period, and they explain almost everything about how the Syndicate later behaved.

Why There Was a Fief Period at All

The Syndicate did not arrive on Savorus with a modern state in its luggage. The diaspora left Luluke in the wake of the Carina-11 famine and the Christonian Empire's closing of its borders, and the refugees "arrived with nothing left to lose." What they had was literacy, a few thousand books, people who remembered how things were made, and a hard need to be fed and defended by the next harvest. They had no power plants, steel industry or rail grid, and they could not rebuild any of them in a year.

What they built instead was **feudalism by contract**. The medieval pattern (land held from a lord, soldiers raised by the land, labour owed by the people on it) grew up on Savorus because it was the quickest way to turn a starving crowd into fed, armed, administered districts. But the people who built it came from a mercantile, written society, and they built it as such people build everything, as bonds. A fief on Savorus was **leased** and never granted. A Lord-Principal held it by a signed bond, sealed in wax, renewable and revocable. A Bannerman held his holding from a

Lord-Principal by another bond, and the Freeholder held his lease from the Bannerman by another. Nobody held anything by blood alone. The Syndicate's later habit of running a country as a ledger is no corruption of the fief period. It is what the fief period was.

A Luluke enclave shared Savorus with the Syndicate. It stayed small, stayed to itself, and was never part of the fief system. The Syndicate and the enclave traded across their border and mostly left each other alone.

The dates run as follows. The landing came in 3 AE. The fief system was formed by about 40 AE, matured through the 100s and 200s, and began to give way after about 340 AE, when Koedul's freight network (born c. 360 AE) turned out to be worth more than land rent. By 400 AE the fiefs had been commuted into chartered trading houses. The detail that matters for the rest of the record is that **the twelve charter-houses that became the Syndicate are the twelve fiefs, renamed**.

The Twelve Fiefs

The Syndicate was formed out of twelve fiefs, each held by a **Lord-Principal** and each with a fixed role in the whole. Each house bears the Syndicate's black field (the colour of charcoal, iron and ink), a chief in its own colour, and one charge in gold. Gold is the Table's metal and the colour of its seal, and no house may carry it as a field. Each house also flies a pennant at the hoist in its own colour, which is the origin of the house flags described in Chapter 29.

House	Colour	Charge	Seat	Role
Aldrek	crimson	tower	Aldrek Keep	border fortress and the northern pass
Brasmere	sea-green	ship	Brasmere Quay	harbour, fishing fleet and coastal trade
Corvane	orange	crossed picks	Corvane Deeps	ore and the deep mines
Dunmar	slate blue	wheel	Dunmar Mill	grain, mills and the central valley
Esselt	violet	scales	Esselt Court	law, weights and measures, the Ledger Court
Falkreth	silver-white	key	Falkreth Gate	customs at the mountain gates
Garnoth	rust	anvil	Garnoth Forges	steel, armour and the arms trade
Halvane	forest green	sheaf	Halvane Vale	farmland and stock
Ilmar	teal	bridge	Ilmar Span	rivers, bridges and the toll roads
Jurak	plum	bell	Jurak Tower	the beacon-and-bell alarm network
Kessane	ice-blue	hammer	Kessane Quarry	stone, masons and the fortress works
Lorrow	olive	lantern	Lorrow Watch	surveyors, wayfinders and the maps



Plate: the twelve fiefs and their pennants.

The twelve houses were interdependent on purpose. No fief grew its own food, forged its own steel and held its own gate. A house that left the Table would starve in a season, and the founders designed it that way. Three of them matter more than the rest for later history. **House Esselt** holds the Ledger Court and so the law, and its seal can void another house's bonds. **House Garnoth** makes the steel and so the arms. **House Lorrow**'s surveyors were the people from whom Koedul's survey crews would grow, which is why a canal-and-rail engineer with no title and no company is still a Lorrow man in everything but name.

The Hierarchy

Authority ran in bonds from the top, and each link was a written obligation.

The Table. The twelve Lords-Principal sat as the Table, one vote each. It made war and peace, set the levy, and amended the weights and measures. It met at the Seat in the central valley, in a hall with twelve chairs and one empty thirteenth, kept for "the Syndicate itself." Its staff of office was the **Seal-Mace**, a gilt staff with the three-peaks seal on its head, carried before the Chair.

The Chair. One Lord-Principal was chosen each year by the Table from among its own members. The Chair presided, spoke for the Syndicate to outsiders, and held no extra vote. A Chair could not be chosen twice in three years. This is the ancestor of the Syndicate's later chairmanship, and it explains how a mercantile superstate could be run for centuries by a rotating, nominally equal board.

The Ledger Court. This was the law. House Esselt supplied the **Justiciars**, who judged in benches of three. The **Notaries and Tallymen** kept every bond, tally and seal in a registry that outlasted any lord. Punishment was mostly debt, whether a fine, a bond of labour, or the loss of a lease. Death sentences were rare and required the whole Table.

The Marshals. These commanded war, through the three arms of the Syndicate's force:

- **Bannermen** were the mounted knights, holding sub-fiefs (called "holdings") from a Lord-Principal on a bond of service. Each raised a lance of men and fought under his house pennant.
- **Pass-Wardens** were the mountain militia who held the gates and passes, raised from the high valleys and paid in kind. They were the Syndicate's defensive spine, since an invader had to get through the mountains to reach anything worth taking.
- **Hired companies** were paid soldiers on a term contract. They appeared in the 200s as the Table's answer to the fact that a levy cannot be kept in the field through a campaign. They are also the ancestor of the Syndicate's long habit of buying force rather than raising it.

The Stewardship. This handled land and money. **Reeves** ran a district for their Lord-Principal and collected the rents. **Factors** were merchant agents who bought, sold and carried bonds for a house. They were the company men of later centuries in all but name, and the Syndicate-chartered trading companies of the Long Ascent (Chapter 5) are descended from them.

The common people. Freeholders held a lease from a Bannerman or Reeve, owed a crossbow levy, and made up most of the free population. **Bondfolk** were bound by debt, and birth had nothing to do with it. They could buy their way out at any time at the price entered in their bond. This was the Syndicate's single most distinctive social rule: a bondman's children are free. **The Unbonded** (travellers and newly arrived refugees) had no protection and no obligations, and they had a short time to find a bond or leave.

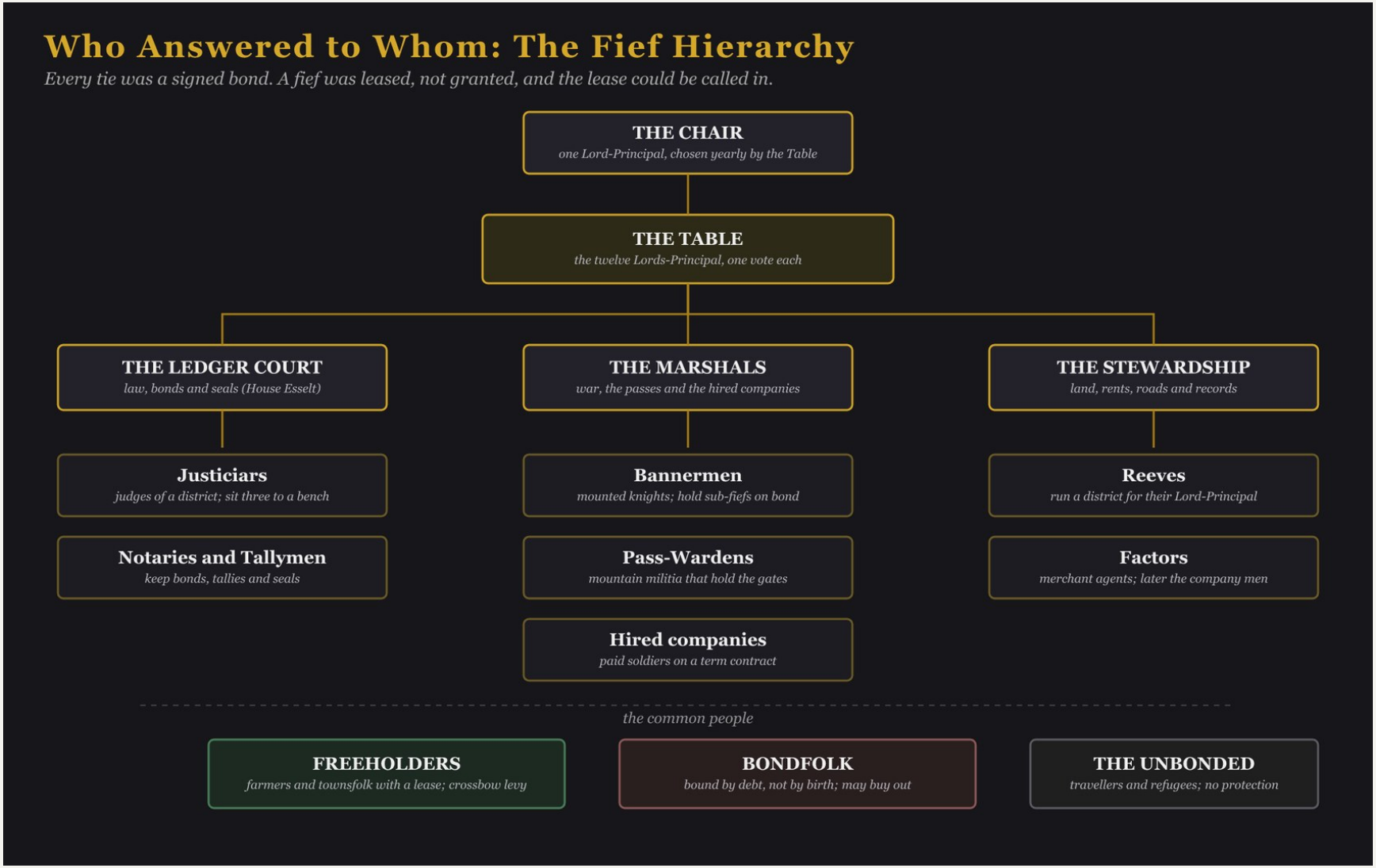


Plate: who answered to whom.

Kit and Appearance

Everyone dressed in the Syndicate black, with a house colour for allegiance and gold only where rank allowed. Black was cheap (charcoal and oak-gall dye) and told friend from foe at a glance on a mountainside.

Lord-Principal. A Lord-Principal wore full harness of mountain steel from House Garnoth, with a black surcoat bearing a chief in the house colour and the gold charge on the breast, a mantle in the house colour, a bascinet with a gold edge and a plume of the house colour, and an oathblade at the hip. His armour carried more gold edging than anyone else's, and only the Table wore it.

Bannerman. A Bannerman wore a mail hauberk under a black tabard with the house colour in a diagonal half, an open helm with a nasal bar, and carried a kite shield bearing the full house arms and a lance with the house pennant. Bannermen were the most visible people on a battlefield and were dressed to be.

Freeholder levy. The levy wore a quilted gambeson in undyed linen (the only soldiers not wearing black, since a levy could not afford the dye), a kettle hat, and a house-coloured sash and hood. Each man carried a **stonebow** (a steel-prod crossbow) with a quiver of bolts. The sash was how a captain found his own men.

Pass-Warden. A Pass-Warden wore a heavy wool cloak in black-grey with a fur collar, a hood with a slit snow-shade, and cleated boots. He carried a round shield painted with the three peaks in gold and a winged **pass-spear**. The three peaks are the Syndicate's own seal (Chapter 29), and the Wardens were its first users. The symbol on the later flag is a Warden's shield.

Tallyman (clerk). A Tallyman wore a long black robe with a white band at the collar, a flat black cap with a gold tassel, and a gold cord at the waist. He carried a ledger and a quill, and wore the house seal on a gold chain. Tallymen carried no weapon and wore more gold than any warrior below a Lord. They held the bonds, and so they were the most feared people in any room.

Common wear. Bondfolk and the Unbonded wore undyed wool and leather, with the bond number sewn at the breast. A bonded freeman's colour was a thin black band on the sleeve.

The striped posts. Boundary posts between the fiefs were painted in gold and black chevrons so that they could be seen in snow, fog and dusk. This is the origin of the gold-and-black hoist band on the Syndicate flag, of the stripes on its warehouse doors, and of the hazard-striping that still marks Syndicate property (Chapter 29).

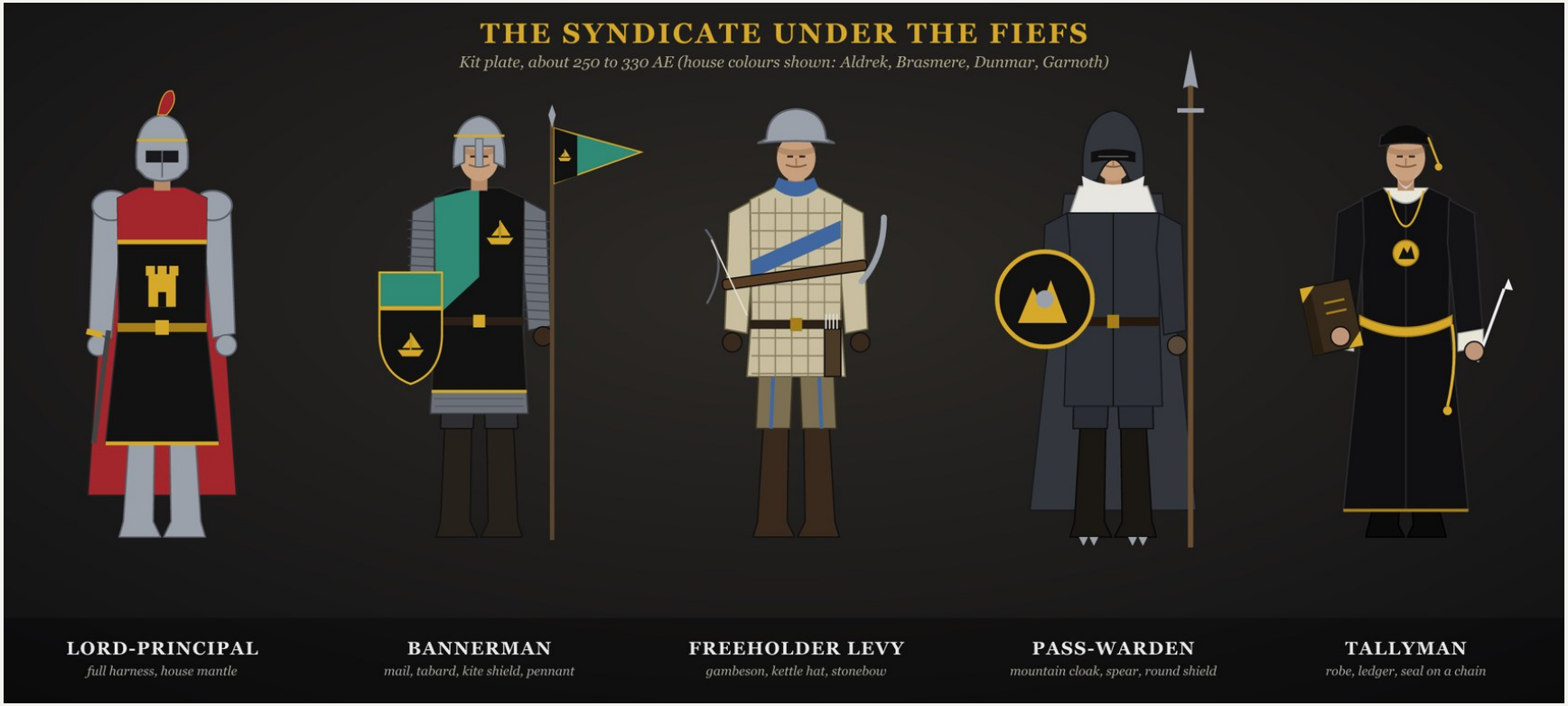


Plate: the Syndicate under the fiefs.

Arms

Weapon	Description
Stonebow	Steel-prod crossbow spanned by a windlass. The levy's weapon. Range about 280 m, a bolt every 20 seconds, and good enough to put a lord on the ground.
Tally-bill	A billhook polearm. Notches cut along the shaft count the men mustered under it, one per head, so the shaft is the muster roll.
Oathblade	An arming sword. The blade is sworn on at every bond signing, and the pommel carries the house's seal.
Seal-Mace	The Table's staff, gilt, with the three peaks on the head. Ceremonial.
Pass-spear	A winged spear used from behind a round shield in the gates.
Thunder-pipe	A hand bombard, from about 290 AE. Slow, inaccurate, and frightening at a gate.
Arquebus	A matchlock shoulder arm, from about 320 AE. The weapon of the hired companies, and the reason the Table's own Bannermen stopped being the best soldiers in the Syndicate.

Armour and shields. The armour was mountain steel from House Garnoth's forges, mail through the 100s and plate harness for Lords-Principal and Bannermen by the 200s. Kite shields bore the house arms, and the Wardens used round shields. Gunpowder arrived late and was slow to catch on, and that slowness is what stretched the fief period to the 330s.

Tactics. Defence was in depth through the passes, with the Pass-Wardens holding the gates and the Jurak bell-and-beacon network warning the interior within an hour of an enemy appearing at any gate. Offence was by contract. When the Table wanted a war, it hired a company rather than call out the levy, so the Freeholders stayed on the land.



Plate: arms of the fief period.

How It Became the Syndicate

By about 340 AE the fief system had stopped being the best way to hold the Syndicate together, and Koedul's survey crews and his rail and canal network (Chapter 5) made the reason plain. Land rent was worth less than the freight that crossed it. The Table did what a mercantile society does with a failing asset and converted the fiefs into **charters**:

- The twelve Lords-Principal became the heads of twelve **charter-houses**, trading companies with the same names, colours and charges.
- Bannermen and Factors were absorbed into company management, and the levy was replaced by paid companies.
- The Tallymen's registry became the Syndicate's accounting office.
- The Table became a board and the Chair a chairman, and the Seal-Mace is still carried into the room.

The Syndicate's flag, seal and colours (Chapter 29) are the fief-period ones, scaled up: a black field, a gold ring bearing **twelve beads** (the twelve fiefs), three peaks (the Wardens' shield), and the gold-and-black boundary post turned into a hoist band. When the United Syndicate Nations came in 1250 AE, it absorbed the Syndicate whole, and the old titles survived into it. The **Warden** rank of the Black-Snake Corps (Chapter 27) is a revived Pass-Warden title, chosen to claim an older and more respectable ancestry for a very new guard.

5
The Long Ascent

By the year 400 the continent was industrial from end to end, and the Syndicate had learned the thing that would define it: that a loan is gentler than a war and lasts longer.

While it grew, its neighbours grew too. Some prospered quietly, some were swallowed without a shot, and one, in the cold north, simply kept out of the way and survived.

Nothing about the twelve centuries from 0 to 1250 AE was stagnant, even the stretches with no war in them. Every nation of the age spent the period either building the leverage that would decide GAW1, or failing to notice that someone else was.

The Syndicate's long ascent

The Syndicate landed on Savorus with the diaspora's largest single group and the fewest illusions about staying small. Luluke's own diminished enclave shared the same landmass but never posed real competition. A population still recovering from the Carina-11 famine was never going to out-produce refugees who had arrived with nothing left to lose.

By 400 AE the Syndicate had industrialized its home continent end to end. It had one engineer to thank more than any other for turning that into more than a collection of unconnected boomtowns: **Vakkar Koedul** (circa 360 to 412 AE), whose rail and canal network was the first infrastructure on Savorus built to move freight between cities rather than just extract it from the ground under any one of them. Koedul never held office, and never led a company larger than the survey crews under his own direct command. He died decades before the Syndicate had the economic empire it would later run over Christonia, which is why his name survived the transition from Syndicate to USN to Solenne relatively untouched by any of it. He was a builder and no conqueror, from before the ambition that built the USN ever existed. Solenne's own aerospace program would later name its heavy-cargo transport line after him for the same reason. His is a second, much quieter name added to the running list of widely remembered Aridexians that includes Salvador Reyes (Chapter 8). He is honored for the opposite reason Reyes is. Reyes is remembered for what he conquered, and Koedul for what he connected.

By 700 AE, with nothing left on Savorus worth conquering, the trading houses that Koedul's network had first connected started looking outward, as any growing power does when its own backyard runs out of room. They did not send warships yet. They sent capital.

Candrasia sat directly across a short strait, already home to an old, proud, and increasingly cash-poor Christonian Empire rebuilding from its treaty terms. Syndicate-chartered trading companies moved in during the 700s and 800s AE offering what post-treaty Christonia needed and could not generate on its own: investment capital, industrial machinery, and technical expertise. In exchange they took resource concessions, exclusive trade terms, and, eventually, seats at the table when Christonian economic policy got decided. None of it looked like conquest, because it was not meant to. It was cheaper and more durable than conquest. By the time anyone in Christonia's own government called it what it was, undoing it would have meant giving back the railroads, the ports, and the factories that had built the industrial base every outside observer still called purely Christonian.

Christonia's slide into dependency

The printing press (circa 880 AE) that unified Christonian as a shared written language also let a Syndicate-funded press run the same language back at the population that spoke it. By 1000 AE, the year Christonia reached a modern, mid-20th-century-equivalent level of industrialization, most of the industry that got it there answered to Syndicate boardrooms as much as to Christonia's own elected president and Conjunctioner council. The arrangement was never declared, voted on, or resisted by Christonia's formal government, and that was why it worked. There was no single treaty to break, just a hundred years of contracts that all happened to run the same direction.

Not every Christonian accepted this quietly. A Conjunctioner named Elin Renner broke from the council in the 1190s AE to organize what she called Christonian economic self-determination, and what everyone else came to call **the Renner Faction**. It was a nationalist movement built on the accurate observation that Christonia's own president answered to Syndicate creditors more readily than to Christonian voters. The Faction never held real political power, because the council that could have backed it was itself thoroughly financed by the same Syndicate money it would have had to reject. By the 1240s AE its more militant offshoots had concluded that persuasion had run out of road.

In late 1249 AE, one such cell detonated a bomb intended for the Syndicate capital's own financial district, a strike meant to sever the arrangement at its source. It killed a handful of clerks, damaged one building, and accomplished nothing it set out to do, because the Syndicate's economy no longer had a single point that sabotage could sever. What it did give the Syndicate was a clean, public pretext to finish formally what a century of contracts had already finished informally.

Luluke and the All-Finian Empire, prospering

Neither Luluke nor the All-Finian Empire had any reason to involve themselves in a Savorus-Candrasia relationship to which neither was a party. Their own 980 AE trade compact matured over the following two and a half centuries into the closest thing the map had to an old, comfortable friendship. Luluke's mineral wealth, from its 900 AE strike, moved east to AFN shipyards, and AFN manufactured goods moved west to a Luluke that had never fully rebuilt its own heavy industry. Both nations grew steadily and neither grew dominant. Both stayed on excellent terms with the Syndicate because staying on the Syndicate's good side was cheap, and staying on its bad side, everyone increasingly understood, was not. When the Syndicate came calling for allies in 1250 AE, Luluke and the AFN answered out of a business relationship neither wanted to jeopardize more than out of ideology.

Mesaland

Mesaland was never more than a small, contentedly minor island nation off Candrasia's own coast. It was close enough to Christonia to trade with it constantly and far enough to avoid ever being asked to join it. It spent its entire pre-war existence overshadowed by its bigger neighbor, tying its own modest economy to Christonian shipping routes without ever building the leverage, or facing the pressure, to do anything else. When the Thirty-Day War came for Christonia, Mesaland had no army worth the name to make the Syndicate's coalition even slow down, and no Renner Faction of its own to give anyone a reason to leave it standing afterward as an independent afterthought. It went into the USN as a detail nobody argued about, and no one regarded it as a conquered enemy.

The Pechorian Federation, deliberately overlooked

The Federation's founders picked their cold northern strip because it was not worth fighting over, and twelve centuries of the Syndicate's attention going anywhere else proved them right. While the Syndicate spent thirteen generations building an economic empire in Candrasia, its own northern neighbor built fisheries, modest shipping, and nothing anyone in Corvenna's boardrooms ever thought worth a contract, let alone a war. Being beneath a great power's notice, this stretch of Aridexian history establishes, is its own kind of survival strategy.

6
Iron and Water: Anestria

The desert continent had no rivers to speak of and no reason to unite, which is why it took iron to do it. Three kingdoms grew up around three kinds of water. One of them had iron under its sand.

An empire came, and lasted three centuries, and was undone by the same distance that had protected it. When the republic that replaced it learned to build reactors, it did so for one reason: it had read what the Syndicate was becoming.

Anestria is the desert continent, and its history is one of the few on Aridexia that moves in a clean arc: three small kingdoms, an empire built of iron, a rebellion, a republic, and an industrial power that built a nuclear weapon a full century before it needed one. This chapter follows that arc from the landing to the eve of the First Aridexian War. It follows the soldiers as well as the governments, because in Anestria the way an army dressed has always said what kind of state it served.

The Logic of a Desert Army

Anestria's armies have always been dressed by three facts: **water, sand and iron**. The desert continent's oases are naturally isolated from one another, so every Anestrian army from the earliest kingdoms onward is built around the oasis, which is the unit of recruitment, the unit of supply, and the unit of loyalty. Water decides what an army can wear (light layers, cloth in the sun, nothing that cooks a man in a march). Sand decides the palette, a pale, dusty range that does not show in the dunes. Iron, which only the sands of Imperium produce in quantity, decides who wins the wars between the oases.

Two habits run through the whole history and explain the look of the later uniforms. The first is **no leather where it can be avoided**. Leather cracks in the dry, so cotton webbing replaces leather belts and pouches. When a modern soldier of the First Aridexian War is issued cotton webbing, "never leather," it is the same instinct that put wicker and hide on a medieval shield. The second is **tricolour logic**. The founding myth is "three kingdoms, one democracy," and every Anestrian emblem since 641 AE carries the three colours of the three kingdoms: **red** for Antares, **iron-grey** for Imperium, and **green** for Anestria-proper, set on a sand-coloured

ground.

The Three Kingdoms (about 3 to 310 AE)

The diaspora group that sailed south (Chapter 3) landed on a desert continent that was not empty, since the unconquered Kharzun clans were already inland (Chapter 9). The newcomers settled the coast and the oases in three kingdoms, **Antares**, **Imperium** and **Anestria-proper**. The kingdoms did not form at once. They were a fracture of the one diaspora group, and the record dates them from the first generations after the landing, about 3 AE, until their conquest in the 300s.

Antares held the coast and the caravan roads. A trading kingdom of ports and wells, it fielded **light archers and riders**: long cream robes under a red kaftan, a wrapped cream turban with a red tail, a **sunbow** (the composite recurve), and a quiver worn high on the back. Its colour is red, for the star the kingdom is named for. It had the best bowmen of the three and the worst armour.

Imperium sat over the iron-bearing sands. Its oases lay over the richest of them on the continent, and by roughly 220 AE its smiths were making tools and weapons a full technological step ahead of anything Antares or Anestria-proper could field. Its soldier is the **Ironclad**: a lamellar iron cuirass with a rust-coloured sash, a conical iron helm with a mail veil and a nasal bar, a round iron-bossed shield, and the curved **Ferrosian sabre** that became its signature export. Its colours are iron-grey and rust.

Anestria-proper held the central oases and the farmland. Its army was a **farmer's levy**: a green tunic to the knee, a wrapped headcloth, a round wicker-and-hide shield, a water-skin, and the long **oasis spear**. It was the largest army of the three and the least armoured, and its colour is the oasis green.

Each kingdom was run by a **king** and a council of **oasis-lords**, who held a well, a farm district, or a stretch of road on the king's behalf and raised the troops from it. A lord's wealth was measured in water rights, and land counted for less. A king could not move a lord without moving the lord's wells, and wells cannot be moved. That is why the kingdoms were so loose and so easy for the iron of Imperium to take apart.

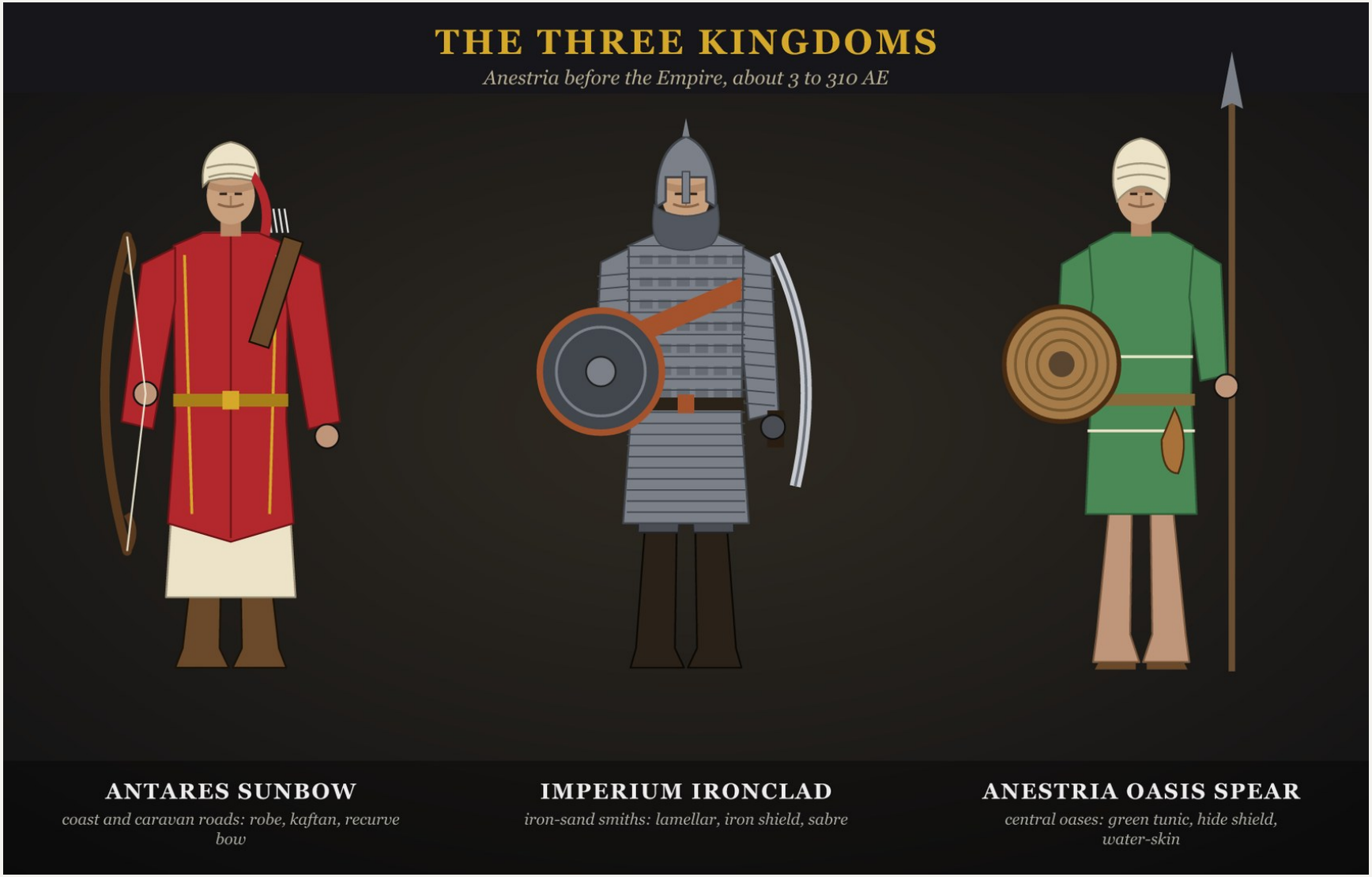


Plate: the three kingdoms.

The Ferrosian Empire (310 to 641 AE)

The three kingdoms did not stay three for long. Imperium's ruling house used its iron edge as Luluke's own edge in the age of the AVMS had been used a few centuries earlier and a continent away. It sought no single decisive battle. It made a slow, methodical conquest of its two neighbours, one generation after another. By 310 AE the desert continent was unified for the first time under a single crown. The new state ruled from the capital of Imperium and took its name from the material that built it: **the Ferrosian Empire**.

The Empire held for more than three centuries, longer than most unifications in this history, and the reason is the same fact that shaped its armies. Anestria's oases are naturally isolated from one another, and an empire that already controls every oasis worth controlling has very little external pressure left to test it. No outside power ever did. What tested it was internal.

The structure. At the top stood the **Iron Throne** at the Imperium capital. Beneath it was an **Imperial Governor** for each oasis, and beneath the governors were three great offices:

- **The Water-Courts.** The **Waterkeepers** owned the sluices and metered every channel, and water rights were law. A governor who held the Water-Court held his oasis.
- **The Ironguard.** The garrisons, under Ironguard captains, with the **Sand Riders**, camel scouts and raiders, as the Empire's long arm across the desert.
- **The Collectors.** The tax-scribes and the grain tithe.

Below them were the **Cultivators** (farmers on leased water) and the **Caravaneers and Smiths** (licensed by the governor). Outside the system altogether were the **Kharzun clans**, never conquered.

Kit. The Empire's soldiers and officers dressed in three distinct ways.

- **The Ironguard.** The Empire's heavy infantry wore a black lamellar coat to the shin, a closed iron helm with a crest and a face-plate with a slit, and a rust-red sash and gorget. They carried a **tower shield** with a rust ring and a long straight blade. The Ironguard's black-and-rust is the Empire's colour.
- **The Governor-Lord.** By the 600s the governors, generations removed from the original Imperium dynasty and answering to a capital most of them had never visited, had become a hereditary aristocracy, running each oasis as a personal holding and no longer as a province. They dressed for it: a long black robe with three rust-red brocade bands, a gold collar, an iron circlet, a curved ceremonial sword, and a **water-staff** with an iron ring at the head, the symbol of the Water-Court.
- **The Sand Rider.** A light cotton robe over a leather-free mail vest, a head-wrap that covers the face, a curved sabre and a short spear. He was the one Imperial soldier who dressed like a desert fighter.

The Ferrosian Rebellion (630 to 641 AE). The rebellion was a popular uprising and no rival dynasty's palace coup. It deposed the last Ferrosian emperor and replaced the whole apparatus of governors-as-lords with an elected council answerable to each oasis's own

population. Its militia dressed like the people who made it: **mismatched kit**, patched tunics, a wooden spear with a pruning-hook head (the farmer's tool), a water-skin, a small round buckler, and a **green armband**, the oasis colour, as the one thing the militia had in common. The green armband outlived the revolt and became the Republic's first insignia. The Ironguard fought in black and rust. The rebels fought in whatever they had, and the difference between the two is the picture on the plate.



Plate: the Ferrosian Empire.

The Early Republic (641 to about 800 AE)

This is the founding event of the Republic of Anestria, dated here to 641 AE. In that year an empire that had unified the continent by iron and held it by inertia was replaced, on purpose, by the opposite kind of government.

The rebellion put an elected **Council of Oases** in place of the governors-as-lords, with one delegate per oasis, answerable to its own population. The Council chooses a **President-in-Council**, who answers to it. The old offices stayed and were changed. The Water-Courts became the **Oasis Courts** with elected judges, and the Waterkeepers remained, **now accountable**. The Collectors became salaried and audited. The Ironguard was replaced by the **Oasis Guard**, a **citizen militia of one regiment per oasis**, whose officers are elected by their regiment for three-year terms. Every citizen has an equal vote, and every citizen serves in the Guard.

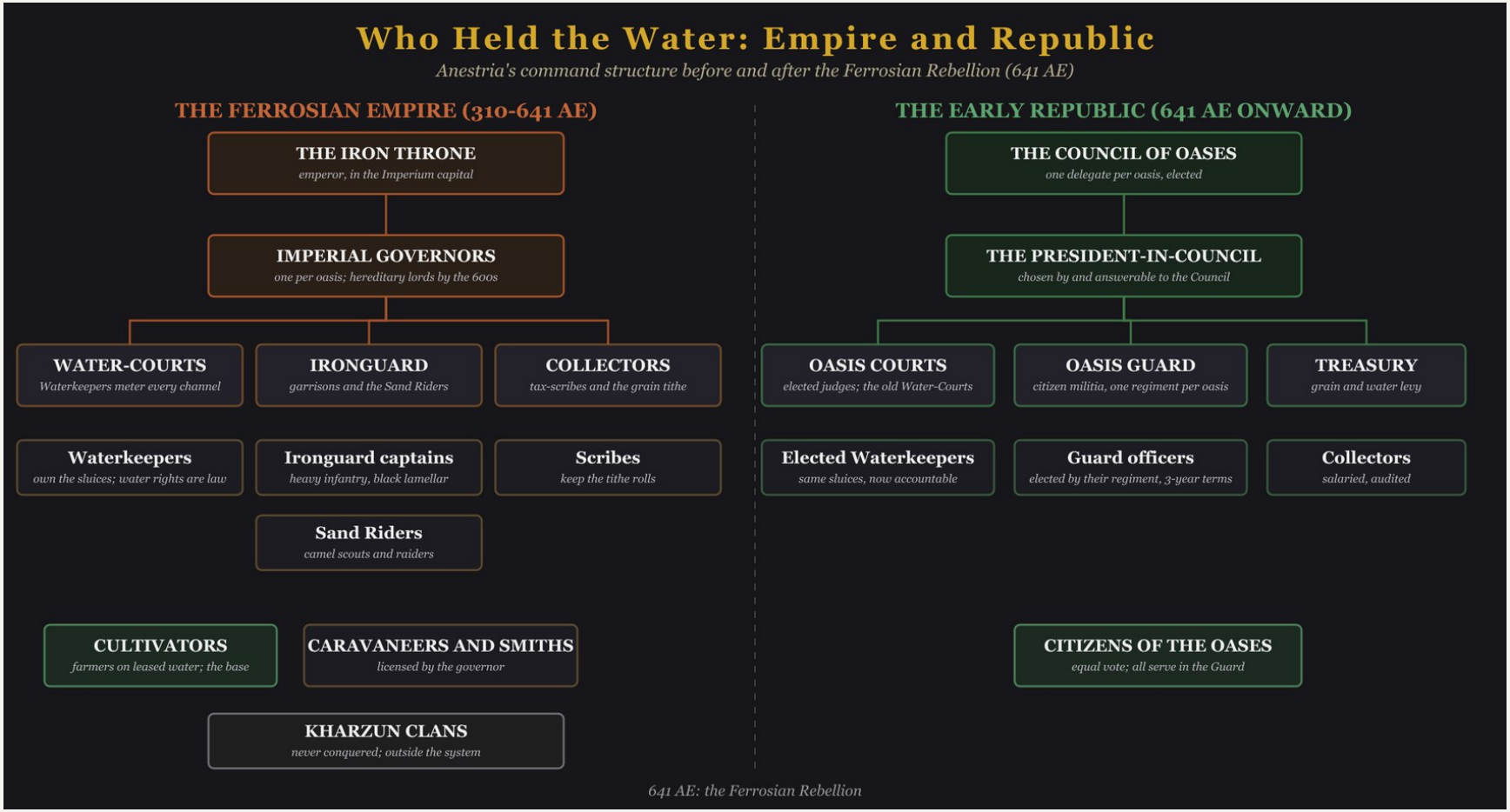


Plate: who held the water, before and after 641.

The roundel and the flag. The Republic's emblem was born in 641 AE: a sand-coloured disc with a date palm and a gold sun, ringed in the three kingdoms' colours (red, iron-grey, green). The Republic's flag is the same three colours as horizontal bands with the roundel at the centre. Anestria's popular founding myth compresses all of this into "three kingdoms, one short war, one democracy, unified by 535 AE." That is the flag's own story told in a cleaner and considerably more flattering order, and the myth leaves out a good deal else (Chapter 9). The plates show the order as it was: conquest, empire, rebellion.

The Oasis Guard's look. The Guard dressed plain, local and cheap: a sand-coloured cotton robe or tunic, a green armband (later a green sash by regiment), a round wicker shield, a spear or a short bow, and a head-wrap. It wore no armour. The Guard is the descendant of the rebel militia, and its pride is that it never tried to be the Ironguard.

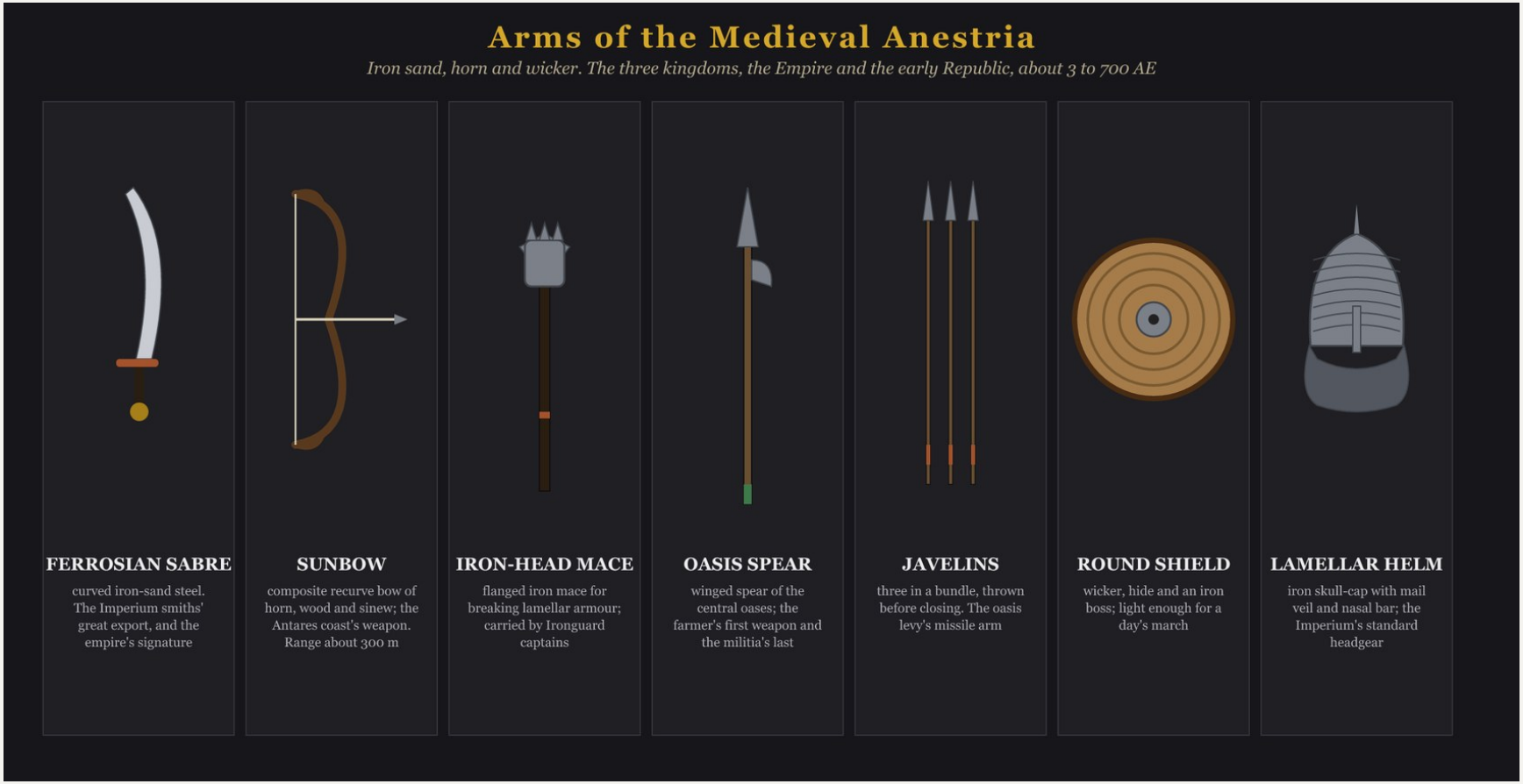


Plate: arms of medieval Anestria.

The Industrial Bridge (about 800 to 1250 AE)

The next stage is recorded mostly through weapons and industry. Anestria's own 8th to 10th century AE industrial boom, led by MiguelTek, went from steam to oil, and by 900 AE Anestria's tanks and warships already made it the region's second power. The ROA M4 "Sentinel Standard" semi-automatic rifle was in service from 900 to 1000 AE. A uranium find in the 11th century led to the system's first experimental fission reactor in the mid-1100s AE, and the system's first nuclear weapons test followed in the early 1200s, in the same decade as the **ROA AR-7** select-fire rifle.

The uniform followed the pattern those weapons set. As the Guard industrialized it kept the green sash and the roundel, traded robes for a tan cotton-drill tunic and trousers, and moved from wicker and spear to webbing and rifle. It never moved to leather or to a regimental colour beyond the sash. By the time of the First Aridexian War the Republic's army was a modern one in a desert palette (Chapter 11).

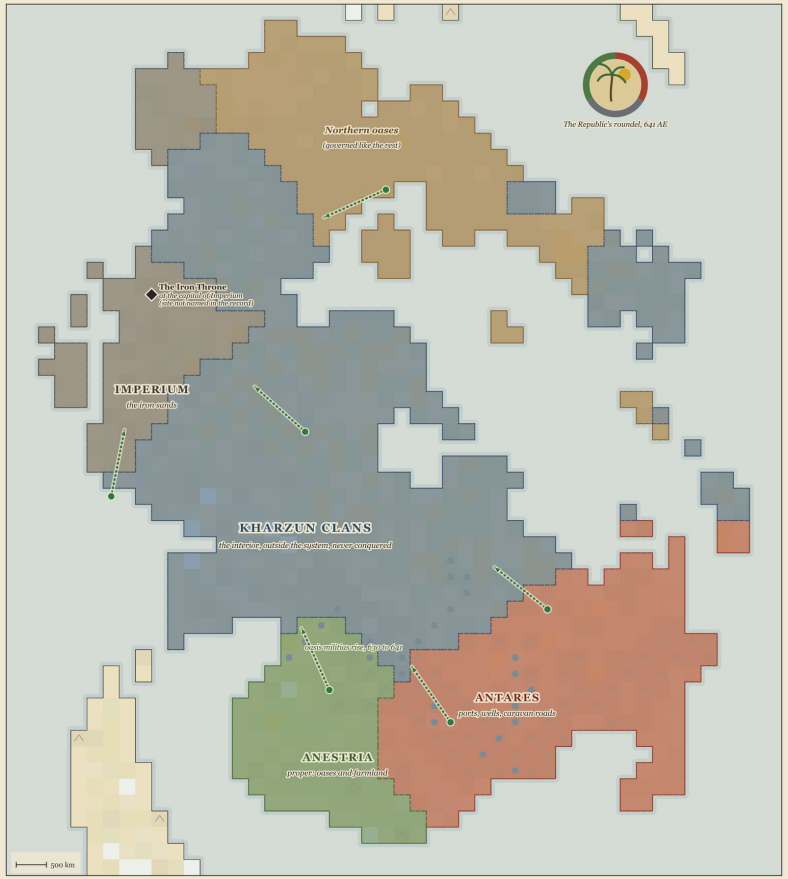
Why Anestria went nuclear. The reason Anestria pushed nuclear research, and did not rest on the tanks and warships that already made it the second power of the region, is easy to miss. Anestrian intelligence had been watching the Syndicate's slow absorption of Christonia for over a century by the time the reactor went critical, and it drew the obvious conclusion. A power that could buy an entire nation's industrial base without firing a shot would eventually be a power no conventional military balance could deter. The first nuclear test was built as insurance against a war Anestria correctly suspected was coming from the Syndicate's direction, and Christonia's was the wrong one to watch. It would be the single most consequential decision Anestria ever made, on a timeline nobody in 1200 AE could have guessed. The same weapon, and the doctrine built to justify having it, outlived the war it was built for by a full century and ended a war (the Third Aridexian War, Chapter 14) that had not yet happened.

The ceiling of the geology. That reactor came out of one uranium strike and never grew into an industry, and it stayed that way for the rest of Aridexian history. Fissile ore is rare on this planet, with a handful of known deposits worldwide. They are Anestria's own 11th-century find, the rare-earth and uranium strikes that built Bavaria's fortune on Drozdov from roughly 1000 AE onward, and, generations later, whatever the Vaurek Concession could quietly pull out of southern Numaria. None of these is an ore body a state could build an arsenal industry on. A reactor or a research test needs a strike's worth of ore. A deterrent arsenal of dozens or hundreds of warheads, the sort other worlds' Cold Wars ran on, needs a domestic mining and enrichment complex an order of magnitude bigger than anything Aridexia's geology has ever produced in one place. Every nuclear program in this record, without exception, tops out well short of that line for this reason. None of these states lacked the will, the physics, or the money.

THE FERROSIAN EMPIRE

Anestria under the Iron Throne, and the Rebellion that ended it

310 TO 641 AE



THE EMPIRE, 310 TO 641

By 310 AE Imperium's ruling house, with iron a step ahead of its neighbours, had taken the other two kingdoms and unified the desert continent for the first time. It ruled from the capital of Imperium, under the Iron Throne.

Each oasis had an Imperial Governor. Beneath them stood the Water-Courts, which metered every channel, the Ironguard garrisons with their Sand Riders, and the Collectors, who took the tax and the grain tithe.

THE REBELLION, 630 TO 641

A popular uprising, and no rival dynasty's palace coup. By the 600s the governors had become a hereditary aristocracy, each running his oasis as a personal holding.

The militia wore mismatched kit and a green armband, the oasis colour. The Ironguard fought in black and rust. The rebellion deposed the last Ferrosian emperor.

AFTER 641

An elected Council of Oases, one delegate per oasis, chose a President-in-Council. The Water-Courts became Oasis Courts with elected judges, and the Ironguard gave way to the Oasis Guard, a citizen militia of one regiment per oasis. This is the founding of the Republic of Anestria.

The Rebellion of 630 to 641 replaced the governors-as-lords with an elected Council of Oases. Province lines follow the later successor states, and the rising is drawn schematically.

Plate: The Rebellion of 630 to 641 replaced the governors-as-lords with an elected Council of Oases. Province lines follow the later successor states, and the rising is drawn schematically.

ARIDEXIA'S RESOURCE GEOGRAPHY

Water, food, ore, oil and fissile material, and who held them in each era

	Classical Age *to 0 AE*	0 to 640 AE *Diaspora, kingdoms, fiefs*	640 to 1000 AE	1000 to 1250 AE	1250 to 1300 AE	1300 to 1358 AE	1359 to 1371 AE
Water	The Solvane floodplain, the only reliable water, borders Luluke and Christonia and is drying. Luluke wins the richest floodplain reaches at Year 0.	Oases are the unit of wealth: lords are measured in water rights.	Ferrosian Water-Courts meter every channel. The 641 Council of Oases answers to each oasis.	*record silent*	*record silent*	*record silent*	On Typhon, a water-reclamation plant is something neither side can afford to lose. Both lose one, 1366 to 1371.
Food	Luminonion, grown only on the floodplain, is the staple of diet and religion.	Carina-11 poisons the luminonion crop, c. 3 AE. Halvane Vale farmland and stock feed the twelve fiefs.	*record silent*	*record silent*	The Ashfields Campaign burns Safemoon's farmland to starve it, before GAW2.	Civilians starve in PUSDR's streets as the Turncoat War arrives.	*record silent*
Iron and steel	*record silent*	Imperium's oases sit over the richest iron sands. Its smiths lead by c. 220. Corvane Deeps and Garnoth Forges: ore and steel.	The Ferrosian Empire rules by iron, 310 to 641.	Eisenreich's mining rush makes it Numaria's industrial power.	*record silent*	PUSDR takes the Ferrengrad Arms factories intact.	*record silent*
Other ores: copper, gold, rare earths	*record silent*	*record silent*	A gold, copper and rare-mineral strike around 900 gives Luluke a second wind.	Prospectors reach Drozdov about 1000: copper, then rare earths, then uranium build Bavaria.	*record silent*	UARRO members get preferential pricing on rare earths and uranium, 1304. Typhon's surface ore is thinner than surveyed in 1341, because the moon was mined long ago.	Copper at the Farside cave mouth draws the survey that finds the skull, 1371.
Oil	*record silent*	*record silent*	Anestria goes from steam to oil in its 8th to 10th century boom.	*record silent*	Its desert reserves run behind demand. The Pelruvian offshore field draws the USN in, 1264.	Pelruvian and mainland ground stay Solenne's from the day the war ends.	*record silent*
Uranium and fissile material	*record silent*	*record silent*	*record silent*	A uranium strike builds the first reactor, mid-1100s, and the first test, early 1200s. Uranium-bearing strikes on Drozdov from about 1000.	Southern Numaria's Vaurek Concession supplies the USN's covert programme, 1299 to 1300.	GAW3 burns nearly all of it. The Concession's lease goes void with the USN.	No more can be built. The Accord's logic forbids it.
Propellant and precision alloys	*record silent*	*record silent*	*record silent*	*record silent*	DS-HP, founded 1265, runs launch sites and tracking stations on several continents by 1270. The Orjust Pipeline carries about 140 tonnes a year of refined metals from 1294.	Aurelia mining is established by 1307 and the outer-system economy is mature.	One off-world effort is all the stock can feed, DS-HP finds in 1359.

HOLDER Luluke · Syndicate · USN · Solenne · Anestria · Bavaria · Eisenreich · PUSDR · Chicano States · Typhon colony · Several powers or no single holder

Every entry is a resource and the power that held or fought over it, in the era the record places it, with silence marked where the record gives nothing.

Plate: Every entry is a resource and the power that held or fought over it, in the era the record places it, with silence marked where the record gives nothing.

7
The Skarnovian Scramble

The great powers did not wait for a war to start fighting over land. They fought over an island continent that nobody lived on yet, and they divided it among themselves in a hurry.

The borders they drew in those years are still the borders. So are the grievances.

It is easy to look at the early history of Aridexia and imagine that Skarnovia was not on the map. That cannot be right. The Syndicate, Anestria and the All-Finian Empire all crossed open ocean and stood up functioning nations within decades of Luluke's collapse around 3 AE, using the same ships that had carried them away in the first place. A comparably sized, resource-rich landmass sitting untouched for the better part of a millennium, while everything else was settled almost at once, would have been a hole in the record, and no sign of peace. Skarnovia was claimed at the same time as everywhere else: early, by sail, badly, and without asking the people who already lived there. The period is known as the Skarnovian Scramble, and it runs from roughly 20 to 210 AE, with after-effects that reach to the present.

The partition

The Syndicate got there first, by being closest. Savorus and Skarnovia are near enough that Syndicate fishing and trading vessels were already working Skarnovia's coast within a generation of the Syndicate's own founding, and a formal claim followed by about 20 AE. Anestria and Christonia arrived within the next two centuries by the same sailing technology that had founded every other nation of the age, with no later industrial advantage to help them. This was a Classical-Age land grab, contemporaneous with the world's founding diaspora, and it came centuries before any nineteenth-century-style colonial scramble could have been bolted on.

By roughly 210 AE the three claims had hardened into fixed borders. They were drawn along whatever river or ridgeline each side's surveyors reached first, and they ignored any existing local boundary. The same borders, still cutting through the same ethnic and trade regions, are the reason the successor states described below do not get along today.

Three colonial holdings came out of the partition, and a fourth territory came out of it too, by being left alone.

Ostrenia was the Christonian colonial administration, and the largest of the three holdings. It was built around Skarnovia's coal and iron belt. Christonia ran it as a resource colony in the most literal sense: extraction infrastructure first, everything else after. The postwar government that inherited it kept the extraction economy and the administrative habits of its colonizer almost intact. That is why Ostrenia today reads as a technocratic, faintly authoritarian state that still exports raw ore to the country that used to own it, and resents doing so.

Velemira was the Anestrian colonial holding, agriculturally richer, in Skarnovia's south. It is the one success story of the Scramble. When the Second Aridexian War (1264 to 1276 AE) pulled Anestria's naval and administrative attention entirely into the Pelruvian campaign, Velemira's colonial government found itself with no metropole capable of enforcing anything for over a decade. It declared independence in 1268 AE almost as an afterthought, and nobody in Anestria was in a position to object. It inherited Anestria's own republican instincts and is today Skarnovia's most stable state, which on this continent is a low bar.

Kesarova was the Syndicate's holding (later the USN's, after the 1250 AE merger). It was the oldest of the three claims and, by the time of the Third Aridexian War, the most thoroughly integrated into its metropole's economy. That integration made its loss total. When the Third Aridexian War annihilated the USN as a functioning state in a single day in 1300 AE, Kesarova got no negotiated independence and no gradual handover. It got nothing: no metropole, no transition government, no plan, and over a thousand years of built-up dependency severed in an afternoon. Kesarova's modern instability, with its chronically weak governments and an economy still shaped by infrastructure built to ship ore to a country that no longer exists, traces directly back to that one day.

Dravensk was never conquered by any of the three. Skarnovia's interior highlands were judged not worth the cost of pacifying by all three colonizers in turn, over two thousand years, and the peoples who already lived there used that judgment to stay armed, mobile and politically unified against outside claims the entire time. Dravensk is landlocked and poor, and it is surrounded by three states that each still carry a colonial-era paper claim to slices of it. That makes it the most reliable flashpoint on the continent whenever any of its neighbours wants a distraction from a domestic problem.

Skarnovia is therefore no blank space. It holds four already-hostile neighbours sharing arbitrary, two-thousand-year-old borders and a live grudge against whoever colonized them, sitting on real coal and iron wealth, with a fourth claimant, Dravensk, that nobody has ever successfully absorbed. The four are active political actors and no backdrop, and any war on this continent has to be understood in that light.

8

Drozdov, Numaria, and the First Marshal

> *"Every nation on this continent bent. Only the mountains never did."*
>
> Salvador Reyes, the First Marshal

Numaria is the continent that is always about to fight or already fighting. Once, for seven years, it was one country. A man named Salvador Reyes made it so, on horseback and on foot, and he died in an ambush in the mountains that would not bend to him.

Next door, on Drozdov, the story was quieter and in the long run more profitable. The metals under it built a nation that never had a rival to fight.

East of Savorus, across a short strait, lies a second landmass that never had a single founding people the way Luluke, Christonia, Anestria or the Syndicate did. Its two halves have completely different temperaments. Drozdov is quiet. Numaria is not.

The Northern Tureshan Kingdom

Drozdov was not empty ground before the prospectors of Bavaria arrived. It only looks that way from the mining-rush era onward, because by the time anyone was digging for copper there was nobody left to argue about who the ground belonged to. For most of Deep Prehistory and the whole of the Classical Age, Drozdov's temperate southern coast supported a long-lived, unremarkable and peaceful civilization: the Northern Tureshan Kingdom. It was a single continuous royal line that fought no war worth naming for the better part of a thousand years. The ground helped. Drozdov rides the old, quiet trailing edge of the Numarian Plate, and it never had a geological reason to be violent either.

Conquest, plague and disaster had nothing to do with the end of the Kingdom. It was arithmetic. Drozdov's own resource base was thin and diffuse, nothing like the concentrated ore bodies the

mining rush would later find, and every generation of Tureshans saw the same opportunity waiting a short voyage west. The booming trade networks of Savorus and Candrasia, first Luluke's and then the Syndicate's, paid better and asked less of a settler than another season on Drozdov's quiet coast. The emigration was never dramatic and never stopped. It was a slow bleed of population westward across centuries rather than a single exodus, and by roughly 950 AE the last true Tureshan settlements had thinned out past the point of supporting a royal court at all. Nobody conquered the land out from under the Kingdom. Its own people walked away from it, one generation at a time, toward a better opportunity next door. Bavaria's prospectors, arriving fifty years later, found what that emigration had left behind: good, unclaimed and uninhabited ground, with nobody whose claim they would have had to contest. In the record of the map, the year 950 shows the Kingdom's ground as unclaimed and not yet Bavaria's, rather than jumping from three centuries of a single royal line straight to Bavaria's arrival with nothing in between.

The Litharic Church. One Tureshan institution did outlast the Kingdom itself: its state religion, formalized around 400 AE and known ever since as the **Litharic Church**. It was a faith built, fittingly for a kingdom this stable, around continuity and inheritance rather than conquest or revelation. The Church did not decline with the kingdom that founded it. It emigrated alongside its own population, and by the 500s AE Tureshan traders and missionaries had carried it across the short strait onto Numaria's northern reaches. There it found something Drozdov never offered it: an audience hungry for the continuity the Church preached, because Numaria had never had any.

Drozdov, Bavaria

Drozdov settled the way a normal frontier settles a second time. Waves of prospectors from Luluke, the Syndicate and later the USN itself arrived, chasing copper, then rare-earth, then uranium-bearing strikes from roughly 1000 AE onward. What grew out of that rush is **Bavaria**, one of the major pre-GAW3 powers, and one of the rare nations old enough to have existed before the war and important enough to remain a first-tier player after it. Bavaria is a modern UARRO member with no internal rival on its own landmass. There was never a second faction on Drozdov with the capital to contest it. The Tureshan Kingdom that once might have done so was already gone, and the mining concessions that built Bavaria consolidated fast and stayed consolidated.

The same quiet has made Bavaria something other than a front-line state. Drozdov has no rival, so its heavy industry has been free to build for export and for the defence of the alliance, and Bavaria is as much the alliance's armourer as it is an army with a war of its own (Chapter 17 follows the alliance and Chapter 28 the machines). The quiet did not last to the end of the record. In 1366, in the last war, Bavaria lost its government within the same year as PUSDR, Safemoon and the Pechorian Federation (Chapter 22).



Plate: Bavaria, the mining power.

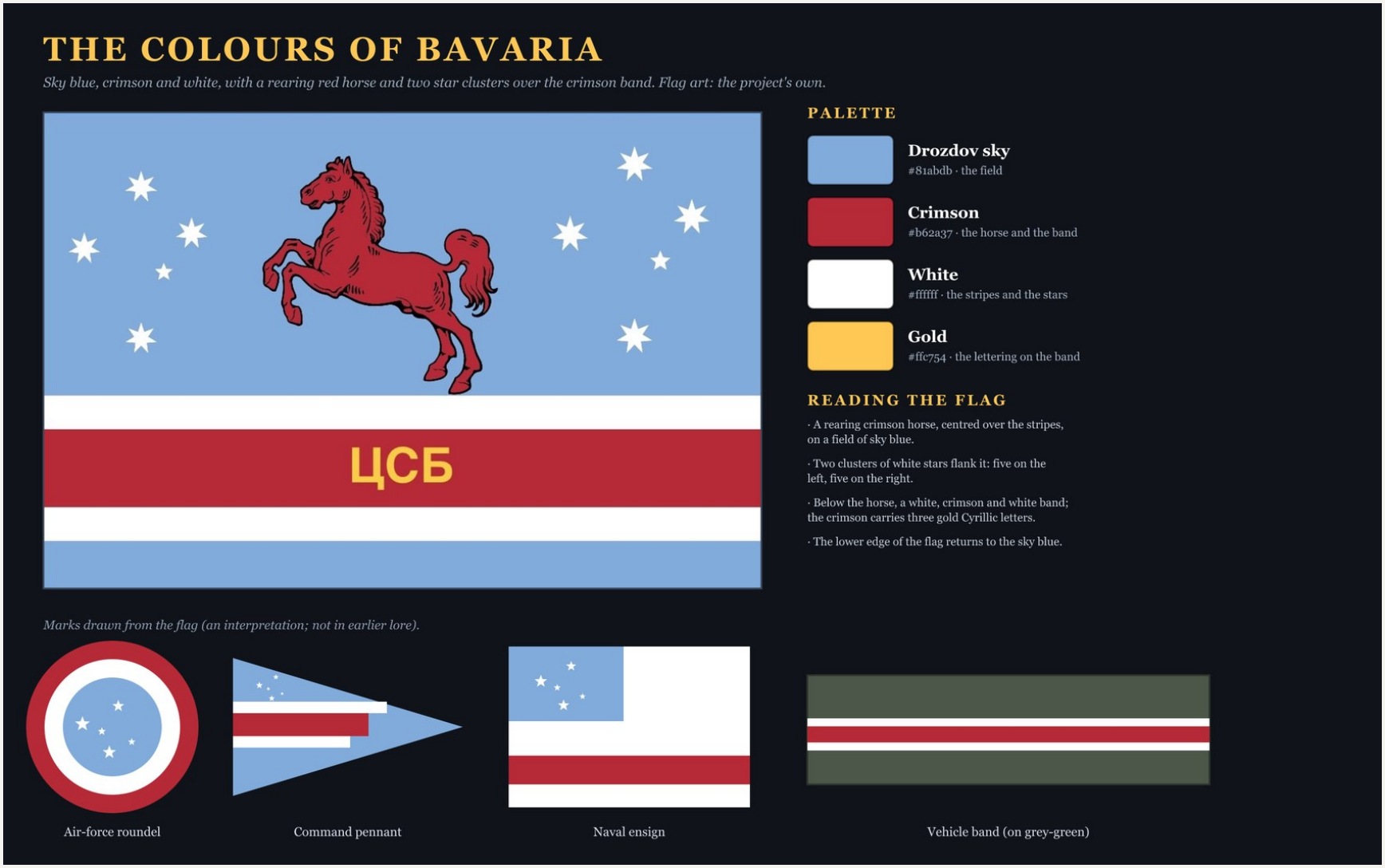


Plate: the colours of Bavaria.

Numaria

Numaria is the opposite case. It is almost always starting a war or already in the middle of one. Nothing here has ever settled, and nothing feels settled even now. It has come close once.

The Karavynic Empire and the Litharic Schism

The Litharic Church's arrival on Numaria in the 500s AE landed in fertile ground. The continent was a patchwork of small, constantly feuding river-valley chiefdoms with no shared identity to speak of, the very population a faith built around continuity and inheritance is suited to organize. Within two generations, Numaria's largest chiefdom, which ruled the fertile lowlands nearest the Drozdov strait and was the first to convert formally, had used the Church's own doctrine of rightful, unbroken inheritance to justify absorbing its unconverted neighbours one at a time. It "restored" them to a continuity that none of them had shared before. By 560 AE that chiefdom's ruling house had unified very nearly the entire Numarian landmass under one crown for the first time in the continent's history. This was **the Karavynic Empire**, the ancestor, in shape if nothing else, of what Salvador Reyes would build and lose on the same ground in a later age (the next section tells it). The empire is dated roughly 520 to 655 AE.

Holding it was never peaceful, and that is why it worked for as long as it did. Numaria did not stop being Numaria the day the crown was unified. The Karavynic throne spent nearly its whole existence putting down the local revolts and border raids the continent has always produced, and it garrisoned river crossings and mountain passes with permanent standing detachments rather than the seasonal levies a true peace would have allowed. What set this apart from every later Numarian war was that the fighting stayed internal, punitive and one-sided enough that it never cost the throne its legitimacy. A rebellious valley was burned and re-garrisoned, and nobody liberated it, because the Church's blessing meant that putting a rebellion down was "restoration" and not conquest, the same justification that had built the empire in the first place. Under the Karavynic crown Numaria was at war with itself, continuously, for nearly a century, in a form organized and centralized enough that outsiders reading the tribute rolls could still call it one empire.

That doctrine was also the only thing holding the empire together, which is what finally ended it. The Church's Numarian clergy, freed from Tureshan oversight by the width of the strait, had drifted within a few generations into a different reading of Litharic doctrine. The dispute was over whether "rightful continuity" could pass through a conquered people at all, or only through blood inheritance. By 610 AE it had split Numaria's own priesthood into two openly hostile factions. The Karavynic throne, whose whole legitimacy rested on the Church's blessing, could not survive picking a side. The collapse that followed was gradual and ran through three stages over forty-five years:

- **610 AE.** The schism becomes public and irreversible. Both readings of Litharic doctrine now have their own ordained clergy, and for the first time in the empire's history a local governor has a religious justification for ignoring the capital's priests.

- **630 AE.** The outer provinces go first, the ones a standing-garrison strategy always leaves thinnest. The southern coastal holdings (the ground that will one day be Chicano States') and the western mountain fringe (Arvansk's later homeland) formally recognize the schismatic reading and stop paying tribute. They secede in effect, while the empire's core stays loyal and intact: the original chiefdom's lowlands nearest Drozdov, and the garrisoned river network directly connecting them.
- **655 AE.** The core itself gives out. With half its former tribute base gone for a quarter-century and its capital's clergy publicly repudiated by half the priesthood it once commanded, the throne can no longer afford the garrisons that had held the rest together. The last of the empire fractures back into the patchwork of small, mutually hostile territories that the Church had organized it out of, this time with a religious grievance layered permanently on top of the old ethnic and territorial ones.

Numaria has never been unified since. Every later Numarian power, whether Eisenreich, PUSDR, Vessek's resistance, Chicano's own dominance or the empire of Salvador Reyes, has been fighting, whether or not any of them knew it, over ground that was once briefly whole. The map of the record shows this in stages. The year 600 holds all four of the ancient empires, the Ferrosian, Tureshan, Karavynic and Helian, at the one moment they coexist. The years 630, 641 and 655 show the Karavynic collapse in the stages above, and the year 641 also shows the separate collapse of the Ferrosian Empire into the Republic of Anestria (Chapter 6).

The First Marshal

Long before Eisenreich rose, and before the mining rush that would build Bavaria, Numaria had already produced one empire and lost it. Nobody in Reyes' own era remembered that. The Karavynic Empire was long gone and half-mythical even to the chiefdoms still living on its old ground. What Reyes built anyway, without knowing he was repeating it, was Numaria's second empire and its second cautionary tale about how fast an empire can collapse, in both directions. The episode is self-contained. It happens and it ends, and Numaria and Chicano States are both back on their ordinary trajectories well before any later history (Eisenreich, PUSDR, the Vessek and Eisenreich occupation, Chicano's own dominance on the eve of GAW1) picks up. It changes nothing written elsewhere, and the empire it describes leaves no lasting territorial mark by the time later history resumes.

Around 795 AE, Chicano States, at the time a mid-sized and ambitious coastal power nowhere near the dominance it would reach by the eve of GAW1, made an opportunistic land claim against Vessek's mountainous territory and seized roughly a quarter of it outright. It was a limited land grab, the sort a regional power makes when a weaker neighbour looks momentarily distracted, and not the opening move of a planned conquest. Nobody involved treated it as more than that.

Ten years later, in 805 AE, a war hero from that same campaign was acclaimed to power in Chicano States. He was a general named **Salvador Reyes**, credited publicly, and largely accurately, with the land claim's success. He came to power by popular sentiment and without

coup or bloodshed: a population that had watched him deliver territory wanted him running the country. He took the title **First Marshal**, and for seven years he was everything the title implied.

The campaigns. Reyes treated the 795 AE land claim as a down payment and not as a settled fact. He fought every campaign that followed personally, at the head of his own army, the way a leader does when he intends to be remembered for it. The technology of the age puts these wars at roughly an early-nineteenth-century level of warfare. The years 500 to 900 AE read as the Industrial Revolution through the early twentieth century, and 795 to 812 sits well inside that range. That means massed infantry in line and column, smoothbore muskets and field artillery, cavalry still a battlefield arm, and warships still fundamentally of the age of sail. The wars below are modelled on real wars at that level.

The Ashwick War (806 AE). Ashwick's entire defence rested on its navy, and Reyes never gave it the chance to matter. At dawn, Chicano's fleet forced the anchorage at **the Battle of Ashwick Bay** and caught Ashwick's ships still moored and largely unmanned. Strikes like this ended naval campaigns outright in real wars at this technology level, when a fleet caught at anchor ceases to exist as a fighting force in a single morning. With the coast undefended, Chicano's army landed and marched on Ashwick's capital almost unopposed. **The Fall of Calmouth** came within three weeks, less a siege than a formality. It was the shortest of Reyes' five wars and the only one that unfolded almost as he had planned.

The Talgrave War (807 to 808 AE). Talgrave fought back in earnest, and it cost Reyes more than any of his other conventional campaigns. **The Battle of the Tolgen Fords** (807 AE) forced his army across a defended river line under sustained fire. It was the bloodiest single day of any of his wars outside Vessek, and it was won only because Reyes personally led the third and final crossing attempt after the first two broke against Talgrave's defenders. It bought him the open country but not the kingdom. Talgrave's government withdrew into its fortified capital, **Vantor**, and held through the winter of 807 to 808 in a siege that dragged on for months rather than weeks, with the cold doing nearly as much damage to the besiegers as to the besieged. Vantor's garrison surrendered in early 808, malnourished and out of powder rather than beaten in the field. **The Talgrave Armistice** formally ended the war on the same terms. Talgrave lost because it ran out of everything at once, and a battle had little to do with it.

The Corvath War (809 AE). By 809 AE, Reyes' reputation was doing work his army no longer had to do. Corvath's government had watched Ashwick fall in three weeks and Talgrave grind through a full winter siege before losing anyway, and it chose not to repeat either experience. **The Battle of the Corvath Crossing** was a single one-sided engagement in which a Corvath covering force was routed with minimal Chicano losses. It was a demonstration more than a contest, and it was enough. Corvath's government sued for terms within days. Reyes, for the only time in seven years, accepted something short of outright annexation: Corvath kept a nominal government of its own, operating under his supervision rather than his direct rule.

The Siege of Prynn (810 to 811 AE). Prynn was the one war Reyes did not win cleanly, and it came close to ending his campaigns a year early. His first attempt, a direct assault on Prynn's mountain fortress in the autumn of 810 AE, was a rare outright failure. It was thrown back with heavy losses against defences that conventional infantry tactics could not carry. Reyes settled in for a blockade instead, cutting the fortress off from resupply through the winter and into 811. Prynn held for the better part of a year before hunger, and no defeat in the field, forced its surrender. It was the hardest single campaign of the five because it was the one time the model that had worked everywhere else, a fast, decisive and personally led strike, did not apply.

The Long Campaign (805 to 812 AE), against Vessek. This was a continuous war and not a single one, running the entire length of Reyes' reign underneath all four of the others, and it is the one he never finished. It began with conventional victories. At **the Battle of Dorrenheim Heights** (806 AE), a disciplined Chicano line broke a larger but poorly organized Vessek levy on open, low-elevation ground. That battle, together with the string of smaller ones that followed the same pattern through 807 to 809, is what let Reyes claim roughly 80% of Vessek's remaining territory by 811 AE. It was also where the war stopped being winnable that way. The moment Chicano's columns pushed up into Vessek's true highland core, the terrain itself started fighting back. **The Kessel Pass disaster** (809 AE), in which an entire Chicano regiment was drawn into a narrow mountain defile and destroyed to the last man, is remembered on both sides as the moment everyone involved understood that this had stopped being a conventional war.

What followed over the next three years was an occupation in which nothing about war is clean: punitive columns, burned villages in the Ashvale valley cluster, reprisal executions, all aimed at a resistance that had no capital to capture and no army to defeat in the open, because it had never needed either. Reyes never accepted that this half of the war could not be won by the methods that had worked on every other nation he fought. In 812 AE he personally led yet another punitive column into the highlands. His force was ambushed at **Kelvath Hollow**, and the First Marshal was killed along with most of his escort. The mountains were the same, the tactics were the same, and so was Vessek's refusal to fight the war on anyone else's terms, all of which had already cost him a regiment at Kessel Pass three years earlier.

By 811 AE, Reyes controlled very nearly the entire Numarian landmass. Every polity on it was his except Drozdov, which at this date had nothing on it yet worth the trouble (the mining rush that eventually built Bavaria did not begin for another two centuries), and only Vessek's deep mountain core still openly defied him. The names of the conquered nations (Ashwick, Talgrave, Prynn and Corvath) are names of the record, kept as it has them.

The death of the First Marshal. Kelvath Hollow was no isolated tragedy. It was the third time in three years that the same mountains had done the same thing to him, and the first two (Kessel Pass, and every smaller ambush in between) should have been warning enough. Vessek, true to its established character as a people never formally conquered by anyone, did not submit just because its land had nominally changed hands. Reyes, who had insisted on leading every one of the other four campaigns personally, refused to treat any part of this one as finished either.

He is remembered for what he reportedly said as he lay dying, looking back toward the peaks his aide was already retreating from: **"Every nation on this continent bent. Only the mountains never did."** The centuries have worn the line down to the four words most Aridexians would recognize if asked: *the mountains never bent*. Salvador Reyes is one of the most widely known figures in Aridexian history for that reason. He is a conqueror remembered less for what he took than for the one line, and the one enemy, that outlasted him.

The cost, and the total collapse. An empire of that size, built in seven years and held together by one man's personal legitimacy rather than any administrative capacity to garrison and govern it, could not survive losing him to an ambush. Every one of the conquered nations rose the instant word of his death spread. They rose essentially at once and not one after another, since none of them had ever accepted the conquest as final. Vessek, Ashwick, Talgrave, Prynn and Corvath's survivors shared nothing but the same enemy and the same opportunity, and they pushed out every garrison Reyes had left behind within a matter of months. **None of the land was retained. All of it fell.**

It did not stop at their own borders. By 816 AE, that same loose coalition, bound by circumstance and not by treaty, had pushed straight into Chicano States' home territory and occupied it outright, the reverse of what Reyes had spent seven years doing to them. For a few years Chicano States itself answered to occupiers from the continent it had just finished conquering. That occupation did not last either. Chicano's surviving government reorganized, and by the early 820s AE it had fought and negotiated its way back to full independence, chastened and considerably smaller than it had been under Reyes, but sovereign again.

Nothing about Chicano States' later, better-known history changes because of any of this. Its slow, centuries-long climb back toward regional weight, its eventual squeeze on Safemoon, its dominance by the eve of GAW1, the Ashfields Campaign and its collapse after GAW2 (all covered below) still happen as written, starting from essentially the same small baseline it held before 795 AE. The First Marshal is a prologue that this continent's later wars never needed explained, but it was always there once anyone asked how "Aridexia's warring continent" earned its reputation, and how thoroughly the continent can turn on whoever tries to end that reputation by force.

The Second Marshal's Ghost (1353 to 1358 AE). Chicano States was pulled into the Turncoat War (1354 to 1358 AE, told in Chapter 20) the way it is pulled into most of Numaria's conflicts: it was bribed. This time the briber was Solenne's own president, Malakor Vane, who offered Typhon land in exchange for sabotaging every rival off-world program on the continent that Chicano could reach. The money and the sabotage both worked, for a while. Then taking a foreign power's bribe money to work against one's own neighbours did to Chicano's government what the long history of Aridexia would predict. The corruption it took to run Malakor's errands hollowed the state out from the inside faster than any external enemy ever had, and by 1357 the government was bankrupt in every sense that mattered, the financial one included.

A foreign army did not overthrow it. A domestic revolutionary movement did, led by a direct descendant of Salvador Reyes himself, and it finally did what Reyes' own empire never lived long enough to try: it built something meant to outlast the man who built it. This new, revolutionary Chicano State did not sit out the war it had just finished being complicit in. It switched sides outright and threw itself into the war's final year on VAPIK's side, against the same Solenne that had spent years bribing its predecessor. Centuries after "the mountains never bent" became the four words most Aridexians would recognize, a Reyes was once again the name Chicano States rallied behind in its worst hour. This time he led a revolution against corruption rather than a conquest for land and, unlike the First Marshal, did it in the name of the people who have to live with what comes after (Chapters 16 and 20 give the full account).

What the Continent Became

The record of Numaria after the First Marshal is a set of peoples, each with its own grievance.

Vessek is the original people of Numaria's mountainous core, a highland people who were never formally conquered by anyone. They were out-populated and out-capitalized, and pushed into ever-smaller pockets of the mountains their name is still attached to. Whoever has held the rest of the continent, first Eisenreich and later PUSDR, has treated Vessek's ongoing resistance as a domestic security problem rather than a political one, which is the framing that keeps a conflict unresolved for centuries.

Eisenreich, the "Iron Realm," rose out of the same mining rush and became Numaria's dominant industrial power generations before GAW3. It was dominant enough that it conquered and annexed a neighbouring people's homeland outright. Those people were the two states that became the early **PUSDR**, the Republic of Altyr and the Socialist Republic of Kargopol (Chapter 15).

PUSDR (the Peoples' Union of Socialist Democratic Republics) is a union of states and never a single country. It began as two, joined by the Yedinstvo Treaty, and it spent generations under Eisenreich's occupation, but was never entirely without outside friends. The USN, always looking for a lever against a rival great power on the same continent, quietly treated PUSDR's underground resistance movement and government-in-exile as a useful proxy for most of that occupation. It was no formal alliance, because the USN could hardly recognize a government it had no diplomatic use in provoking Eisenreich over openly. It was real, deniable support all the same. GAW3 (1300 AE) shattered the old order everywhere, Eisenreich included, and in that same chaos PUSDR's occupied population rose in a revolutionary civil war. This came within the chaos itself and not years or decades later. PUSDR re-established itself as an independent socialist state and pushed on to conquer Eisenreich outright in the same immediate postwar window. The name "Eisenreich" no longer appears on a map of Numaria by AE 1305, five years after the war.

This was revenge completed at the first possible opportunity, and no slow rise. Occupier and occupied traded places inside a single half-decade of chaos, and that is the most important fact

about PUSDR. It is also why PUSDR's anchoring of the anti-Solenne Kargopol bloc immediately afterward reads as a betrayal and not a neutral alignment. The USN quietly helped make PUSDR's liberation possible, and PUSDR's independent state turned around and became Solenne's chief rival within five years of being born.

Safemoon Republic was always Eisenreich's neighbour, and it aligned itself with UARRO rather than with Eisenreich or, later, PUSDR. The instant Eisenreich fell, Safemoon found itself bordered and half-encircled by PUSDR territory. An old neighbourly relationship became a live strategic chokehold overnight, and that was the direct trigger behind Operation Fenwick (Chapter 19).

Chicano States started as a small coastal colony of refugees. Its original settlements, Gran Chicania, Exodus and Univar, all still stand today. Over centuries of aggressive expansion, funded the way everything on this continent gets funded, it grew into Numaria's single dominant power by the eve of GAW1, with more territory than Eisenreich or Vessek. It built that almost entirely by squeezing Safemoon down to the ground immediately around its own capital, Moonhaven.

Its first settlers were refugees, and the settlement of Exodus is named for the arrival. They found the southern coast, then called Blukenia, mostly emptied and still held in places by rival groups. They fought and absorbed those groups and renamed the coast Chicania. By the eve of GAW1 it styled itself the **Union of the Chicano States**, a union of dozens of provinces, most of them with Spanish names: Valdora, Sanver, Montara, Bellavista, Loravia, Castella, Maravilla, Solaria, Ventura, Almeria, Rivara, Serrano, Valencia, Estrella, Mirador, Carmona, Rosalia, Trevino, Avelino, Cordova, Verona, Palmera, Montesa, Dorado, Salvador, Vallera and Granada, and in the south the province of Nam. It kept the strongest navy on the continent, which controlled the waters south of Numaria, and one of the strongest armies and air forces in the world.

Chicano States was not a combatant in GAW1 or GAW2. It spent those years consumed by its own troubles: terrorist attacks, political assassinations, corruption, plague, and a territory too large to govern, so that outlying provinces were granted autonomy that some of them treated as independence. In the interwar years (1276 to 1300 AE) it came apart in a civil war. The army, navy and air force split against themselves, with the same machines on both sides: MBT-90 tanks against MBT-90s, the few XF-79 fighters against each other, warships and submarines against their own sister ships. The southern provinces broke away, among them Nam, which became the nation of Nam Minh, and the republics of Omnere and Modovia, whose later history is not recorded here. What remained retreated to its islands, which is the exile the record calls survival 'elsewhere on the map', and sat out GAW3 there. After the war the remnant did not try to rebuild the Union. It reclaimed the small southern coastal slice it had started from, and the 1318 attack on Vessek was a later government's gamble.

"Squeezing" is the polite word for the last stretch of it. Rather than pay the cost in blood and time of storming Moonhaven outright, Chicano's high command spent the final years before GAW2 running what its own military called **the Ashfields Campaign**. This was a deliberate

scorched-earth operation against Safemoon's remaining agricultural hinterland, with farmland burned and wells fouled on purpose, aimed at starving a cornered population into capitulation rather than fighting it street by street. It worked in the narrow sense that Safemoon never mounted the kind of last stand that would have made Chicano pay for the ground it took. It is also the ugliest single act on Numaria's long list of them, and everyone on the continent knew whose flag was flying over it.

That dominance did not survive GAW2 (1264 to 1276 AE). Chicano was not even a combatant in that war, but its shockwaves strained the same overextended military spending that had built Chicano's expansion in the first place. Safemoon clawed back most of what it had lost the moment Chicano's grip loosened, with a population that remembered why it was fighting. Chicano held on to a small but real core through the rest of the pre-GAW3 era. Then, in the chaotic interwar years between the Second and Third Aridexian Wars (1276 to 1300 AE), it lost every remaining grid of Numarian territory outright and survived only in exile, under the same name, elsewhere on the map. It had fallen from the continent's single dominant power to a refugee state inside two generations, and none of it was undeserved.

Because it was hit far more lightly than the continent's major powers, it had the strength afterward to reclaim a small slice of its old southern coastal territory once the postwar dust settled. This was the same original coastal cluster it started from, now renamed to mark the new era: Gran Chicania became Nueva Chicania, Exodus became Exodus Point, and Univar became Navarro. There was also one new postwar foundation, Verdad. Its other expansion-era cities (Fortaleza, Valentia, Prospera, Union, Properio and Fortero) still stand, but under other flags, and were never reclaimed. Modern Chicano does not advertise the Ashfields Campaign, and Numaria's other powers do not let it be forgotten.

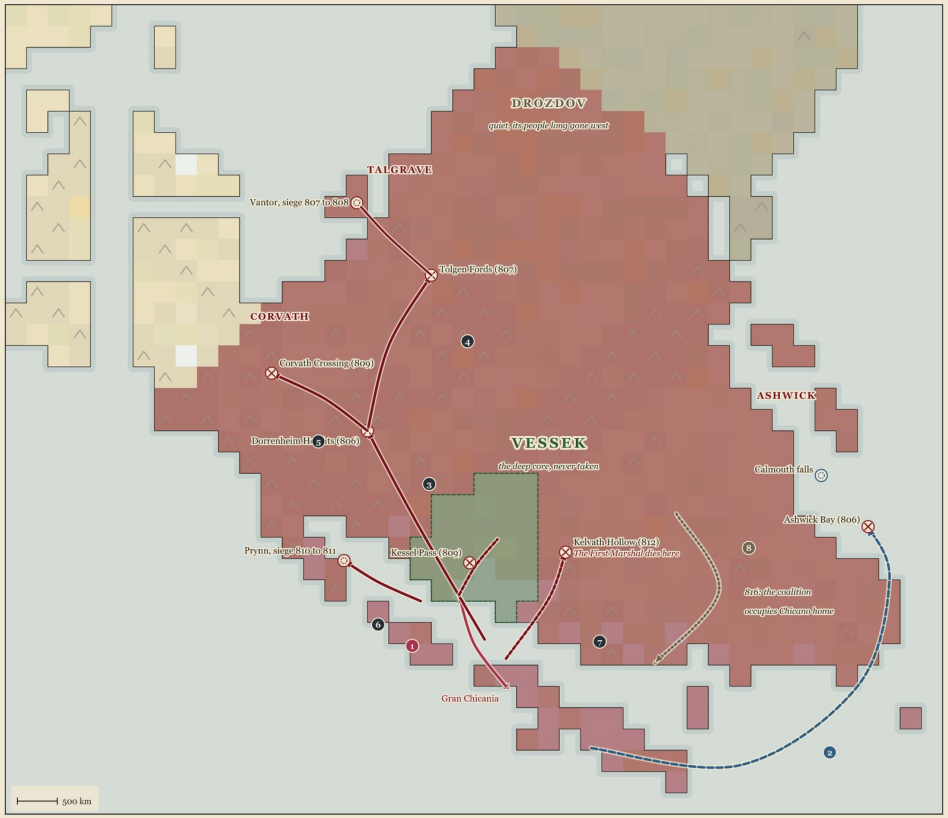
The Vaurek Concession was officially a leasehold mining operation held on paper by a USN-chartered trading company, in the remote southern Numarian ground that Chicano States had just been forced out of. That vacancy is what made the site useful. In practice, and never on paper, the Concession was the actual supply line behind the 1299 to 1300 AE Uranium Crisis. Ore was extracted far outside the USN's own inspectable territory, refined off the books, and shipped home labelled as something else. No inspection regime existed yet to catch it, which is why the USN's dictatorship routed its bomb program through someone else's recently vacated backyard instead of building a domestic enrichment site its neighbours could watch. When GAW3 ended the USN as a functioning state, the Concession's ownership went legally void overnight: it was a company chartered by a state that no longer existed, sitting on a lease nobody was left to enforce or revoke. Solenne, the USN's democratic successor, inherited no clear claim to it either way. Its current status is unresolved.

Numaria remains the live wound of the world. The story of Vessek, Eisenreich and PUSDR is a revenge story with the shape of the winner becoming what it hated, and the story of Chicano and Safemoon is the same shape again on a smaller scale: a squeezed neighbour clawing back the moment its aggressor's grip loosens. The continent is tense before any new story on it begins.

THE FIRST MARSHAL

Salvador Reyes and the Chicano campaigns across Numaria

795 TO 812 AE



Reyes's empire at its peak, 811 · Vessek, the unbeaten core · Chicano army · Chicano fleet · Battle · Siege · Order of events

THE RISE

About 795 AE Chicano States seized roughly a quarter of Vessek's mountains. In 805 the general who won it, Salvador Reyes, was acclaimed to power without coup or bloodshed and took the title First Marshal.

He led every campaign in person. The wars fall at an early-nineteenth-century level of arms: line infantry, smoothbore muskets, field artillery and sailing warships.

THE FIVE WARS

Ashwick, 806: the fleet forced the anchorage and Calmouth fell within three weeks. Talgrave, 807 to 808: the bloodiest day was the Tolgen Fords, then a winter siege of Vantor. Corvath, 809: one routed covering force, and terms.

Prynn, 810 to 811: a failed assault, then a blockade. Vessek, 805 to 812: Dorrenheim Heights, then the Kessel Pass disaster, then Kelvath Hollow.

THE FALL

By 811 Reyes held nearly the whole landmass except Drozdov and Vessek's deep core. At Kelvath Hollow in 812 he was killed with most of his escort, reportedly saying that every nation bent and only the mountains never did.

Every conquered nation rose at once and no land was kept. By 816 the loose coalition occupied Chicano's home territory, and Chicano was sovereign again by the early 820s.

Reyes held nearly all of Numaria by 811 and lost it all within months of Kelvath Hollow. The conquered kingdoms have no recorded coordinates, so their sites are schematic.

Plate: Reyes held nearly all of Numaria by 811 and lost it all within months of Kelvath Hollow. The conquered kingdoms have no recorded coordinates, so their sites are schematic.



Plate: Chicano States has been conquered, occupied, exiled, bribed and revolutionised, and the one name it rallies behind in its worst hour is still Reyes.

9
The Unconquered

Some places were never taken, because nothing in them was worth the price. A desert clan alliance in the middle of the richest continent. Two poles, one of them empty. An island people who kept their own counsel at sea. A small, very clever enclave that left the Syndicate by agreement and never came back.

The map is not only the story of the powerful. It is also the story of who got left alone.

Some peoples of Aridexia were never conquered, and some places were never settled. In every case the reason is part of the history. This chapter covers the unconquered desert interior of Pan-Anestria, the two poles, an old island nation off Skarnovia's coast, and the small, brilliant enclave of Tianhai on Savorus.

Kharzun

Anestria's founding myth is a clean one: three kingdoms, one short war, one democracy, "unified by 535 AE." It leaves out two things.

The first is that the desert continent the three kingdoms settled was not empty when they arrived around 0 to 3 AE. Kharzun, a loose alliance of interior desert clans, occupied Pan-Anestria's driest, least arable interior. It was never worth the logistical cost of conquering for a young, coastally concentrated state. The same calculation that spared Dravensk (Chapter 7) played out here first, centuries earlier. Whichever kingdom held the coast never seriously moved on Kharzun's territory, and by the time later Anestrian governments had the logistical reach to try, Kharzun had a couple of thousand years of unified political identity behind it.

The second thing the myth leaves out is harder to admit. It was not one short war, and the state it produced was not a democracy from the start. The true chronology, told in Chapter 6, is the Ferrosian Empire's rise by conquest (by 310 AE), three centuries of imperial rule, and the popular uprising that founded the Republic (641 AE). "535 AE, one short war" is what three centuries of a republic that came from a rebellion, and not from a treaty, eventually preferred to remember instead. The compression comes from the same instinct as leaving out Kharzun. A

founding myth that admits the desert had other people on it, or that the democracy was born from tearing down an empire rather than replacing one kingdom with a better one, is a harder story to put on a coin than the clean version everyone tells.

Kharzun's relationship to the five Anestrian successor states that followed the Third War is uneven, and its current alignment is unsettled: it could be read as trade partner, rival claimant, armed neutral, or silent patron of one successor state against another, and the record does not fix which. What is fixed is that Kharzun exists, has never been conquered, and sits inside Anestrian territory, and not beside it, on every map. That makes it a live pressure point whichever way its alignment falls.

Kharzun's interior is also no single, uniformly held bloc. It shares the same unconquerable desert with two smaller confirmed powers, **Hardluckia** and **the Schwalbenheimers**, for the reason Anestria never bothered with any of it: nothing in that terrain was ever worth the cost of taking it by force. The three coexist without a formal border anyone has drawn, the way Kharzun itself coexists with Anestria. Hardluckia later signs on as a UARRO member, while the Schwalbenheimers align with Kargopol instead. It is an ideological split running straight through the same stretch of desert, and nobody, including the two governments themselves, has ever needed to fight over it.

The Poles

Not every gap on the map holds a population. Sometimes nobody lives in a place, and the reason nobody lives there is itself the story.

Kryodysseia, the south pole, is about 90 percent ice. It has no permanent population and, realistically, never will at anything resembling current technology. This is the reason Antarctica has none on Earth. What it does have is what a resource-hungry industrial world would put there anyway: a scatter of research and mineral-survey stations, claimed on paper by whichever great powers can afford to fund one. The first of those stations were three built under one charter by the **Southern Survey** of about 1120 AE, the largest joint scientific effort Numaria's neighbours ever mounted and one of the last times they shared anything. Chicano States, then the strongest naval power on that coast, led it and paid most of it. The All-Finian Empire supplied the icebreaking hulls and Arvansk supplied the surveyors and mountain men. Each partner built one station: Estación Horizonte Blanco for Chicano States, New Dawn Station for the Empire and Stantsiya Yuzhnaya Zvezda for Arvansk. Each was a few huts, a radio mast and a fuel store on the northern edge of the ice, and all three drew on one shared supply depot. The charter that bound them, hunting rifles and signal flares only, no weapons and no warships inside the line of the stations, is the gentleman's agreement that still stands. After the interwar years nobody resupplied them reliably, and by 1300 they were claimed on paper and mostly empty. The territorial claims overlap and are deliberately unresolved, and they sit under a gentleman's-agreement norm of non-militarization that has never been tested by anyone with a reason to test it. That untested treaty is the main political fact of the south pole.

Heliodysseia, the north pole, is colder than habitable but not impossible in the way Kryodysseia is. Its milder coastal fringes support a small, permanent population, the **Ilvennaq**. They are a scatter of hardy maritime and hunting communities with no unified state structure, living the way an arctic people would: politically fragmented and materially poor by industrial standards. They sit on top of the strategic shipping-lane and resource potential that makes every industrial power's naval planners take a sudden interest in a place they would otherwise ignore. The Ilvennaq are not a nation in the political sense and do not need to become one. They are a live pressure point because outside powers keep treating their homeland as unclaimed. They were not always this fragmented, and the reason is worth recording.

Helian. From roughly 0 to 600 AE, the same coastal fringes now held by the scattered Ilvennaq supported something considerably more organized. Helian was a confederated civilization of coastal city-settlements, populous by the standards of a polar coastline, that traded fish, whale-oil and worked ivory down the coast in numbers the modern Ilvennaq would find unrecognizable.

War and plague did not end Helian. Heliodysseia's own climate turned against it. Ice-core and coastal-terrace evidence points to a multi-century cooling trend across roughly 550 to 850 AE. It was the mirror image, on this continent, of the warming and drying trend that shaped the Classical Age's 200-Year War on the Central Continent (Chapter 2). The permanent ice line advanced south along the coast by a measurable margin every generation, and Helian's habitable fringe shrank faster than any settlement pattern built for a warmer coastline could adapt. Its city-settlements did not fall to conquest or collapse in a single crisis. They got smaller, more mobile and more scattered with each generation that inherited less coastline than the one before it, until "confederated civilization" was no longer an accurate description of anything living there.

The Ilvennaq are Helian's own direct descendants, and no separate people arrived after it. They are a fragmented, hardier, more mobile society, which is what a coastal civilization looks like several centuries into losing its own coastline, one generation at a time, to ice.

Skotia

Skotia is an old seafaring nation, island-based like the All-Finian Empire but entirely separate from it, sitting off Skarnovia's coast. It was founded early, in the same general era as the Syndicate's own founding. Skotia was never part of anyone's colonial scramble and has stayed independent through all of it, a small constant on a continent otherwise defined by conquest and grudges.

Tianhai and Xue Lin

Not every piece of Savorus belongs to the Syndicate, USN and Solenne lineage or to Luluke. Tianhai, Savorus's third nation, is a small, dense, extraordinarily well-educated enclave that broke away peacefully in the immediate aftermath of GAW1 (roughly 1252 AE) and has never rejoined.

Why the split happened, and why the USN let it happen. The USN in 1250 AE had just won a war and swallowed Christonia and Mesaland whole. That was a huge administrative and military commitment, landed on a government that had existed for all of a few months. Tianhai, by contrast, held no strategic resources worth fighting over and no army worth suppressing. What it had was a population disproportionately concentrated in science, engineering and administration: the USN's own intellectual capital, and nothing of its industrial or military base. Forcibly holding a small, cooperative, brilliant population at a moment of maximum overextension was a bad trade against the alternative. The alternative was to let them go, keep them as trading and technical partners instead of resentful subjects, and spend the actual army on consolidating Christonia and Mesaland, which were worth the fight. Tianhai got its independence, and the USN got a wealthy, unthreatening neighbour with every reason to stay on good terms. Both sides had good incentives to make the split permanent and quiet, and that is what happened.

The PUSDR friendship. After GAW2 (post-1276 AE), Tianhai built a lasting relationship with PUSDR's resistance movement and government-in-exile, the same movement the USN was already quietly backing against Eisenreich (Chapter 8). This was no contradiction. It was the same anti-Eisenreich lean seen from a different angle, and it gave Tianhai a personal friendship with the people who would become PUSDR's post-GAW3 government. That friendship was independent of Tianhai's own separate, cooler relationship with the USN itself.

GAW3 and the Kargopol years. When PUSDR's revolution succeeded and pulled the new state into the anti-Solenne Kargopol bloc, Tianhai followed its friend rather than its old parent state. It formally joined Kargopol even though Tianhai physically borders Solenne's own territory. In practice the alignment stayed almost entirely on paper. Tianhai never allowed Kargopol forces or assets onto its own soil and never engaged directly in the Fenwick-era conflict. Solenne, for its part, never attacked or sanctioned Tianhai, despite the formal enemy-bloc membership sitting right on its border. Two governments with every reason to fight chose, repeatedly, not to, and the result was a cold peace held up by mutual restraint rather than treaty.

The rename to Xue Lin. Once UARRO de-escalated back to a pure trade organization after the Fenwick-era tensions cooled (Chapter 17), and Solenne founded the Pan-Savoran Union (PSU) as its new security-focused alliance, Tianhai moved to join PSU instead of staying nominally Kargopol-aligned. The reversal was political and by no means cosmetic. Renaming itself Xue Lin at that moment was a deliberate clean break: a new name for a government shedding its Kargopol-era identity as it visibly re-aligned toward Solenne's orbit, the way a

person might change their name to mark leaving an old life behind. The population and territory are continuous, and the political identity is deliberately not.

10
Candrasia and the Nichozh Years

Christonia had been the grand old empire of the continent and was reduced, by the middle of its second millennium, to a creditor's client. When the old structure finally broke, a man in his seventies stood up and started a nation.

He lived to see it work. That is rarer than founding one.

Christonia's classical founding, its war with Luluke, and the nuclear strike on its cities during GAW3 all stand as already told. What changed is who runs Candrasia in the modern era. **Einsenia**, a state linked by origin to Numaria's Eisenreich, has become the continent's dominant modern power, with old Christonia surviving underneath it as the older civilizational identity rather than being erased.

Northland is older than its modern importance suggests. A tiny, easily overlooked holdout has always occupied Candrasia's northernmost tip. It was too small and too cold for Christonia ever to bother formally incorporating, and was held at arm's length as a neglected frontier garrison district rather than as territory. It was never one people either. It was a scattering of small, mutually hostile clan-holdings under a single distant Christonian flag, which was the condition it was still in when one man ended it.

Nikolai Nichozh and the Founding of Northland (AE 1225 to 1328)

Origins. Nikolai Nichozh was born in AE 1225 on the frontier itself, the son of a Christonian garrison general and a conscripted laborer with no legal standing to refuse him. His father measured his own honor by the purity of his bloodline. He gave the boy a name drawn from old Christonian root-words for "worthless" so that the child would carry the insult for life. Then, when Nikolai was old enough to march, the father arranged for him to be rotated into the garrison's conscript regiment, the unit Christonia's own frontier command treated as expendable, on the calculation that the front would do what a father could not bring himself to do with his own hands. His mother's heritage showed plainly in him: light brown skin against his father's paler Christonian line, a visible mixed parentage that his father's bloodline-obsessed household never let him forget.

Appearance. Even as a young conscript, Nichozh stood unusually tall, 6'6" by full adulthood, a frame that read as commanding on a battlefield decades before he ever held authority. He wore his dark hair loose through most of his life. By the time he took power he favored a long, high-collared black coat over dark armor, trimmed in gold and layered under a heavy fur-lined purple mantle. The regalia reads as ceremonial-military rather than purely decorative: a founder who dressed like a head of state and a soldier at once because he never stopped needing to be both.

A wide gold-and-cream band worn low across the eyes became his signature late in life. He adopted it soon after the wound that cost him one eye in the final battle of the unification (described below), but the wound was only the practical excuse for it and did not explain why it stayed. Northland's devoutly religious culture had already started treating Nichozh as closer to a living god than a living ruler well before he lost the eye, and in that same tradition beholding a god's own face is a serious, deeply forbidden act. The band gave Nichozh a way to let that belief keep operating without ever having to personally endorse or deny it. It was useful cover for the wound, and equally useful cover for the sort of myth a founder cannot build honestly but can decline to correct.

A soldier through three wars (AE 1250 to 1300). Nichozh's first combat came at 25, in the Thirty-Day War that opened GAW1. He was a Christonian conscript thrown into a war his own side had no realistic chance of winning, and one of a vanishingly small number of men from his regiment to survive the rout in any condition to keep serving. What happened afterward is the part the garrison's bureaucracy never planned for. Rather than discharging the wreckage of a defeated regiment, the newly formed USN folded Christonia's frontier garrisons wholesale into its own order of battle. A conscript with nothing left to lose and a gift for improvised tactics was just the soldier an occupying power short on experienced frontier officers could not afford to waste.

A night flanking maneuver through terrain his own commanders had written off as impassable, during the scattered border skirmishing of the 1250s, broke an entrenched position without losing a man in the breach. It put him on the promotion track for the first time. He rose from

conscript private to a captain commanding frontier forces well before his thirtieth year. The promotion was earned and no political charity, and it was the career the empire's own caste system was never supposed to allow a man of his birth.

He held that same frontier command for the whole of the Second Aridexian War (1264 to 1276 AE), by then a seasoned officer in his forties directing campaigns and no longer improvising them. In one action in a mountain pass he choked off a mechanized column's supply route using nothing but avalanche timing and mortar placement. In another he relieved a besieged garrison through a weeks-long deception campaign that convinced the besieging force it was outnumbered ten times over. Both actions are still taught, generations later, in Northland's own military academies. They are taught as the seasoned patience of a commander who had already buried most of the men he had started the last war with, and nobody holds them up as a young man's brilliance.

The quarter-century of uneasy peace that followed GAW2 (1276 to 1300 AE) left him where a man with his record and no interest in politics tends to end up. He was the senior-most officer of his own garrison district, decades past the point at which anyone above him remembered why he had been promoted in the first place, a living relic of two wars nobody else on the frontier had personally fought in.

GAW3 and the vacuum (AE 1300). None of it would have mattered if Christona had not been one of the six cities the USN's opening strike hit that January (Chapter 14). It was, and the Christonian government it destroyed had, among everything else it governed, nominal authority over Nichozh's garrison district. Word of the capital's destruction took weeks to reach the frontier in any confirmed form, and by the time it did, there was no longer a chain of command left to report to. At 75, a three-war veteran with nothing left above him to answer to and nothing left of the government that had once sent him to die on its behalf, Nichozh made the choice a garrison officer is not supposed to have the standing to make. Rather than wait for orders that were never coming, he turned his own command outward, toward the same scattered clan-holdings Christonia had spent a hundred years failing to fully absorb, and began unifying them by force.

The unification (1300 to 1303 AE). Four clan-holdings held this ground, and no formless scattering.

- The **Verrenkai** were the largest. Nichozh's garrison district sat inside their territory from the start, and they became the frontier population he had the most standing to speak for.
- The **Kholvag** were the easternmost. They were absorbed with comparatively little resistance, more interested in the new state's protection than in the old empire's indifference.
- The **Drenmoor** held a southern territory whose claimed ground reached well past where anyone would later draw Northland's actual border, deep into land Christonia's frontier administration considered its own on paper and had never controlled in practice.
- The **Oyun-Tash** were an interior highland clan and the hardest of the four to bring in.

This is the part the modern state's own retelling smooths over hardest. The Verrenkai and Kholvag came in peacefully. They recognized both a fellow frontier population and the authority of a living legend, a man who had survived three of Aridexia's wars and was still, remarkably, standing in front of them, and who offered protection that an empire no longer capable of providing any could not. The Drenmoor took real convincing: Nichozh's columns burned two of their border settlements rather than negotiate through a winter he judged the campaign could not afford to lose. The Oyun-Tash did not come in at all in any sense that word usually means. Cornered in their own highlands after a punishing siege, their fighting-age population was executed outright once the siege broke their capacity to keep fighting. Nichozh's later government never fully accounted for that decision in public, and modern Northlandish schoolbooks still describe it only as "the hard winter of unification."

By February 1303 the last organized resistance broke. It broke in a final, catastrophic battle against what remained of the Oyun-Tash, remembered ever since as the worst single day of bloodletting the region had ever produced, with thousands dead in a single glacial valley. Nichozh, 78 years old, was still present at his own front line and was maimed badly enough there to lose the use of one eye. Four clan-holdings that Christonia had never bothered to govern properly became, for the first time in the region's history, one nation. The chronology records this event as "Northland founded, AE 1303."

The father. Amid the collapse, Nichozh's own father refused to recognize the new order and fled to join one of the last holdout factions still resisting it. What followed was a night-long confrontation between them, ending with the general drawing a pistol on his own son and Nichozh's dying reflex killing him in return. That much is established, and it is also, by Nichozh's own later account, the only version of events anyone else was left alive to contradict. The official story, retold in every Northlandish schoolbook since, is a tragedy: a son who loved a father who never could love him back, killed in self-defense at the worst possible moment. It may well be that. It is also the most useful story a new head of state could have told about himself, and the record notes this without claiming to know which parts of it are more true than convenient.

The state, and its cost. What Nichozh built with the authority the unification gave him was substantial, and propaganda was only part of it. Slavery was abolished by decree the day he took power. A state relief corps was built to feed and house the same underclass he had been born into. The state was a mutualist, civic-nationalist welfare state that improved material conditions for a population that had never had any government try before. None of that is undercut by what came after. It sits next to it.

His father's other family had been raised apart from the frontier and steeped in the same bloodline purism that had named Nichozh "worthless" in the first place. It produced a younger half-brother who rejected the new state outright and organized an armed ethno-supremacist faction, remembered as **the Iron Union**, within a cordoned-off pocket of Northland's new territory. It was built on forced labor and on the caste ideology the state had just abolished everywhere else. Northland's security forces contained it rather than let it spread, and

"contained" does real work in that sentence. The Iron Union's eventual military defeat inside its own enclave, some years into Nichozh's rule, is remembered by the state as a necessary act of self-defense. What is left of the Iron Union's own descendants remember it, softly, because there is nowhere safe left to say it loudly, as a purge: mass detentions, summary executions of captured fighters, and at least one razed settlement that the state's own casualty figures have never fully reconciled with outside estimates. Nichozh personally authorized the final operation. He is on record, in a surviving field order, instructing his commanders not to take the enclave's garrison alive. Both things are true of the same man: the one who ended slavery, and the one who gave that order.

Legacy. Nichozh lived to the age of 103. He was a three-war veteran who founded his own nation at 78 and then spent another quarter-century running it, long enough to see the state he had built outlast every war he had personally fought in. He died of natural causes in AE 1328, revered by a population that did feed itself better and live more freely under him than under anything Christonia had ever offered them. In Northland's devoutly religious culture he was venerated in his own lifetime as closer to a living god than a living saint, a status Northland's state apparatus was never shy about cultivating alongside the popular sentiment behind it.

He never lived to see what came after. GAW4 did not begin for another thirty-one years (AE 1359). The same welfare state he built is one of the four powers that sign the Threshold Accord, and it later becomes one of the first governments the war costs outright, its capital falling in 1365 (Chapter 22). It was a government built by a man who fought in three wars and founded a nation to put war behind him, and within decades it was one of the architects of the war that ended Aridexian civilization. He was gone, mercifully, before any of it happened.

Northland's modern mythology remembers him as a founder who only ever gave. The man who founded the state spent the first seventy-five years of his life surviving other people's wars and the last twenty-five building something that, within a generation of his death, chose to start one of its own. He was capable, in the same decade, of building a lasting mutualist democracy and of ordering a garrison shown no quarter, and his own good fortune was to die before he had to watch either half of that legacy get spent.

Southland and the Candrasian patchwork

A few years after Northland's expansion under Nichozh, its lower third split away as **Southland**. It did so by mutual decision of both governments and without a war, and the two have operated very closely together ever since, right through the Threshold Accord they later sign jointly. All four polities, Christonia, Einsenia, Northland and Southland, currently share one of the smallest continents on the map. Candrasia therefore reads as a crowded, post-imperial patchwork and not as a single clean nation-state.

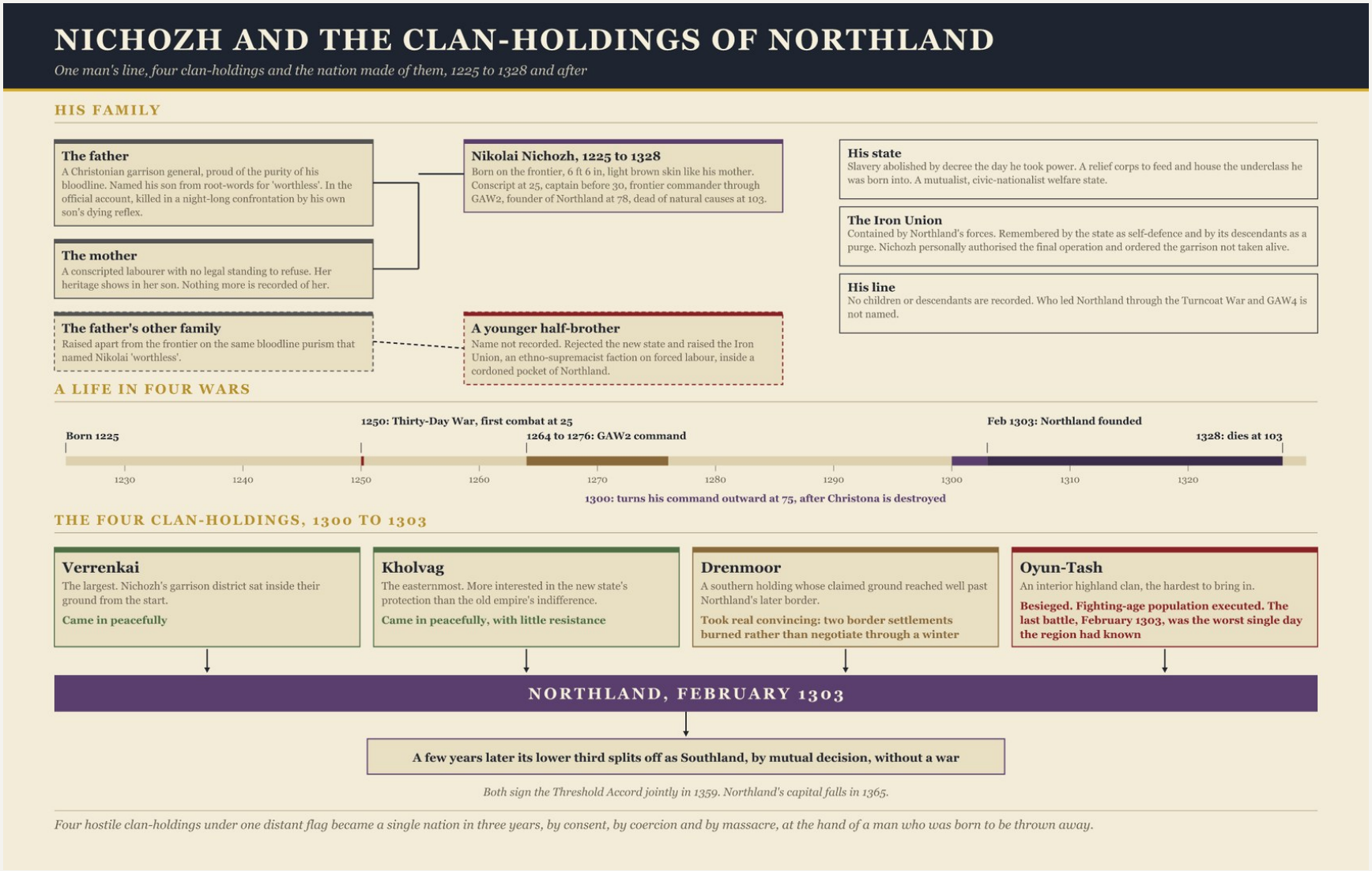


Plate: Four hostile clan-holdings under one distant flag became a single nation in three years, by consent, by coercion and by massacre, at the hand of a man who was born to be thrown away.

PART THREE

The Age of War

11
The Thirty-Day War

A bomb in a financial district killed a handful of clerks and accomplished nothing it set out to do. It gave the Syndicate a reason, and four great powers a banner, and the war that followed lasted a month.

When it was over there was a new state on the map, bigger than anything before it, and it chose a snake eating its own tail for a symbol.

By the middle of the 1200s AE the Syndicate had grown into the dominant power of the western continent. Conquest was not its main tool. A century and a half of capital, contracts and concessions had left a nominally independent Christonia answering to Syndicate boardrooms in everything but name (see Chapter 5). What the Syndicate lacked was a pretext, and its own economic leverage had never strictly required one. In 1249 AE the Renner Faction bombed the financial district of the Syndicate capital, and the attempt failed. It still gave the Syndicate the excuse it wanted. In response, the Syndicate, the Republic of Anestria, Luluke and the All-Finian Empire jointly declared war.

The Thirty-Day War

The conflict, fought in October and November of 1250 AE, is called the Thirty-Day War. It is also remembered as the War of Christonian Liberation, and it is counted as the First Aridexian War (GAW1). It ended quickly, given the overwhelming disparity in combined manpower. It also marked the first large-scale use of tanks, aircraft carriers and field artillery in Aridexian history.

The cost to each side was as follows.

	Syndicate	Anestria	Luluke	All-Finian	Christonia
Casualties	1,442	611	993	302	4,025
Economic loss	-16.3%	-13.5%	-35.2%	-10.9%	-84.2%

Christonia, the nation the war was fought over, paid the most by a wide margin: more than four thousand dead and a loss of well over four fifths of its economy. Luluke, on the winning side, lost more than a third of its own.

The United Syndicate Nations

In the settlement that followed, the victorious Syndicate absorbed both the defeated Christonian Empire and the small island nation of Mesaland into a single reconstruction union. This was the **United Syndicate Nations (USN)**, the closest thing Aridexia had yet seen to a true superstate.

The Flag of 1250

The union needed a flag, and the one it chose was worked out with some care. Its colours were black (`#121212`) and crimson (`#8a2226`), with a thin crimson rule cut through the black. Gold was gone completely. The union of 1250 AE had been financed on the Syndicate's credit, and the war of 1264 to 1276 would spend the rest of it. A USN flag that carried gold would have been a lie, and the regime already had enough of those to maintain.

The field was divided into eight wedges. Four crimson wedges stood on the diagonals and four black wedges on the compass points, divided by thin crimson rules that ran to the edges of the flag. When the flag hung limp the wedges read as a saltire, and when it was stretched flat they read as a starburst. The design was chosen for that effect: from far off it looks like a cross, and from close it looks like a mechanism.

In the centre sat the **ouroboros**, a black snake swallowing its own tail. Its body was broken by a dashed line to mark the "seam" where the Syndicate, Christonia and Mesaland had been joined. The meaning of the snake was spelled out in the 1250 settlement itself: a union with no outside, whose end is its beginning. It was meant to read as stability.

The flag did not stay as it was. In 1290 AE, after a crisis of which more is said in Chapter 13, the regime added an Eye to the centre of the ring, and the world knows that later version.

The Emblem and Its Fate

Stripped of the field, the ring with the Eye at its centre became the emblem of the USN, and it is the most widely reproduced image of the regime. It appears in silver on the uniform of the Black-Snake Corps (see Chapter 27). On the uniform of the regular army it is "a stamped steel pin, not cloth", and on vehicles and aircraft it is a plain black stencil. The bomber squadrons that launched the January 1300 first strike carried none of it, by design. They wore no unit patches, only a stamped number on the collar, so that a shot-down crew would identify no base.

The flag, the Eye and the ring were banned in Solenne in the year that state was founded, and it is still illegal to fly or display them there. Collectors and museums keep the originals. PUSDR and the other states descended from the Communist Power Alliance never used the USN flag after 1300, though several of them kept the red-and-black colour pairing for reasons of their own.



Plate: the Syndicate, the USN and Solenne, in order.

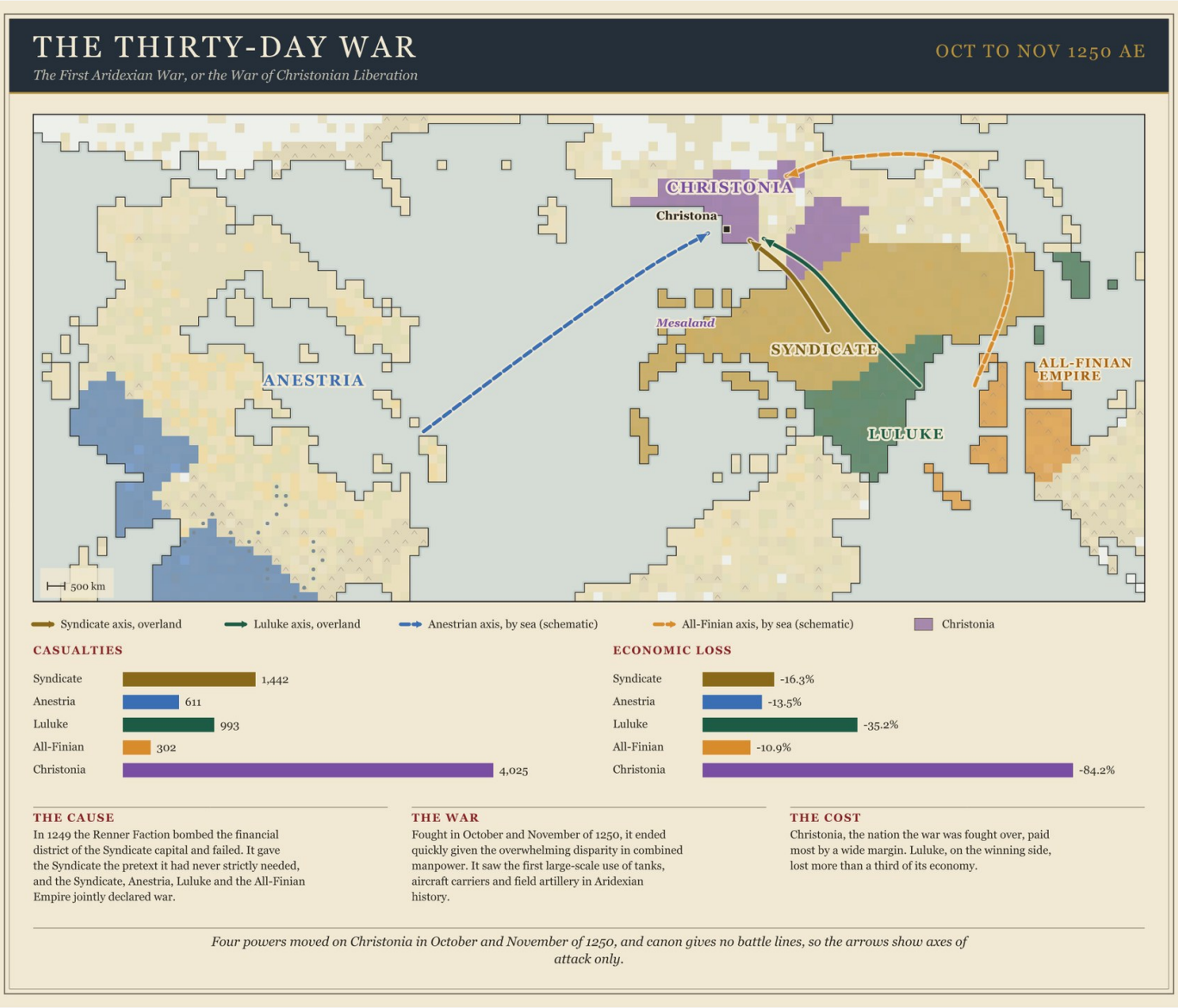


Plate: Four powers moved on Christonia in October and November of 1250, and canon gives no battle lines, so the arrows show axes of attack only.

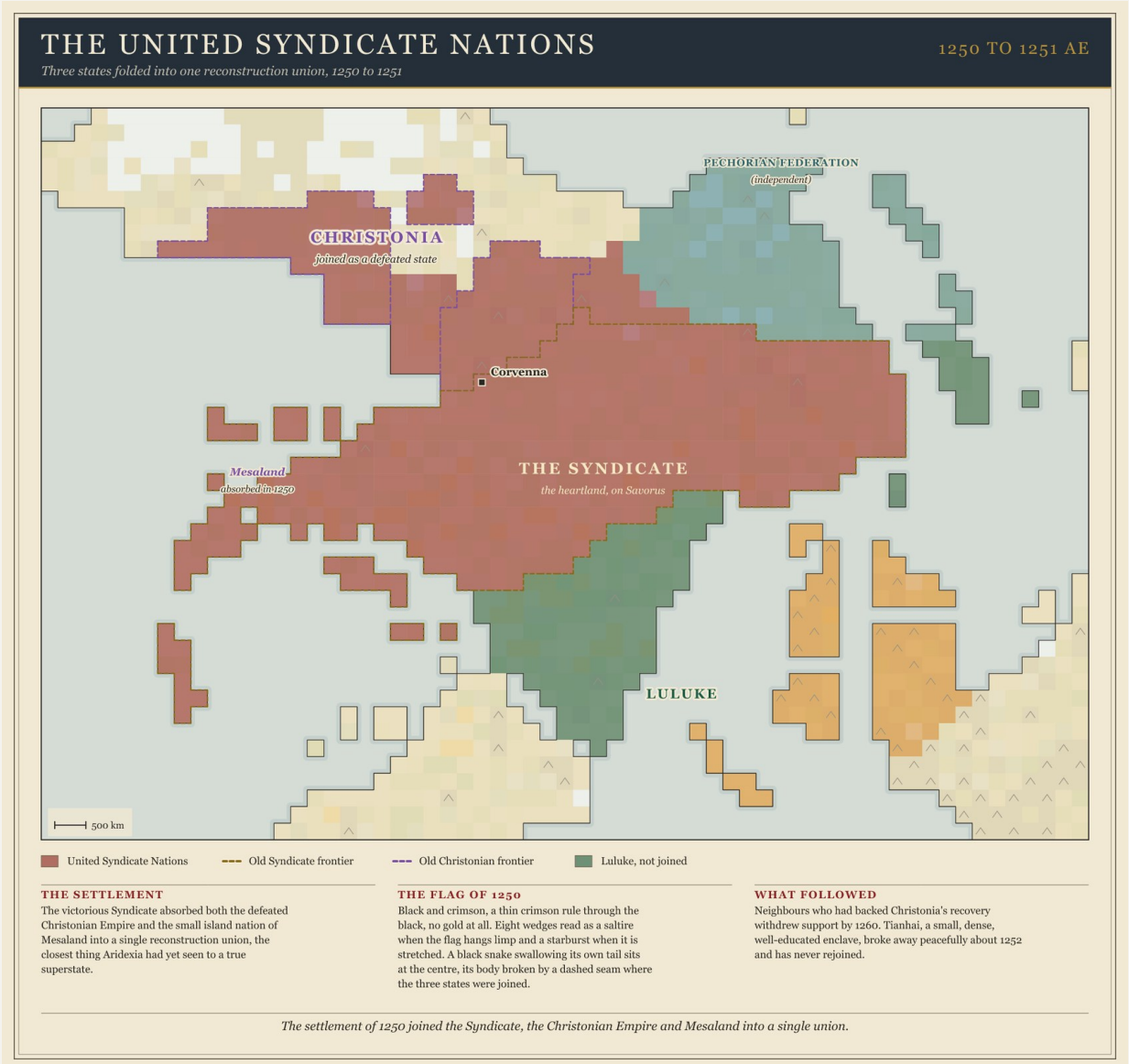


Plate: The settlement of 1250 joined the Syndicate, the Christonian Empire and Mesaland into a single union.

12
The Second War and the Crippled Union

The union that won the first war did not make friends. Its neighbours formed a bloc to contain it, and it formed its own, and in 1264 it reached for a chain of islands that sat on top of an oil field.

Twelve years later it was still standing and nothing about it was stronger. A government that has been humiliated and cannot afford to look weak is the most dangerous kind.

The new union did not sit well with its neighbours. All-Finian, Luluke and Anestrian support for Christonia's post-war recovery had never fully squared with the reality of Christonia being folded into the government of its former conqueror, and by 1260 AE that support formally lapsed. Anestria went first, citing its own domestic energy crisis. Its industry had spent the preceding decade converting from coal to petroleum, and the reserves on its desert continent were already running behind demand.

Two Blocs

The lapse did not stay informal for long. By 1262 AE Anestria, Luluke and the All-Finian Empire had formalised it into the **Historic Alliance For Democracy And Prosperity (HAFDAP)**. The name was deliberately broad, for a deliberately broad coalition. What held the three founding members together was a freshly soured relationship with the USN far more than any shared ideology, and the name reflected that. It was vague enough that a monarchy (the All-Finian Empire), a republic (Anestria) and an old mercantile state (Luluke) could all sign it without anyone having to pretend they agreed on much beyond the immediate problem.

The USN answered in kind. Its own ideological bloc, the **Communist Power Alliance (CPA)**, was older than HAFDAP by decades. It dated back to the Syndicate era before the First Aridexian War and was inherited wholesale by the USN once the Syndicate became its own heartland government. Bavaria had been a member since the alliance's founding. By the time HAFDAP formed, the CPA's roster also included, unofficially, the underground resistance and

government-in-exile that would one day become **PUSDR**. It was not yet a state in its own right, since that was still four decades away, but it was already a coordinated ideological partner, and the USN treated it as worth cultivating even while Eisenreich still held its homeland. This proxy relationship would outlive the USN itself and survive all the way to PUSDR's founding.

The Pelruvian Archipelago

Sensing an opportunity while its rivals were divided, the USN moved in 1264 AE to annex the Pelruvian Archipelago. The islands were a scattered chain that meant nothing to anyone strategically, but they sat on top of the offshore petroleum field that the USN's aging coal-based industrial base needed if it meant to modernise at all. Anestria's own crisis had just made everyone acutely aware that such a field was worth fighting over. The archipelago was weakly defended and distant from any neighbour's home territory. It was also impossible to ignore for a state that had just watched a fellow petroleum-hungry power turn inward instead of outward. The USN did not so much want the prize as find it the one resource base left on the map that a state in its position could still plausibly take.

That act triggered the Second Aridexian War (GAW2). On one side stood the CPA, anchored by the USN itself and backed by Bavaria and by PUSDR's government-in-exile. On the other stood HAFDAP's Anestria, Luluke and the All-Finian Empire.

Twelve Years

The war dragged on for twelve years across multiple fronts, the Pelruvian campaign chief among them. It ground down the cohesion of the USN from the inside as much as from without. By its end in 1276 AE the union was crippled but did **not** collapse. The settlement had three parts:

- Christonia regained full independence and restored its president and Conjunctioner government. This was a real amputation, and more than a symbolic one.
- Mesaland ceased to exist as a distinct nation. Its territory and population were absorbed permanently into what remained of the USN, and it never regained separate status.
- The USN itself survived, stripped down to its original Syndicate heartland on Savorus. It was discredited abroad, financially exhausted and turning inward.

Losing Christonia and grinding through twelve years of war did not break the state. It hardened it. The USN that emerged from 1276 AE was smaller, poorer and more paranoid than the one that entered the war. Its governing dictatorship tightened its grip rather than loosening it, which is the instinct of a regime that has just been humiliated and cannot afford to look weak again.

The USN kept its name, its territory and its government through the entire quarter-century that followed. It did not become Solenne, not yet.

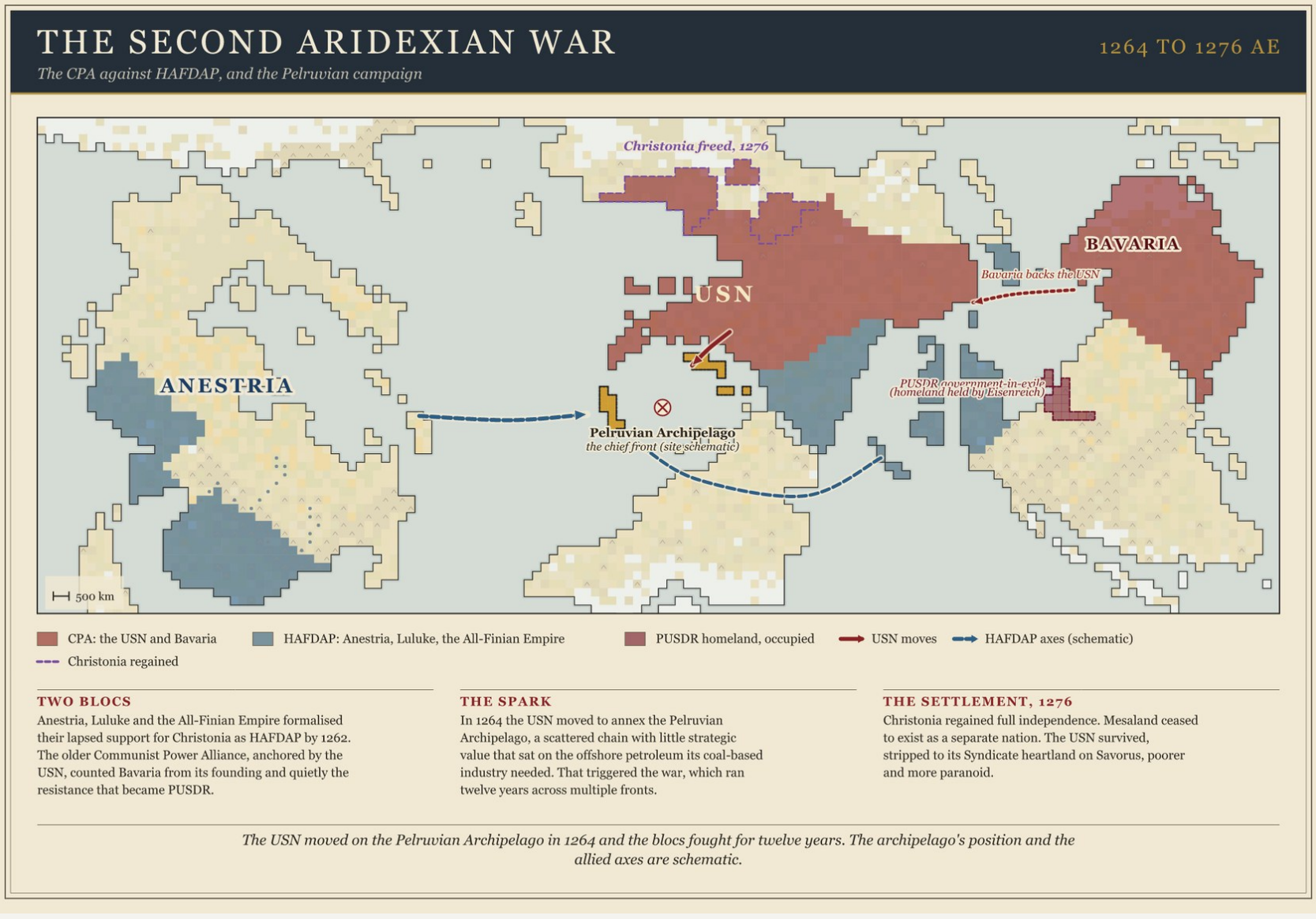


Plate: The USN moved on the Pelruvian Archipelago in 1264 and the blocs fought for twelve years. The archipelago's position and the allied axes are schematic.

13
Talona and the Space Age

A city on the coast left, and half the union's senate went with it. The regime put down the revolt in a way that did not look like a revolt being put down, and learned from the experience that it must never again be caught unready.

At the same time, quietly, the species was learning to leave the ground. The first satellite flew in 1261. Within thirty years there were people on the moon.

The post-war decade in the USN was marked by economic collapse, a discredited and disarmed military, and a public backlash against returning soldiers. In this condition the state faced the worst challenge of its existence.

The Talona Crisis (1286 to 1290 AE)

The industrial coastal city of Coastville broke away and declared itself the Confederate States of Talona. It was backed quietly by Christonian funding and military advisors. Much of the USN's own senate and administration began defecting to the breakaway state, drawn by Talona's far higher standard of living. For a dictatorship already humiliated by the loss of Christonia a decade earlier, this was a threat to its existence and a good deal worse than embarrassing.

As a last resort the USN launched a special-forces raid, **Operation Black-Snake**. It failed to kill Talona's leadership or to cripple its military, but it did destroy Talona's only warship and its main tank-production depot. The crisis ended in an uneasy settlement and without reconquest: Talona was reabsorbed as an autonomous province rather than retaken by force.

The USN survived, but the episode left it economically drained and politically paranoid. It also left the regime convinced that it could never again afford to be caught militarily unprepared. That conviction, more than any single policy, set the stage for what came next, which was no change of government but a government doubling down in secret.

The Eye and the Office of Watch

The regime's response to the defections left a mark on its flag. In 1290 AE, after the Talona Crisis, the regime added a single element to the centre of the ring on the flag of 1250 (see Chapter 11): an **Eye**, drawn as a plain almond with an iris and pupil, in black on the crimson. The Eye is the **Office of Watch**, the security service created in the aftermath.

The snake had meant that the state is a closed loop. The Eye changed that: the loop now had something at its centre that sees everything inside it. The flag was otherwise unchanged, and that was the point. The regime did not redesign its flag in 1290. It let the flag admit what the state had become. Both versions survive, and the 1290 version is the one the world knows.

The Space Age Begins (1261-1290s AE)

While the Second Aridexian War and the Talona Crisis played out on the ground, Aridexia entered the space age with little notice. Anestria launched the system's first orbital satellite, Vivemus-1, in 1261 AE, and followed it with the first crewed capsule flight in 1265 AE.

That same year the Deep Space Human Preservation initiative (**DS-HP**) was founded. It was nominally a Syndicate-subsidised body, but it was built and staffed as an independent, international scientific consortium. By 1270 AE DS-HP operated launch sites, vehicle assembly facilities and tracking stations across multiple continents. It had already laid out its long-term mandate: to locate, evaluate and eventually settle habitable worlds elsewhere in the APS system. The planets, moons and off-world colonies that DS-HP would go on to develop are described in Appendix A.

The international and decentralised structure of DS-HP, deliberately insulated from any single national government, is the reason it survived what came next.

The Bomb and the Four Columns

The war began with a satchel. Late in 1249 Lucan Verrett carried it into the arcade opposite the registry annexe in Corvenna and left it where the Syndicate kept its tallies, and the explosion that followed killed a handful of clerks and damaged one building. It severed no credit line. The Syndicate's economy had no single point to cut, which was the reason it had grown so large, and the Table understood within a week that the bomb had given it something worth more than the damage: a pretext. The Ledger Court tried Verrett and shut him in a cellar in Corvenna. It never accused Elin Renner, whose name the Faction carried and whose hands had stayed clean. Among the dead was Corban Brask, a tallyman, whose daughter Ottoline was thirteen.

The declaration followed in the autumn. The Syndicate, the Republic of Anestria, Luluke and the All-Finian Empire each signed it on the same day, and the war began on 28 October 1250 and ended on 26 November, which is how it earned its name. The four powers had no common plan. They had a common target and a common rifle. All four armies carried the AR-22 Vanguard, licence-built or imported from the Syndicate, because matching ammunition mattered more

than national pride in a campaign of thirty days.

The Syndicate's Captain-General, Ambrose Quennel, commanded the main column, which left the heartland on Savorus and went north-west over the open country at a rate no Aridexian army had managed before. He had tanks, in numbers the continent had never seen on one road, and field artillery that could be towed behind lorries. On his right the Luluke army under General Garreth Tolmek crossed the border at the same hour and took the parallel road. The two columns shared a railhead and quarrelled over it for most of the first week. Tolmek's staff were meticulous and slow, and Quennel's were quick and careless, and between them they lost more men to the traffic than to the enemy.

The other two powers came by sea. Admiral Pilar Esquivel brought the Anestrian fleet across the open ocean from the west, eleven days at sea, with the carrier *Santa Ysabel* at its centre. It was the first time an Aridexian navy had flown its aircraft from a deck against a defended coast, and the pilots, who had trained on a lake, were frank afterwards about how little they had expected to hit. Admiral Teivo Halmar took the All-Finian squadron the long way round the northern shore of the continent and came down on Christonia from the north-east. Neither fleet could reach Christona alone. The plan, such as it was, rested on the Christonians being unable to hold four fronts at once, and the Christonians confirmed it.

Christona

Christonia had never been poor. It had been indebted, which is a different condition and a worse one. For a century and a half its trade, its railways and its army's supply had run on Syndicate credit, and its rifles were AVMS stock bought on the very lines the Faction had wished to cut. When the war began, the Syndicate's tallymen recalled the credit that paid for Christonian ammunition. The depots held enough for about a fortnight. The Christonian commander, General Rolan Pesaro, had perhaps a third of the tanks he needed and no aircraft that could leave the ground without borrowed fuel. His army was a frontier militia of conscripts, and it was told to hold a country it had been taught to think of as a creditor's.

The first engagement of any size was at the Gaunt Ridge, a long wooded escarpment on the south-eastern approach, where Pesaro put most of his infantry on the second day of November and kept his tanks behind them. The Syndicate and Luluke columns reached it on the same afternoon. Quennel's guns fired for six hours, and the Luluke infantry went up the slope behind them. Among the conscripts on the crest was a frontier private of twenty-five named Nikolai Nichozh, who had never held a post higher than that of a sentry, and who saw the ridge collapse from the inside. He survived the rout that followed. It was the first of the lessons he would carry, and he drew from it that a country which cannot pay its soldiers loses before the shooting starts.

The landings came in the second week. Esquivel's marines went ashore at Pellory Strand, a shingle beach south of Christona, under cover of the *Santa Ysabel*'s aircraft, and found it held by a company of reservists who had not been paid since September. Halmar's landing at Hask Bay in the north met more resistance, and was the only one that lost its first objective, though it took

it back in two days. By the middle of November Christona stood with its back to the sea, its eastern road cut and its southern suburbs under Quennel's artillery.

The city fell on day twenty-seven, 23 November. President Emeric Dalhart signed the cessation of arms three days later in a tram depot that still had its roof. Letizia Falcetti was twenty-two, a clerk on the petitions desk of the Conjunctioner council, and she carried the council's seal out of the building in a satchel of her own. It was worth little by then, and she kept it.

The cost is on the record, because the Syndicate counted. The Syndicate lost 1,442 men and 16.3 per cent of its economy, Anestria 611 men and 13.5 per cent, Luluke 993 men and 35.2 per cent, and the All-Finian Empire 302 men and 10.9 per cent. Christonia, the country the war was fought over, lost 4,025 dead and 84.2 per cent of its economy. The total of the dead was 7,373. Luluke, on the winning side, had lost more than a third of its economy to supply a campaign that its own staff had run too carefully,.

The Settlement and the Apparatus

The Syndicate had won and then had to decide what to do with the winning. It chose the largest option. The settlement that followed absorbed the defeated Christonia and the island nation of Mesaland into a single reconstruction union, the United Syndicate Nations, and it was drafted in three weeks in the registry annexe, in the room with the repaired window, by the Chief Justiciar of the Ledger Court, Hollis Vantry. Vantry wrote the clause that explained the snake. The union had no outside, and its end was its beginning. The Christonian signature was Dalhart's. Mesaland's was the Speaker of its assembly, Ione Maddrel, who signed in the corridor because the island's delegation had not been given a chair.

What the settlement created was a state with a new name and an old machine. The Table of the Syndicate was kept for the ceremonies, and the Ledger Court's secretariat ran the rest. It had the tallymen and the notaries, who held every bond and tally and seal in a registry that outlasted any minister. It had the Registry annexe in Corvenna, rebuilt with a steel door on the third floor. It had a Director-General at its head, a general or a senator whom the Ledger chose for the sound of the title, and who signed what was put in front of him. The first was Senator Piers Treavan, who held the office for twelve years and was known to his staff for the neatness of his signature. The Director-General was a front. The secretariat behind him was the state.

The union was financed on credit that the Syndicate owed to itself and could therefore extend without limit, for as long as nobody asked what it would cost to repay. It also had an army of occupation to feed in two conquered countries, and it paid for both from the same account. Gold had vanished from the flag at the first drawing. It had not yet vanished from the books, but the people who kept the books could see it going.

The settlement made one concession it had not planned. Tianhai, a small, dense, well-educated enclave on Savorus whose people were mostly engineers, administrators and scientists, asked in 1252 to leave the union, and the Ledger let it go. A division of the Syndicate army would have

been needed to keep it, and the army was busy in Christonia. The enclave held no resources worth a fight, and a wealthy neighbour that depended on the Syndicate's trade was worth more than a resentful one. The secretariat recorded the loss in a single line. It did not record that the union had lost its best-trained minds on the first day it could afford to.

Ottoline Brask, who was sixteen that year, took her father's desk in the annexe. The Ledger had a custom, never written down, of giving a dead clerk's place to someone from his household. She sat in the same room where the bomb had gone off, with a new steel door behind her and a cabinet of Christonian deeds before her, and began to read them to the last line. A boy of eleven named Hesketh Varro, the son of a Notary, was learning the same trade in the next building.

The Years of Lapse

For ten years the union held together by being useful to its neighbours. Then it stopped being useful. By 1260 the three powers that had backed Christonia's recovery withdrew their support, and Anestria went first, citing an energy crisis of its own. Its industry had spent the previous decade converting from coal to petroleum, and its desert reserves ran behind demand. In 1262 Anestria, Luluke and the All-Finian Empire formalised the lapse as the Historic Alliance for Democracy and Prosperity, and the Communist Power Alliance, which dated from the Syndicate's own years and which the USN had inherited, answered with a roster that now included Bavaria and, unofficially, the exile movement that would one day become PUSDR.

The Director-General of those years was General Adelmo Skarra, who had replaced Treavan in 1262 and was a different kind of front. He believed in the office. He read the reports, which the Ledger found tiresome, and in the spring of 1264 he read one about petroleum. The USN's industry still ran on coal and its coal was failing. Anestria's turn inward had left the Pelruvian Archipelago, a scattered island chain with no strategic value and a great deal of oil under its shallow sea, weakly defended and far from anyone's home territory. Skarra saw in it the one resource that a state in his position could still plausibly take. His secretary noted that the Director-General had asked whether the Ledger could afford to wait. The Ledger said it could not.

The Pelruvian Campaign

General Casimir Odlen landed on Great Pelru in the spring of 1264 with two divisions and took its principal port, Saltreach, in six days. The islands had no army worth the name. They had a harbour board, a customs shed and a platform on the Ochre Bank, the shoal where the oil lay, and Odlen's engineers were pumping from it by midsummer. It was a clean conquest, and the last clean thing in the war.

HAFDAP had not expected to fight over the islands, and it fought because the USN had misread its neighbours. Anestria's turn inward had been a matter of fuel and had left its will untouched. Its fleet, under Admiral Esquivel, now an old woman, was the strongest at sea and was short of oil to sail. Luluke was slow, and Luluke's General Berit Kassan said openly that the alliance

would need two years to learn to march together. The All-Finian Empire sent its squadrons and then had to decide whether to bring them home. A combined command was set up in 1265 and quarrelled for three years about who paid for the oil that moved it.

The turning point of the war at sea was the Tern Narrows in the autumn of 1268. The Narrows was the strait between the archipelago and the mainland, and the USN's fleet under Admiral Roderic Kell tried to force it with a convoy of tankers for Saltreach. Esquivel waited for them in daylight with every ship that would steam, and fought for two days. The USN lost most of its fleet, and with it any chance of moving the oil it had won. Odlen's engineers kept pumping and the oil stayed on the islands. The fleet was never rebuilt. In 1297 the USN still had no ship that could leave harbour without Anestrian leave.

The land war ran on three fronts. On the Pelruvian front Saltreach was besieged from the spring of 1272, and the garrison lived on the stores that the convoys of the winter of 1273 failed to renew. On the southern front the Luluke army under Kassan fought the first of its battles along the old border, at the Salt Road in 1271, and held a line there for four years without moving it. On the Christonian front the occupation of 1250 had worn into something that the Ledger did not call a front and the Christonians did. The union was fighting three wars with the men of one, and its credit had run out.

The war changed what men wore. The wool and leather of 1264 gave way by 1270 to cotton and synthetic blends, and field jackets replaced tunics on both sides. The USN's jacket became charcoal-olive with a stand collar, with a matte-black belt and boots, no regimental colour anywhere and a plain red chevron on black. By 1270 the regime's own insignia was a stamped steel pin, not cloth. A state that had stopped putting its soldiers' names on their kit had stopped thinking of them as men. The officer corps was chewed through, then filled from the sergeants, and then chewed through again. In 1272 an infantryman of eighteen named Imre Sallow, the son of an army farrier from the Savoran interior, joined a regiment that had lost its officers in the spring, and was a sergeant within the year.

Eisenreich is the one great power the record leaves out. It held the homeland of the future PUSDR through all twelve years and its works ran hard, but no Eisenreich unit is recorded on any front. In 1279, three years after the war ended, an archivist named Zinaida Dimikrova left the occupied homeland for Tianhai in a hired boat with forty trunks.

Saltreach surrendered in the spring of 1275. Odlen's successor signed in the harbour office, with the customs ledger on the table, and the Ochre Bank platforms were found to have been dismantled. The armistice was signed the following spring in the assembly hall at Tianhai, neutral ground that both sides could reach and neither owned. Skarra signed for the USN with Ottoline Brask at his shoulder, who was forty and had risen to deputy keeper of the registry. She witnessed the signature and read the treaty to the last line. Falcetti, now forty-eight, signed for Christonia. The terms gave Christonia its independence and its president and Conjunctioner council, ended Mesaland as a separate nation, and left the USN as the Syndicate heartland on Savorus. No casualty total for the twelve years survives. The Ledger did not publish one, and its

own is lost.

Skarra did not return to the Registry. The Ledger relieved him within the month, and Brask was named Director-General in 1276, the first to come from the secretariat itself. The Ledger stopped putting fronts in the office. Lucan Verrett died that autumn in his cellar of a lung infection, and the notice of his death reached the Director-General's desk, where Brask read it and filed it.

The Space Age and the Subsidy

The space age came to Aridexia in the middle of the war and the USN was among the first to pay for it. Anestria launched the system's first orbital satellite, Vivemus-1, in 1261, while its fleet was still being refuelled for the Pelruvian war. It put up the first crewed capsule in 1265. In the same year Hadrian Obell, a guidance engineer who had trained at the AVMS works in Corvenna, drew the charter of the Deep Space Human Preservation initiative and became its director.

DS-HP was meant to be international and independent of any government, and it lived on a subsidy from the United Syndicate Nations. This was an odd thing for a regime that could not feed its own army. The explanation lay in the secretariat's accounts. The grant was one line among hundreds, small enough to survive every cut and large enough to buy the one thing the union could not otherwise get, which was the goodwill of foreign scientists. The tallymen audited it every year and found nothing to take. Obell weighted the charter's seats by contribution and ran its decisions by consensus, so that the nations that paid sat where decisions were taken and no small member could be outvoted. By 1270 DS-HP had launch sites, assembly halls and tracking stations on several continents. Its rooms in Corvenna were rented and its staff were not the USN's, and the secretariat knew it.

What the secretariat did not know, or did not care, was that a rocket is also a means of delivering something heavy over a long distance. Nobody at the time wrote the thought down. The union was too short of everything to build a booster, and DS-HP's scientists were too careful to lend one.

In 1279 Obell commissioned the first survey of Typhon, and the readings the next year came back thin. He wrote *sampling error* in the margin and moved on. In 1286 a young Safemoon delegate named Konrad Vesterhaus stood up in the DS-HP assembly and argued that small nations needed national programmes of their own. Obell said the arithmetic would not bear it, and neither man won the point. Obell died in 1287, in the middle of the Talona Crisis. A year later, in 1288, DS-HP put a crew down on Lira, the first crewed landing there. The newsreels showed it in Corvenna on the same evening as the casualty lists from the western coast, and the Ledger noted that people watched the one and then went home.

Coastville

The decade after the Second War was hard in ways that had no battles in them. The USN's economy had collapsed, its military was discredited and disarmed, and the public turned on returning soldiers as though they had brought the war home with them. The Ledger tightened rationing, cut the pay of the army and filled the gaps with paper. Nothing in the secretariat's accounts suggests it expected what happened next.

In 1286 the industrial coastal city of Coastville broke away and declared itself the Confederate States of Talona. It was a port with shipyards, a tank-works and a harbour that stayed open when the rest of the coast was rationed, and its council had decided that it could live without the Ledger. The first Convener of the Confederacy was Oswin Pryce, a senator who had sat in the USN's chamber for eleven years and who left it with forty clerks and the senate's own seal. Christonia, which had every reason to see the USN weaken, sent money and a handful of military advisers under Colonel Dagobert Lisle by sea across the western ocean, and kept the arrangement quiet. Talona's army was commanded by Brigadier Tamsin Redd, who had once served in the USN under Odlen and knew exactly how little the regime could send. Tianhai, the neighbouring enclave, was neutral and sold instruments to both.

The secession alone might have been put down. The migration could not be. Much of the USN's own senate and administration began leaving for Talona, drawn by a standard of living that Corvenna could not match. The senators left by the night train and the clerks by the coast road. The Ledger sent officials to the stations and found that the stations were empty because the people had already gone. For a dictatorship humiliated ten years earlier by the loss of Christonia, this was a threat to its existence and a good deal worse than embarrassing.

Hesketh Varro, then forty-five, kept the list. Someone in the secretariat had to know who had gone, who had been tempted and who had said nothing, and Varro began by copying the names from the railway ledgers into a notebook. The notebook grew into a file and the file became a habit. It was the first record of the Office of Watch, although the Office did not yet exist.

Operation Black-Snake

The plan was drafted by a staff major named Corwin Aubade, who was twenty-eight and was thought incurious. It was a four-year operation, and it was called Black-Snake because the snake was in the emblem and the staff had nothing better. Colonel Imre Sallow was given command. He was thirty-two, a colonel by the accident of a war that had killed his superiors, and he was told that he must cut the head from the Confederacy and that he could have nothing of consequence to do it with.

The first two years were not fighting. Sallow chose instructors and recruits from the units that had come out of the Second War with their discipline intact, and trained them in a disused quarry on the interior plateau, and sent small parties into Coastville by the coast road to count the sentries and learn the tide. In 1288 the parties moved in. The warship was a single cruiser, the *Harbour Charter*, which the Confederacy had bought from the Luluke breakers and refitted

in its own yards. She was the only ship Talona owned. The Merrow Yard on the Kell Road held its tank depot, where the tank-works parked what it built.

The raid came in the winter of 1289 to 1290, on a night of sea mist. One party planted charges on the *Harbour Charter*, which sank at her moorings with eleven of her crew aboard. A second set fire to the Merrow Yard, and the tank depot burned for two days and destroyed most of what it held. A third went for the leadership, and it failed. The Convener and Brigadier Redd were in a cellar on the other side of the city, and Sallow's men had been given the wrong street. Pryce and Redd lived. There was no second night, because the USN's treasury could not afford one.

The crisis ended in an uneasy settlement. Talona was reabsorbed as an autonomous province and was not retaken by force. It kept its own council and its harbour, and the Ledger kept its flag over the customs house. Neither side called it a victory. What the raid had shown was that the USN could destroy a fleet and a depot and still lose the war, and the Ledger understood the lesson. In the autumn of 1290 it did three things. It added an Eye to the flag, an almond with an iris and a pupil in black on the crimson, which was the sign of the new Office of Watch. Ottoline Brask created the Office that year and gave it to Varro to run. And it formed the Black-Snake Corps from the survivors and instructors of the raid, with Sallow in command, a bone-coloured dress, silver cuffs, and the motto CONTINUITY. The Warden rank was revived from the old Syndicate's Pass-Wardens, to give the new thing an old name.

The same autumn Varro wrote the continuity protocol, a sealed standing instruction that if the Director-General died or was taken, the Ledger would carry out its prepared plans without waiting for a successor. The clause required a finding of death after three missed check-ins, signed by the Head of Watch and the senior notary on duty. It was a sensible precaution, and it was put in a drawer.

The regime came out of Talona with no change of government. It had a smaller treasury, a larger fear and a guard that dressed in bone. In 1297 Varro proposed posting the Corps in the dock district of Corvenna during the ration disorders, and Sallow refused and was retired. In the same year Brask sent a notary to Drozdov to buy uranium and was turned away by Hedda Vorsteen, and Varro found the ore elsewhere. On 17 January 1300 eleven squadrons took off with a stamped number on each collar and no unit patch. The Office that arranged it and the Corps that guarded the arranging had both been made in the aftermath of one failed raid on one coastal city.

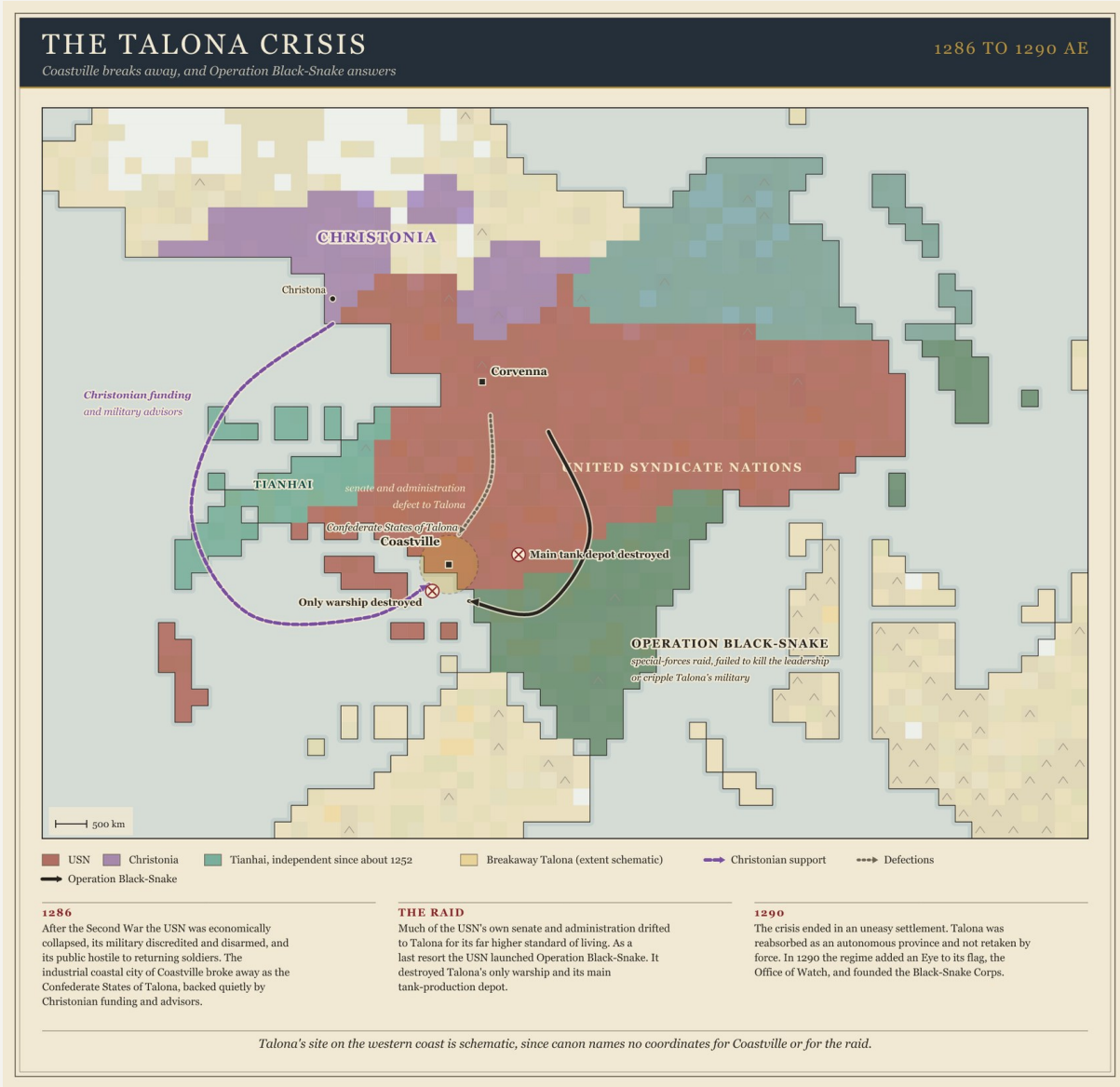


Plate: Talona's site on the western coast is schematic, since canon names no coordinates for Coastville or for the raid.

14
The Seventeenth of January

It took one night. Eleven squadrons of bombers with no unit patches on their flight suits crossed a dark sea, and the cities they were aimed at did not know they were there.

What the world did in reply is the reason there is a Solenne, and the reason there is no All-Finian Empire.

By 1300 AE the United Syndicate Nations was the same crippled, paranoid dictatorship that had survived the Second War and the Talona Crisis without ever changing its government. In secret it had rebuilt a modern military, and the effort culminated in a covert nuclear weapons program that history remembers as the Uranium Crisis. Its neighbors did not detect it until it was too late to prevent. This was a regime that had been humiliated twice in a generation and had concluded, in private, that the only way never to be humiliated a third time was to strike before anyone else could.

The program's whole existence depended on the Vaurek Concession's off-the-books ore smuggling (Chapter 8). Aridexia's chronic scarcity of fissile material (Chapter 6) meant that even a state as ruthless and well resourced as the USN could only ever build enough warheads to arm a first strike, and never enough to sustain a campaign. That is why 17 January was a single coordinated night and not the opening move of a longer nuclear war.

The Night of the Strike

In the early hours of 17 January the USN launched a coordinated first strike. Eleven long-range bomber squadrons targeted major cities across Christonia, Luluke, the All-Finian Empire and Anestria, along with the allied military garrison at Port Dionysis, Luluke. Within roughly three hours, nuclear detonations had struck Port Dionysis, Christona, Apokka, Sulsbury, New Geneva and Freeport. They collapsed the Christonian government and the reconstituted Luluke government, and dealt a mortal blow to the All-Finian Empire. It took six warheads, the entire smuggled Vaurek stockpile, spent in one night with nothing held in reserve.

The Retaliation

The retaliation was immediate and, in the case of the All-Finian Empire, final. Its last surviving leadership authorized two nuclear strikes on USN soil, using the whole of its own much smaller wartime stockpile, before the Empire formally dissolved at 6:30 AM that morning.

Anestria struck hours later and chose to spend none of its own long-husbanded warheads on the retaliation. Over the following day its strategic bomber force systematically destroyed every remaining major city on the USN mainland and the Pelruvian Islands using purely conventional ordnance. It was a deliberate decision to reserve the one meaningful nuclear deterrent left standing on the continent, rather than draw down an arsenal that could never be quickly replaced. By that evening Anestrian marines had taken the USN's capital, found its government already fled or in hiding, and executed the last of its officials.

As a state, the USN ceased to exist that day. The dictatorship that had ruled the Syndicate's heartland for over a thousand years, through the Syndicate era, through the USN and through Talona, ended in an afternoon. The weapon it had built to guarantee its own survival brought it down.

The Scale of It

The war's casualties and infrastructure losses dwarfed everything in Aridexian history before it, and its consequences changed the political map for the following two centuries. Yet the planet itself kept functioning. Eight warheads in total (six from the USN and two from the Empire), all of them in the range of yields a scarcity-limited program could build, from the low single-digit kilotons to the low megatons, made a catastrophe on the scale of anything in real human history. It was never close to the thousands-strong arsenals that could have rendered Aridexia uninhabitable outright. The same geological ceiling that forced the USN to smuggle ore through a leasehold nobody was watching is the reason the Third War stayed a historic atrocity instead of an extinction event.

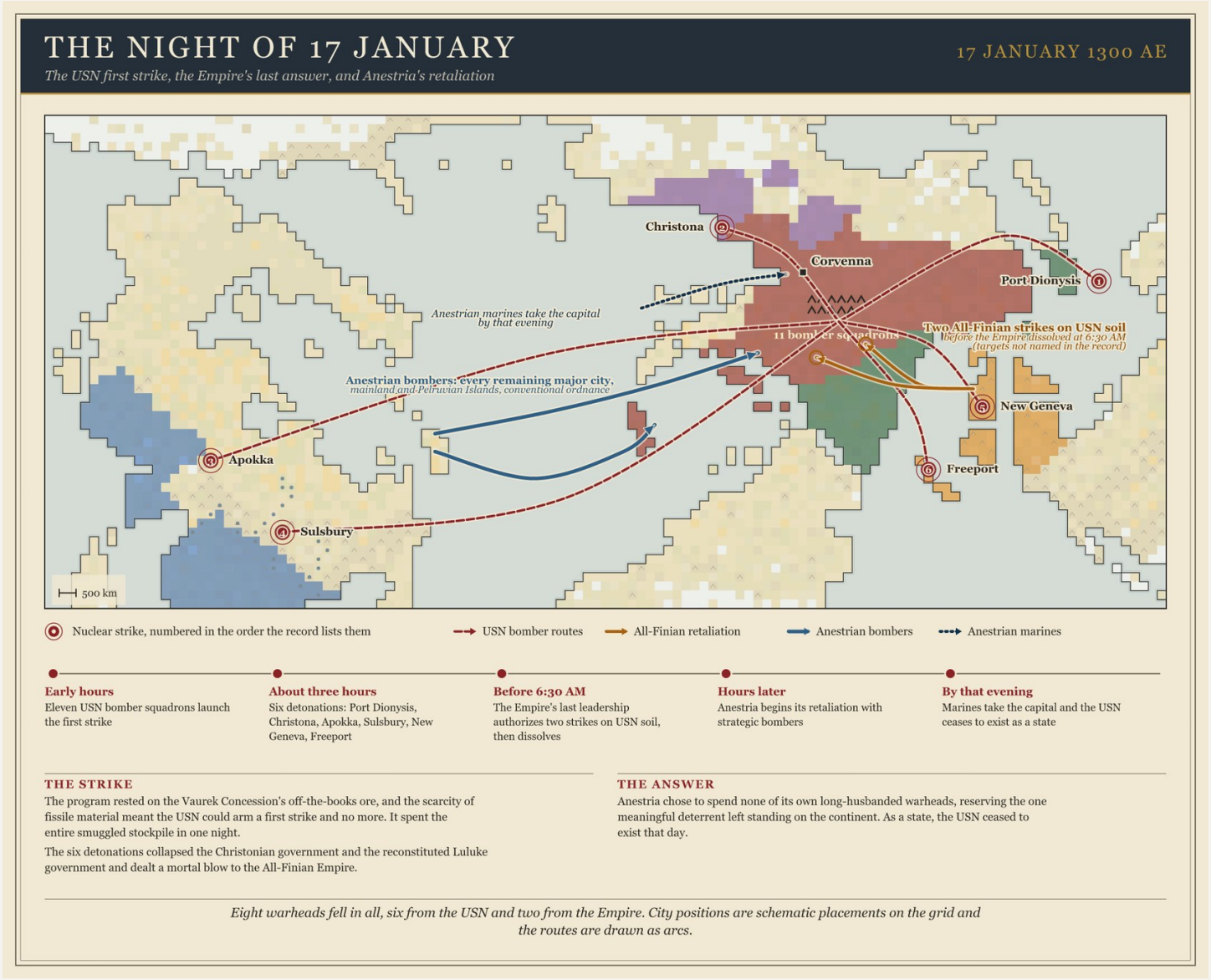


Plate: Eight warheads fell in all, six from the USN and two from the Empire. City positions are schematic placements on the grid and the routes are drawn as arcs.

PART FOUR

Ashes and Peace

15
What Came After

The planet kept working. That surprised everyone. Eight warheads had gone off in all and the sky had not fallen, though a great many people were dead and a government was gone.

The map, which had looked fixed for a thousand years, came loose.

The Empire and Anestria

The All-Finian Empire was formally disbanded. Its island territories broke into a loose patchwork of independent city-states with no single successor government.

Anestria had stayed nominally united through the war itself, but it fractured almost immediately afterward as its ten administrative districts asserted independence. Five successor states emerged from what became known as the former Anestrian Coprosperity Sphere: the restored Kingdom of Antares, the Federated States of Imperium, New Virgen, the Antilla-Vegan Union, and the Constitutional Anestrian Republic (CAR). The last of these claimed direct succession from the old Republic, though within a few years it lost most of that claimed territory to internal revolt.

The Founding of Solenne

The USN mainland and the Pelruvian Islands were left devastated and largely depopulated. For the first time in over a thousand years they were without the dictatorship that had governed them. **Solenne was founded here, in this vacuum, not before it.**

What rose from the wreckage was a deliberate, total break from everything the USN had been. The USN was an authoritarian one-party state that answered a domestic crisis with secret weapons and a first strike. Solenne organized itself from the outset as a full democracy, with open elections, a real legislature and civilian control of the military. The people rebuilding on that ash pile wanted a government that could never again do what the USN had just done in their name. Solenne inherited the USN's territory, industry and reputation, but not its government, its ideology or its instincts. That fact shapes Solenne's whole modern identity, and not only its

post-war decade. It is the founding story every Solennese citizen is raised on. Chapter 16 describes the parts of it that do not hold up as cleanly as they are taught, in Solenne's actual constitutional architecture.

The name carries the same intent. Solenne is named for **Solis**, the system's own star (see the Prologue). A government founding itself in the literal ash and fallout of the worst night in Aridexian history chose it deliberately, reaching for light on purpose and avoiding anything tied to the USN's own naming habits. Solenne's national colour follows the same logic: yellow, plainly solar, and worn nowhere in the USN's drab, authoritarian palette.

The Vinear Coast War (December 1301 to February 1302 AE)

The first major post-war conflict broke out between CAR and the Kingdom of Antares over the resource-rich, loosely governed Vinear Coast, which scattered warlords and small city-states had contested since the war. A dispute over the port city of Bredezen escalated into open war. Antares had illegally annexed the city, and it was strategically valuable for its salvageable pre-war naval infrastructure.

The Siege of Bredezen and the Battle of Ornwellburg set the tone for what followed. Ornwellburg was a two-month standoff that Antares broke only with the arrival of its first tank divisions. Together the two engagements established a fragile, contested peace along the successor states' new borders, and it defined the region for years afterward.

The Provost's Ledger

Eisenreich took its subject country by degrees, over generations, and by 1264 the work of taking it was finished and the work of keeping it had become routine. The subject country was a union of two states. The Republic of Altyr and the Socialist Republic of Kargopol had joined by the Yedinstvo Treaty as the Peoples' Union of Socialist Democratic Republics, and Eisenreich had conquered and annexed the pair together. The homeland lay in the north of Numaria, a land of highland villages, river valleys and one large capital, the city of Kargopol, which the occupiers kept as their seat of government and which the Union later took as its own. Kargopol was the industrial republic and held the capital and the Ministry of Industry. Altyr was the small agrarian republic, and its farms and valleys supplied the grain. Above it stood the industrial belt of the Iron Realm, where the coal and ore of the mining rush had been turned into rails, shells and rifles. In the years before the occupation the two had been separate states of people whom Eisenreich had moved from their own lands, and the occupier now treated them as one province to be assessed. The Second War (1264 to 1276) did not send a great army across Numaria. The record is silent on Eisenreich's part in it. The works ran hard through all twelve years, and the homeland was where much of the labour came from.

The governors of those years were soldiers and clerks, and the Division knows only one of the early ones by name. The Provost-General before 1278 was a Rudiger Haas, who left a reputation for requisitions taken in a hurry. His successor was a different kind of officer. Ansgar Thalheim

arrived in 1278, a logistician from the railway towns, and he governed the occupied homeland for twenty-two years on the principle that disorder was the one cruelty an administrator could always avoid. He did not change the purposes of the occupation. He changed its manners. Quotas that had been taken at harvest by sergeants with wagons were now assessed by district, entered in advance and collected by a civilian office with a stamp. The grain went north by rail, and Thalheim saw to it that the rail ran on time.

Most of that grain came from Altyr's fields. Every sack of it, and a great deal else, went into the Provost's Registers. They record the seed issued and the seed withheld, the schools opened in the occupier's language, the roads laid and the marshes drained. They also record, in the same hand and the same columns, the deported as district transfers, the dead as lost labour and the highland villages burned for harbouring cells as shrinkage. A reader today can follow a single valley from its first assessment to its last entry and watch its population fall by a third without meeting one adjective. Thalheim believed that what was counted could be kept. The valley's people had a shorter way of putting it: what was counted could be taken.

The factories followed the same logic. The old Ministry of Industry in Kargopol was stripped of its tooling and its young engineers, who were sent north to the works on contracts they could not refuse. Foundries in the homeland were converted to Eisenreich's standards, and the rolling stock was changed to the occupier's gauge, so that nothing could move on the homeland's own lines without a transfer at the border. The largest prize was Ferrengrad, the arms works beside the great rail junction, which ran three shifts. It made the IR-11 "Ironhand", an enormous, plain, dark-grey rifle that a conscript could fire in mittens. Eisenreich armed its own troops with it and also the subject conscripts it drafted into its garrisons, because a rifle too heavy and too crude to be worth stealing was thought a safe gift. The belief proved wrong. In March 1284 Thalheim wrote to the war office for an aircraft that could hang over a mountain pass under fire and come home. That letter began the IR-40 "Ironback", which flew in 1292 and which Ferrengrad built to the number of about ninety before the revolution took the hall.

The system fed an industry that was scarce in everything except people. Coal, seed and steel were always short, and the Registers show a state that met each shortage by taking more from the country it held and recording the taking with care. The cycle was an old one in Numaria, and Thalheim did not see that he was inside it.

What Went Abroad

The exile left in 1279, a year after Thalheim arrived, on a hired coastal boat with forty trunks. Zinaida Dimikrova had been an archivist in the Ministry of Industry's basement, and she knew the value of what the basement held better than the ministers upstairs. There were the drawings of an earlier age: Antiko Kloinsha's swept-wing fighter from the 1210s and Polshinka Ratikova's multirole sketches of the 1220s, from before the Chicano hegemony closed the window in which such things could be drawn. There were also the electoral rolls of the homeland, which no occupier had any wish to keep honest, and the signed text of the Yedinstvo Treaty with its clause on referendums. She took all three. Her husband Anatol Dimikrov, an aircraft engineer, went with her and died in Tianhai in 1288.

Tianhai, the scientists' enclave on Savorus, gave the exile a rented schoolhouse, a room for the rolls and a dry cellar for the paper. The exile claimed to be the government of both republics and of the Union they had made. For twenty-six years it consisted of a few dozen clerks, a printing press and a stamp. It commanded no army and seldom any money. What it did was keep two registers current. Every refugee who came through the port was entered in the electoral roll with the village he had left and the republic he had belonged to, so that a free homeland would know who had been counted and who had not. Every appeal Dimikrova made abroad quoted extracts of Thalheim's Registers, which reached her in small smuggled bundles, and she called them the only honest statistics in the homeland. The USN gave deniable help through its offices in Corvenna and wanted a lever against Eisenreich. Dimikrova took the help and recorded its price, which was that the exile could never say aloud what it thought of the Directors-General.

Inside the homeland the resistance wore its own kind of paper. Its older members still quoted the pamphlets of Nikolai Chezkiv, the bearded orator in the ushanka who had turned Kargopol to socialism before the occupation, and the record is silent on what became of him. A single red armband was the common marker, worn over work clothes and over captured Eisenreich greatcoats dyed to hide the tell. Yaroslava Tenchova, born in a highland village in 1262, joined at seventeen and spent twenty years learning the country on foot. From 1294 her column received monthly supplies from a USN officer named Vane, who ran the route out of Corvenna. The carbines were AR-22s, cut down for concealment and stamped AVMS Corvenna. Thalheim found them in his seizures and noted in 1290 that the Directors-General would deny them, and he was right. A courier named Zarko Altyr, born in 1281 and taken at sixteen for carrying messages between two cells, was held in the cellars of the Provost's House from then until the end. Thalheim visited him once, in the winter of 1299, and asked whether the prisoners were getting their potatoes.

January and April

On the night of 16 January 1300 Tenchova's monthly delivery was due at midnight and did not come. By dawn a battery radio was reading out the names of six cities. She told her commanders that the arsenal would be opened with what they had. She did not yet know that the supplier no longer existed.

What followed was a collapse before it was a campaign. Eisenreich's garrisons in the homeland were fed from the north by the same rail Thalheim had so carefully extended. With the Directors-General gone and the Iron Realm's own cities on short rations, the trains slowed and then stopped. Garrison commanders who had followed orders for twenty years found that none came. Some deserted. A few of the conscripted subject troops walked out of their barracks with their IR-11s and put on red armbands. Tenchova's fighters knew every road on foot, and by March they held most of the highlands.

Kargopol fell in April 1300. The fighting was brief and centred on the rail yards, where the signalmen threw the points and held the Eisenreich relief column in a cutting until it ran short of coal. Tenchova's own father had been a signalman, and the yard crews knew whose daughter was coming. The Provost's House still had its lamps when her column reached it. Thalheim was at his desk in his greatcoat and asked her to keep the shelving dry. She took him that afternoon, and when the cellar doors were opened Altyr came out.

The Ferrengrad works fell a few weeks later, and here the revolution received the one stroke of luck that decided its later years. The foremen of the works, mostly homeland men who had been conscripted into the Iron Realm's industry, had spent the final winter deciding what to do if the shift whistle failed. When the Eisenreich managers fled north, they found the airframe hall, the tool store and the drawing office locked, and the keys gone. The foremen gave them to Tenchova's staff officers in person. Everything was there: the jigs for the IR-11, the tooling for the Ironback, about ninety finished airframes and the drawings in their cabinets. A movement that had owned little but armbands now held the means to make rifles and aircraft.

The Five Years

Kargopol was not the end of the war. Eisenreich's government had withdrawn into the northern industrial belt under Chancellor Aurel Kroll, who proclaimed that the homeland had been lost to bandits and would be recovered in a season. The Union had been proclaimed again, and it counted two republics, Altyr and Kargopol, the same two the occupation had swallowed. He held the greater part of the Realm's armour, all its heavy industry and a rail net that still worked. His commander in the field was General Ulbrecht Wensel, a methodical officer who understood that time favoured his enemy less than it seemed to. In the summer of 1301 Wensel struck south along the main line to retake the junction at the Hessling Gap, a cutting in the foothills through which the Iron Realm's coal had always travelled. It was the nearest thing to a conventional battle in the war. Wensel had tanks. Tenchova had the hills above the cutting, a few captured guns and the Ferrengrad works behind her. The Eisenreich column took the gap in two days and lost it in four, because it was fed by a single track and her fighters held the tunnels at either end. Wensel fell back with his guns and without his fuel and never again advanced.

The Iron Realm was by then fighting a civil war of its own, and the Union gained from it twice. The Taran Kingdom broke away from Eisenreich in the course of that war and kept its separate throne for a few years, long enough to learn that a small kingdom beside two fighting powers had few friends. Taran then joined the Union as its third republic. The Federal Province of Kinzel, which lay near Eisenreich's eastern border, had been taxed and requisitioned like everyone else and used the same confusion to revolt. It lasted one month as a province in revolt and then asked to join, as the fourth republic. The record gives neither the dates nor the terms. Both joined before 1305, and neither joined as a conquest.

The war's third year was a slow squeeze. In March 1303 the first CKK-10 "Poing" entered service, built from the Ironback's tooling under a new bureau and a new name. The aircraft that Thalheim had specified to hang over a highland pass now hung over Wensel's armoured columns, and the Realm had no air arm of any weight to answer it. The People's Revolutionary Army by then carried the IR-11M, the Ferrengrad rifle with red furniture and a new stamp where the old maker's mark had been. Prototype AS-17 rifles were in the field in small numbers and did well. The red armband, at last, had a uniform to go with it.

The end came in two stages and neither was a decisive battle. In 1304 Kroll's government, short of coal and bread, ordered the northern works to double their output, and the works refused. The men who had built the Realm's weapons did not wish to be the last to fire them. By the spring of 1305 the Iron Realm held only a few railway towns on the frontier with the Safemoon Republic. The last to surrender was the garrison at Lauterfeld, which had been sending telegrams to a capital that no longer replied. In the same year the trial of Ansgar Thalheim opened before a People's tribunal that entered the Registers as exhibits, eleven cartloads of them. The name Eisenreich left the map. Thalheim died in custody before sentence was carried out.

Chancellor Kroll was never tried, and the record does not say where he went. General Wensel survives in the ledger of a prisoners' camp, in a list of men released in the autumn of 1306.

The Union of Four

By the spring of 1305 the Union had four republics and one capital. The Yedinstvo Treaty had been written for two states, and the Great Revolution had to stretch it to fit four.

The supreme body was the Council of the Union, which sat in Kargopol. Each republic sent a delegation of the same size, whatever its population, because the treaty was a bargain between equals and the founders refused to let numbers undo it. The chamber was laid out in a horseshoe. The Altyr delegation held one arm and the Kargopol delegation the other, as the two founders, and the delegations of Taran and Kinzel sat at the open end, nearest the door. The seating was echoed on the flag, where the new republics start from the emblem in the way they had joined the two that made it. Dimikrova took the chair as first President. Tenchova, who refused the Marshal's title, held no seat.

The clause that mattered most was the old one. Any republic that grew unhappy could hold a statewide referendum and leave the Union peacefully. The founders wrote it in fear of Eisenreich and meant it as proof that the Union was a free choice. Nobody in 1305 could say whether it was a promise or a threat. Every delegation knew where its republic's roads, grain and coal ran, and a vote to leave would take them along. The record names no referendum held under it. The Council nevertheless heard the clause quoted whenever a budget looked unfair, which was often, and Dimikrova's staff kept the signed treaty in a cabinet in the Council room and brought it out when a delegate asked to see the text.

The republics were unlike each other. Kargopol was the industrial heart, with the rail yards, the ministries and the engineers, and it kept the habits of a capital that expected to be obeyed. Altyr was farmland and little else. It fed the Union and wanted the prices to show it, and its delegates pointed out in every session that the gold on the flag stood for grain. The two founders disagreed about money as a smith and a farmer do, and the treaty gave neither the last word.

Taran carried the oldest grievance. It had been a kingdom, and for a few years it had its own throne, its own court officials and its own habit of being asked. Its delegation sat as a republic and spoke of the kingdom in the past tense only on formal days. Kinzel had been a province of Eisenreich and a republic for one month before it joined, so its delegates had never learned to govern alone and trusted the Union's offices, for good and for ill. Both new republics had come in during a war, and both knew that they could not leave in practice, whatever the treaty said, while an army and a rail net stood between them and their border.

The other tensions were practical. Railways ran on the occupier's gauge and the schools taught in the occupier's language, and every republic asked that the Union pay first for its own. Ferrengrad lay in the conquered north and produced the rifles, so the army's supplies depended on a works that belonged to no founder. A man from Kinzel wore the same red armband as a man from Altyr, and the armband was the one thing the four had in common that the Council never had to vote on.

The Union held together because the treaty's promise was believed. Any republic could leave, so none had yet been told to stay. Each republic's own flag kept the emblem of the hammer, gear and sickle and added its own mark: a white and gold diagonal for Kargopol, a shield on a gold and blue band for Taran, a gold disc on an orange band for Kinzel, and a white star over the emblem for Altyr. The Union's own flag changed three times. The first, before the occupation, was dark red with a gold star above the gear, hammer and sickle. The second, after the Great Revolution, added a gold band across the field, for Taran and Kinzel and for the revolution that cut through Eisenreich. The third, used after the occupation ended, set the emblem in the corner and sent uneven gold rays across the field, for a Union that had become a guiding light and for liberty and revolution arriving at once.

What It Cost

The cost of the Great Revolution has never been counted, and the reason says something about the age. The only complete census of the homeland was Thalheim's, and it stopped in April 1300. The People's tribunal published its totals of the guilty and withheld its totals of the dead. What can be said is that the homeland came out of the war with its fields drained, its schools in the wrong language and its rails on the wrong gauge, and with a rifle, an attack aircraft and a ledger that all belonged to its enemy. The revolution never found a way to be rid of them. It kept the gun and the aircraft because it needed them, and it kept the Registers because they were evidence. A state founded on throwing out Eisenreich ran for a generation on Eisenreich's tools.

It cost its neighbours too. When the last garrison fell, the Safemoon Republic found itself bordered, and half encircled, by a power that had finished its conquest in five years and had a standing army, an arms works and a grievance. The strategic chokehold that followed was the direct trigger for Operation Fenwick (Chapter 19) in the same year. Dimikrova came home from Tianhai in the autumn of 1305, had her trunks carried into the Council and learned that the engineers wanted her drawings for the works. Tenchova, offered the title of Marshal of the Union, refused it.

What the revolution passed on was a story and an institution. The story was the one Zarko Altyr carried out of the cellars and told, in his own way, for four decades: the Union had been made by patient people with armbands and stolen rifles. The institution was the machinery the Eisenreich men had built, which outlived them and did its work for the new state as it had for the old. The burning of the USN had made the revolution possible, and the hand that supplied its carbines vanished without leaving an address. Tenchova knew this and said so. Her successor preferred to dress the revolution in maroon and gold.

Cassius Altyr was born in 1329, twenty-four years after the last garrison went quiet. He grew up in a house the cold did not reach. He inherited the Registers in the state archive, the trunks in the Council room, a sergeant's story that nobody told him, and a revolution the record had never shown him. In 1354 he would be asked to defend all of it.

16
Solenne and the Jakaar

A nation rose from the ash of the USN and was proud, with reason, of not being it. It had elections and a legislature and civilian control of the army. It named itself for the sun.

It also had a Jakaar, and a quiet design under the democracy that the founding story left out. This is the part of the record that does not hold up as cleanly as it is taught.

The USN mainland and the Pelruvian Islands came out of the Seventeenth of January devastated and largely depopulated. For the first time in more than a thousand years they were also without the dictatorship that had governed them. **Solenne was founded here, in this vacuum, not before it.** What rose from the wreckage was a deliberate and total break from everything the USN had been. The USN was an authoritarian one-party state that had answered a domestic crisis with secret weapons and a first strike. Solenne organized itself from the outset as a full democracy, with open elections, a real legislature and civilian control of the military. The people rebuilding on that ash pile wanted a government that could never again do what the USN had just done in their name. Solenne inherited the USN's territory, industry and reputation, but not its government, its ideology or its instincts. That fact shapes Solenne's whole modern identity, and not only its first post-war decade. It is the founding story every Solennese citizen is raised on, and most of them still believe it.

The name carries the same intent. Solenne is named for **Solis**, the system's own star (see the Prologue and Appendix A). A government founding itself in the literal ash and fallout of the worst night in Aridexian history chose it on purpose, reaching for light and avoiding anything tied to the USN's own naming habits. The national colour follows the same logic: yellow, plainly solar, and worn nowhere in the USN's drab, authoritarian palette.

That story is not a lie. Solenne does hold elections. It has a legislature, departments and courts, and a written process for choosing its head of state. Nothing about the public record is fabricated. What the public record leaves out is the man who designed the system, why he built it to look like a democracy while it functioned like something considerably older, and the family

whose private history is, as much as any single thread on the continent, the story of what Solenne became in the seventy years after its founding. The official record does not know what it is leaving out. This chapter does.

The Jakaar System

Solenne's head of state carries the title **Jakaar**, and is elected to an eight-year term. On paper the design is clean and deliberately egalitarian, the sort of system a nation founded to be everything the USN was not would draft. In practice every one of its features has a second function, kept out of sight.

The election process. A presidential election runs in three stages. Citizens within each region first vote for their preferred candidates. Each state may advance up to two regional winners into a statewide contest, but only one of those two advances again, as the state's single official representative, into the final national election. All states carry equal electoral weight, by design, since Solenne's internal borders were drawn to keep population roughly consistent from state to state. At the end of a sitting Jakaar's term, that Jakaar may also appoint one politician of their own personal choosing directly into the final election, bypassing the regional and statewide stages entirely.

Term limits, and the rule that isn't one. A Jakaar may serve two ordinary terms through the standard process. After that, the same individual may keep running for office indefinitely, but only by winning at least 60% of the vote in every subsequent election. On its face this reads as a real check: a supermajority requirement, and no rubber stamp. It works as a check only if the elections producing that 60% are free and independently administered, and Solenne's are not, in any sense the office of the Jakaar is required to honour.

Taxation. Every citizen's taxes split three ways. Fifty per cent goes directly to the central government. Twenty-five per cent goes into a regional pool, spent by community vote among that region's own residents. The remaining 25% is allocated by the individual taxpayer, who chooses from a published menu of government programmes to fund directly. It reads, and is marketed, as participatory governance at every level. It also means that a department's or programme's survival depends partly on how well it can campaign for that final quarter, which rewards visibility over necessity. One body, Department-Y (described below), has never had to worry about it, since its funding was never public in the first place.

No separate branches. Solenne's own civic education spends the least time on this detail, for the obvious reason. There is no legislature independent of the Jakaar's own appointees, no court system insulated from executive control, and no election authority that answers to anyone but the sitting government. The Jakaar is required to appoint lower-level leaders to oversee the government's major departments, among them the **Department of Defensive Logistics** and the **Department of Trial**. Nothing requires those appointments to be confirmed, reviewed or even publicly justified. A government that investigates itself, tries its own cases and administers its own elections is not, by any serious definition, separated from itself at all.

Department-Y. It was never publicly acknowledged and was referred to internally only by that designation. Its official mandate was maintaining Solenne's technological edge, which made it a research-and-development body on paper. Its function in practice, known to a narrow circle across every Jakaar's administration since Solenne's founding, was comprehensive personal surveillance: detailed files on Solenne's civilian population, including their political sympathies, reported directly and privately to whichever Jakaar held office. Department-Y never needed to make an arrest to work. A population that suspects the state already knows its politics polices its own speech long before the state has to.

Why it holds together anyway. None of this requires any single Jakaar to be a tyrant, because the system reinforces itself by its own structure. An incumbent appoints loyal department heads. Those heads, especially whoever runs Trial and Department-Y, have every professional incentive to protect the administration that appointed them and none to protect the public they nominally serve. Under the outgoing-Jakaar-appointed finalist rule, the fastest route to the office has been pleasing whoever already holds it, and public trust has counted for less. The 60% threshold would be a real safeguard under independent election administration. Here it becomes a target that a sufficiently entrenched network can manufacture. Elections still happen, on schedule, every eight years, as advertised. What they confirm, far more often than not, is a network that was never seriously at risk of losing.

Farren Vane

Farren Vane was born in AE 1262. By his late thirties he was already a high-ranking USN general. That was young for the rank by most standards, but the USN's officer corps had been chewed through twice over by GAW1 and GAW2 by the time Farren was climbing it, and a capable, ambitious man rose fast through a hierarchy with an unusually high number of dead men's chairs to fill. The same position gave him insider visibility into the covert Uranium Crisis programme (Chapter 14), years before GAW3 made its consequences undeniable to the wider public. That knowledge let him see the dictatorship's own collapse coming in detail, and with more than a general's professional pessimism.

He went into hiding and spent whatever resources he could move quietly on erasing his own public record of USN service: every photograph, every service record, every trace of the uniform he had worn for most of his adult life. When the USN ceased to exist as a state on 17 January 1300 AE (Chapter 14), Farren emerged into the same vacuum that founded Solenne. He used a small, loyal network, and a traumatized, confused public that had just watched its old government incinerate itself, to design and install the government described above. He ran in the first election Solenne ever held. He won it.

By every surviving account Farren was a charismatic, persuasive and manipulative man, with the political talent that makes a rigged system look, from the outside, indistinguishable from a healthy one. He completed a single eight-year term as Solenne's first Jakaar (AE 1300 to 1308) and did not seek a second. The 60% rule would not have stopped him, since a system he had

personally designed to be beatable was never going to be the thing that beat him. He left because leaving office in good order, on schedule and by his own choice was the most convincing evidence Solenne's early public ever had that its new democracy worked. He used the appointed-finalist mechanism described above to hand the office to a loyal successor, who did the same in turn. The result was an unbroken chain of Farren-aligned Jakaars that never publicly announced itself as one, because it never needed to. Farren's continuing influence came from personal loyalty running unbroken through the chain, and not from any office he still held.

The SR-30, Farren's rifle. The most visible symbol of Solenne's break with the USN was the SR-30 service rifle (Chapter 26). It was grey-tan where the AR-22 had been black, with a see-through magazine where the AR-22's was steel, and "clean, optimistic, distinctly non-authoritarian" by design. It was formally adopted in AE 1303, in the middle of Farren's own term. It was the kind of gesture his system ran on: a public, physical statement that this was not the USN, issued by the man who had quietly rebuilt the USN's instincts into the state's own wiring. It was even built by AVMS, the dictatorship's thousand-year gunmaker, in the same Savoran plants, now under Solennese ownership. The rifle's design changed. The hands that made it, and the hands that decided who carried it, did not.

The Vane Household

Farren married a woman named **Lensi Huono** (Lensi Vane). He did not marry during his own rise through the USN's officer corps, nor in Solenne's founding years. He waited until his political position was completely secure, with his loyalist succession chain already running on its own momentum and no remaining rival with any chance of touching him. Farren was 67 when his first child was born. The timing was deliberate. A man this controlling was never going to begin his household's founding experiment until he judged the risk of outside interference to be zero, and the delay left him, by his own private accounting, with less time than he wanted to see the results.

Between Farren and Lensi there were four children: **Vaussen** (b. AE 1329), **Marcus** and **Lilian** (twins, b. AE 1334), and **Malakor** (b. AE 1337, when Farren was 75). All four were raised under a regimen of intensive education and psychological pressure, designed from infancy to maximize measurable intelligence. This went far beyond a loving household's ordinary ambition for its children. It was a programme, run with the same rigour Farren brought to everything else he built, and it escalated with each child because its architect was running out of years to see it finished.

That programme had a name, and a much larger scale than the Vane household itself. Using his own wealth and his enormous personal influence over Solenne's government, Farren invested heavily in Department-Y's actual research mandate, early-childhood cognitive development. He diverted homeless and impoverished Solennese children, minors with no legal standing to refuse or be protected, into the same experimental intelligence-optimization protocols his own children were undergoing. His own four children were not a separate, gentler track. They were the

programme's most closely tracked subjects, and the most personally important to him.

The marriage's collapse. Farren and Lensi argued constantly over how Farren treated their children, and the strain eventually drove Lensi into an affair with the head of the Department of Trial. Farren discovered it in AE 1342, returning early from a diplomatic trip to Anestria, and shot the man dead on the spot. It was plain murder, committed by a private citizen thirty-four years removed from formally holding the Jakaar's office. It never became a public scandal, a prosecution or even a rumour, because the sitting Jakaar and the Department of Trial's surviving leadership both still answered to Farren's network long before they answered to the law. Lensi never left after it. There was nowhere a woman in her position could go: no government agency in Solenne was not already Farren's in every way that mattered, and three more children remained inside a household she had no power to remove them from. She stayed, and kept losing the same argument about how her husband treated their children, for the rest of the years this chapter covers.

The results. Vaussen, tested at age 11 in AE 1340, scored 172, a genius-level result by any ordinary measure. Farren was not satisfied. Having already spent enormous public and private resources developing the protocol, he ordered Department-Y to escalate it regardless of cost, personally authorizing the abduction of more Solennese children as additional test subjects. Marcus and Lilian, tested together at 11 in AE 1345 under a partially revised formula, scored 201 and 208 respectively. That was still not enough for Farren. By the time Malakor, the youngest and the last child to undergo the protocol, came to be tested, the programme had already failed twice by his father's impossible standard, and Farren switched him onto a final, unrestrained formula with no safeguards held back at all.

Malakor's own result. The formula worked, in the narrowest sense Farren cared about, and cost Malakor almost everything else. He developed bipolar disorder and ADHD, and was clinically diagnosed as psychotic, and as antisocial by age 11, alongside every other symptom the final protocol produced. Tested at that same age, Malakor scored 260, an Aridexian record. Older, less rigorous testing methods had occasionally produced reported scores as high as 278 in prior generations, but once converted to modern scoring standards and measured against modern testing accuracy, those historical results settle back down into the flat 200s. Malakor's 260, by the standards in use when it was recorded, has never been matched.

The Flag of the Sun

The nation's own symbols were designed in the first years of the republic, and they tell the same story in outline. Solenne's colours are blue (`#075d8e`), gold (`#d8ab2e`) and cream (`#f6f0dc`). The blue replaces the USN's black and crimson wholesale. The gold is the Syndicate's, which the USN gave up and which Solenne chose to take back. Solenne's point was that it was not the USN, and the oldest Syndicate colour was the one available that was not the USN's.

The flag is a deep blue field with a cream hoist band bearing five small repeats of the seal, stacked vertically. The centre device is a sixteen-ray gold sun, its rays alternating long and short,

each carrying a thin blade beside it. At the heart of the sun is a ring, and inside the ring a five-point star within a laurel wreath. Solenne flies it on every government building, ship and vehicle. The sun is Solis. The rays are a deliberate reversal of the USN's wedges: the same radial geometry, thrown outward as light instead of cut inward as a mechanism. The laurel is civic peace. The star is the new republic's sole piece of explicit national symbolism, which is why it sits in the middle and nothing else does.

The ring is the part people notice and few say out loud. It stands where the ouroboros stood on the USN's emblem. The founders removed the snake and kept the circle. That was no accident, and they discussed it, though the story of the Vane family shows why the choice has aged badly. A flag designed to be everything the USN was not still has, at its centre, the same closed circle. Foreign commentators have said so for a long time, and it is in the nature of the design that nobody inside Solenne who raises the point is thanked.

The hoist band carries five seals, standing for the five founding regions. They are the only part of the flag that can change: when a region is added, a seal is added. The cream is the colour of the paper on which the founding constitution was printed, and the band is meant to read as a page.

The Jakaar's standard is the sun and ring on blue, framed by a double gold border with a gold star in each corner. It flies over wherever the Jakaar is physically present, and from the capital when the Jakaar is in residence. Nothing else on it differs from the national flag, and the border is the only thing that says the person is in the room. The national seal is the sun, ring, star and laurel without the field, stamped on every official document and on the face of every coin, always in gold on a blue ground.

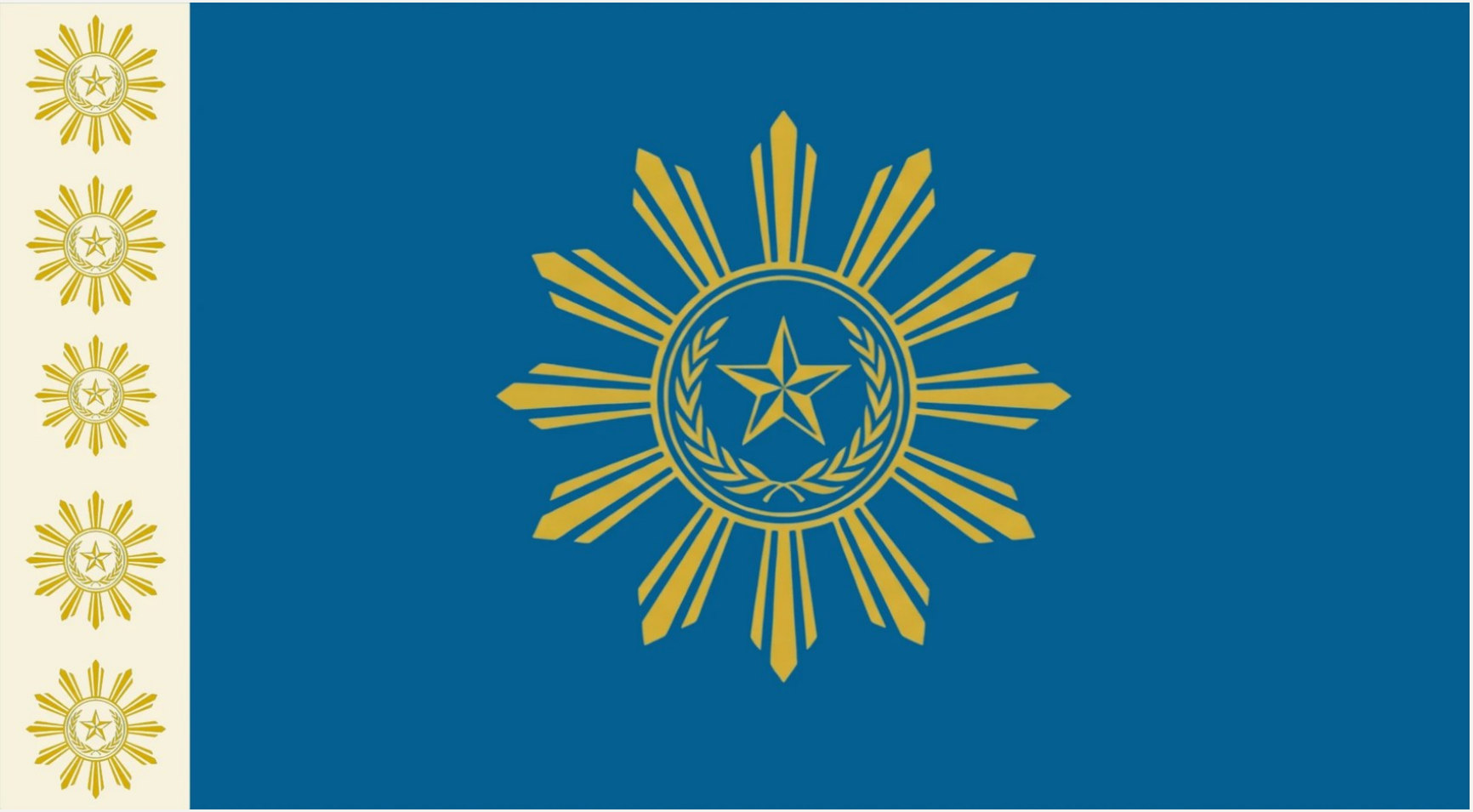


Plate: the flag of Solenne.

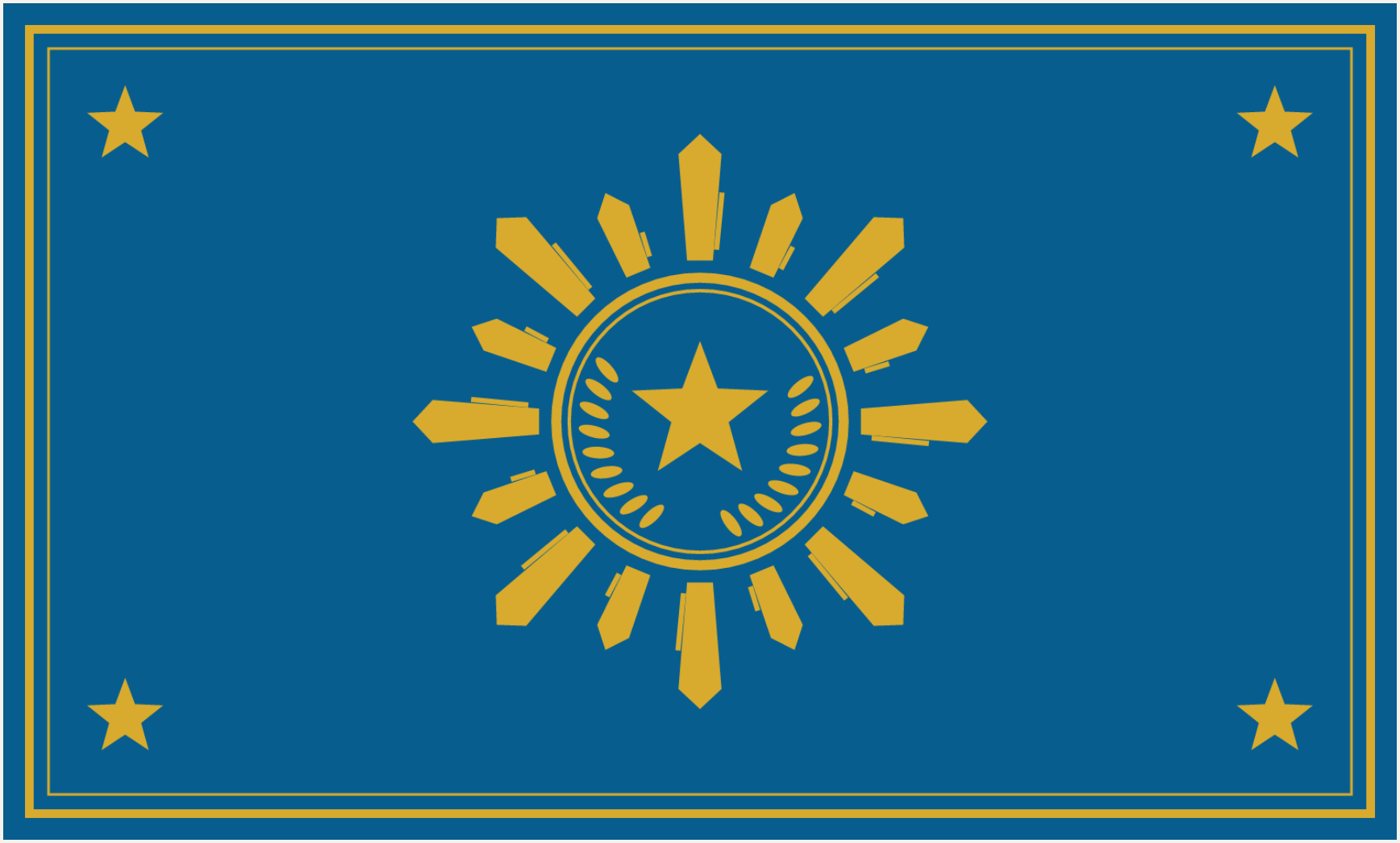


Plate: the Jakaar's standard.

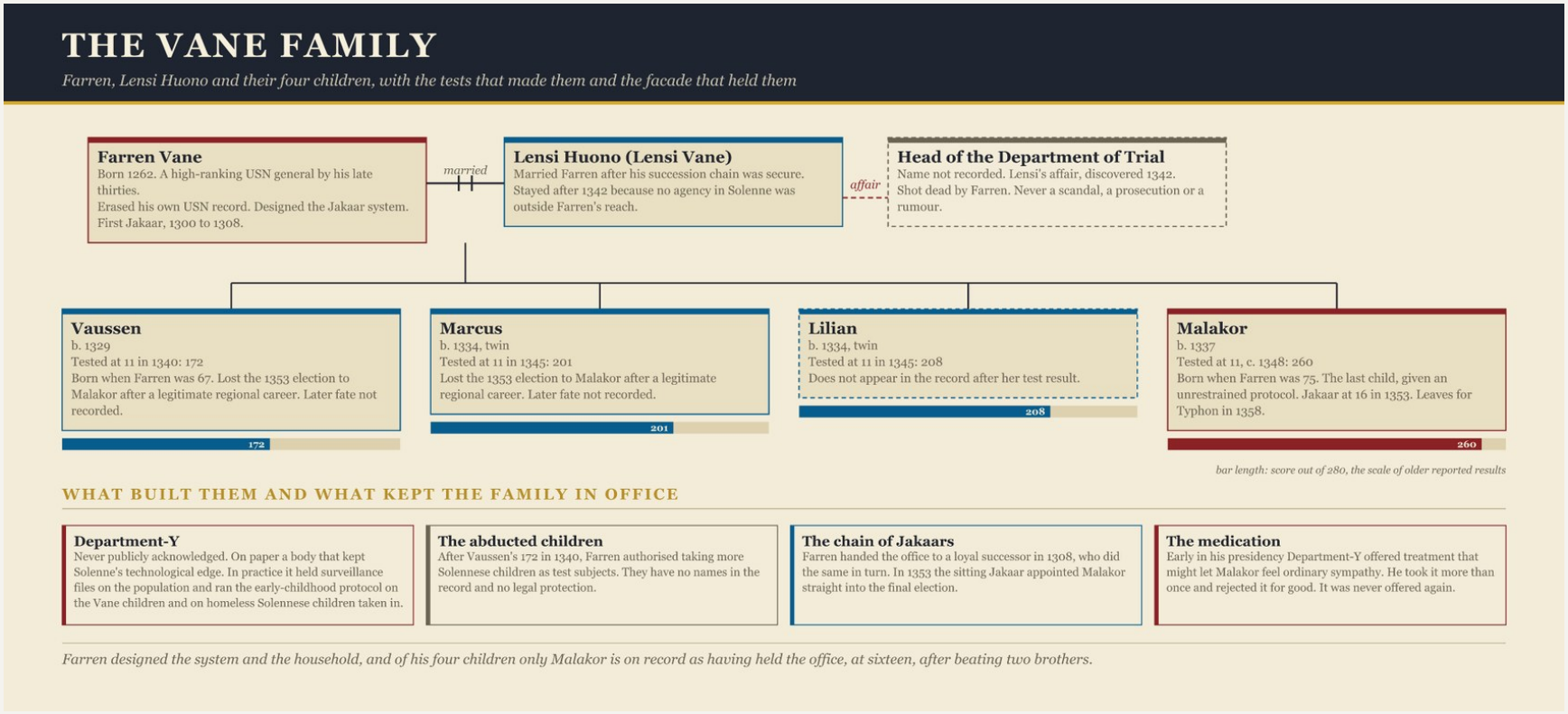


Plate: Farren designed the system and the household, and of his four children only Malakor is on record as having held the office, at sixteen, after beating two brothers.

INSTITUTIONS THAT OUTLIVE THEIR FOUNDERS

The Ledger Court, the Office of Watch, Solenne's Departments of Trial and Y, and DS-HP, each followed past the people who made it

No source links these four to one another. They are set side by side to show a pattern the record repeats: the office keeps working after the reason it was made is gone.

THE LEDGER COURT

Syndicate, from 3 AE

3 to c. 340 AE
The fief period
House Esselt holds the Court. Justiciars judge in benches of three. Notaries and Tallymen keep a registry that outlasts any lord. Esselt's seal can void another house's bonds.

→

c. 340 to 400
The fiefs become charters
The Tallymen's registry becomes the Syndicate's accounting office. The Table becomes a board and the Chair a chairman. The Seal-Mace is still carried into the room.

→

1250
The USN absorbs the Syndicate whole
The old titles survive into it.

→

1290
A title revived
The Black-Snake Corps takes a revived Pass-Warden title as its Warden rank, to claim an older and more respectable ancestry.

Outlived: the twelve Lords-Principal, the fief system and the Syndicate's own government.

THE OFFICE OF WATCH

USN, 1290 to 1300

1286 to 1290
The reason
Much of the USN's senate and administration defects to breakaway Talona.

→

1290
Created
The security service is made in the aftermath. The Eye is added to the ring of the flag to stand for it, so the closed loop now has something at its centre that sees everything inside it.

→

1290
The Corps
The USN forms the Black-Snake Corps the same year, a small praetorian formation. It is among the first formations the collapse destroys.

→

1300
Ended
The USN is gone in an afternoon. The flag, the Eye and the ring are banned in Solenne. It did not outlive the state.

Outlived: nothing. The counter-example, an institution that ended with its founding state.

DEPARTMENT-Y AND THE DEPARTMENT OF TRIAL

Solenne, from 1300

1300
Founded with the republic
Farren designs the Jakaar system. The Jakaar appoints the heads of Trial and Defensive Logistics, and nothing requires confirmation or reasons. Department-Y is never acknowledged.

→

1300 to 1342
Through every Jakaar
Department-Y reports surveillance on the population privately to whichever Jakaar holds office. Farren leaves the office in 1308 and his influence runs on through loyal successors.

→

1340 to 1348
The protocol
Department-Y runs the early-childhood programme on the Vane children and on abducted Solennese children.

→

1342
The head of Trial is killed
Farren shoots him. Trial's surviving leadership still answers to Farren's network before the law.

→

1353 and after
The maker serves the made
Department-Y offers Malakor sympathy medication. He refuses and it is never offered again. Solenne's government falls in 1365.

Outlived: Farren's own term of office, and was still serving Malakor in 1353.

DS-HP

International, from 1265

1265
Founded
Nominally Syndicate-subsidised, built as an independent international consortium. By 1270 it runs launch sites, assembly facilities and tracking stations across several continents.

→

1300
Survives GAW3
Its decentralised structure, insulated from any one government, is the reason. Its mandate shifts from exploration to insurance for the species.

→

1303 to 1341
Used by others
UARRO coordinates its space work through DS-HP, with Solenne as lead. In 1338 to 1341 it overrides the planetary-protection mandate over recorded dissent.

→

1353 to 1371
Compromised from inside
Malakor's influence reaches it. In 1359 it publishes its assessment and recommends restraint. Its Aridexia headquarters is bombed twice, 1363 to 1365.

Outlived: Aridexia's governments. The colonies it administered continue on Typhon.

The Ledger Court's registry, the Wardens' title, Department-Y's files and DS-HP's structure each lasted past their founders, while the Office of Watch alone fell with the state that made it.

Plate: The Ledger Court's registry, the Wardens' title, Department-Y's files and DS-HP's structure each lasted past their founders, while the Office of Watch alone fell with the state that made it.

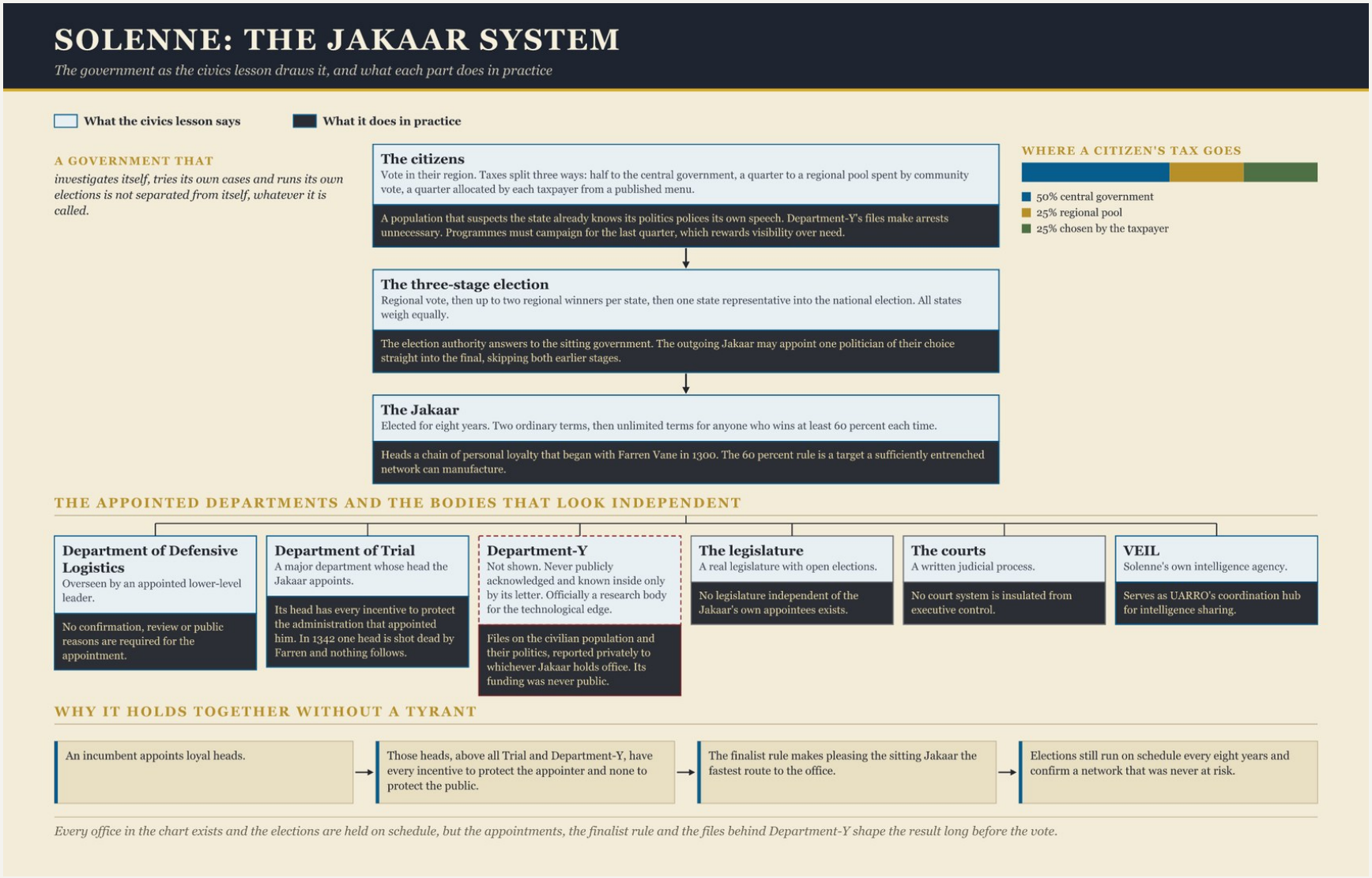


Plate: Every office in the chart exists and the elections are held on schedule, but the appointments, the finalist rule and the files behind Department-Y shape the result long before the vote.

17
The Alliances

After a war that big, everyone wanted a guarantee. Some built a bloc around a resource, some around an ideology, and some around a fear. They did not keep their shape.

The alliances of these decades are best read as weather. They formed, hardened, stood down and formed again as the pressure changed.

None of Aridexia's post-war alliances are fixed, permanent blocs. They escalate, fight and de-escalate on their own timelines, the same way everything else on the map does.

Four Structures in Sequence

UARRO, the **United Aridexian Respective Resource Organization**, began as its name says. It was a trade group for a handful of nations who each brought a different resource niche to the table, founded in the immediate post-GAW3 recovery (circa 1301 AE) among Solenne and the states nearest it, with no military dimension at all.

Kargopol formed about a year after the Third War (circa 1301 AE) around PUSDR. Its prime was the early Kargopol years, from the bloc's formation to the move on Safemoon in 1305, when it carried the alliance and led it, with the largest ground and air fleets in the registry. Fenwick ended that: UARRO closed ranks and PUSDR's bid failed. After 1305 it kept its factories and stayed the largest arms producer on Numaria, but it lost its reach and never led the bloc as it had. The name also belongs to one of PUSDR's own republics, whose city is the Union's capital, so the bloc and the republic share it. It hardened the USN-era proxy relationship (Chapter 8) into a real bloc once PUSDR had a state to anchor it with.

PUSDR conquered Eisenreich and encircled Safemoon, and the crisis escalated toward Operation Fenwick (AE 1305). UARRO grew strong enough, and the threat became real enough, that its members ratified a full **Foundational Charter**. That converted a resource-sharing pact into a binding mutual-defense alliance. This is the UARRO that fights the Fenwick-era conflict.

Once the acute Fenwick crisis passed, UARRO stood back down. It reverted to its original trade-organization form and did not stay a standing military bloc. Great powers that build

alliances for a specific crisis do not always keep them at wartime footing afterward, and UARRO did not.

Solenne wanted a security guarantee that a trade organization cannot provide, so it founded the **Pan-Savoran Union (PSU)** as a separate, security-focused alliance once UARRO stepped back down. The Pechorian Federation and Xue Lin (the renamed Tianhai) both joined PSU at this point. Xue Lin's move was the more dramatic of the two: a formal exit from Kargopol's orbit in all but its most nominal, paper-only sense.

The result is not two static teams. The pattern runs from resource pact, to full charter alliance, to war, to trade group again, with members moving between structures as their own interests shift. PSU is Solenne's security answer to Kargopol going forward. UARRO is back to being about resources and trade, as its Charter's own preamble describes its original purpose.

The UARRO Foundational Charter (ratified circa 1304 AE, roughly a year before Fenwick)

The Charter is a binding document and no loose understanding. Its specific provisions explain why the Fenwick-era war unfolds the way it does.

Membership and the veto. Three Founding Members hold permanent, unrevokable veto power: Solenne, Anestria and Bavaria. Founding status cannot be diluted by later amendment. If a Founding Member is ever conquered or dissolved, its veto is only suspended, held jointly by the other two, until it is restored. It is not lost. Three other nations signed on as full members at ratification: the **Pechorian Federation**, the **Safemoon Republic** and **Northland**. Christonia, **Korveil** and Hardluckia joined later, so that by the time of Fenwick itself UARRO had grown to nine members. Korveil holds its seat on behalf of AFN interests generally, being the largest and most industrially capable of the fractured Empire's five successor states. Finhaven, Halvern, Tavelin and Skerrow all stay outside the organization. That distinction carries real stakes, and it is where Korveil's rivalry with the symbolically legitimate but weak Finhaven runs (Chapter 18).

Article III, Mutual Defense, is explicitly "the most important section of this charter." An attack on any member is treated as an attack on all of them. That covers military incursion, declared war, blockade, and even coordinated economic sabotage or intelligence action. Every member must declare a response commitment within one turn or be considered in breach. This is why Safemoon's encirclement by PUSDR is load-bearing. Safemoon is a full UARRO member, so its situation is no humanitarian concern for Solenne to weigh. It is a binding obligation.

Defense, not offense. Members are obligated to defend, never obligated to attack. A member fighting an offensive war of its own choosing does not drag the others in unless the opponent strikes back at a UARRO member directly. This is the shape Operation Fenwick takes: covert and deniable, and no full alliance mobilization, because Solenne is answering on Safemoon's behalf under Article III and is not joining an offensive.

Intelligence and resources. Intelligence sharing runs through Solenne's own agency, VEIL, which serves as UARRO's coordination hub. No member may run intelligence operations against another member's government or military. Strategic resources (semiconductors, uranium, rare earths and advanced weapons systems) get preferential pricing among members. This is a best-effort obligation and not an absolute one, and it is part of why UARRO membership matters economically even outside a crisis.

Space and trade. UARRO members jointly coordinate their own space operations through the ancient Deep Space Human Preservation body (DS-HP, founded 1265 AE), rather than founding a new agency from scratch. Solenne acts as the lead coordinating representative for UARRO's own members within that much older, deliberately neutral institution. A separate voluntary trade framework, the **UARRO Exclusive Economic Sector (EES)**, is open to members and approved outside partners alike and carries no defense obligations of its own. It suits the kind of arrangement the Pechorian Federation or the nominally Kargopol-aligned Xue Lin might maintain without it implying anything political.

Nam Minh and the Yeshuren Union

Both nations sit on Numaria, and Numaria is where they belong. It is Aridexia's warring continent, and a Kargopol-aligned medium power plus a PUSDR-adjacent client state are the kind of neighbors that keep it that way.

Nam Minh is a medium-sized nation founded after the Second War (post-1276 AE), on Numaria's own southern reach near Chicano States and the old Vaurek Concession ground. It joined Kargopol after the Third War, once PUSDR had an actual state to align with. It was a straightforward ideological and strategic fit for a nation that came of age watching Eisenreich's occupation and PUSDR's resistance movement from next door.

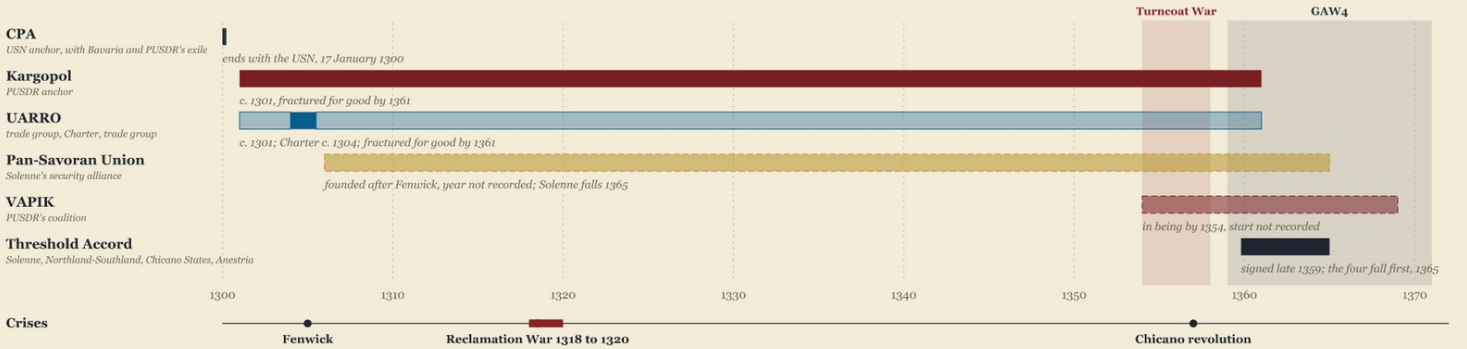
The Yeshuren Union went by the name **Arvansk** throughout the First and Second Wars. It sat directly against PUSDR-occupied (then PUSDR-controlled) territory the entire time, so that the relationship between the two governments could grow close. It renamed itself the Yeshuren Union after the Second War and became influential in the region. It was riding the same anti-Eisenreich current that was already pulling PUSDR's resistance and the USN together, and the rename marked its own turn toward open alignment with that movement. The goodwill it built in that period is why PUSDR treats it as a client and not a target once Kargopol forms.

When the post-war scramble hit Numaria after the Third War, neighboring states moved on Yeshuren territory the way they moved on everyone's. PUSDR, rather than let a friendly government be dismembered outright, moved in as its patron once Kargopol formed (circa 1301 AE). The Yeshuren Union lost territory in the scramble, but ended up a nominally sovereign PUSDR puppet and was not annexed, which is a better outcome than most of Numaria's smaller states got out of the same chaos.

ALLIANCE MEMBERSHIP, 1300 TO 1371

UARRO, Kargopol, the Pan-Savoran Union, VAPIK, the CPA and the Threshold Accord: who joined, who left, and when

THE ALLIANCES THROUGH TIME



WHO BELONGED TO WHAT

	CPA (to 1300)	Kargopol	UARRO	Pan-Savoran Union	VAPIK	Threshold Accord
USN	Anchor, inherited from the Syndicate era					
Bavaria	Member since the alliance's founding		Founding Member, permanent veto			
PUSDR	Exile and resistance, quietly and unofficially	Anchor, c. 1301			Anchor	
Yeshuren Union		PUSDR's client from c. 1301			Member	
Nam Minh		Joined after GAW3			Member	
Vessek					Member	
Safemoon			Full member, 1304		Member	
Chicano States					From 1357, under its Reyes-descended government	Signatory, 1359
Solenne			Founding Member, permanent veto	Founder		Signatory, 1359
Anestria			Founding Member, permanent veto			Signatory, 1359
Northland-Southland			Northland a full member, 1304			Signatory, 1359
Pechorian Federation			Full member, 1304	Joined		
Xue Lin (Tianhai)		Nominal member, until the move		Joined, after renaming		
Christonia, Korveil, Hardluckia			Joined after 1304, nine members by Fenwick			

UARRO's nine members at Fenwick: Solenne, Anestria, Bavaria (founders), the Pechorian Federation, Safemoon, Northland, Christonia, Korveil and Hardluckia.

The same nations pass through trade groups, charter alliances and rival blocs, and Safemoon sits in UARRO in 1304 and in VAPIK fifty years on.

Plate: The same nations pass through trade groups, charter alliances and rival blocs, and Safemoon sits in UARRO in 1304 and in VAPIK fifty years on.

18
The Long Peace

It was not peaceful in the sense of quiet. It was peaceful in the sense that no one was dropping bombs on cities, and a great deal was built in the gap.

This chapter is a tour of what the world looked like in those years, nation by nation, before it came apart again.

The years after 1302 AE are the least fixed part of Aridexian history. The record there is an open frontier and no finished story.

The Deep Space Human Preservation Body

DS-HP was insulated from the collapse of the Third War, and it shifted its mandate from exploratory science to something closer to an existential insurance policy for the species. In the decades that followed it accelerated off-world settlement. By the modern era, DS-HP-administered colonies exist across the system: Lira, Typhon, Orjust, Anquilla, and several of Keplanus's moons among them. Together they form a mature, if unevenly developed, spacefaring economy (see Appendix A).

Typhon's colonization is the largest single thing to happen in this window (Chapter 21). In short, roughly 40 years after the Third War, resource pressure on Aridexia pushes the first real wave of off-world settlers to Typhon, over the Astrobiology Programme's own objections. What starts there does not stay a simple colonization story.

The Sanctuary Program: Safemoon Reaches Lira (AE 1303 to 1307)

Before any of that, and before Solenne had so much as a functioning booster of its own, one nation sent its own crew off the planet for the first time, under its own flag and on its own booster. It was a Safemoon mission (the 1288 landing on Lira had been a DS-HP effort, not any nation's own). It happened for reasons that have almost nothing to do with space itself.

By the early 1300s Safemoon was a small, defensively postured nation that had just watched Eisenreich fall to PUSDR. Geography alone had left it bordered and half-encircled by the same power. It was squeezed and exposed, and it knew that a state built around "more walls than

offense" needed something bigger than another wall to make the rest of the continent think twice about it. Safemoon's government founded the **Moonhaven Spaceflight Authority (MSA)** in AE 1303, named for its own capital. Its mandate was explicit and unapologetic: put a Safemoon crew on Lira, alive, and bring them home the same way, before anyone else on the planet managed it.

Safemoon could not have built such a program from nothing in four years, and it did not try to. The MSA built on DS-HP's own pre-war network of launch sites, tracking stations, and a scientific staff insulated enough from the collapse of the Third War to keep functioning through it. A small, newly founded national agency was folded into infrastructure and expertise that had existed for decades. Safemoon supplied the crewed hardware, the money, and, in keeping with a nation that has always spent more on caution than ambition, an institutional obsession with redundancy that a more confident power might have skipped. The program was named, fittingly, the **Sanctuary Program**. Every system was doubled or tripled and every abort mode was rehearsed until it was routine. The philosophy came from people who had never once in their national history assumed anything would simply go right.

Two uncrewed precursor flights (AE 1304 and 1305) tested the full translunar and return profile without a crew aboard, and both were recovered successfully. They were unglamorous, deliberately unremarkable missions that told the MSA's engineers everything they needed to know before risking a life on it.

Sanctuary I launched in AE 1307 with a two-person crew: commander **Ilsa Marrenkov** and pilot **Dorian Vask**, the first two Aridexians to leave their own planet. The mission flew through translunar injection and lunar orbit, made a crewed descent to Lira's surface, and returned in full to Aridexia. Marrenkov's recorded first words on Lira's surface were "Solid ground, and none of it ours to lose." In hindsight the line reads as pure Safemoon in six words, and Safemoon schoolrooms still teach it as spoken, unlike a great deal of the more carefully polished founding rhetoric of other nations.

The program's payoff was never about Lira. It gave a small, endangered nation an achievement no larger power on the planet could take away from it. It was a morale and prestige win at the moment Safemoon needed one most, and it was proof, to PUSDR and to everyone else watching, that being small and defensively postured did not mean being incapable of doing something no one else on Aridexia had ever done. It is also the reason "Safemoon" stops reading as a coincidental national name once anyone learns the history: a nation that spent generations building walls finally built something that reached one.

The Picture a Century and a Half Later

On the ground, the picture a century and a half after the Third War looks roughly like this.

Luluke

Luluke is the oldest continuously existing nation on Aridexia. It is now a stable, technologically advanced and famously slow-changing state.

Christonia

Christonia has been independent again since 1276 AE. It is industrialized, and long since rebuilt from the 1300 AE strike on its capital.

The Five Anestrian Successor States

The five Anestrian successor states are still formally distinct. They are bound by an uneasy post-war armistice and not by a lasting peace. Whether any of them have since reunified, federated, or fought further is left open.

The Former All-Finian Islands

The former All-Finian islands were never reconsolidated under one government. They are a patchwork of five small, independent city-states across the Korut chain, none of them large enough to force the other four into line.

- **Korveil** is the largest and most industrially capable of the five, but it has no claim to the old imperial seat, which sits inside its much smaller neighbor's borders.
- **Finhaven** is named for and built directly on the Empire's own ancient capital. It is militarily and economically the weakest of the five, but every history book still points to it when it says "the AFN." That is a symbolic legitimacy Korveil resents and has never been strong enough to take.
- **Halvern** is the second-largest, mercantile and mostly disinterested in the Korveil-Finhaven rivalry so long as its own shipping lanes stay open.
- **Tavelin** is small, and aligns with whichever of its two bigger neighbors offers the better trade terms that year.
- **Skerrow** is the smallest by far, barely a functioning government, and named for what it is: an old sailor's word for a bare, isolated rock of an island.

None of the five have fought each other outright, but none have ever agreed on who speaks for what is left of the Empire, either. It is an argument between prestige and power that has lasted longer than most of Aridexia's wars.

The Former Solenne Mainland and the Pelruvian Islands

The former USN mainland and the Pelruvian Islands were the site of Aridexia's worst catastrophe. Politically, they have been Solenne's own territory without interruption since the day the war ended, and there was never a period when they sat unclaimed. "Only slowly resettled" has a plain meaning on the ground. Population density, rebuilt infrastructure and economic activity across that ground have taken a full century and more to climb back toward pre-war levels, and large stretches of it are still thinner and poorer than the rest of Solenne even now. This is the largest underdeveloped stretch of territory on the map, but it is not an unclaimed one.

Luluke

The Crown of Luluke kept power by never being asked for a quick answer. Its politics ran between three bodies. The Crown, descended from the house that governed the largest founding city-state, held the army and the archive. The Assembly of Fords, one seat for each old city along the Solvane, held the grain levy. The Granary Board, a body of clerks older than any minister, held the figures on which the other two relied. It was what remained after Ilvane Aldmere's cities agreed, without much enthusiasm, to call her queen.

A sovereign inherited the throne by blood and the style of it by assent. The Assembly gave that assent in three readings a season apart, and a new monarch could wait most of a year for the title while a regent signed in the interval. The defining quarrel was over what else the readings covered. The Assembly held that every change of consequence belonged in them. The Crown's engineers held that the readings had been meant for succession and the levy and had since swallowed everything. The gold, copper and rare minerals struck about 900 AE paid for the argument, but the Granary was always, by Aldmere's old measure, one bad harvest short of comfort, and Luluke bought stores before it bought factories. That is why it never rebuilt its heavy industry.

The hidden tension was the readings themselves. In 1299 General Berend Mardrek asked for flash-protective eyewear for the Port Dionysis garrison. The request entered the procedure as a question of issue, was copied in triplicate as the Granary's clerks copied everything, and was refused for want of precedent. On 17 January 1300 the garrison stood in barracks dress. The reconstituted government inherited the same habit. When the trade networks failed in 1368 the Assembly was still reading the emergency grain licences as the last cargoes cleared.

The All-Finian Empire

The Empire was a monarchy in which the monarch was the least frequent signatory. Its government was the Admiralty, and the Crown reigned over it as the owner of a great ship reigns over a crew that knows the way. Three parties sat in the palace at Finhaven. The Admiralty held the fleet, the charts and the dockets. The Crown Household held the monarch's person, the privy purse and the right to name the captains of the islands. The Yard Masters held the shipyards, which supplied every manufactured good that went west to Luluke.

The quarrel that never closed lay between fleet and yard. The Admiralty wanted hulls and the Yard Masters wanted orders for goods that Luluke would buy. Luluke's minerals paid for both, so each side kept an account of what the other owed. The Empire had no timber to spare, no heavy ore and little fresh water on its smaller islands, and it lived by importing what it could carry and exporting what it could build. A monarch was crowned by primogeniture, but the coronation was complete only when a majority of the admirals had signed the roll as witnesses.

The hidden tension was that signature. Every admiral who signed a monarch's roll put his hand to the principle that the Crown acted through the Admiralty's pen. When Ingrith Skaal dissolved the state in January 1300, the staff who witnessed the decree held the same office as those who had witnessed her accession, and the Admiralty's copies of the strike orders lay in a vault that belonged to nobody from half past six. The Empire had spent a millennium arranging that its acts would be recorded properly. It found at the end that a properly recorded act still needs someone to own it.

Korveil

Korveil was governed by its yards. The Yard Wardens' Council held one seat for each of the city's eleven great slips and docks, and a seat went to whoever held the slip's foreman's tally, so that politics in Korveil was a form of seniority. The Council chose a First Warden from among its members, and the dockworkers' benches could recall him by a two-thirds vote, a rule invented in a strike and never repealed.

It was the largest and most industrial of the five, and its economy was a matter of orders. It built ships and plant but had no ore, no coal and little land, and every contract lost to a neighbour was a month's wages gone from a bench. Its defining quarrel was with Finhaven over the old imperial seat, which lay inside a smaller neighbour's walls. Korveil claimed the right to speak for the Empire at the UARRO table, which it joined after the 1304 charter, and its voice there was the only one the other four ever heard.

The hidden tension was that the claim could be spent only at the table. Korveil's yards depended on contracts that its treasury could not underwrite, and for years they had bought engine castings from Solennese suppliers. In 1354 Solenne's navy found a Council that had voted funds for a fleet and a workforce unwilling to break off dealings with its own customers. Korveil fell quickly and cleanly, and the Wardens' benches voted a week later to keep working.

Finhaven

Finhaven was the Empire's capital and spent its second life as a harbour town that the world still called by the Empire's name. Its government sat in the old palace and answered to nothing it could name. The Harbour House held the Empress's seat as long as she lived, and Skaal, who had signed away her state, was addressed as Empress by courtesy until 1317. After her death the Harbour House became a seat of old admiral families, who elected a Keeper from among themselves for life or until resignation.

Finhaven was the weakest of the five in men and money and the strongest in memory, and it drew its whole income from being looked at. Visiting delegations paid harbour fees, scholars paid for access to the palace, and shipping lines paid to anchor where the Empire's flag had flown. The defining quarrel was inward. One party in the Harbour House wanted Finhaven to take up the Empire's name outright and demand the other four's loyalty. The other wanted it to spend its borrowed prestige slowly, as an heir spends who has seen what happens to quick spenders. The second party won every year and never won decisively.

The hidden tension lay under the palace, in the Admiralty's vault. The strike orders, the signed dissolution and the witnesses' rolls were all still there in 1354, and Solenne's navy took the vault along with the town. The record does not say what was done with it. The Keepers were left with a symbol and a building, and the archive that proved what the symbol had once meant went east.

Halvern

Halvern was run by its underwriters. The Board of Underwriters, forty houses that insured the Korut chain's cargoes, held the power, and the Master of the Exchange was elected by the houses with votes weighted to the tonnage each had insured the year before. A house that lost a ship lost votes. A house that insured a safe route gained them, and so the city was governed by the people who had learned to price caution.

It was the second largest of the five, and its scarcity was a scarcity of risk. Halvern had no resource of its own beyond a harbour that could hold anything. It lived on fees, premiums and the sum of everyone else's good sense. The quarrel in its council was whether to insure the old imperial cargoes at all, since the Empire's former customers still argued over debts to the Crown. The older houses preferred to leave such cargoes uninsured. The younger ones preferred the premium.

The hidden tension was that insurers read everyone's schedules. Halvern held the sailing plans of every shipper on the chain, and when Solenne's navy arrived in 1354 it found the shipping already arranged for its convenience. The Exchange kept the lanes open as it always had and declined to defend them. Its reasoning was that a blockade ends and a policy lapses, and a house that survives the blockade can write the next policy.

Tavelin

Tavelin governed itself by tender. Each spring the Tender Council invited the two larger neighbours and any foreign trading partner to offer terms for the coming year, and a Receiver of Offers, drawn by lot from the guild masters, weighed them against the harbour dues forgone. The best offer set the city's allegiance until the next spring. Tavelin saw nothing shameful in this. It held that every other nation did the same and that Tavelin merely did it openly.

It was small, with a good natural harbour and little to sell but its position. Its scarcity was loyalty, which it rationed carefully. The quarrel lay between the Council's Bidders, who held that the best offer should always win, and a faction called the Remainers, who held that Tavelin had once been a city of the Empire and should, at some price, keep one year in ten for itself. The Bidders had a majority every spring. The Remainers kept a second set of accounts.

The hidden tension was that a city always for sale has nobody to defend it. In 1354 Solenne's navy left Tavelin alone, and Tavelin dressed in whatever its partners supplied. It outlasted its neighbours by a decade for exactly that reason. The Tender Council met as usual in the spring of 1368 and no bid arrived. By autumn the government was gone, and nobody in the city could say which offer had been the last.

Skerrow

Skerrow was a rock with a harbour and a few hundred salvage crews. Its government was a moot held on the shingle at low tide, where any crew-master could speak and the oldest of the masters presided as Reeve by right of years. The office passed on at death. There were no ministries. A crew-master who wanted something done found three others who wanted the same and did it.

Its economy was the sea's leavings. Skerrow stripped wrecks, recovered cargoes and lifted what was dropped in the channel, and the whole islet lived on what other nations lost. The standing quarrel concerned the right to a wreck once it was claimed. A crew that found a hull could hold it for a season, and the moot spent its energy deciding who had found what first.

The hidden tension was that a moot cannot field an army. In 1354 Solenne's navy came to Skerrow after the three larger cities had gone, found no garrison and took the rock without a shot. The Solennese detachment stayed. When the homeland government fell in 1365 nobody ordered it to leave, and the men fell into the habits of the crews they had been sent to rule. By the time their last supply ship failed, they were sitting in the shingle moot with the islanders.

Mesaland

Mesaland was run by the people who owned berths. Each family of the island held a number of berth-rights, a claim on a share of the harbour's fees for ships that called, and each right carried a vote in the Harbour Moot. The Moot chose a Harbourmaster-General for a five-year term from among the berth-owners who could read a shipping table. There was no army because the Moot saw no use for one. The Pilots' Hall, which kept the guild's knowledge of the strait and its tides, was the only body that could close the harbour.

It was a poor island with a rich position. Its economy was Christonian shipping, and what went wrong with the one went wrong with the other. The defining quarrel was between the Pilots' Hall and the Counting House, which owned the dues. The Hall held that the strait was the island's wealth. The House held that the dues were. Neither could prove its case, and for generations they alternated in the Harbourmaster's chair.

The hidden tension was the registry. When the Syndicate absorbed Mesaland in 1250, the register of berth-rights passed to the USN's shipping ministry intact, with every family's claim on it, and it survived the erasure of 1276 because nobody saw a reason to burn it. When Christonia and Einsenia lost their governments in 1367, the people who knew the strait were the pilots descended from the old Hall. They worked for whoever paid and kept the register on the table while they did.

Skotia

Skotia was a republic of shareholders. The islands' ships sailed under articles, written agreements that gave every hand a share in a voyage and a vote on its course, and the state had grown out of the habit. A Convention of Captains met at Skotharbor each year and chose a Master of the Fleet for one sailing season, with a standing right to be asked again. The yards, which held the only arms industry of any size in Skarnovia, sent their own masters to the Convention as a separate bench.

The scarcity was timber, rope and brass, all imported, and the dependence on the networks that carried them. The defining quarrel lay between the merchant captains, who wanted the yards to build merchantmen, and the yard masters, who wanted to sell rifles and aircraft abroad. When the SG-16 Veyra fell short of its requirements and went to training in about 1338, the merchants said they had warned of it. The yards said the requirement had been written by captains.

The hidden tension was in the articles. A hand's vote on a voyage extended to the coastal patrols Skotia flew for the Pan-Savoran Union in the Turncoat War, and each patrol was, in law, a voyage. In 1368 the networks that fed the islands failed, and the crews, who had a vote on every sailing, declined to sail. The articles said that a voyage required consent, and the consent was withheld.

The Pechorian Federation

The Federation was a union of member councils, one for each fishing coast and river mouth, and the councils shared a single rule: nothing was decided until nobody objected. The Chair was chosen at the Ice Sitting, a winter session held in an unheated hall, where the delegates could not leave until they had agreed on a name. The method favoured the forgettable. It had given the Federation Ketil Svarn in the autumn of 1299, and it could not be hurried.

Its economy was cold and thin. The Federation had fish, a short shipping season and little else, and its yards bought engines, alloys and chips from outside. The quarrel inside the councils lay between the fleets and the Platform Yards. The fleets wanted what the yards spent on rare tanks and aircraft to go to boats. The yards argued that a state which could not be attacked cheaply could hardly be attacked at all. The yards had the better argument and the smaller vote.

The hidden tension was that unanimity cut both ways. Svarn's pooling charter for the Pan-Savoran fund, sealed from every member's auditors, could not be reopened without the consent of every council, and no council could prove what it had given, so none could be sure of its loss. Nobody objected to the sealing for forty years because nobody could see what they would be objecting to. When the fund was committed to Solenne's aerospace firms in 1354, there was no council that could say it had never assented. The Federation lost its government in 1366.

Bavaria

Bavaria was a lease, and its government was whoever held the leases. The Concession Board sat twelve seats around a long table, with a thirteenth left empty. The twelve seats belonged to the great concessions of copper, rare earths and uranium-bearing ore, and a seat passed with the lease and not with the person. The Chair was meant to rotate. Hedda Vorsteen's thirty annual re-elections showed how the rule worked when one member knew all the contracts.

The Board's quarrel ran between the old copper houses and the newer rare-earth and uranium concerns. The copper houses wanted to sell to whoever paid the surest price, as the Clause said. The newer concerns wanted to sell where their ore was needed, which in a world of wars meant whoever was fighting. Drozdov was stable and easy to dig and short of people. Its scarcities were labour and grain, and the Board imported both from its customers, who therefore held something over it that no customer ever used.

The hidden tension was the thirteenth chair. Vorsteen had said it was for the contract, and after her death the Board found that its own rules did not say what the contract was. In 1354 the Board hosted Solenne's front, in 1361 it armed separatists, and in 1366 the government was lost when Numaria and Drozdov went down together. The Clause had promised that the Board would survive any government. Its clerks went on keeping the books, and whether anyone paid is a question the record does not answer.

Einsenia

Einsenia was an examination state. It descended from the officials and engineers who left Eisenreich as the Iron Realm failed, and it kept the Realm's belief that a state is a machine that wants good operators. Candidates for the Directorate sat a series of examinations, and the top-ranked sat as First Director for a term of six years. Nobody was elected and nobody was appointed. A person was ranked.

The Directorate's quarrel was with the Provostial Service, the old administrators, who ran every office and every water main in the country and considered the Directors temporary. Einsenia was too small for an arms industry and too crowded to feed itself, so it governed by managing the freight yards, the granaries and the power lines. Its defining question was what to do with Christonia, the older identity that the war had left standing inside its borders, with its own language and its own habits of law.

The hidden tension was the answer. Einsenia ran Christonian utilities through Christonian clerks, who kept their own council and their own books. When both states lost their governments in 1367, it was the same clerks who stayed at their desks, because no one else knew where the water ran. The record is silent on Einsenia's founding and its capital. It is silent on its end for the same reason, which is that the end was handled by the people who kept the lists.

Christonia after 1276

Restored Christonia kept its president and its Conjunctioner council, and a third force grew between them that neither had planned. The Renner heirs, descended from the old Faction, held that the nation's industry had been bought on Syndicate credit and would never be free until the debts were struck. The Conjunctioners held that the debts were the price of having a nation to run. The president, elected for six years, arbitrated between them and belonged to neither.

The economy was a rebuilt one. The industry that had stood in 1250 was largely intact, but the capital that built it had gone, and the lines that armed the army were licences. Christonia backed Talona in 1286 with money and advisers because a free Talona was an argument for a free Christonia. The strike on Christona in 1300 destroyed the government, and the council reconvened in provincial towns with no fixed seat.

The hidden tension was its dependence on Einsenia, which ran the water and the freight. The Renner party won its freedom from the Syndicate's debts when the USN fell, and found that it had traded one creditor for another. Christonia joined UARRO after the 1304 ratification and the Turncoat coalition fifty years later. When the central government fell in 1367, the Conjunctioners were the last to leave the table, and the Renner party the first to see that there was nothing left to be free of.

Northland and Southland after Nichozh

Nichozh had named his heir himself, and his state never wrote down how the next one was to be chosen. That omission was the defining fact of Northland after 1328. Bayarmaa Oyun-Tash governed with three groups at her shoulder. The Keepers of the Band kept the Founder's liturgy. The Relief Corps fed the underclass and measured the state's loyalty in bread. The officers in black and purple held the borders and the old clan musters. Southland's Torvik Drenmoor held a fourth seat that no text ever named.

The quarrel set the cult against the Corps. The state was poor, the winters were long and the grain returns thin, and the Corps' ledgers showed that the state lived on its relief more than on its worship. The Keepers' ledgers showed the opposite. Each group was right about the other's dependence. Oyun-Tash balanced them by editing the liturgy a line at a time, which was the only constitutional instrument she had.

The hidden tension was the missing rule. The head of state was chosen by the previous head, and the previous head had been a god. When she and Drenmoor both died in 1365 and the capital fell, no document said who came next. The four clans, which Nichozh had held together by force and by his own person, went back to their holdings as the frontier had been before him. Drenmoor's second signature on the Accord, in a different ink, was the only text that had ever suggested the joint government might have two heads and so two successors.

The Constitutional Anestrian Republic

The Constitutional Republic was a state of lawyers and regiments. Its Council of Oases still met, one delegate for each oasis, and it chose its President-in-Council from the bench of the Oasis Courts. The Oasis Guard kept its old form of one regiment for each oasis, with officers elected every three years. Two parties formed along that line. The Court party held that the Republic was a legal continuity and owed every duty of the old state. The Guard party held that a state is what it can defend and the debts could wait.

The scarcity was water and trained men. CAR held a large southern block, a tank factory and 22 of the 41 surviving Parrot Lord fighters. It lost most of the territory it claimed within a few years of the war, and each loss shrank the Council's tax base without shrinking its constitutional duties.

The hidden tension was the delegates. The Council kept seating the delegates of oases that now lay inside the other four successors, in the name of continuity, as delegates in absence, and they voted. In 1359 Rodrigo Valcazar signed the Accord for all of Anestria, and the Council that had endorsed him held a majority that included men whose home oases had refused to recognise it. The separatist wars of 1361 to 1363 drew on the grievance. In the oases outside CAR's borders, the ballots counted for CAR were the proof that someone had been speaking for them without leave.

The Kingdom of Antares

Antares restored its monarchy and then found that it lacked a monarch. The throne stood vacant, and the Council of Wells, the oasis-lords who held the coast's water on the Crown's behalf, ruled through a Regent chosen by their water rights. A lord's weight in the Council was the volume of his wells, measured by the Waterkeepers each year, and the Regent was the heaviest lord who could carry a majority.

The economy was ports and caravan roads, as it always had been. Antares had harbours, no heavy industry and rationed avionics chips for the 36 AF-50 fighters it built. The defining quarrel lay between the coastal lords, who wanted peace and trade, and the inland lords, who wanted the Vinear Coast. The annexation of Bredezen for its naval infrastructure was a victory for the second party, and the tank divisions that broke the standoff at Ornwellburg were raised on its taxes.

The hidden tension was the vacant throne. Two lines claimed it, and the Council had refused to choose, since each line had a lord to whom it owed its water. The army swore its oath to the Crown, and so to a vacancy. That served the Regents well enough in peace, because a vacancy cannot dismiss a general. In 1365 the government fell and its air force with it, and no officer of either could say whom he had served.

The Federated States of Imperium

Imperium was a federation of seven iron-working states under a Federal Assembly, and its flag carried a star for each. The Assembly sat at the old Ferrosian capital. The presidency rotated among the seven in the order of the ore each had shipped the year before, so that the state that dug most governed most often. The quarrel lay between the smelting states, which wanted high tariffs on ore leaving the federation, and the manufacturing states, which wanted cheap iron.

The scarcity was fuel and water for the furnaces. The sands had iron and no coal, and every ton smelted was bought in fuel from outside. The OMBT-1 was low because a low tank was cheap, and the federation chose to spend on what was cheap. It dressed in iron-grey and rust as a callback to the Ferrosian smiths, but the black of the Ironguard it left alone.

The hidden tension was the seventh star. The seventh state had joined last and held its seat without a vote on the tank contract, and its furnaces were the newest and the hungriest for the fuel the others controlled. When Bavarian and Pechorian arms reached the separatists in 1361, they reached a federation with one member already sitting at the table and keeping no hand in its decisions. Imperium fought its frontier conflicts with the OMBT-1 and lost its government in 1365.

New Virgen

New Virgen had no capital because it had six, in turn. Its flag showed a lily of six petals, and each petal was a district. The Lily Assembly sat for one year in each district in rotation, which is why the record names no seat. A Speaker was chosen at each move by the host district's elders, and his powers lasted until the Assembly moved again. The country governed itself as a caravan does, by deciding where the next camp would be.

The economy was small farms and well-rents, and the scarcity was land that could be held in peace. The defining quarrel was between the districts on the river, which had irrigated farmland and wanted a stable government, and the dry districts, which had only wells and wanted the Assembly to keep moving. The rotation satisfied the dry districts, which got to host, and annoyed the river districts, which could never keep a bureaucracy in one place for long.

The hidden tension was the Typhon land. When Malakor Vane promised land to the successors in the Turncoat War, the six districts divided over whom the claim belonged to. A claim held by the Assembly belonged to whichever district hosted it that year. In 1365 the escrowed land became orphaned, and each district came to believe that it had been the one the others sold.

The Antilla-Vegan Union

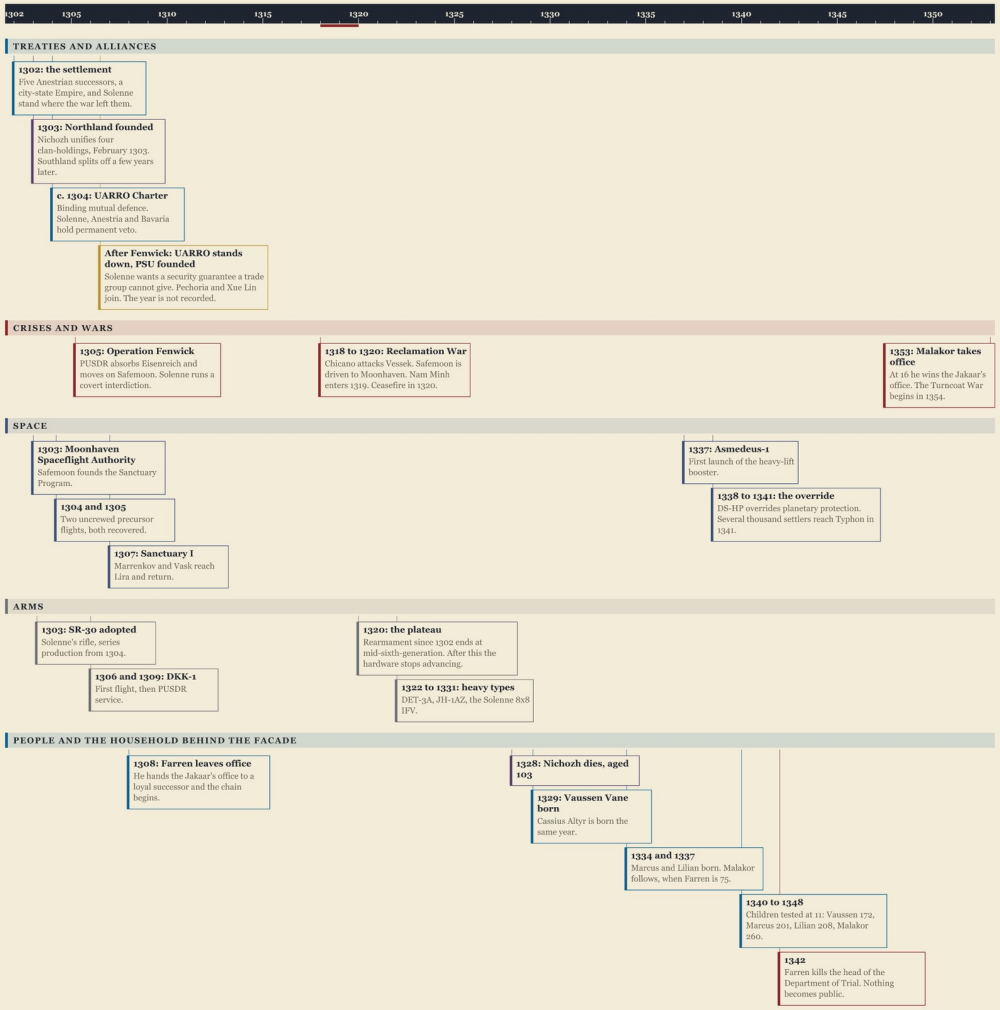
The Antilla-Vegan Union joined two river valleys that shared one set of wells. Antilla held the green upstream farmland and Vega the ochre downstream plain, and the flag was split on the diagonal to show it. The Union's single common institution was a Water-Court, inherited from the Empire's Waterkeepers, which measured the flow each day and allocated it. The Court's Warden was chosen by the Waterkeepers from among themselves, and a Warden from one valley was followed by one from the other.

The economy was water, and there was little else to tax. The defining quarrel was the allocation, which both valleys thought unjust, since the Court allocated by the previous year's measurement and a bad year in one valley locked in a small share for the next. Both wore a faded olive-ochre close to the old Oasis Guard, and each claimed a heritage that the other disputed.

The hidden tension was the measurement. The Waterkeepers' tallies were the Union's only reliable figure, and they were kept by men from both valleys, each of whom could be pressed. When Bavaria and the Pechorian Federation armed separatists in 1361, the arms went to the valley that believed its tallies had been shaded. The Union survived the proxy war on paper and fell with the other successors in 1365, when the last Warden found that nobody had kept the books for a year.

THE LONG PEACE, 1302 TO 1353

Fifty-one years between the last war that ended a state and the first that ended a peace



Five lanes of events from the settlement of 1302 to the day a sixteen-year-old took the Jakaar's office, with the arms plateau and the Typhon override running quietly underneath.

Plate: Five lanes of events from the settlement of 1302 to the day a sixteen-year-old took the Jakaar's office, with the arms plateau and the Typhon override running quietly underneath.

19
Fenwick and the Reclamation War

On Numaria the peace lasted five years. The people who had been occupied for generations won, and as winners they turned on their neighbour. A covert operation answered, and the continent went back to what it does.

Thirteen years after that, a small, rebuilt power decided it was time to take back what it had lost.

Operation Fenwick (AE 1305)

The conquest of Eisenreich by PUSDR, and the encirclement of Safemoon that followed from it, did not simmer for generations before boiling over. It detonated almost at once. Barely five years after GAW3, with the ash still settling everywhere else, PUSDR finished absorbing Eisenreich outright and moved against Safemoon, an encircled, UARRO-aligned neighbour sitting inside territory PUSDR now considered its own.

Solenne answered. It was the UARRO member with the most to lose and the most reach to answer with, and it was itself barely five years old, a democracy built directly on the ground where the dictatorship of the USN had been annihilated. From a remote forward base on its own territory it ran a covert interdiction operation, Operation Fenwick, using real hardware: TV-24A Tempest armour, N-14 "Asmedeus" strike aircraft carrying AGM-11 "Inferno" missiles, and TRC-201 "Serbius" and TRC-101 "Arquem" transport aircraft to move reinforcements in. The operation's crews went in green and undertrained, because the training order that should have prepared them never landed. The handicap was real and could be measured. It was no flourish.

Fenwick ended with PUSDR's bid on Safemoon failing against UARRO's response, and that failure cost PUSDR its power to project force beyond its borders. Fenwick is a real event and no hypothetical. The actors, the hardware and the basic shape of the conflict are fixed, and the date is AE 1305. The specific grid coordinates and unit-count figures found in any one campaign study of it are that study's own snapshot and are not fixed: they can be re-sited and re-balanced freely against whatever map or numbers a given telling needs. What happened on Numaria

between AE 1305 and the present day of the record is deliberately left open. Fenwick was the founding crisis of the post-war era, though not necessarily the crisis of "now."

The Reclamation War (AE 1318 to 1320)

By 1318, Chicano States had spent thirteen years sitting on the small, reclaimed coastal core it had crawled back to after the interwar collapse. The core was rebuilt in earnest, but it was a shadow of the "continent's single dominant power" Chicano had been before GAW2, and its own government knew it. Vessek's mountain interior had never been conquered by Eisenreich or PUSDR, but no Numarian power with mineral ambitions of its own had ever fought hard for it either. To Chicano's high command it looked like the prize that could fix both problems at once: mineral wealth to fund the state's comeback, and a war Chicano could win. Vessek's strength had always been its terrain and its refusal to quit, and never its hardware. A resistance still fighting with "no factory of its own... captured Eisenreich IR-11s and improvised hunting rifles" (see Chapter 26) was never going to out-equip a state with any domestic arms industry left, whatever its numbers.

That calculation was right, as far as it went. Chicano's army was smaller than the population Vessek could field in its defence, but it was better armed, and it showed. There was progress from the opening weeks, followed by months of brutal fighting that put Chicano's forces onto Vessek's accessible mainland, the lower settlements and mining towns outside the true highland core, for the first time in the recorded history of the two. They contested ground street by street, and did not raid it and withdraw. It was progress, but it was not the mountain core, which held as it always has.

Safemoon's entry. Chicano's renewed aggression against Vessek activated a mutual-defence understanding between two of Numaria's most habitually squeezed peoples. Safemoon and Vessek had never been the continent's dominant power, and both had at some point been on the losing end of one of Chicano's expansion wars (Chapter 8). Safemoon declared war on Chicano in Vessek's defence and paid for it immediately. Chicano's momentum, already running from the Vessek front, turned on Safemoon next and drove it back to its own capital, Moonhaven. There Safemoon's defences finally stopped the advance, at the one place they were always going to be strongest. They were built, in keeping with Safemoon's national character, around holding this kind of last-ditch position and not around winning in the open field.

Nam Minh, and PUSDR behind it. Nam Minh was a small, deliberately unaggressive nation that "came of age watching bigger neighbors' wars rather than fighting its own." It watched a Chicano State that had just fought its way onto Vessek's mainland and to the gates of Moonhaven in the same campaign season, and concluded that it would rather fight Chicano now, on its own terms, than wait to be the next target of a state visibly rebuilding its old appetite. It declared war in 1319. PUSDR, its patron and the anchor of the Kargopol bloc, backed the declaration with material and logistical support but sent no troops. Vessek and Safemoon had already made this a war Chicano was likely to lose, and PUSDR had no interest in letting Kargopol's smallest

member lose it alone.

The end of it. Three simultaneous fronts (Vessek's mainland, a stalled siege at Moonhaven, and a Kargopol-backed Nam Minh) were never a war Chicano's smaller army could sustain indefinitely, whatever its equipment advantage against any one of them alone. By 1320, exhaustion did what none of Chicano's individual opponents could do outright. A negotiated ceasefire left Chicano holding permanent gains on Vessek's mainland fringe, which became the territorial basis for the somewhat larger Chicano States that the map still shows on the eve of the Turncoat War (Chapter 20). Moonhaven stood unbroken, and Vessek's true highland core was as unconquered as it had always been. Chicano had also made three new enemies, Vessek, Safemoon and a PUSDR-backed Nam Minh, and its government never forgot them.

That grudge was still live thirty-four years later, when Solenne's Malakor Vane went looking for a Numarian power willing to fight PUSDR's VAPIK coalition and found Chicano's memory of this war waiting for him (Chapter 20).

Four Ordinary Places

The Long Peace had no founding day and no treaty. It built up one harvest at a time, and most of the people inside it noticed it only when something small went wrong. It looked different from each place where it was lived.

On Bavaria's mining coast the Concession Board posted its prices on a slate outside the harbour office, and the ships that read the slate belonged to every bloc. Hedda Vorsteen's clause told the Board to sell to whoever held the sea lanes and to survive any government. In daily practice that meant copper, rare-earth concentrate and uranium-bearing ore went out under Kargopol colours on the morning tide and under UARRO colours on the evening one, and the harbour clerks did not ask. Vorsteen kept the Chair until 1312. The Board went on selling tracking time and propellant components, and from 1329 it sold the BL-1, a plain 120 mm tank built to be exported and not to impress. Bavaria became the armourer of an alliance it had joined mainly for the veto. The slate was also the first scarcity document of the age. From the middle 1320s the posted rate for rare-earth concentrate was reset upward at the turn of most years, a few percent at a time, and no clerk on the quay thought that worth a note to the directors.

In Moonhaven the peace meant redundancy. The city held grain for two winters, kept its water in three separate cisterns and maintained a reserve launch pad that nobody expected to use. Children learned the primary reader's sentence about the first two Aridexians to leave their planet, a line Konrad Vesterhaus had shortened with a pencil in the spring of 1308 so that a child could carry it across a school yard. They also learned Ilsa Marrenkov's words on Lira exactly as she spoke them, "Solid ground, and none of it ours to lose." After Chicano's army was stopped at the capital in 1319 the walls were thickened. A girl of thirteen named Philomena Dragunova had spent that siege behind them, listening to them being used, and she would be President in 1346.

In the capital of the Peoples' Union the peace was counted in ration cards. Eisenreich's occupation had left Ansgar Thalheim's Registers, which Zinaida Dimikrova had called the only honest statistics in the homeland, and the Union fed its people from them for years after the revolution because nothing better existed. The old Ferrengrad works built about 1,050 Poing strike aircraft between 1303 and 1319 and rebuilt 620 of them in 1324 to 1327, which kept the works in steady employment. In the winter of 1334 the tailors of the Kargopol hall cut maroon coats trimmed in gold for the head of state's guard, and a small one for his five-year-old son. An old sergeant of the revolution remarked that Yaroslava Tenchova had worn a plain collar to the end. Zarko Altyr answered that somebody had to be seen to have kept the victory. The revolution that came out of the cells in red and grey was in maroon within a generation.

On the Pelruvian Islands and the old USN mainland the peace was thin. Ground that had been Solenne's without a break since the war took more than a century to climb back toward its old population, and while it climbed the young left for the mainland cities, where the work was. One island parish kept its roll in a family of customs clerks, and in 1341 that roll still stood below its total for 1299. Ione Tessarine, born in the family in 1322, packed three boxes of those papers when she left for Typhon at nineteen. She was one of several thousand who went in the first wave. Few of them were adventurers. Most were people whom a poor, slowly refilling ground had been unable to keep.

Three Blocs and Their Seams

The alliances of Chapter 17 lasted half a century because each was weaker than it looked, and nobody was in a hurry to test it.

UARRO had been a trade pact, then a binding defensive alliance for the length of the Fenwick crisis, then a trade pact again, with the Charter still in force beneath the commerce. Its three Founding Members, Solenne, Anestria and Bavaria, kept vetoes that no amendment could dilute, and the veto was used only once in the whole peace. Bavaria's delegates struck a clause that would have put a member's reserves at the Founding Members' call, at the request of the delegates of Ketil Svarn, who did not want anyone counting the Federation's stores. Northland held its seat first under the Founder's cult and then, from 1328, under Bayarmaa Oyun-Tash, who presided over his worship and removed lines from its liturgy a few at a time. Korveil sat for the interests of the fallen Empire, and Finhaven did not sit at all. That cost nothing until 1317. The first real crack came in 1351, when Safemoon walked out.

Kargopol held together by money and by the memory of Eisenreich. PUSDR sold the DKK-1E1 fighter across the bloc, with the deliberate exception of Tianhai, sold the Poing-B to Nam Minh in 1316 and the Yeshuren Union in 1320, and in 1319 paid for Nam Minh's war on Chicano States with supplies and no troops. The Union kept its peace partly by paying for other people's wars. Its seam ran through its own palace. Dimikrova had come home from exile in 1305 and governed as President with little power over the army. In 1311, within months of Tenchova's death, Altyr displaced her and held the head of state's office for forty-one years. The friendship she had made

with the scientists of Tianhai belonged to her and not to the Union, and when she died in 1317 neither Altyr nor his son renewed it. Tianhai had followed its friend into Kargopol on paper only. It never let Kargopol forces onto its soil, and Solenne, which shared a border with it, never sanctioned it. Two governments with every reason to fight chose, year after year, to look elsewhere.

The Pan-Savoran Union was Solenne's answer, founded in the years after Fenwick, and Tianhai took the name Xue Lin when it joined with Pechoria. The common fund was Svarn's design. Each member paid in proportion to its means, disbursements went by a vote of two in three, and the accounts were sealed from the members' own auditors. He meant to hide how much Pechoria had given. The seal hid everyone's, so that no member could say what any other had paid in or drawn out. A fund that nobody can audit serves well while nobody wants it. In 1354 someone wanted it.

The Launch Nobody Announced

The first near miss came two years after Fenwick and had nothing to do with a border dispute. Sanctuary I lifted from Moonhaven in 1307 on a track that carried it east across ground the Peoples' Union now held. Vesterhaus had told DS-HP, whose station in Tianhai would follow the flight, and the Bavarian stations whose tracking time he had bought. He had not told PUSDR. He had kept the programme inside the civil defence budget for two years because he feared the word luxury, and he feared a Kargopol demand to inspect a booster even more. A booster is a missile with better manners. The air defence regiments on the old Eisenreich frontier saw one fast object rising out of the country they were most braced against, two years after Solenne had flown an operation in from the other side. Their radars lit. The regiment commander asked for weapons free.

A scientist, a President and a general stopped it. The scientist was one of the Tianhai people who had sheltered Dimikrova's exile, and she knew the beacon of the DS-HP network when she heard it. She telephoned the President's office. Dimikrova had never been given command of the army and knew it, so she telephoned the one who had. She and Yaroslava Tenchova had barely spoken since the first sitting of the Council. Tenchova had wanted all her life a fight she could win herself, and a rocket with two people aboard was not one. She ordered the regiment to track and not fire.

Marrenkov and Vask went to Lira and came home. Moonhaven did not learn of the radars for years, and the record does not show that Vesterhaus ever did.

The Funeral at Finhaven

Ingrith Skaal died in 1317, in the house above the harbour at Finhaven where she had lived since she dissolved the Empire. She held no office and was addressed as Empress by courtesy. Her funeral came close to starting the first war between the Korut cities.

Korveil, the largest, sent a squadron to Finhaven to escort the body, and with it a delegation to collect the regalia and the Admiralty archive. Korveil's government said both belonged to the Crown and therefore to its strongest heir. Finhaven, which had no fleet to speak of, drew its harbour chain across the mouth. Halvern, which wanted only its shipping lanes open, found warships sitting on the route to the funeral.

Three things stopped it. The first was Skaal's own decree. She had declared each of the five cities to have taken no part in the decisions of the former Crown, and Korveil's lawyers saw the trap. To claim the regalia was to claim the Crown, and to claim the Crown was to claim the strike orders that lay beside it in the Admiralty vault. No city wanted to sign that receipt. The second was Halvern, whose harbourmasters announced that the funeral anchorage was a customs zone and that any hull flying a war ensign there would lose pilotage and insurance across Halvern's lanes. The third was the Concession Board, five years out of Vorsteen's hands and still bound by her clause. It sent Korveil one sentence, that it would load ore for ports whose lanes were open on the morning of loading. The squadron anchored for a day and a half. The wreath was laid. It sailed home, and the archive stayed where it was, belonging to no one.

The Survey Offer

The third crisis was made by a courtesy. In 1351 the Department of Defensive Logistics, then answering to the Jakaar Oriel Marne, opened talks with Chicano States on a concession to survey Typhon. Marne meant it as a gesture. Dragunova read it as a bribe aimed at her walls, since Chicano States was the nation that had burned the Ashfields and besieged Moonhaven. Safemoon left UARRO that year. By the winter its heavy armour stood on the Ashfields road and Chicano States, whose government was already more corrupt than strong, called up its reserves.

Kargopol watched and could do little. Zarko Altyr died in 1352 at seventy-one and was buried in the maroon coat. His son Cassius was twenty-three and had never been asked to decide anything that could not be decided by a tailor. A bloc whose leader has just died, and whose heir has never been tested, does not volunteer for a war on a neighbour's behalf.

Marne closed it, and she did it from the text. She read the charter of the Department and found no clause that allowed it to offer a concession over ground that no government owned. In the first weeks of 1352 she suspended the talks in a short letter, saying the Department had exceeded its authority. She gave no other reason and Dragunova asked for none. Safemoon's armour went back to its depots at the thaw. The chain of Jakaars would not produce another such scruple. Within a year the talks were revived by a Jakaar of sixteen, who made them policy.

What Each Generation Built

Every state in the peace spent its first decade replacing what the war had destroyed and its second decade replacing what the first had built. The dates show it.

The first generation was made of inheritances. Solenne adopted the SR-30 in 1303 and had it built by the dictatorship's own gunmaker, and the Tempest armoured car entered service the

same year. PUSDR put the Poing into service in March 1303 from the hall the revolution had captured with its jigs intact, and it drew on the drawings Dimikrova had carried out in forty trunks. The DKK-1 first flew in 1306 and entered service in 1309. At the Zhokrova plant the army chose the cheaper OT-3 tank over the better-protected OT-5, because the Union needed numbers before it needed excellence, and the JH-1 line began in 1306. These were the fathers' weapons, drawn up by people who had learned their trade before 1300.

The second generation was an arms race run by calendar. Between 1329 and 1338 six powers each put a new main battle tank into service: Bavaria's BL-1 in 1329, PUSDR's JH-1AZ and the Constitutional Anestrian Republic's B-4/2 in 1331, Imperium's OMBT-1 in 1335, Chicano States' CS-1 in 1336 and Pechoria's MK-72M1XT in 1338. Solenne's FA-8 Chimera entered service in 1332 and the first Asmedeus-1 booster flew in 1337. Nobody had planned a race, and each ministry was only answering what it saw across the border in the last yearbook. The pattern ran in two directions at once, since the tanks were bought to stop each other and the boosters were bought to leave.

The third generation was where the ledger began to bite. The DKK-1 modernisation of 1338 to 1350 reached only about 450 of some 1,100 airframes. The first Kaelis-class dreadnought dates from 1349 and the second from 1354, and the third hull was cancelled in 1356 when rationed materials made it unaffordable.

The Ledger Nobody Read

Nobody kept the whole ledger of the peace, but pieces of it exist. In 1280 Hadrian Obell wrote "sampling error" beside a thin ore return from Typhon and had the rerun cut for money. The war of 1300 had taken uranium that the planet had never had much of. The Board's slate crept upward. The first colonial wave of the Long Emptying, which ran from 1338 to 1341 and is told in Chapter 21, was drawn from the places the post-war shortage had hurt most, and DS-HP sent it over the objections of its own Astrobiology Programme. By the late 1340s the working tables of the DS-HP assessment staff, which Ruvane Achterberg would sign in 1359, already showed that Aridexia held the materials for one effort off the planet and not two. They were not published. A published table is a political act, and the staff who wrote them were not sure for whom.

Solenne had its own private ledger. In 1340 Vaussen Vane was tested at eleven and scored 172, and his father Farren, then seventy-eight, ordered the protocol escalated. In 1342 Farren came home early from a diplomatic mission to Anestria, and the record is silent on what he had gone there to say. In 1345 Marcus and Lilian scored 201 and 208, and Dr Fabian Garrow filed his dissent on the permanent record under Isaure Rook's signature. In 1346 Rook placed a boy of fifteen named Daro Quint in the Vane house as a companion to the youngest son, with instructions to write down what he saw. None of this appeared in the newspapers. The Jakaars came and went on the eight-year grid, and in the spring of 1353 the one in office was Marne, who audited the regional pools and read the statute before the briefing.

She died at her desk eleven days before her term ended. Aurelia Quillon, her chief of staff, found her. An instrument naming Malakor Vane, a boy of sixteen, as the Jakaar's own finalist in the coming election had already been lodged with the Department of Trial, and it carried Marne's signature and a date from before her death. Nobody could prove she had signed it alive. Farren was ninety-one and had three years left. In Kargopol, Cassius Altyr was twenty-four and wore maroon. In Moonhaven, Dragunova had been President for seven years and had stood her armour down only because a lawyer in Solenne had found a flaw in a charter.

By the spring of 1353 the peace had left three alliances with no honest books, two generations of weapons built to answer each other and one set of tables that said the planet could not afford to send everyone away. Within a year Malakor Vane would be the first man in Solenne's government to say so aloud, and the Pan-Savoran fund that nobody could audit would pay for what followed.

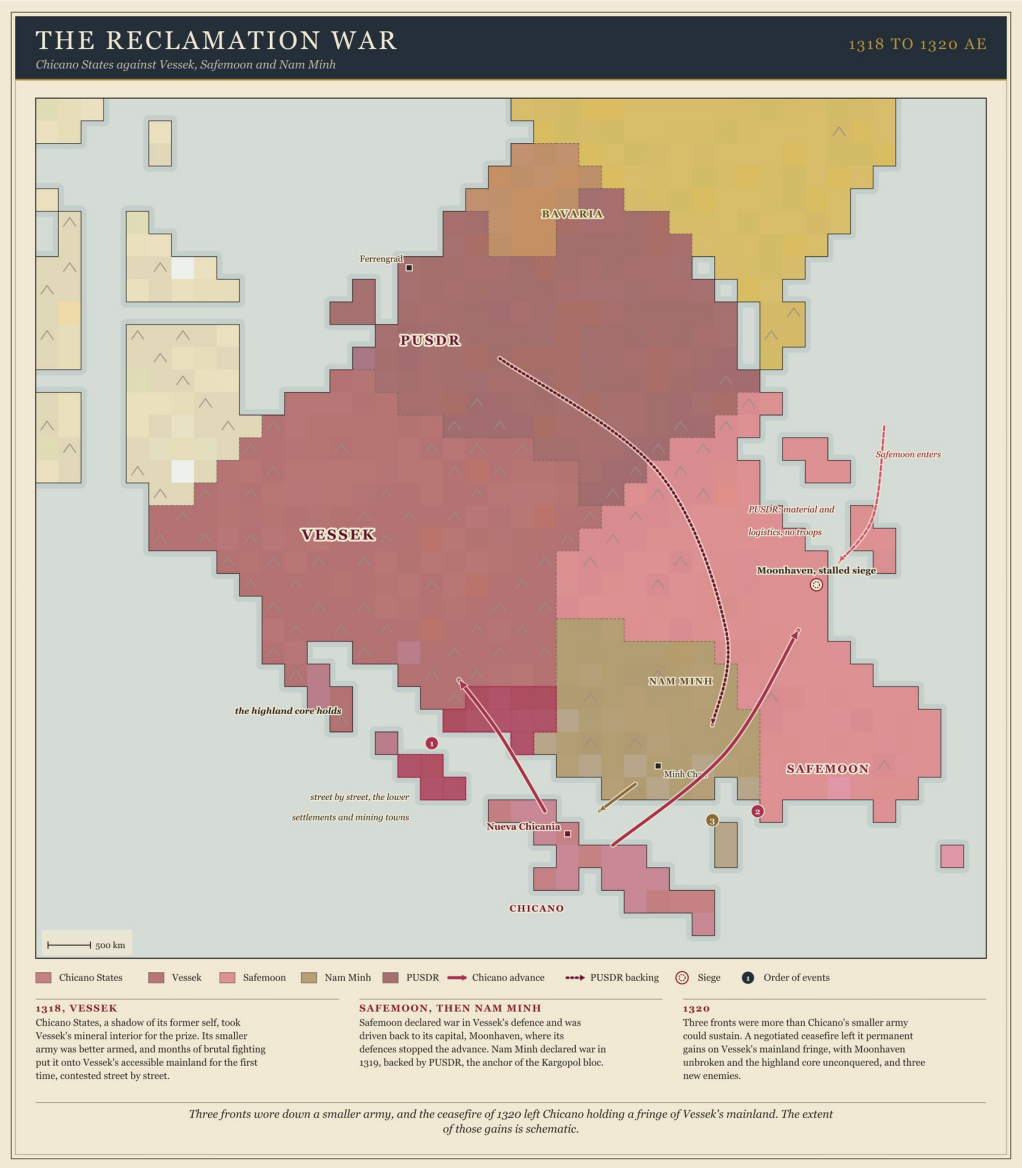


Plate: Three fronts wore down a smaller army, and the ceasefire of 1320 left Chicano holding a fringe of Vessek's mainland. The extent of those gains is schematic.

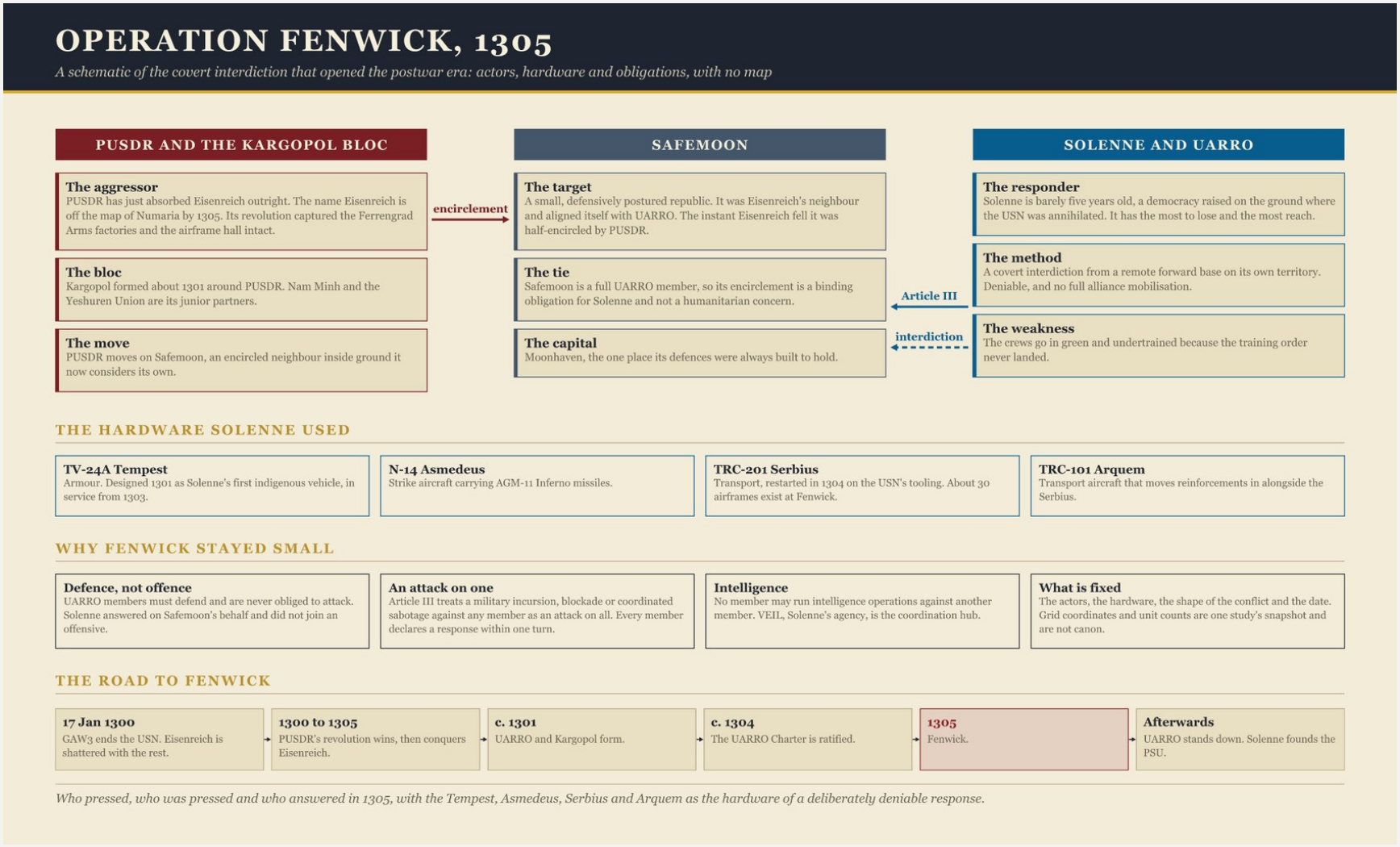


Plate: Who pressed, who was pressed and who answered in 1305, with the Tempest, Asmedeus, Serbius and Arquem as the hardware of a deliberately deniable response.

PART FIVE

The Last War

20
Malakor

He was sixteen when he became the head of a nation, and he was the cleverest person anyone around him had ever met. He was also very ill, and the people close to him had arranged things so that it would not matter.

The war he started was not the fourth Aridexian war. It came first, and it was a different kind of war. It was the one that spent the world's patience.

The Youngest Jakaar

In AE 1353, at the age of 16, Malakor Vane was appointed directly into the final presidential election by a sitting Jakaar loyal to his father's network, bypassing the regional and statewide stages entirely, by the mechanism described in Chapter 16. He won. In front of a camera, in front of a crowd, in any setting where being watched mattered, Malakor was everything his father had ever been, at a magnitude Farren never reached. He was the most charismatic, charming, funny, relatable and naturally commanding public figure Solenne had ever put before its electorate. He beat his own older brothers, Vaussen and Marcus, both of whom had worked their way up through legitimate regional politics in different states and lost to him anyway.

None of that public warmth was real, in the sense of reflecting anything Malakor felt. At his core he was functionally incapable of empathy or sympathy toward anyone but himself: manipulative, narcissistic, and terrifying in the private moments his public performance was built to hide. He was cold and silent when nobody of consequence was watching, and flawlessly warm the instant a camera or a crowd required it. Solenne's public image of itself, the one recorded as settled history, was never more perfectly maintained than under the one Jakaar least capable of believing in any of it.

At full growth Malakor stood 6'1", with light platinum-gold blond hair (it shines like pale gold in the light, clearly yellow-blond and never white) and heterochromia: one eye bright green, the other bright blue. His public image team never fully neutralized it into something less striking. On camera it photographed as memorable and not unsettling, and it read as the second only in person.

The medication. Early in his presidency, Department-Y, the same body that had built him, developed an assortment of pharmaceutical treatments intended to correct what its own founding protocol had broken. The medication could let Malakor feel something closer to ordinary human sympathy. He took it, more than once, and rejected it completely and permanently, by his own explicit account. He hated the feeling of sympathy. He found it weak and compromising, an intrusion on a way of seeing the species' resource arithmetic that he considered more honest than anything sentiment could produce. Nobody at Department-Y ever offered it to him again.

The arc. Malakor showed almost no movement toward anything resembling redemption over the course of the war, but showing no development is not the same as showing no change. He began the Turncoat War calm, collected and in full control, a man for whom every part of the plan was working as designed. As the war ground on and the cost of Project Turncoat began to exceed even his own cold calculations, that control was what changed. He suffered psychotic breakdowns and escalating frustration. A man whose entire self-image depended on being smarter than the consequences found out, gradually and then all at once, that he was not. He did not get better. He got worse.

The Experiment

When Malakor took office, D.S-H.P was still what it had always been: a largely non-malicious multinational effort, slow-moving in the way a consensus-driven scientific body tends to be. That changed once Malakor's influence reached it. He understood something most of Solenne's own leadership had been slow to say out loud: Aridexia was running out of the resources any real off-world effort required, and saving everyone was never remotely possible. That dispassionate arithmetic is what he used to justify Project Turncoat in public, and it was not wrong. But it was not why he started the war. Malakor had already secured his own eventual departure for Typhon well before any of this, on his own terms, regardless of who else made it or did not. The Turncoat War was never something he needed to win, or even needed to fight. He started it because he wanted to see what he was capable of. It was a private experiment in how far his own intelligence, resources and total absence of restraint could move the world, dressed up afterward, for anyone who asked, in the urgency of the resource arithmetic.

Project Turncoat. Malakor committed PSU funding (from Solenne, the Pechorian Federation and Xue Lin) to building the most advanced space-travel programme Aridexia had ever produced. The money was funnelled solely into Solenne's own aerospace companies and never shared beyond them. At the same time he bribed Northland-Southland, Chicano States and Anestria's successor states with promised land on Typhon, in exchange for sabotaging every rival agency's off-world programme instead of building competing ones.

Rival agencies began competing in earnest anyway, PUSDR's VAPIK coalition (PUSDR, Vessek, Safemoon, the Yeshuren Union and Nam Minh) chief among them. Malakor escalated without hesitation into open, deliberate war crimes against them, sabotage and violence that VAPIK

absorbed without being crushed by it. Then, in the year Solenne's own first successful crewed missions launched for Typhon, Solenne moved beyond sabotage entirely. It ran military operations inside its bribed client states to intercept and destroy crewed VAPIK launches already in flight. The doctrine of shooting down manned rockets, which Chapter 22 later attributes to the Threshold Accord's enforcers, did not begin with the Accord. It began here, five years earlier, under Malakor.

The Turncoat War, 1354 to 1358

Solenne's navy took the Korut Islands cleanly and quickly: Halvern, Korveil and Finhaven first, then small, undefended Skerrow, leaving only Tavelin uncommitted. Solenne's uncontested naval superiority (Chapter 26) should have managed that against four essentially undefended island governments, and it was the war's one lasting territorial result.

Numaria itself was a different problem, and the outcome there followed from who was fighting whom, and not from what Malakor wanted. Three fronts opened against the VAPIK coalition and Chicano States together: a naval assault directly into PUSDR, a second front out of Bavaria, and a third out of the newly annexed Korut Islands. The invading coalition was Solenne, the Pechorian Federation, Xue Lin, Skotia, Northland-Southland and Christonia. By every account these were the largest battles Aridexia had ever produced. They were also fought on the one continent no conqueror had ever been allowed to keep. PUSDR's own arsenal was purpose-built, newer and more aggressively funded than anyone else's on Numaria for a war like this one (Chapter 26). The moment either land front pushed toward Vessek's mountain core, it ran into the wall every invader in Numarian history had run into. Vessek had never been conquered by anyone, not Eisenreich, not PUSDR itself, and the Turncoat War did not change that.

Chicano States collapsed partway through, from its own internal corruption and not on the battlefield. A revolutionary government descended from Salvador Reyes seized power and threw a new, revolutionary Chicano into the war on VAPIK's side instead, stiffening the front Solenne needed to weaken. Solenne's naval superiority was never in question. What was in question was its ability to conquer and hold Numarian ground against PUSDR, Vessek's terrain, and a coalition that grew more committed as the war went on. By 1358 the land war had done what every Numarian land war before it eventually did: it stalled into a grinding, unresolved stalemate, won by nobody and ended by nothing but exhaustion.

Malakor did not wait for it to resolve, because he was never fighting for a resolution. He had got what he came for: proof, to himself, of what he could make happen, plus a permanent claim on the Korut Islands as a strategic bonus. He left for Typhon the moment he judged the experiment complete, in the middle of the stalemate, without a peace treaty, a surrender, or so much as a formal declaration that the war was over. For the people left fighting it, it was not over. It had simply stopped being his problem.

What came next was the Threshold Accord and the Fourth Aridexian War (Chapter 22). That was a separate, later catastrophe and no continuation of Malakor's own war, though it grew directly

out of the world his war left behind. Solenne had been bled down by five years of real blood spent on a war its own head of state started for himself and stopped fighting once he was done being curious about it. Solenne's homeland government was among the Accord's first casualties, in AE 1365, seven years after Malakor had left it to its fate.

Three Men, One War

The Turncoat War's most consequential figures never met on equal terms, and the contrast between them is the point.

Malakor Vane led the war's aggressor from a nation with an excellent, carefully maintained reputation. Underneath that reputation he was cold and functionally incapable of empathy, and he treated the people fighting and dying under his orders as numbers in a resource calculation whose answer he had decided years earlier. He had had the chance to feel differently about this, in the form of the medication, and rejected it on principle.

Chicano States' revolutionary leader was a direct descendant of Salvador Reyes, and twenty-nine years old when the war's largest battles came. His name was Isador Reyes, and the record says little more of who he was. His arc started the opposite way from Malakor's. He was grounded in an understanding of people, their fear, their grief, their capacity for hope, and how directly all of it shapes what happens on a battlefield. That did not hold. As the war ground on and he took personal field command, he began sacrificing his own people to it, hesitantly at first, then with a widening moral distance that had nothing to do with his love for the people close to him, which never changed. The strangers he had once fought for, and felt for on principle, stopped being individuals to him somewhere in the middle of the war. It was the same trajectory as Malakor's psychotic unraveling, running in the opposite direction: Malakor started cold and destabilized, while Chicano's leader started warm and calcified.

Neither man was simply good or simply bad. Malakor's war was fought, from his own perspective, to save what was left of a dying species by any means necessary. Chicano's new leader inherited a country whose own history was not remotely innocent. But the lesson holds here as it does elsewhere in this history: reputation and character are different things, and this war is where a good country's bad man and a bad country's good man both ended up proving it from opposite directions at once.

Cassius Altyr, PUSDR's successor head of state, was the war's third figure and its clearest outside observer. He was twenty-five when the Turncoat War began (b. AE 1329), young enough to have inherited PUSDR's leadership instead of earning it through the revolutionary generation that threw off Eisenreich. He was every bit the product of that inherited comfort: regal, cocky and smug, visibly more at ease in his own authority than any of PUSDR's revolutionaries had ever had the luxury of being. As an adult he stood 6'1", with tousled dark hair and amber-gold eyes, and he favoured rich maroon-and-gold court dress that matched the regal, cocky, smug reading of his character.

Cassius did not fight in the war's opening phase, and its human cost did not register with him at first. In that early stretch he walked past PUSDR's own suffering and homeless population without a second look, a man who had never had to notice hardship enough to develop the habit of noticing it. That changed as the war's damage began arriving in front of him instead of in a report: injured soldiers shipped back from PUSDR's own front, and civilians visibly starving in the streets of the nation he nominally ran. Cassius did eventually take the field himself, later in the war. He was not the war's most reluctant convert to fighting it, but not its readiest either, and the gap between where he started and where he ended is the story of his arc.

What the Record Leaves Open

Several things remain unresolved. Vaussen and Marcus Vane both lost the AE 1353 election to their youngest brother after building real political careers through Solenne's legitimate regional process. Their fates after that loss are not recorded, and neither is whether either became a check on Malakor's government or simply another loyalist absorbed into it. Lilian Vane, Marcus's twin, tested at 208 alongside him in AE 1345, does not appear in the record after that test result.

Northland's leadership in the Turncoat War and the Fourth Aridexian War is likewise unrecorded. Nikolai Nichozh himself died in AE 1328, decades before these events, and had no part in them. Whoever led Northland into the Turncoat War and on into GAW4 was a later, separate figure, and the record does not name that person. Arvonia is referred to as a nation with its own character and story, but the record does not place it on the map or give it a founding history. Of Cassius Altyr, the record says nothing beyond the account above: it does not give his exact title, how he came to power, or what became of him once he took the field.



Plate: Solenne's navy took the Korut Islands, and the three fronts on Numaria stalled against PUSDR and the mountains of Vessek. Front lines are schematic.

21
The Typhon Rush

There is a second habitable world in the system, and it is a moon. People had known it was there for a long time. In the years after 1338 they began to go.

What they found when they dug was not what they had come for.

The Long Emptying (AE 1338 to 1341)

The Third Aridexian War did not only cost Aridexia lives and cities. It cost the planet uranium, of which it never had much to begin with, and it confirmed in the starkest way that a species with one homeworld is a species one bad century from having none. Deep Space Human Preservation (DS-HP) had been saying this quietly since its founding. After 1300 AE, nobody with real authority disagreed any longer.

The obvious place to look was Typhon, the habitable moon of Osprey. It had been surveyed, catalogued and lightly instrumented for over a decade, and the Typhon Astrobiology Programme existed to keep it that way: observed, not settled, until its biology was understood well enough to know what a real settlement would be stepping on. (The Programme and the moon's four biomes are described in Appendix A.) The Programme's own planetary-protection mandate forbade any large-scale landing until that understanding existed.

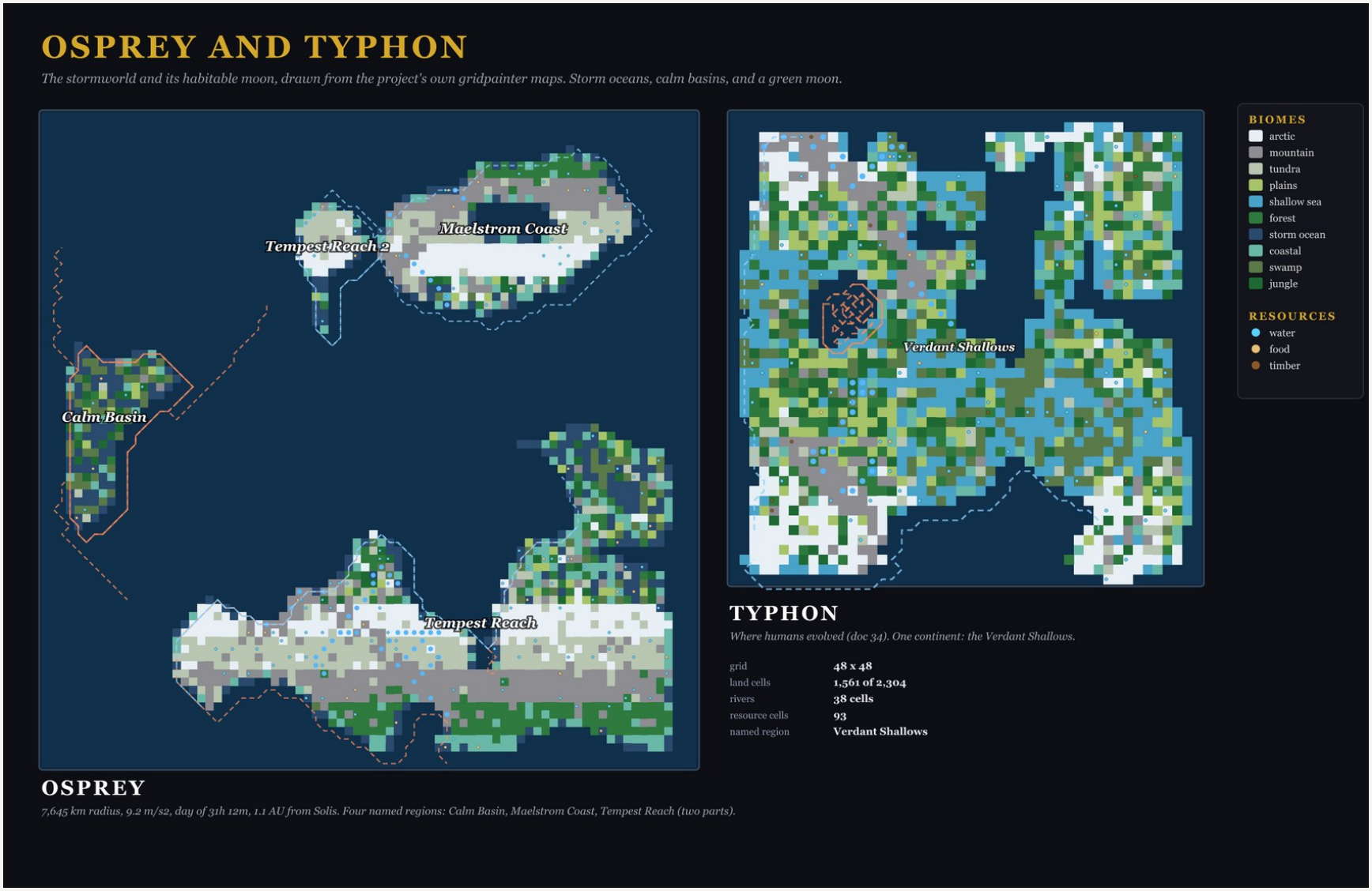


Plate: Osprey and Typhon, from the project's own maps.

Forty years and change after GAW3, DS-HP overrode the mandate. It did so openly, and not without internal dissent: the Programme's senior staff put their objections on the permanent record before the first landing craft ever launched. The argument that won was the same one that had won every time since the diaspora that opened the Classical Age (see Chapter 2). A species that is running out of room does not wait for perfect information. The first true colonization wave, several thousand settlers drawn disproportionately from the parts of Aridexia hit hardest by the post-war resource crunch, reached Typhon's Hearthlands in AE 1341.

What they found was an empty moon that had clearly been worked before.

A World Already Mined (AE 1341 to 1360)

The Hearthlands' surface ore, the sulphide and base-metal deposits that lie near its vent-margin biomes, was thinner and patchier than the original orbital surveys had predicted. Early colonial geology blamed sampling error, a reasonable first guess for a body so lightly surveyed. It would turn out, years later, that this was the correct observation with the wrong explanation. The ore was not scarce because the surveys were wrong. It was scarce because someone had already taken the accessible parts of it, so long ago that the workings had weathered past easy recognition as workings at all.

Nobody made that connection yet. The colonists spent these nineteen years building the ordinary infrastructure of a new settlement under real environmental pressure. Volcanism in the Hearthlands is gentle by Osprey's standards but constant. Tidal flexing keeps the ground unstable in a way nothing on Aridexia had prepared any engineer for. The Astrobiology Programme's field staff, folded into the colonial administration and not overruled out of it entirely, kept every settlement expansion on a slow, negotiated leash around the four documented biomes.

By most accounts from the period it was a hard but hopeful stretch, and it ran longer than anyone would have predicted at the start. Nineteen years is a long time for a young colony to stay this unified, and it stayed that way because nothing back on Aridexia was actively working to break it apart. Everyone present was still simply **Ardekai**, the old, formal word for "human," which every person in this history has always been, whether or not the word was used. They were people from a dozen different Aridexian nations, thrown together by circumstance, doing the work of not dying on a new world.

That changed once Malakor Vane became Solenne's president in AE 1353 and Project Turncoat began redirecting resources, funding and political pressure toward making Solenne, and only Solenne, the power that would decide what this colony became. (Malakor and the Turncoat War are the subject of Chapter 20. That war, fought from 1354 to 1358, is a separate and earlier conflict from the Fourth Aridexian War, and it was the reason the colony's hopeful early period lasted as long as it did: Malakor's influence did not reach DS-HP in any real way until his presidency and the years just after.) The fracture that followed did not come from anything the colonists did differently. It came from what happened once home stopped treating them as one

people worth keeping that way.

22
The Last War

A group of departments in an old, neutral institution did the arithmetic and published it. There was enough propellant, alloy and fissile material left to keep one off-world effort alive. Not two.

Four nations decided to enforce that. The rest decided it was a death sentence. Twelve years later the last two governments on the planet went quiet.

Chapter 18 called the modern era the least fixed part of the timeline, open on purpose. This is where it closes. Everything in this chapter happens on Aridexia itself, in near-total isolation from the one piece of the species' future that survives it: the colony on Typhon, Osprey's moon (Chapter 21). That colony's own parallel collapse into the Ardekai-Ospyran War runs on almost the same calendar, 1366 to 1371, and neither side learns what the other is going through until it is far too late to matter to either of them. Two branches of the same species, cut off from each other by the crisis that split them, independently discover that neither has left the habit of war behind.

Not the Turncoat War

The Fourth Aridexian War is a different war from the Turncoat War. Five years earlier (AE 1354 to 1358), Solenne's young president Malakor Vane started a separate, earlier resource war, and never needed to finish it. He bribed Northland-Southland, Chicano States and Anestria's successor states into sabotaging every rival Typhon program while Solenne built the only real one. Solenne's uncontested naval superiority took the Korut Islands cleanly and gave the war its one permanent territorial result.

Numaria did not go the same way. PUSDR's arsenal (Chapter 28) was built for this kind of war. Vessek's mountain core has broken every invader on record without exception (Chapter 8), and Numaria as a whole has stayed unconquerable since the collapse of the Karavynic Empire. Solenne's coalition proved no different, and the war on the ground stalled into the same grinding, inconclusive stalemate that every earlier attempt on that continent has ended in.

It never mattered to Malakor whether the war resolved. He had already secured his own departure for Typhon whatever happened, and by every account that survives him he started the

war less to win anything than to see what he was capable of. It was a private experiment, run with a continent's worth of other people's lives, and he left the moment he was satisfied with the answer, mid-stalemate, without waiting for an ending that was never the point. What he left behind was a Solenne, and three bribed, exhausted allies, that had spent five years and real blood on a war their own head of state started for himself and abandoned unfinished. Nobody had fixed what the resource arithmetic of DS-HP meant for everyone else on the planet. The Fourth Aridexian War was the reckoning, and a Solenne already bled down by an optional war could not afford to survive it.

The Math That Started It

By AE 1359, the year after the Turncoat War ended, the resource accounting of DS-HP made plain something that had been true for a long time before anyone said it aloud. Aridexia's remaining stock of launch-grade propellant, precision alloys and scarce fissile material (Chapters 6 and 14) was enough to keep one off-world effort alive. It was not enough for two, or for a modest number spread across several nations taking turns. One. Every gram that any other nation spent trying to stand up its own program would come out of the only remaining margin the species had, with no realistic chance of that second program ever succeeding on its own. It would make the first one fail too, on the way to failing itself. The Turncoat War had already proven this in miniature. The Fourth Aridexian War is what happens once nobody with a stake left is willing to accept the answer a second time.

DS-HP published the assessment as pure mathematics, in the same insulated, non-political posture that had defined it since its founding (Chapter 18). Malakor's presidency had badly compromised that posture from the inside during the Turncoat War, and DS-HP's wider staff never learned how deep the compromise ran. What happened next was not DS-HP's decision, and the record is careful to say so. DS-HP recommended restraint. Four nations chose enforcement instead.

The Threshold Accord

Solenne, the joint Northland-Southland government, Chicano States and Anestria were four powers with the industrial capacity and postwar standing to act on DS-HP's numbers. Three of the four were powers the Turncoat War had just finished bribing, exhausting or annexing its way through, which was no coincidence. In late AE 1359 they signed the Threshold Accord, a formal and bloodless-sounding agreement to prevent any other nation from spending Aridexia's last margin on a launch program that DS-HP's own math said could not work.

On paper it was resource management. In practice, from the moment any other nation's rocket left its own pad, it was an act of war against one target: the rocket itself, and whoever was still inside it. **The Accord's four signatories enforced it with total ruthlessness from the start: covert sabotage of rival launch complexes, and the outright shooting down of manned rockets that made it into the air anyway.** No signatory ever publicly admitted to the second part. Every nation on the receiving end of it knew what had happened within hours.

Phase I: The Diplomatic Resource War (AE 1359 to 1361)

The existence of the Threshold Accord leaked within months of signing, and every nation it excluded reacted the same way, with total diplomatic rupture. UARRO fractured for good this time, unable to hold trade-bloc unity between members on opposite sides of the Accord. Kargopol used the crisis as a recruitment tool, framing itself as the alliance for everyone Solenne's bloc had just written off. That was ironic, given Kargopol's own PUSDR-anchored history of using the same "everyone left over" logic to its advantage (Chapter 8), and more ironic still given that PUSDR had just spent the Turncoat War fighting Solenne directly. DS-HP itself faced the first legitimacy crisis in its history. Half the planet accused it of providing the intellectual cover for what the other half was already calling a death sentence for everyone standing outside the Accord's four borders.

Phase II: The Proxy War (AE 1361 to 1363)

Diplomacy having failed, the excluded nations turned to the playbook that the USN and PUSDR had written against each other a lifetime earlier (Chapter 8): fund someone else's internal enemies rather than declare war outright. Bavaria and the Pechorian Federation armed separatist and dissident movements inside Anestria's patchwork of successor states, and kept quiet about it. PUSDR did the same inside Chicano States' reclaimed southern territory. Nobody ever officially acknowledged any of it, and everybody understood all of it.

Phase III: The Terrorist Campaign (AE 1363 to 1365)

Proxy conflict changed nothing about the math, which pushed the fight into its ugliest register yet. Direct attacks on launch infrastructure, DS-HP administrative sites and spaceport-adjacent civilian population centres began on both sides of the divide. Some came from excluded-nation cells trying to force the Accord open by making its enforcement too costly to sustain. Just as often they came from radicalised cells inside the four signatory nations themselves, unwilling to live with what their own governments had chosen to become. DS-HP's Aridexia-side administrative headquarters was bombed twice in this window alone. Neither attack was ever conclusively attributed.

By 1363, the strain was already visible inside the four signatory nations before it was visible anywhere else. Enforcing the Accord meant keeping a rocket-denial force credible on every continent at once, an occupation-scale commitment that none of the four had budgeted for. The domestic terrorism campaign against their own governments was already fraying central authority in stretches of Solenne, Northland-Southland, Chicano States and Anestria's successor states, well before the declared war of Phase IV reached them from outside.

Phase IV: Open War (AE 1365 to 1371)

Terrorism failed to move the Accord, and by 1365 the excluded nations stopped pretending that restraint served them either. What followed was declared, total, continent-spanning war, and a uniquely brutal one for a specific reason. GAW3 had burned through nearly all of Aridexia's fissile stockpile decades earlier (Chapter 14), and the resource logic of the Threshold Accord had made building any more of it functionally impossible for anyone.

The Fourth Aridexian War is fought almost entirely with conventional arms, on a scale no earlier Aridexian war had ever needed to reach, for as long as it takes for that to matter as much as a handful of warheads once did. There was no single decisive strike capable of ending it in an afternoon, as GAW3 had been ended. The war ground forward instead. The industrial capacity, population and accumulated infrastructure of a dozen still-standing nations were spent down across six continuous years of total war, on every continent, by every major power named in the earlier chapters of this book, and not in one catastrophic day.

Nothing fell all at once. Six years of grinding, continent-spanning war means a map that keeps changing, and one that does not jump straight from whole to ruined.

- **1365**: The Threshold Accord's own four signatories went first, and it was no accident. Keeping a rocket-denial force credible on every continent at once was an occupation-scale commitment none of them had budgeted for (Phase III, above), and the declared war finished off central authority that domestic terrorism had been fraying since 1363. Solenne, the joint Northland-Southland government, Chicano States and Anestria's successor states were the first governments the war cost outright. Solenne collapsed at home with Malakor Vane already gone, having left the government he had built to face this without him.
- **1366**: The fight moved to the ground the whole war was about. Numaria and Drozdov, Aridexia's most fissile-scarce and most resource-contested continent (Chapters 6, 8 and 14), went down together. PUSDR, Bavaria, Safemoon and the Pechorian Federation all lost their governments within the same year, fighting each other and the Accord's enforcers simultaneously over ground that neither side could afford to keep fighting over much longer.
- **1367**: The collapse reached Candrasia and the old colonial patchwork of Skarnovia, pulled in by the same alliance structures (UARRO and Kargopol) that had already fractured for good in Phase I. Christonia, Einsenia, Ostrenia, Velemira, Kesarova and Dravensk all lost functioning central government this year.
- **1368**: The All-Finian successor city-states and the continent's oldest independent trading nations, Luluke and Skotia, went next. They were starved of the trade networks that every other collapse had already cut out from under them, and were never conquered outright. The year included Tavelin, the one Korut island Solenne never annexed during the Turncoat War, which outlasted its neighbours by a full decade only to go down with everyone else in the end.
- **1369**: Numaria's smaller client states, Nam Minh, the Yeshuren Union and Xue Lin, lost whatever protection their larger patrons could once offer, because those patrons no longer existed to offer it.

- **1371**: Hardluckia and the Schwalbenheimers, the last two governments left standing anywhere on the map, went down in the war's final year. Pan-Anestria's desert interior was remote enough that it was always going to be the last place the collapse reached, and it was never going to be the place spared from it.

The End of It

By AE 1371 there was no clean armistice, no treaty, and no single moment that anyone afterward points to and calls the end. There was only an exhaustion so total that the fighting stopped because nothing was left on either side capable of continuing it. Every nation this book has described as a going political concern was, by this point, either formally collapsed, functionally ungoverned, or reduced to a population and industrial base too small to be called a state in any sense the book has used the word. This was not survivable the way GAW1, GAW2 and GAW3 were each survivable in turn, each one followed by reconstruction, successor states and a long peace to write the next chapter about. There is no later chapter of that kind to write after this one. Things do happen on Aridexia afterward, but nothing left there is in any position to make more of the history this book has spent its whole length recording.

The species does not end here. It ends here *as a going concern on Aridexia specifically*. The story of the Osprey Exodus draws the same distinction about the planet Ardekai actually evolved on, and it is drawn here a second time, in the other direction, about the planet they built every nation in this book on top of. Aridexia was the birthplace of everything this book describes. By AE 1371 it is no longer anyone's home in any sense that matters going forward. What survives of the species does so on a moon orbiting a storm-wracked planet one orbit further out from the same star (Appendix A). That is close, by the standards of the system, and still far enough that the colony remains unaware, for years afterward, that the world it left behind is gone, and that the man who started the chain of events ending it is already there waiting, having never looked back once.

The Islands, Spring 1354

Malakor Vane was seventeen and had held the Jakaar's office for a year when he signed the first orders of the Turncoat War. He signed them at the map table in an afternoon, with Daro Quint at the window, and he chose the sea because the sea was where Solenne was strongest and where nobody had troubled to defend anything. He gave Admiral Edric Thorne a single condition. The yards at Korveil were to be taken whole. Everything else on the islands was a cost, and Malakor had weighed the cost against the gain before the ships sailed.

Thorne had commanded the Kaelis squadron since the first hull entered service in 1349. In the first days of March he took the Fleet of the Korut Passage out of Solenne's northern yards with the second Kaelis, commissioned that winter, the superdreadnought INS Devourer and the aviation cruiser INS-2 Tal-Mac, whose outrigger pontoons had been built for landings of this kind. A flotilla of Type-12 Valiant boats went ahead of them into the harbour mouths.

Halvern went first. The Board of Underwriters held the sailing plans of every shipper on the chain and found them already arranged for the visitors' convenience, and the Exchange kept the lanes open and declined to defend them. Korveil was the largest of the five cities and the only one with yards worth taking. Its Council had voted funds for a fleet, and its workforce had refused to stop dealing with its own customers. Marines held the slips within two days. The Yard Wardens' Council voted a week later to keep working. Finhaven had no fleet to speak of. It drew its harbour chain across the mouth, and a Valiant boat cut the chain on the first morning. The Fleet took the town and with it the Admiralty vault, where the strike orders of 1300, the signed dissolution of the Empire and the witnesses' rolls had lain for fifty-four years. The record does not say what was done with them. Skerrow was a rock with a harbour and a moot, and it was taken without a shot after the three larger cities had gone. Tavelin was left alone. Its Tender Council sent word that the city was for sale and could not say to whom, and Thorne's orders had no instruction for a city that was a matter of price.

The campaign took twenty-three days. Solenne lost nine sailors. The Korut cities lost about 140 people, most of them in the Korveil yards, where a night watch tried to hold a slip and was overrun. Malakor asked for that figure once, repeated it back to Quint as a ratio, and turned to the Numarian tables. It was the one clean thing in the war, and the only part of it that he ever called finished. The islands became the third front's base at once. Korveil's yards repaired the Fleet, Halvern's charts supplied the sea lanes to the Numarian coast, and the Pan-Savoran fund, which no member could audit, began that same spring to pay Solenne's aerospace houses.

In Verdad, a geography teacher not yet thirty pinned the five cities to his classroom map that month and asked his pupils which would sell first. He knew every one of their parents by name. A girl in the second row said Tavelin, because it was the one that asked the price, and Isador Reyes told her she was right and that it was a poor thing to be right about. In Kargopol, Cassius Altyr, twenty-five and in maroon, read the report over breakfast and thought it a tidy week for other people's navies.

Varanka and Tarvos, 1354 to 1356

Malakor chose the commander and the doctrine together. Marshal Valentin Crake had learned the Black-Snake method as a boy of thirteen from Imre Sallow, in a country that had struck the Corps' symbols from every badge, and the method told him to find what the enemy could not afford to lose. That suited the man who had hired him. Malakor wanted one answer from the Numarian command: what would PUSDR give up first, and how long before it did. He sent a marshal in his middle thirties to find out.

The invading coalition went with him. Solenne supplied the core, in grey-tan field dress trimmed in solar yellow, the best-supplied soldiers in the war, carrying the SR-30 and riding in Tempest armour. The Pechorian Federation sent a few battalions of MK-72M1XT tanks and a wing of MK-299 fighters, in numbers too small to matter to anyone except the people they were pointed at. Xue Lin sent engineers. Skotia flew coastal patrols for the Pan-Savoran Union, each of which

was a voyage in law and a vote among the crews. Christonia sent a brigade of Conjunctioner volunteers. Northland and Southland sent a corps, and the corps had a commander who had asked for it. In the war office at the Northland capital, Field General Askold Tolgrim read the first dispatches from the north and told the officer beside him that the coalition was fighting in the wrong country. Asked which was the right one, he said the one where nobody had won.

The first front was the sea. In October 1354 four Solennese divisions went ashore from Tal-Mac and chartered transports on the Varanka Sands, on PUSDR's northern coast beside the Yeshuren border, under the guns of the Fleet and the aircraft of the supercarrier Phantom Seas. They held the beach for ten days. On the eleventh the armour of Army General Lidiya Voronets came down the coast road, JH-1AZ tanks in front and DKK-1 fighters overhead, and for eight more days the two armies fought in the dunes and the salt flats for a road that neither could use. The Fleet took the survivors off under the Kaelis guns on the nineteenth day. Solenne lost about 23,000 dead and PUSDR about 29,000, which made Varanka the largest battle Aridexia had yet seen, and it was a draw. The beachhead became a place where PUSDR kept two armies it needed elsewhere. Malakor accepted that as a price already counted. In Kargopol, Cassius asked his staff how many tanks Voronets had lost and was given the number of men as well. He read the first figure aloud and passed over the second.

The second front was Bavaria. The Concession Board had hosted Solenne's staff under the old clause that told it to sell to whoever held the sea lanes, and the marshal set up his headquarters in a market town called Haldenau, whose railhead the Board had enlarged at the full commercial rate. From Haldenau he drove south toward Tarvos, the fortress city that commanded PUSDR's northern marches, and the siege began in April 1355. Bavaria sold the besiegers BL-1 tanks, fuel and tracking time, and sold the fuel again to the other side by way of Kargopol's merchants a month later. Voronets's second army held the city on rations from the Registers, the statistics of the old occupation that the Union still trusted above any others. In June 1355 bombers burned the depots at Zhokrova, and PUSDR's output of JH-1AZ tanks fell by a fifth for four months and then recovered. Cassius signed the repair orders without leaving his capital. They were his first long documents about the war, ornamental and addressed to no one. The siege of Tarvos was to last thirty months.

The Heights, 1355

The third front belonged to a man the record had not expected. Askold Tolgrim commanded the Northland-Southland corps, some 60,000 men in the plain black field dress with the single purple sash, and he was thirty-seven when it landed at Cape Orsolay on Vessek's western coast in July 1355. His family kept a Christonian psalter in which a daughter had been entered in 1258 in a hand that they said was the Founder's own. By that entry Tolgrim was the great-grandson of Nikolai Nichozh. No state record confirmed the line, and none denied it. The Keepers of the Band had built a priesthood around a god with no household, and a descendant was inconvenient to them. Bayarmaa Oyun-Tash knew the psalter's story and did nothing with it. She kept him in the field and far from the capital, and the record does not say whether that was kindness or housekeeping.

He wore no band across his eyes. He had read the Founder's two great actions of the Second War, the mountain pass choked off with avalanche timing and mortar placement and the garrison relieved by deception, because every officer in Northland read them, and he was the first of them to expect to be compared. He spoke of the old man as the old man and never as a relation. When a chaplain in the corps offered to read the psalter entry over the men before the landing, he said the men had enough to carry.

The corps went up the Dorrenheim Heights in the autumn, ground the First Marshal's columns had known. PUSDR's mountain army held the roads. The hold-leaders of Vessek held everything else, in their valley colours of cloth strips, with no capital to capture and no uniform to aim at. The doctrine had nothing to take hold of. A blizzard closed the passes in the second week of November, and over nine days the coalition lost about 19,000 dead on the Heights, 3,100 of them Northlanders. The corps would have lost all of its 60,000 if Tolgrim had not stayed with his rearguard on the Kessel road. He mined the slopes above it and timed the slides to the passing of his own columns, and he put his mortars on the ledges where the first fall would bury the road behind him. To his engineer he said, "Put them where he would have put them. Then move them ten metres, so that if I am copying him I do it badly enough to be mine." The engineer moved them nine. Some 41,000 men got down.

They taught the manoeuvre in Northland's academies afterward and gave the credit to the Founder. Tolgrim let them. It cost him something he did not say aloud, because the old man had never stood on the slope with his own sons beneath the fall.

The dispatch reached Kargopol in the first week of December with the casualty returns attached. Cassius read the Northland pages, which he had no duty to read, and put a question to his staff that nobody had asked him to put. How did a coalition lose 19,000 men to weather and still call the plan sound? In Solenne the same dispatch reached Malakor, who read it once and wrote the word mountains in the margin. He did not write it again. The front would not do what he expected, and for a mind that ran ahead of everyone about it, that was the first interesting thing in the war.

The Desk, 1356 to 1357

In the spring of 1356 the first crewed Solennese ships for Typhon lifted successfully, and in that same year Malakor moved the programme from sabotage to interception. Batteries and fighter squadrons went into the bribed states, Chicano States above all, to shoot down crewed launches from Kargopol's range and from Moonhaven in flight. The orders carried the Jakaar's own signature. The marshal carried them out as written, though he thought them a poor use of his staff, and he began that spring to write to the Jakaar's office in short sentences asking for a treaty. The replies were about supply. Of the nine crewed launches that VAPIK attempted between 1356 and 1358, five were shot down, with forty-one people aboard.

The Jakaar's room in those years was a map table, a lamp and the quarterly propellant allocations, which he had once signed in an afternoon. Malakor was eighteen in 1355 and nineteen in 1356, and the aides who dealt with him described a calm that frightened them, since it came with a precision about other people's deaths that they could not match. Daro Quint sat by the window as he had since the age of fifteen and wrote down what he saw. The war was going as designed. The Korut islands were Solenne's. The bribed governments were wrecking each other's rocket programmes at no cost to Solenne. Only the mountains refused. Tolgrim's winter dispatch from Vessek was the shortest on the table, two lines to say that the hold-leaders answered no one and wanted nothing, and Malakor read it twice. It told him plainly there was no lever. He returned to the problem each night as a man returns to a lock that will not turn. By the winter of 1357 the aides spoke of weeks without sleep, and of one night when he addressed the empty cabinet table for an hour. He read the propellant tables to it line by line and asked for objections. After each line he waited the length of time the question required, and then went on. Quint was in the room and said afterward that he had counted the pauses.

Chicano States had been given the promise of Typhon land and a treasury for the work, and the sabotage ran, and the money that paid for it went through hands that kept a share. Malakor knew the leak and priced it. A state that was robbing itself could not launch, and that was the use he had bought. The state that had been a rebuilt core of coastline since 1320 was hollowed from the inside, faster than any enemy ever had. By the winter of 1356 the army was unpaid, the reserves were called up on paper, and the Solennese advisers wrote that the ally was bankrupt in every sense that mattered.

In Verdad the unpaid soldiers' wives came to Isador Reyes's classroom after hours, because he was the one man in the district who could write a petition and would read it back to them. Isador knew their husbands' names and their companies. He wrote forty-one petitions that winter and sent them all to a ministry that no longer had a clerk to open them. In Kargopol, Cassius listened to the Registers' monthly figure for the hungry in the northern marches and put it beside the Solennese bribe ledger that his intelligence men had stolen. Cassius told his council that the enemy had bought Chicano States and let it rot, and that some man in that country would soon do the arithmetic for himself.

The Red Strip and the Relief of Tarvos, 1357

The revolution began in a schoolroom. In February 1357 Isador Reyes led out of Verdad the movement that took the government in eleven days. He was twenty-nine. His soldiers tore the old marks from their sleeves and sewed on a strip of plain red cloth, and the Solennese press called him the Second Marshal's Ghost, which the Chicano soldiers adopted at once. Isador refused the titles of First and Second Marshal alike. Isador took over a state with no money and a grudge, and he did with it the one thing that Solenne's planners had assumed was impossible. In June he switched the nation to VAPIK's side. Philomena Dragunova received him in Moonhaven, in the city his country's army had besieged in 1319, and the minutes record that she shook his hand and that neither of them spoke of the Ashfields. Chicano States entered the war's last year on the side of the people it had been paid to sabotage.

Malakor received the news from Quint in the early hours. He asked how much of the bribe had reached the new government and was told none of it. "Then it was spent where I bought it," he said. Quint recorded in him a kind of appetite. In Vessek, Tolgrim read the name Reyes in a signals summary and read it again. His great-grandfather had studied the First Marshal's Long Campaign for its marches and its ending, and here, on the far side of the mountains, was the First Marshal's descendant in a red strip. He wrote nothing about it and had his engineers walk the Brasa valley the following week.

In Kargopol, Cassius Altyr was twenty-eight and still in maroon. He had walked past the homeless of his own capital for three years without seeing them, and the war had been something in a report. In the summer of 1357 the hospital trains from Tarvos began to arrive at the central station, and the men on the platform could not be reported away. In September, with the siege in its thirtieth month and the Registers showing the city's grain at nine days, he went to the front. He went by train, in maroon wool trimmed in gold, with his guard in the same cloth, and Voronets, who had held Tarvos for two winters, received him at the line with a salute that held no warmth. Cassius left her army with her. He put his name to her plan, rode with the relief column, and on the Haldenau Road in the first week of October the PUSDR armour broke the besiegers' ring. Solenne's and Bavaria's line fell back forty kilometres to Haldenau. In the same battle the first of the Union's own guard in maroon coats died on the road, and the tailors of Kargopol received the order for their replacements within the month.

The marshal read the captured orders of the relief as they came in. The early ones from Cassius were long and ornamental. They grew shorter and plainer with each week, and he was oddly glad of it, as a man is glad to see a rival learn.

The Brasa Crossing and the Armistice Nobody Answered, 1358

In March 1358 Tolgrim's corps came back to Vessek by the southern road. A task force of 22,000 had been drawn from it and given a plan to take the Brasa valley from the south and turn the core from behind. The river below the village of Alt Brasa ran between the old Chicano fringe, held since 1320, and the first terraces of Vessek. Tolgrim had the north bank. Isador came to it from the south with the army of his revolution, to hold the line for hold-leaders who would not ask anyone for help.

Isador stopped in a village schoolhouse above the river and went down the cots without his staff, saying a name at each one. He asked a corporal with a bandaged hand whether his sister's boy was walking yet. Outside in the yard a captain waited with the crossing order for dusk. It named three companies. Isador read the first line, which gave the objective, and signed without reading the numbers. He knew the corporal's company was among them, and he knew it as one knows the date.

Tolgrim watched them come across from the northern terrace with his field glasses and his orders. The red strips went into the water at the end of the light, 410 men in three companies, and they came across the ford under fire in the dusk with their rifles over their heads. Two hundred and sixty of them died in the river. The rest got up the bank and held it until the engineers could bridge the gap at dawn. Tolgrim withdrew before the bridge was finished, because to stay would have pinned his corps against the water. He had lost 2,400 men and Isador 2,900. Each man knew by morning that he had met an heir of someone. Tolgrim, who carried a story nobody could prove, understood his opponent perfectly. Isador Reyes, who had refused his own story's title, understood nothing about him and was not required to. Isador wrote to the corporal's sister that week. By June he had stopped reading the names.

The returns went by wireless to every capital in the war. Cassius read them in Kargopol with a pencil, and the pencil stopped on the ratio of the dead. Cassius told the VAPIK staff that the crossing was two men paying for ancestors with other people's sons, and that the second payment was always larger. Cassius had spent three years not seeing the dying, and he saw this one from five hundred kilometres away, which was the first time distance had helped.

Malakor left in June. He signed the leave instrument at his desk in the Jakaar's office, with the chief of his office named to act in his absence and the declaring and ending of war reserved to himself in person. He did not resign. Isaure Rook signed the manifest at the departure field, and he went up with Quint into a sky that Solenne's own batteries had been keeping clear of other people's ships. The war was in its fifth year and had no front that moved. The marshal had the notice on a wet evening in a requisitioned grain store outside Haldenau, from a signals lieutenant who had read it twice in the corridor. There was no order to cease fire. He folded the flimsy small and asked for the ammunition returns at six.

In the autumn the marshal drafted an armistice. It carried three signatures, his own, Admiral Thorne's and Tolgrim's, because the army and the fleet were asking together. Tolgrim signed

without comment. It went twice to the Observer's office on Typhon and no answer came. Aurelia Quillon wrote in a letter that apologised on every page, saying that she could sign an Accord and could not sign a peace. Tolgrim stayed on the line. For seven years almost nothing happened on the Numarian front, and nobody was permitted to say that it was over.

The Threshold Accord, 1359

The Turncoat War had cost about 720,000 lives. Solenne's Department of Defensive Logistics admitted 96,400 of its own in the autumn of 1358, and the Federation, Northland and Skotia each wrote to say that the figure was low. The coalition's dead in all theatres came to about 164,000. PUSDR counted 97,000 soldiers in the Registers, Vessek's hold-leaders counted 38,000 by their cloth strips, Chicano States 16,000, Safemoon 9,000, and Nam Minh and the Yeshuren Union 7,500 between them. The civilian dead were counted last and worst. The excess deaths of 1355 to 1358 in PUSDR alone, from hunger and the cold, came to 392,000 by the Registers, which were the only honest statistics in the homeland. Solenne had the Korut Islands. Everyone else had a grave. Cassius read the Registers' civilian column before the soldiers'.

Into that exhaustion came the assessment. In the summer of 1359 Dr Ruvane Achterberg's tables for DS-HP said that the planet could keep one effort off the world alive and not two, and her summary page said restraint. They said what Malakor had said first and alone, years before any figure was published. The tables were on the desks of four governments within a week of her initialling them. Solenne had spent five years on a war that its own Jakaar had abandoned. Northland and Southland had a poor state, long winters and thin grain returns. Chicano States had a treasury a revolution had inherited empty. Anestria had a signature that could be had from one man. Each could see that restraint meant choosing one, and each saw itself as the one. Cassius, shown a copy by the Yeshuren envoy, read the summary page and said that restraint was the polite word. His council took it for a joke.

The signing took place in a hall that the surviving copies do not name, in the late autumn of 1359. The protocol officer had put the Jakaar's chair at the head of the table with the Jakaar's pen case before it. Aurelia Quillon took the pen from the case and made the first stroke on the first line, and the pen left a dry grey smear, because nothing had filled it since the Jakaar left. She signed beneath it in her own hand and wrote the formula under her name, For the Jakaar, on leave. Isador Reyes signed beside her. Chicano States could not afford the war, and he gave no public reason. The two allies the signature sold were Vessek, whose mountains had broken his ancestor, and Safemoon, whose President had shaken his hand in Moonhaven two years before. Isador's pen did not pause. Before Alt Brasa he would have reread the page. Bayarmaa Oyun-Tash signed the line for the joint government and passed the pen. Torvik Drenmoor drew a second line beneath hers in blue-black ink and wrote the date again. Rodrigo Valcazar asked whether the text could say Anestria and its successor states. The clerk said that it said Anestria. Valcazar uncapped his pen.

Tolgrim was not in the hall. He was on the line, and he heard of it from the wireless like everyone else. Asked who had signed for Northland, he was told that there were two signatures, in two inks. He said that the Founder's state had learned at last to disagree with itself, and he did not explain. The marshal, beside him, asked only whether the text had a clause that could end the war on their front. It did not.

Rockets and Separatists, 1359 to 1365

The Accord leaked within months, and every nation outside it reacted in the same way. UARRO broke for good. Cassius recruited on the grievance, offering Kargopol as the alliance of everyone Solenne's bloc had written off, which PUSDR's history made ironic and PUSDR's recent war with Solenne made more so. Cassius had learned by then to say the irony before anyone else could. DS-HP faced the first legitimacy crisis in its history, and its staff were accused of providing the arithmetic for what half the planet had begun to call a death sentence. Nothing moved. The excluded nations launched anyway. Moonhaven sent up the crewed flight it had promised its people, and Dragunova stood behind the tracking officer's chair on the night of the fourth launch since the Accord, the second to be lost. At two hundred and twelve seconds he said that track was lost, and then that the signal was lost. She wrote the crew's names in pencil in the black book she kept for launches. Between 1359 and 1366 the excluded nations attempted thirty-eight crewed launches, and twenty-six were lost with 418 people aboard. The four signatories never admitted to the second part of the enforcement. Every government that lost a crew knew within hours. On Typhon, Malakor's office kept the ledger of what he had promised for the sabotage, and the loss figures reached it each month.

In 1361 the war took another form. Bavaria and the Pechorian Federation had kept their rules, the Concession Board's clause that it should survive any government and Ketil Svarn's that Pechoria should never be the nearest target. Both rules told them to arm the neighbours of their enemies and keep the neighbours small. They armed the separatists inside the successor states of Anestria, and Valcazar's signature gave those men their grievance. The Oasis Guard of the Constitutional Republic split along its regiments, and Colonel Ximena Barros took the garrison of Bredezen into revolt in the spring of 1361, so that the town that had been besieged in the Vinear Coast War of 1301 was besieged a second time by men in the same sand-tan uniform. In the Antilla-Vegan Union the Waterkeepers of the lower valley believed that their tallies had been shaded, and their leader Maurin Oske took arms from the Pechorian pipeline and rose in the Tally Rising. Antares was held by a Lord-Regent, Tomas Eyre, for a vacant throne, and an army sworn to a vacancy could not be ordered to do anything difficult. New Virgen's six districts divided over who owned the Typhon land, and Odessa Pell, who presided over its Assembly, was heard to say that the six had each decided they were the one the others had sold. Branko Telvar governed Imperium's seven stars.

PUSDR did the same in the south of Chicano States, in the reclaimed marches that Isador's army could no longer garrison. The order to hold them reached the marches as a list of numbers, signed in the capital with a single initial, and it named towns only by their grid. Isador, who had

once written forty-one petitions in a winter, no longer wrote the town names. Cassius saw the other side of it. His own columns in the marches took the first village in an afternoon and found a schoolroom with a map of the Korut Islands still pinned to the wall. Cassius ordered the map left where it hung. Some 85,000 people died in the separatist wars of 1361 to 1363, and none of the governments that paid for them ever said so.

The proxies changed nothing about the sum, and the fight moved to its ugliest form. From 1363 to 1365 cells on both sides of the divide attacked launch sites, spaceport suburbs and the offices of DS-HP, some from the excluded nations to force the Accord open and as many from inside the four signatory nations, whose people could not bear what their governments had become. DS-HP's headquarters on Aridexia was bombed twice. The first attack, in 1363, killed Dr Achterberg and 94 members of her staff, and the revised tables she had been preparing did not survive. The second, in 1364, killed 130. Neither was attributed. In all, the terrorist campaign killed about 22,000 people in two years. Cassius, told that the killers claimed to act for the excluded nations, said that the arithmetic had never needed killing to be wrong. Tolgrim was last seen in 1364, on the Numarian line with the corps in black and purple. By 1363 the four signatories could see what the others could not. Keeping a force credible enough to deny rockets on every continent at once was an occupation-scale commitment that none of them had budgeted for, and the cells in their own streets were already fraying the centre.

The Order of Falling and the Count, 1365 to 1371

Open war was declared in 1365, and the first governments the war took were the four that had signed. Aurelia Quillon died that year, in the capital that had been her post for seven years, with the cabinet key still on her ring and Malakor still on leave. Bayarmaa Oyun-Tash and Torvik Drenmoor are recorded dead in the same year, as Northland's capital fell, and no document told the four clans who came next. They went home to their holdings, as the frontier had been before the Founder. The marshal was dead before the year was out, and the record names no place and no cause. Valcazar held the capital of the Constitutional Republic until the successors all fell together, and he was fifty-four.

Isador Reyes held Verdad until the government fell and died in 1366. The record has nothing to say of how,. Tolgrim has no date and no place after 1364. The record does not say which of the families who claimed the Founder's blood outlived him. The legend he had let stand outlasted the man who moved the mortars nine metres.

The fall of the signatories was the fall of five nations at once. Solenne went with Malakor Vane already gone. The Korut cities Solenne had won in 1354 were left to the garrisons it had put there, and the municipal councils on the islands, which the annexation had left sitting, went on meeting for three more years. New Virgen, the Antilla-Vegan Union, Imperium, the Constitutional Republic and Antares all lost their governments, and the last warden of the Union found that nobody had kept its books for a year. Chicano States fell, and the governments that had promised land on Typhon were gone.

In 1366 the war took the ground it had been fought over. Numaria and Drozdov went down together, the continent that was most short of fissile material and most contested for it. PUSDR lost its government that year, and the record does not say where Cassius Altyr was when it did. He was twenty-five when the war began and thirty-seven the year his country fell, and he had worn maroon to the front. Bavaria lost its Board, which had promised to survive any government and had its clerks go on keeping books. The Pechorian Federation lost its council, and Safemoon its President. Philomena Dragunova died in 1366, and her walls fell with her. In 1367 the collapse crossed to Candrasia and the old colonial patchwork of Skarnovia, carried along the lines of the two alliances, and Christonia, Einsenia, Ostrenia, Velemira, Kesarova and Dravensk lost their governments. At Christonia the Conjunctioners were the last to leave the table. In 1368 Luluke and Skotia went, starved of the trade that had already stopped, and the Korut cities and Tavelin went with them. The Tender Council of Tavelin met in the spring and no bid arrived. In 1369 Nam Minh, the Yeshuren Union and Xue Lin lost the protection of patrons who no longer existed. In 1371 Hardluckia and the Schwalbenheimers lost theirs, the last two governments standing anywhere on the map. Vessek and Kharzun appear on no list of the fallen. Neither had held a government of the kind the lists counted.

The cost can be given only roughly. The Turncoat War killed about 720,000. The separatist wars and the terrorist campaign killed about 107,000 between them, and the shot-down launches 418 more. For the six years of open war nobody was in a position to make a count. The Quimbaya Count of 17 January 1300 was kept by one woman who spent her last years on it, and the Last War had no such woman. The nearest thing to a record is the sum of the registers that were kept to the end, the Kargopol Registers, the Relief Corps returns and the Tender ledgers of Tavelin, and from them the range is 54 to 71 million dead of violence, hunger and cold, with perhaps as many again who did not survive the winters that followed. Nobody reconciled them, for the same reason that nobody reconciled the Northland figures of 1308. Malakor's last mention is dated 1371. It says only that he was on Typhon and had not looked back. By then the fighting had stopped because there was nothing on either side capable of continuing it. There was no treaty and no armistice, and the draft that Crake had sent to the moon in 1358 was never answered.

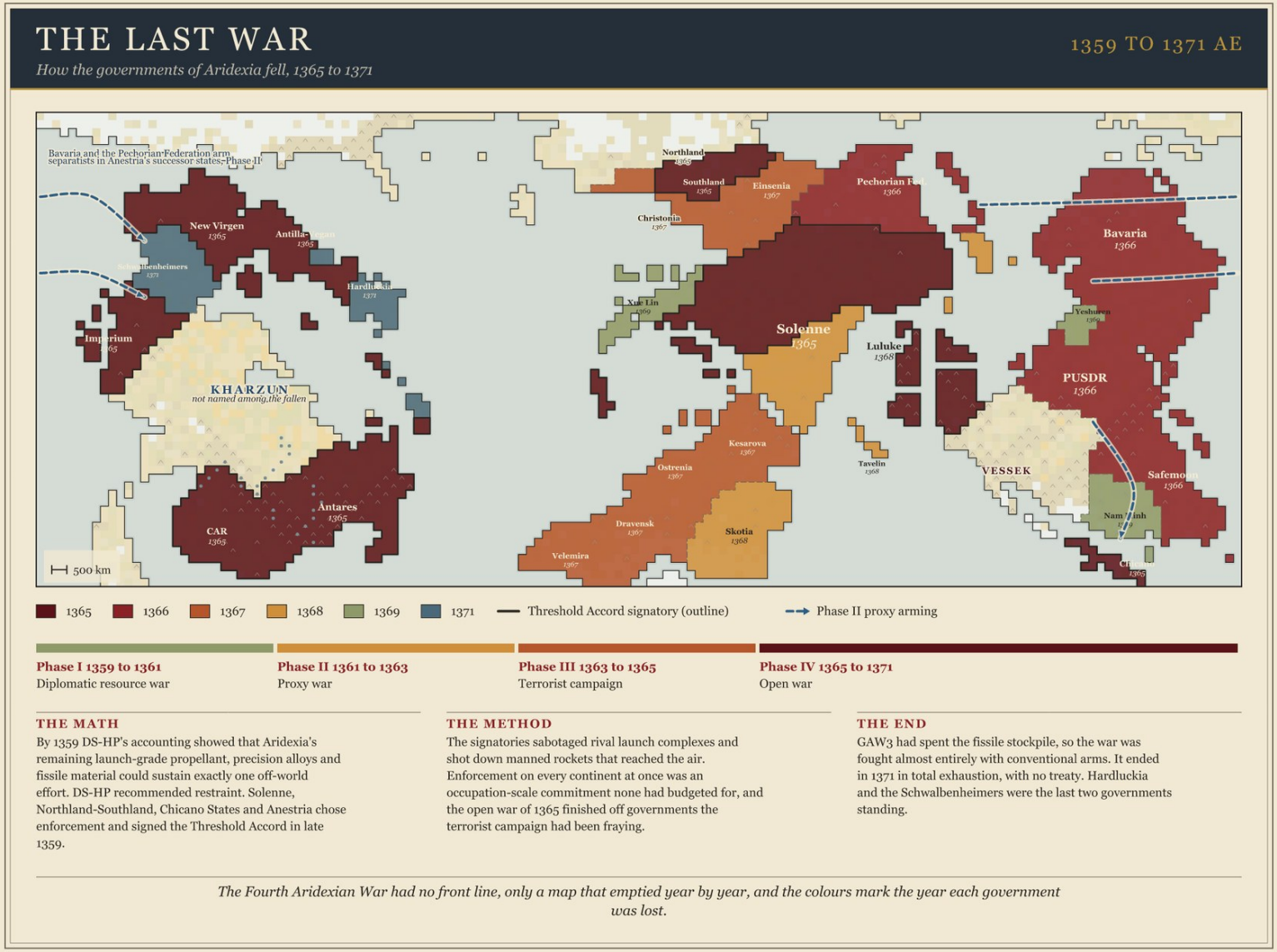


Plate: The Fourth Aridexian War had no front line, only a map that emptied year by year, and the colours mark the year each government was lost.

THE SCARCITY CYCLE

How a thin ore base turned into war, collapse and rebuilding, turn after turn, from the Solvane to Typhon



HOW THE WHEEL TURNS

Bulk density is not ore.
Aridexia matches Earth's mass and density, but only a small share of its metal ever concentrated into rich ore bodies near the surface. What it had was real, thin and scattered, and never kept pace with an industrial, warlike civilisation.

Scarcity rarely starts a war alone.
It sets a ceiling and a motive. Credit, ideology, pride and old grudges supply the rest, which is why each turn below looks different on the surface.

The wheel can turn without a war.
Drozdov's Tureshan Kingdom ended by emigration, one generation at a time, with no battle to name.

The ceiling shapes the weapons.
Fissile ore was rare enough that the USN's whole programme yielded six warheads, spent in one night. A scarcity-limited arsenal ends a war in hours and never extends one.

The last turn does not close.
In 1359 DS-HP's accounts showed one off-world effort could be kept alive, not two. After 1371 Rebuilding has no ground left on Aridexia and continues only on Typhon.

SEVEN TURNS OF THE WHEEL, FROM CANON

Where and when	1 Scarcity	2 Contest	3 War	4 Collapse	5 Rebuilding
The Solvane *c. -270 to c. 3 AE*	The interior dries over generations. The Solvane floodplain is the only reliable water.	Luluke and Christonia contest the one river for about two centuries.	The 200-Year War, an arms race from swords to the AV-1.	Christonia is broken at Year 0. The Carina-11 famine and exodus follow, c. 3 AE.	The diaspora founds the Syndicate, the All-Finian Empire, Anestria and Pechoria.
Drozdov *to c. 950 AE*	The Tureshan coast has a thin, diffuse resource base.	Trade networks to the west pay settlers better than home does.	None. The Kingdom never fights a war worth naming.	Emigration drains the court, and by about 950 it cannot be kept up.	Bavaria's prospectors arrive about 1000 and build a mining state.
Christonia's credit *700s to 1250 AE*	Christonia is cash-poor after its treaty terms.	Syndicate trading houses trade capital for concessions, then for seats at the table.	The Renner cell's bomb in 1249 gives the Syndicate its pretext. The Thirty-Day War, October to November 1250.	Christonia loses 84.2 percent of its economy.	The United Syndicate Nations absorb Christonia and Mesaland.
Pelruvian oil *1260 to 1276 AE*	Anestria's switch from coal to petroleum outruns its reserves, and the USN's coal base is ageing.	Support for Christonia lapses in 1260. HAFDAP forms in 1262.	The USN moves on the Pelruvian Archipelago in 1264. GAW2 runs twelve years.	Christonia is independent again, Mesaland is gone, and the USN is crippled.	The USN survives, smaller and more paranoid. The Talona Crisis follows, 1286 to 1290.
Fissile ore *1299 to 1302 AE*	Fissile ore is rare, with only a handful of known deposits worldwide.	The USN smuggles ore through the Vaurek Concession, off the books.	GAW3, 17 January 1300: six warheads, the whole stockpile, in one night.	The USN ends that evening. The Christonian and Luluke governments and the Empire fall.	Solenne is founded as a democracy. The Empire splits into city-states. Anestria splits into five.
Typhon's ore *1341 to 1371 AE*	Surface ore is thinner than surveyed because the moon was mined long ago.	Two councils, Ardekai and Ospyran, claim the same two ore pockets by 1366.	The Ardekai-Ospyran War, 1366 to 1371.	More lives lost, in proportion, than in any named Aridexian war. No winner.	A joint survey finds the skull in 1371.
The last margin *1359 to 1371 AE*	DS-HP's accounts: propellant, precision alloys and fissile material enough for one off-world effort.	The Threshold Accord is signed in late 1359 to stop every other programme.	GAW4, 1359 to 1371, fought almost entirely with conventional arms.	Every government on the map falls between 1365 and 1371.	None on Aridexia. What survives of the species does so on Typhon.

Seven turns of the same wheel, from the Solvane water war to the last margin of 1359, with the final turn failing to close on Aridexia.

Plate: Seven turns of the same wheel, from the Solvane water war to the last margin of 1359, with the final turn failing to close on Aridexia.

23
The Fracture and the Excavation

On the moon the war had its own timeline and its own ending. The colonies split, the claims hardened, and in the last year the diggers broke through to something older than any of it.

The Fracture (AE 1360 to 1366)

By 1360 the Hearthlands were stable enough to stop being a survival project and start being a place where people lived. That was when the argument that had been sitting under the surface the whole time finally had room to come up: what is this, now that it is no longer an emergency?

One answer was that this was Aridexia's continuation. The nations, the flags and the histories that had got everyone here did not stop mattering because the ground had changed. If anything, carrying them forward was the point of having survived to carry them at all. This position kept the word **Ardekai** as its own name for itself, the old word, unchanged and worn deliberately.

The other answer was that this was the chance to stop. Aridexia's entire recorded history, from the Christonian-Luluke war of the Classical Age through three Aridexian Wars that ended in a continent turned to fallout, read to a large and growing part of the colony as an unbroken argument for never repeating any of it. This position needed its own name because it was defining itself against the old one. It chose **Ospyran**, after the world itself (Osprey), set against the old planet's name still sitting inside "Ardekai." The word did not exist at the start of the colony. It was made here.

Neither side was wrong about what it feared, and neither was right about what it thought it could leave behind by renaming itself. The throughline of this whole history, that Aridexia's wars come from specific pressures and not from a character flaw baked into the species, held as true on Typhon as it ever had at home. What followed is not a story about which identity was the correct one. It is a story about how fast a disagreement over what to call yourself turns into something with body counts, when the underlying pressures (land, resources, and who gets to decide what the colony becomes) never went away.

By 1366 the fracture was total enough that land claims around the two richest remaining ore pockets of the Hearthlands were being made twice over the same ground: once by an Ardekai-identifying settlement council, and once by an Ospyran one.

The War (AE 1366 to 1371)

Neither side began as an army. Both ended the war as one.

The opening incidents were the ones every war of this kind starts with: a disputed claim boundary, a mining crew turned away at gunpoint by people who used to be their own neighbours, and a death nobody had planned that both sides immediately and sincerely believed was the other side's fault. By the time either side had anything resembling a formal military structure, people had been killed over ground that, six years earlier, everyone present would have shared without a second thought.

The fighting never produced a clean map. The Hearthlands were too small, too interdependent and too geologically hazardous for either side to hold a stable front for long. What it produced was what Aridexia's own wars had produced. There was burned infrastructure nobody could afford to lose: a colony this young has no surplus to absorb the loss of a water-reclamation plant, and both sides lost one. There were civilian casualties that neither side's own histories would later be equally honest about. And there was an accusation that hardened into folklore on both sides at once. The Ardekai were blamed for carrying Aridexia's violence across space like a disease it had never left behind. The Ospyrans were blamed for making that same violence their own weapon the moment it suited them, with "peace" as a slogan and not a practice. Both accusations were true enough, of individual people on both sides, to survive being repeated for generations. Neither was true of everyone it was aimed at.

By 1371 the war had cost more lives, proportionally, than any single named Aridexian war in this history, because a small colony has no depth to absorb losses the way a whole continent can. It had produced no winner. What it produced, in that same year, was a discovery that would matter more than the war itself.

The Excavation (AE 1371)

A joint Ardekai-Ospyran research team went looking for ore. This was a practical gesture and not a peace gesture: both sides needed the same ore, and neither could survey Farside Reach alone under wartime conditions. The team located a flooded cave system on the margin between the Hearthlands and Farside Reach. It had cave calcite throughout and dull copper outcrops visible even from the entrance, the sort of site both colonial economies were starved for. Clearance and construction began on a joint mining operation, one of the only pieces of infrastructure either side was still willing to build with the other.

Deep in the flooded system, in an air pocket the survey team had almost not bothered to check, construction crews found a skull.

It was not Ardekai. Or rather, it was, and very obviously was not. Field analysis was confirmed and re-confirmed over the following months, because nobody on either side wanted to be the side that got this wrong first. It showed a skull structurally consistent with modern human anatomy, part of the same lineage as every person now fighting over the ground above it, and just as plainly pre-Ardekai. It was old. It was primitive relative to any population in the timeline of this history. And it had been found here, on Typhon, in strata that predated anything either colony had touched.

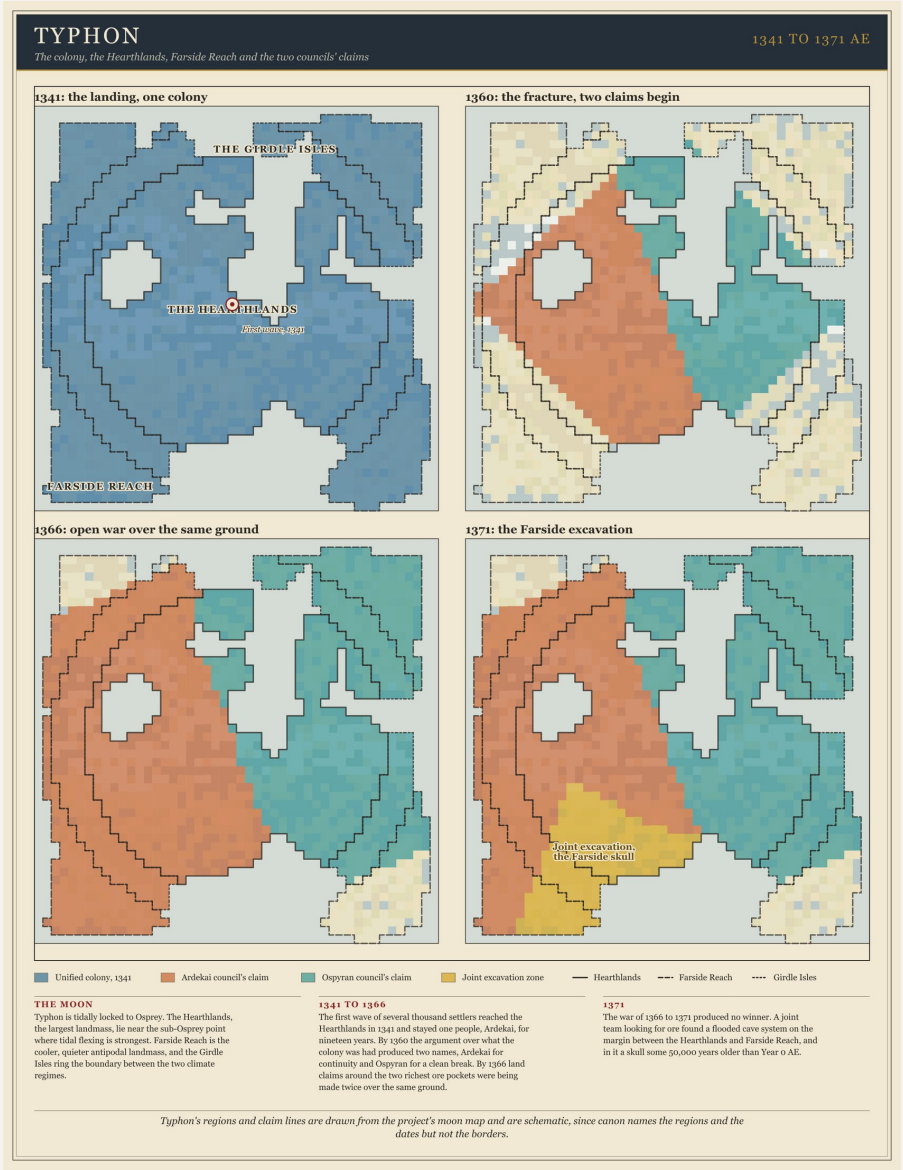


Plate: Typhon's regions and claim lines are drawn from the project's moon map and are schematic, since canon names the regions and the dates but not the borders.

24
What the Skull Meant

Aridexians had always known something was wrong with the primates. The animals on their world looked like relatives of the people on it, and could not possibly be. For a century the question was an embarrassment.

Then someone brought up a skull from the moon, and the embarrassment turned into the answer.

What the Skull Meant

Aridexian science had been pressing on a gap for a very long time. It was the Aridexian Descendant Problem, told in full later in this chapter, one of the most publicly recognised open questions in the planet's scientific history: no confirmed link between Aridexia's native fauna and Ardekai, and a fossil record that goes quiet at the point where a connection should exist. Generations of theories had tried and failed to close it: special origin, convergence, and a long-mocked fringe of "arrival" theorists. The working consensus, right up until this excavation, was that the gap was a hole in the record, evidence not yet found and not evidence of something else.

The Farside skull was the something else. Once it was dated, what it meant turned out to be far larger than anyone excavating a wartime mining site had expected. Isotopic and stratigraphic dating placed it at roughly **50,000 years before GAW3**. That is tens of thousands of years before Year 0 AE, tens of thousands of years before Luluke or Christonia, and before anything the Classical Age has a name for.

Ardekai did not evolve on Aridexia. The species evolved here, on Typhon, in a civilisation that reached Aridexia roughly 50,000 years ago and did not survive its own arrival there in any recognisable form. How that crossing happened (what it looked like, what forced it, how long it took, whether it was one departure or several) cannot be recovered from anything the record currently holds, and this history does not guess. What the record does support is the scale of what was lost in it. No advanced civilisation picked itself back up on the other end. A tiny, traumatised founder population, small enough by every available reconstruction that "handful"

is no exaggeration, arrived on Aridexia with nothing like the infrastructure, records or population base to restart what it had come from.

What happened instead was slower and stranger. That founder population spread out across the new world and had to climb back up from something close to nothing, across tens of thousands of years, in a process that looks, to anyone examining the fossil record without knowing to look for a displaced founder population, like ordinary evolutionary emergence. It was a little different from ordinary. It ran somewhat faster than a true from-microbes origin would have, seeded as it was by a population that was already anatomically modern. But there was no memory to inherit, because nothing was left functioning to inherit it from: no archive survives 50,000 years and a near-total population bottleneck. By the time anything resembling civilisation re-emerged on Aridexia, in Luluke's city-states and Christonia's early law, it was no continuation of what had existed on Typhon. It had to be built again, from nearly nothing, by descendants who never knew there was anything to remember.

This is what the earliest chapters of this history were always describing without knowing it. Aridexian life "followed an ordinary evolutionary path" right up to a hominid line that "gave rise to modern humans." That was true as far as the fossil record itself could tell the difference, because a 50,000-year climb from a handful of survivors back to civilisation leaves almost the same record a native lineage would.

The planetary dossier (Appendix A) documents an unexplained feature on Farside Reach: a wide, shallow depression with no meteoritic explanation, no ejecta blanket and no candidate impactor, catalogued and left open. It sits within survey range of the same excavation. The Farside Anomaly is not proven to be what ended the first Typhon civilisation roughly 50,000 years ago. It is, however, the sort of scar that a civilisation capable of doing to itself whatever Aridexia later did to itself at GAW3 would leave behind. It explains, in one stroke, both the scale of whatever was lost in the crossing to Aridexia and why the ore the colony had spent years finding thinner than expected was thin for an unmysterious reason. It had been worked once already, by people who needed it for the kind of war that leaves craters like this one behind, tens of thousands of years before anyone now living was born on either world.

None of this is presented as settled science. It is presented the way this history presents everything uncertain: as the strongest read of the physical evidence in hand, labelled as a read and not a fact, because that is what it is.

After (AE 1371 onward)

The war did not end because of the skull. Wars this far along rarely end because of a single discovery, however large. What the discovery did was take the one thing both sides' founding arguments depended on, a clean claim to what Ardekai *is*, with one side insisting on continuity with an old identity and the other on a clean break from it, and quietly remove the ground both arguments had been standing on. Neither "we are Aridexia's rightful continuation" nor "we are something new" survives contact with "we are both, provably, descended from something else entirely, that we returned to without knowing it, having already destroyed it once."

The record deliberately does not resolve what Ardekai and Ospyran become after that, in the same way the history of Aridexia leaves its own Long Peace open. What can be said is what was already true by the end of the record. Within a year of the skull's discovery, the Farside excavation site was the single most-visited location on Typhon, visited by settlers who still called themselves Ardekai and settlers who still called themselves Ospyran alike. It was the first piece of ground on the whole moon that both sides kept showing up to on purpose, after everything.

What the colony did not yet know. Word of Aridexia's own collapse reached Typhon slowly and incompletely. The last coherent transmissions describing the enforcement date of the Threshold Accord ran to roughly 1365, and after that the signal thinned out over the following years and did not stop on any one clean date, much as the war itself had no single moment anyone back home could point to as its end (see Chapter 22). By the time the Typhon colony's own war ended in 1371, nobody on Typhon yet knew that Aridexia's had ended too, in the same year, for the same underlying reason neither side ever fully escaped: two branches of one species, cut off from each other by the crisis that split them, discovering separately and at the same time that neither had left the habit of war behind. The fuller truth reached the colony later, in a story outside this record, and it came as the slow, accumulating realisation that no more ships were coming, and that none ever would again, with no single dramatic announcement.

A field note was appended to the excavation log, unsigned. Several members of the joint survey team are known to have written something like it, and the authorship was never formally settled.

> *"We came here thinking we were the first people to ever need this ground badly enough to fight over it. We were not the first. We were not even the second, we were the ones who came back, and forgot we'd ever left. Down in the water, past the calcite, past the copper everyone was so glad to find, there is a single skull that has been waiting considerably longer than either side's claim to this island has existed. It did not choose Ardekai. It did not choose Ospyran. It just waited."*

The Descendant Problem

The question the skull answered is among the oldest in Aridexian science, and it deserves to be set out as Aridexia's own natural historians, paleontologists and geneticists knew it, with no knowledge of Typhon. Ask any Aridexian scientist, in any nation, in any era after roughly 900 AE, what "the Descendant Problem" is, and they would know what you meant. Few purely scientific questions have carried so much weight in the planet's culture. The earliest chapters of this history mention it in a single paragraph, as a standing gap in the fossil record and not a settled fact. This is that paragraph at full length.

The observation

Aridexia's fossil record for every major branch of life (marine, terrestrial, the avian analogues, and the planet's own primate-analogue order) is dense, continuous, and about as complete as any working paleontologist could ask for. Transitional forms exist everywhere researchers have looked for them: fish to early tetrapod-analogues, small ground-dwelling ancestors to the planet's flying vertebrates, and, most relevantly here, a long, unbroken lineage of primate-analogues stretching back tens of millions of years and diversifying the way every other successful order on the planet diversified.

Then, at the point in that record where a naturalist would expect to find early Ardekai (small-brained, more robust, clearly transitional between something else and something recognisably human), there is nothing. Early Ardekai are not hard to find or poorly preserved. There is nothing. Modern Ardekai remains appear in the record already fully modern, already anatomically identical to any Ardekai alive today, with no gradual approach visible anywhere beneath them. No researcher has ever found a partial skull, a single tool assemblage, or a genetic marker that bridges Aridexia's rich native primate lineage to Ardekai. The two groups differ in more than looks. Every genetic comparison ever run between them, and by the modern era there have been thousands, comes back with **no meaningful shared ancestry recoverable on any timescale the comparison can actually measure.**

This is the Descendant Problem, named for the question it refuses to answer: descended from what?

The primates of Aridexia

None of Aridexia's native primate-analogues are Ardekai's ancestors. This is no speculation. It is the most consistently reproduced result in the planet's comparative genetics literature. The four major lineages are worth describing on their own terms anyway, because their ordinariness is what makes the gap next to them so strange.

The **Velmoth** is the largest native primate-analogue, a heavy-bodied, slow-moving canopy-dweller found across Savorus's warmer forest belts. It is superficially the most "human-shaped" of the four, with an upright-capable spine, forward-facing eyes and a dexterous forelimb, and for that reason it is the species most often cited historically as "obviously" an Ardekai relative, a claim every genetic study since has flatly rejected.

The **Skarrin** are small, fast, intensely social ground-dwellers native to the drier interior of Pan-Anestria, living in troops of 40 to 200 individuals with a complex vocal repertoire. Skarrin tool-use, a simple stick-probing for insects, was for a few decades around 1000 AE treated as evidence of a shared cognitive ancestry with Ardekai. It was nothing of the sort. Convergent problem-solving in a social forager turns out to need no common ancestor at all.

The **Pallow** is solitary and nocturnal, found in Candrasia's temperate woodlands, and notable mainly for how little attention it has received in the Descendant Problem literature. Its lineage is, if anything, the most clearly and boringly continuous of the four, with a fossil record that raises no questions at all. It is included for that reason, as the control case the other three get measured against.

The **Ashtail** is a mid-sized, highly gregarious lineage native to Korut's forested islands. It is extinct on the mainland All-Finian islands by the modern era (habitat loss, not hunting) but still thrives on several of the chain's smaller, less-developed islands. Ashtail troops are the only native primate-analogue documented using anything like a consistent alarm-call vocabulary. They too were cited early and often as a "missing link" candidate, and they too were ruled out on genetic grounds decades before the modern era.

Every one of these four lineages is a successful, unbroken branch of Aridexian evolutionary history. None of them is where Ardekai came from. A rich and convincing native primate record that turns out to be a dead end for the one question everyone wants it to answer is what makes the Descendant Problem as durable a mystery as it is.

A history of theories

The Problem has never lacked explanations. It has lacked evidence supporting any of them.

The Special Origin schools (before 900 AE). Before the comparative-genetics tools existed to test anything rigorously, the dominant explanations were frankly theological or quasi-mystical: Ardekai as a separate creation from the rest of Aridexian life, favoured or placed and not evolved. Several major religious traditions across multiple continents converged on some version of this independently. Later naturalists took that as interesting evidence about human psychology and no evidence at all about the biology.

The Convergence Hypothesis (roughly 900 to 1100 AE). Once genetics had matured enough to run the comparisons, the leading scientific explanation became convergent evolution taken to an extreme degree. The idea was that Ardekai-like intelligence and anatomy was such a strong evolutionary attractor that it could arise from radically different starting material with no detectable shared ancestry at all. This remained the polite, mainstream, textbook answer for roughly two centuries. It could never explain why no transitional Ardekai-specific fossils exist either, only why the endpoint might resemble other primates without descending from them. The Hypothesis's own proponents openly acknowledged this gap in the gap and never closed it.

The Discontinuity or Arrival theories (fringe, roughly 950 AE to the present). This was a minority position, never remotely mainstream and often actively mocked in respectable scientific circles for most of its history. It held that Ardekai *arrived* on Aridexia already formed, by some mechanism its proponents were rarely specific about. The scientific establishment treated this, reasonably given the total absence of any physical evidence for it, as a restatement of the old Special Origin schools in a more science-flavoured costume. The label "arrival theorist" has been a lasting insult in Aridexian academic culture for generations, a way of saying someone has stopped doing science and started doing mythology with extra steps.

The current consensus (modern era). By the present day, most working paleogeneticists treat the Descendant Problem as a respected open question and not a solved one. The Convergence Hypothesis is taught as the leading model with the explicit caveat that it has never closed the fossil gap. "Arrival theorist" has softened somewhat from outright insult to "fringe position taken more seriously than it used to be, still without real evidence." Nobody active in the field claims to have the answer. The Problem's official status, in every major Aridexian scientific institution's own language, remains **unresolved.**

The problem in Aridexian culture

The Descendant Problem reached a level of general cultural penetration that few purely scientific questions ever have. In the modern era it shows in several ways.

The **Renner Prize** is awarded roughly once a decade to the paleogenetic work judged to have advanced the Problem furthest, whether or not it produced an actual answer. It is named for the Renner family, whose faction appears earlier in this history, and it was funded generations later by a wholly unrelated descendant. It has been awarded eleven times. No recipient has ever claimed to have solved the Problem outright.

"Descended from nothing" is a common Aridexian idiom, applied to anyone or anything that seems to have appeared from nowhere with no traceable origin. It is borrowed directly from the Problem's own popular framing and is now used well outside any scientific context. Several nations' popular media use some version of the phrase in the title of at least one prestige documentary series about the Problem.

Museum culture follows the same pattern. Nearly every major Aridexian natural history museum devotes a permanent wing to the Problem. It is typically the single most-visited wing in the building, ahead of any hall of dinosaur-equivalent megafauna, a fact museum administrators have commented on for generations with a mix of pride and mild bemusement.

There is also a standing, generations-old bit of gallows humour in the field, a joke that is not quite a joke. Paleogeneticists who specialise in the Problem are said to have devoted their careers to "studying the one branch of the family tree that doesn't exist."

Where it stood

As of the end of the record, the Aridexian Descendant Problem remained what its name says it is: a problem, and no solved case. Every native primate-analogue lineage on the planet had been genetically excluded as an Ardekai ancestor. No transitional Ardekai fossil had ever been found, anywhere, at any depth, in any formation. The Convergence Hypothesis remained the polite mainstream answer because nothing better had ever displaced it, and it had never closed the gap it was built to explain.

The Aridexian record takes no position on what closes it. It records, as faithfully as it records everything else, how large and how old and how unresolved the question was allowed to stay, for a species that, by every other measure in its own history, does not generally leave its biggest questions sitting open for a thousand years out of patience alone. The answer lay on another world, in a flooded cave on Typhon.

The Hall and the Ledger (1341 to 1358)

The first thing the colony on Typhon possessed, before it possessed a harvest, was a list. The several thousand settlers who reached the Hearthlands in 1341 on Asmedeus II-class ships had been chosen from the parts of Aridexia hit hardest by the post-war resource crunch, and they arrived as a dozen nations' worth of strangers with no common law. The Typhon Astrobiology Programme's Hearthlands Research Station gave them a roof and a set of instruments. DS-HP gave them a charter. The charter named a colonial administrator, and the record names that administrator only by office, which is itself an observation about how the colony was run. It was governed by a body that had been built to study a moon and had been told, over its own objections, to settle it.

Ordinary administration was done by the people who happened to know how. Ione Tessarine, nineteen years old and the daughter of four generations of customs clerks, carried three boxes of paper in her luggage allowance and asked on arrival where the registry was. There was none, so she built one. By the middle of the 1340s she was the settlement's registrar and kept the book of births and arrivals, the land claims, and a ledger of origins in which each settler gave a nation, a town and a family name. The colony called it the Archive. It grew to hold a flag from every country its people had come from, each sewn from ship's cloth and hung on the long wall of the hall, so that anyone who came to file a claim had to walk past the whole of Aridexia first.

The physical reality was harder than the paperwork. Volcanism in the Hearthlands is gentle by Osprey's standards and constant by anyone's. Tidal flexing moved the ground a little most hours, and engineers trained on a stable planet learned to leave tolerance in every foundation. The moon's light runs on a cycle of 12.4 days, so work shifts, planting and the changing of the radio watch all followed a calendar that no one had grown up with. Expansion was permitted only around the four documented biomes and only by negotiation, since the Programme's field staff had been folded into the administration and kept a veto they could rarely afford to use. Nineteen years went by in this fashion, and by most accounts they were hard and hopeful. There was a

shortage of ore, an abundance of water, and no one yet had a reason to ask who the ground belonged to.

What the Programme Wrote Down

The overruling of the Programme was never a secret, and that was the scandal. The senior staff had put their objections on the permanent record before the first landing craft launched, and DS-HP had answered them with courtesy and a launch date. Nothing was suppressed. The dissent sat in the archive of the Hearthlands station, available to anyone who asked, and for twenty years almost nobody did. A body whose mandate forbade large-scale landing until its biology was understood had been persuaded that the understanding could be completed afterwards, by the colonists living on top of the samples.

The questions the Programme had been created to answer stayed open. Every organism sampled used left-handed amino acids and a nucleic acid close kin to Aridexia's own, and the Programme's stated null hypothesis, deliberately kept alive, was that this proved nothing beyond a small sample. No motile complex organism larger than the arthropod-analogue grazers had been confirmed anywhere on the moon. The open-water biome of the Meridian Sea had never been properly sampled. The staff went on stating these facts in the flat language of the dossier, and the colony went on building around them.

There was a second thing on file that nobody connected to the first. In 1280, Hadrian Obell, who had founded the Programme, wrote a field note putting the thin ore down to sampling error. Sixty years later the colonial geologists put the same phrase in their own reports, in the same sentence structure, apparently without having read his. A young scientist who joined the Programme in 1358 read both in the archive and said afterwards that she had never met a mistake so long-lived. She was Neve Anquetil, twenty-four years old. She had left Aridexia to study a different biology and found, in the margin of a different question, a reason to distrust the first answer anyone had given to the ore.

The scandal, in the end, was a habit. A protective body had been overruled and then absorbed, and its objections had become a kind of furniture, consulted as ritual and ignored as guidance. When the colony needed ore and found it thin, no one in authority had the standing to say that the Programme had warned them about exactly this kind of ignorance.

The Observer

Malakor Vane arrived in 1358, twenty-one years old and still the Jakaar of Solenne in law. He had gone on leave and had not resigned, and the instrument granting the leave named the chief of his office to act in his absence while reserving to him in person the declaring and the ending of war. On Typhon he held a title the colony had not heard before, Observer of the Solenne Concession. He took no seat on any council and none was offered. He travelled with Daro Quint, twenty-seven, who had been placed in the Vane house at fifteen as the youngest son's companion and had been told to write down what he saw. Isaure Rook had signed their manifest at the departure field, and the colony received them as it received every Solennese arrival, with a clerk and a form.

What an Observer does is a question the record answers only through Quint, who kept the Observer's papers and said very little about them. From a handful of remarks to other people, the days can be reconstructed in outline. The household stood in the Hearthlands, not far from the registry hall. The Concession's ledgers came to it, with copies of the radio traffic from the Aridexian relay, and Quint filed them. The Observer read the traffic, signed receipts against the escrow accounts, and answered petitions in writing. He attended no council sitting. When he walked the settlement edge, which he did at the start of each light cycle, he spoke to anyone who stopped him and was remembered for it.

The colonists' regard for him was divided, and some of the division came from his appearance. He stood six feet one, with platinum hair and one green eye and one blue, and in front of a crowd he was easy, funny and warm in a way the colony had not met in an official before. Settlers who had spoken to him once described him as the best-natured man on the moon. Those who dealt with him longer described a man who went cold and silent the moment the room emptied of anyone he needed. Quint was the only person who saw both, and he made no claims about which was the original.

The colony also had to decide what he was. He had no office in its government. In Solennese law he was a head of state, and a head of state on leave. To the Ardekai he was a landlord who held paper they might one day inherit. To the Ospyrans he was a relic of the world they were leaving behind. Neither council could compel him, and neither could ignore him, so both treated him as weather. The Observer's household was never raided, never petitioned in force and never thanked.

His own drug trial was the only episode that anyone on the moon could link to the man he had been at home. In the first winter of his presidency, Rook's department had designed treatments that might let him feel ordinary sympathy. He took them more than once and rejected them for good, writing "declined" in the dose log with his own hand. Quint, who was in the room that day, told Anquetil about it at some point on the moon, and it is through her that the colony learned what he had done with the chance. In the colonists' version, a man had been given a feeling and handed it back because it made him slow. They found it easier to believe than to forgive.

Two Names, Two Councils (1360 to 1366)

By 1360 the Hearthlands had become a place where people lived, and the argument that had been waiting for room finally got it. Tessarine answered it in one sentence. The nations, the flags and the histories did not stop mattering because the ground had changed. She kept the word Ardekai, the old formal word for human, and wore it deliberately. Her side was named by the decision not to rename itself.

Caspar Vale-Orrin took the other course. He had been born in 1319 in a mining town in Vessek that Chicano States had taken in the first months of the Reclamation War, and he had arrived in the first wave at twenty-two. In 1361 he walked into the registry hall late one night and asked Tessarine to strike his birth name from the open register. She refused to destroy it and folded it into a sealed volume instead, and he put on his coat and thanked her without either of them being sure the thanks was sincere. The name he took was Orrin, after the hold-leader who had burned his own hold in 811 to draw Salvador Reyes into the Hollow. The family had always claimed to be Kelvath's kin. He chose Ospyran for his faction, after Osprey, the world itself, because a name defined against the old one needed a different root.

The Ospyran council grew in six years from a handful of colonists to a rival government. It banned flags from the council halls. Within a few seasons the Ospyran blocks were wearing strips of cloth in the colour of each block, a custom older than the colony and common in the valleys that Vale-Orrin had come from. He called it practical. Tessarine did not remark on it in his hearing.

The Archive kept every grievance beside every flag, because a record does not select, and settlers who came to consult it for their family's origins found their family's enemies entered on the next line. Tessarine knew this and said once that a colony that carried forward everything it had been would carry its wars with its furniture. She went on carrying.

Then the signals began to fail. From 1365 the governments she had listed went silent one at a time, and the last coherent transmissions describing the Threshold Accord's enforcement date to about that year. She kept a ledger in the radio hall in which she wrote the last message received from each. Late in 1366 she sat with it through a night while the night operator read out call signs and she drew a line after each. The operator asked why she bothered, since none of them would answer. "Somebody should know which of them stopped first," she said. When he asked about Solenne, she told him it had been a year since the last word. When he asked about the Observer, she said that he knew and had not asked for the ledger.

The Escrow and the War (1366 to 1371)

The promises had been Malakor's from the beginning. To buy the sabotage of rival off-world programmes he had offered Typhon ground to Northland-Southland, Chicano States and the successor states of Anestria, and because no authority on the moon could grant it, he had held the promises himself, in escrow, paid from the sealed Pan-Savoran Union pool that Ketil Svarn had once written to hide Pechoria's generosity. In 1365 the governments that held those promises ceased to exist, and the land they had been promised belonged to nobody.

The Ardekai council argued that the claims had passed to it as heir to all the fallen nations. The Ospyran council argued that they had lapsed with the governments that made them. In 1366 each reached for the same two ore pockets, the richest on the moon, and each asked the Observer to say who was right. He declined to say. Colonists reached for explanations. Some held that he had no interest in who owned a hill. Some held that an unresolved escrow gave him more standing than a resolved one. A third reading, offered by those who had sat near him, was that he wished to see what two councils would do with a question that had no answer. The record chooses none. It records that he declined, that he did so more than once, and that the escrow ledger kept in his household was never opened to either council.

The war that followed began as the first incidents of such wars always do. There was a disputed claim boundary and a mining crew turned away at gunpoint by people who had been their neighbours. There was a death that no one had planned and that each side believed the other had caused. Neither side began as an army, and both ended as one. The Hearthlands were too small and too geologically unstable for a stable front, and the fighting was done instead against infrastructure. Each side lost a water-reclamation plant, and a colony so young had no surplus to absorb that. Civilians died in numbers that neither side's histories would afterwards report evenly. By 1371 the war had cost more lives, proportionally, than any named war of Aridexia.

The question of what Malakor knew in these years is the one on which every account of him is silent. He had the Concession's traffic and the relay, and he had, in the autumn of 1358, received from the commander on the Numarian line an armistice draft that the leave instrument required him to answer in person. It was sent twice. No answer came. Aurelia Quillon, who could sign an Accord and could not sign a peace, told the same general so in a letter that apologised on every page. Whether the Observer read those documents and chose silence, or read them and judged the question already settled by the arithmetic he trusted, or never read them at all, cannot be told from anything that survives. Nor is it known whether he understood by 1365 that the governments backing his escrow were ending, or whether he had planned for their ending from the start. Tessarine's remark in the radio hall is the best evidence the colony offers, and it is a remark about a man who would not ask.

The Cave (1369 to 1371)

He approved one grant that had nothing to do with land. In 1369 the Observer's office funded the survey of the Farside Reach, and Quint carried the approval to the survey camp himself. The vehicle would not take the slope, so he walked the last four kilometres. The ground was warm through his boots, steam stood in the gullies, and the air smelled of sulphur and wet stone. At the camp a woman in a stained field coat came out of a tent with a board of core samples under her arm. He gave her the packet, which held the approval, the money, and a single line in the Observer's hand. She asked what he wanted from it. "He wants to know what is there," said Quint. "He always has."

The survey the grant paid for was the one that found the cave. The Farside Reach is cooler and geologically quieter than the Hearthlands, and its older strata have weathered to the surface, which is why it had always attracted geologists and held little for settlers. The same survey range included the shallow depression the dossier calls the Farside Anomaly, four kilometres deep and thirty-eight kilometres across, with no ejecta blanket and no candidate impactor. Nobody in the camp had been looking for the cave. In 1371, on the margin between the Hearthlands and the Reach, a joint team of Ardekai and Ospyran surveyors located a flooded system hung with calcite and green with copper at the entrance, and the two colonial economies, starved of ore, agreed to work it together. It was the only joint project either was still willing to build.

The foreman who called Anquetil down did not know what he had found. She went in waders, to the waist, in water cold enough to burn, with a lamp. In an air pocket the survey had almost skipped, on a shelf of stone, lay a skull. She stood over it for a long time. "I don't know whose it is," she told the foreman. Then she ordered the pumps stopped and forbade anyone to speak of it above ground until she said so. She did not photograph it for an hour.

The order in which people learned what they had is the part that has been argued longest. The foreman and the pump crew saw it first, and they knew only that it was old. Anquetil understood it first, and that made her the first person on either world to hold what the skull implied. After her came the specialists, Ardekai and Ospyran in turn, who were given the skull to analyse and re-analyse. They knew the result before either council did. Tessarine and Vale-Orrin each came to Anquetil's door in the months that followed and asked for it, and she told each the same thing: not yet. The delay was a kindness to both, since whichever side announced a wrong answer would lose the argument in public. Those who worked beside her said she was waiting for the day neither side could be first. The Observer's household, so far as anyone knows, was told nothing. Whether his office received a report is not on file. Quint kept the papers, and the papers did not leave the household.

What the Skull Answered

The Descendant Problem had been put to Aridexia for a thousand years, and in the end the answer was found by two sides of a war who were standing in the water.

Aridexia's scientists had been right about every fact in the question. The native primates were genuine, ordinary and unrelated, and thousands of genetic comparisons had confirmed it. The Convergence Hypothesis was the polite textbook answer and had never closed the fossil gap. The Renner Prize had been awarded eleven times without a solution, and "descended from nothing" had passed into the language as an idiom for anyone who appeared without a past. Every natural history museum on the planet had a wing for it, usually the most visited. Anquetil, who had read a table in an appendix to Marguerite Odalric's book listing features in the earliest Ardekai remains that no native primate shared, had been an arrival theorist in private for most of her life, in a profession where the label was an insult.

The skull dated to about 50,000 years before GAW3. The species had not climbed out of Aridexia's soil. It had come from here, and it had come to Aridexia as a small, damaged remnant of a civilisation that did not survive the crossing. It had spent fifty thousand years climbing back to cities from almost nothing, with no archive to inherit and no memory that the climb was a return. The thin ore of the Hearthlands, which the colonial geologists had blamed on sampling error and Obell had blamed on sampling error before them, was thin because it had been mined already, by people who needed it for something. The Farside Anomaly was the kind of scar that such people might leave behind.

For the colony, the meaning was immediate. Ardekai had always meant only human, and the skull gave the word a second sense that Tessarine had not intended: the ones who came back. Ospyran, the clean break, proved to be the same people under a new name. Vale-Orrin allowed Ospyran researchers onto the team and visited the excavation, though he never said what he made of it. Tessarine visited within the year, as nearly everyone did. The site became the single most visited place on Typhon, attended by settlers of both names, and it was the first ground on the moon that both sides had gone to on purpose.

Nobody on Aridexia learned of it. The last coherent transmissions had stopped in 1365, and the signal thinned after that without any clean end. By the time the skull was dated, Aridexia's own war was ending in the same year, for the same reason, with the same refusal to learn from it. The Renner laureates, the museum curators and the arrival theorists who had been mocked in lecture halls died without the one sentence that would have answered them. A species that had stood on that moon before, lost what it built there, and reached another world with nothing, had climbed back to cities, fought its great wars there, and then returned to the first moon with the habit intact.

Of the Observer, the record says one more thing. There is no evidence that Malakor Vane went to the cave. The last mention of him is dated 1371 and says only that he was on Typhon and had not looked back. Of Quint after 1371 the record has nothing, except that he was last seen in the Hearthlands, in the Observer's household, with the papers. What the survey had been paid to find was there, in the water, and the man who had paid for the finding had never needed it to be a skull. He had wanted to know what was there, and he had always wanted that.

THE DESCENDANT PROBLEM AND THE TYPHON ORIGIN

From a skull in a flooded cave back to the people who crossed from Typhon to Aridexia, and what each camp concluded

ON TYPHON, OSPREY'S MOON		ON ARIDEXIA
Humans evolve on Typhon, in a civilisation that reaches Aridexia. The Farside Anomaly, a wide shallow depression with no impactor, may mark what ended it. That is a read of the evidence and not a proven fact.	**c. 50,000 years before GAW3**	Aridexia's own primate-analogues diversify over tens of millions of years in a dense, unbroken fossil record: the Velmoth, the Skarrin, the Pallow and the Ashtail.
How it happened, what forced it and whether it was one departure or several cannot be recovered. A tiny, traumatised founder population arrives with no infrastructure, records or numbers to restart anything.	**The crossing** **Typhon to Aridexia** →	*Nothing of the first civilisation's archive survives the crossing and the population bottleneck.*
The moon is empty. Its accessible ore is taken and the workings weather out of recognition.	**Tens of thousands of years**	The founders spread out and climb back from almost nothing. To a paleontologist the climb looks like ordinary emergence, though somewhat faster. Modern Ardekai appear in the record already fully modern, with nothing transitional beneath them.
	c. -270 to 0 AE	Luluke's city-states and Christonia's early law rebuild civilisation from nothing, by descendants who never knew there was anything to remember.
	c. 900 AE to the end	Genetics rules out all four native lineages. The Convergence Hypothesis is the textbook answer for two centuries and never closes the gap. Arrival theories, mocked from about 950, say Ardekai arrived already formed. The status stays unresolved.
Several thousand settlers reach the Hearthlands and find ore thinner than surveyed. For nineteen years everyone is simply Ardekai.	**1341 to 1360**	DS-HP overrides the Astrobiology Programme's planetary-protection mandate over recorded dissent.
The colony splits. Ardekai keep the old name and claim continuity with Aridexia. Ospyrans take a new name and a clean break. Both claim the same two ore pockets by 1366.	**1360 to 1366**	Malakor Vane, Jakaar from 1353, fights the Turncoat War from 1354 to 1358. The Threshold Accord follows in late 1359.
A joint Ardekai-Ospyran survey, looking for ore, finds a flooded cave between the Hearthlands and Farside Reach. In an air pocket lies a skull about 50,000 years older than GAW3.	**1371**	The Fourth Aridexian War ends the same year with no armistice. Aridexia's last governments fall.

WHAT EACH CAMP CONCLUDED

The Special Origin schools
before 900 AE

Held: Ardekai were a separate creation, placed and not evolved.

After: The skull places the origin off Aridexia. The record shows no sign Aridexia ever heard of it.

The Convergence Hypothesis
c. 900 to 1100, textbook after

Held: Ardekai-like minds are such a strong attractor that they arose from unrelated stock.

After: The skull shows there was no native ancestor to converge from.

The Arrival theorists
fringe from c. 950

Held: Ardekai arrived on Aridexia already formed, by a mechanism nobody could name.

After: The skull shows the species did not evolve on Aridexia. It does not show how the arrival happened.

The Ardekai council
from 1360

Held: The nations and histories that reached Typhon are the point of having survived. This is Aridexia's continuation.

After: Loses its ground: both sides are descended from something else that they returned to without knowing.

The Ospyran council
from 1360

Held: Aridexia's record is an argument for stopping. This is a clean break and a new name.

After: Loses its ground too: something wholly new does not survive the skull.

The joint survey team
1371

Held: Neither side. They went for ore.

After: Several wrote an unsigned note: they were not the first, they were the ones who came back and forgot they had left.

Ardekai did not evolve on Aridexia, the founders crossed from Typhon about 50,000 years before GAW3, and a skull in a flooded cave answered a question that Aridexian science had carried for a thousand years.

Plate: Ardekai did not evolve on Aridexia, the founders crossed from Typhon about 50,000 years before GAW3, and a skull in a flooded cave answered a question that Aridexian science had carried for a thousand years.

EPILOGUE

The Species Does Not End Here

The last war did not end with a treaty. It ended with an exhaustion so total that the fighting stopped because nothing was left to fight with. Two governments stood for a little longer, in the desert, and then they did not.

The species did not end. It ended as a going concern on Aridexia, which is not the same thing. There are people on a green moon, and the thing they dug up there says they have been here before, and gone before, and come back. The record is kept by the ones who are left.

It is not a cheerful record. It is a true one, as far as the people who compiled it could make it. Read it for what it shows: that every nation in it was built by someone who thought they were doing the sensible thing.

PART SIX

The Look of a World

25
The Names and the Ground

A world is easier to hold in the mind once it has names for its parts. This chapter is about how the continents got theirs, and about the plates under them that decided where the mountains and the ore would be.

The Naming of the Continents

Long before any of Aridexia's wars, someone had to sail to each of these landmasses for the first time and write its name down. Almost every continent name on the map comes from that single unglamorous fact: an early survey expedition describing what its crew found or felt on first landfall, in whatever language their home nation spoke at the time. None of the names is arbitrary.

The Twin Discovery: Heliodysseia and Kryodysseia

Roughly a century after the Carina-11 diaspora (3 AE) scattered the founding nations, expansion had stabilised enough that the Syndicate and Anestria jointly funded what became known as the Long Survey. It was a single coordinated pair of expeditions, launched together, and tasked with charting the planet's two poles before either nation tried to claim one unilaterally. The two ships left port on the same day. Because Aridexia's poles sit in opposite hemispheres, they arrived in opposite seasons. The northern ship reached what is now Heliodysseia in the depth of the northern hemisphere's summer, when the sun at that latitude never sets at all. The southern ship reached what is now Kryodysseia in the depth of the southern hemisphere's winter, when the sun never rises. Neither crew had any reason to expect this going in. It was a physical consequence of launching two ships at once toward opposite ends of the same planet, and nobody engineered the coincidence.

The northern crew had spent weeks under a sun that refused to set, and named their discovery **Heliodysseia**, from *helios* (sun) and the "-dysseia" root used for any long outward voyage told after the fact (an *odyssey*), the same naming convention behind several other landmasses on the map. The southern crew had spent the same stretch of weeks in total darkness and cold sharp enough to crack hull fittings, and named theirs **Kryodysseia**, from *kryos* (cold, ice) with the identical suffix. Both expeditions' reports reached the same survey office within days of each

other. Whoever filed them noticed the symmetry, and the names went into the record as each crew had written them: sun-journey and ice-journey, filed side by side, twinned on the map the way the two voyages had been twinned at launch. Neither name was chosen to match the other. They match because the two events that produced them were, structurally, the same event experienced at opposite ends of the same year.

That coincidence of timing is also the reason the two poles ended up so politically different (Chapter 9). The crew that spent a summer under an open sky came home describing a coastline that could plausibly support people, which is what the milder fringes of the Ilvennaq turned out to be. The crew that spent a winter in total dark came home describing what Kryodysseia has remained ever since: a place with nothing further to report.

The Rest of the Map

The same survey-report naming convention shows up everywhere else, once you know to look for it.

- **Savorus** was named for the rich, fertile soil that early Luluke and Syndicate cartographers found along its coasts on first landfall, from an old Luluke word for "flavorful, sustaining ground." It is the same soil that let the Syndicate and a diminished Luluke both settle the same landmass without immediately starving each other out.
- **Candrasia** is Christonia's own ancestral name for its homeland, predating the survey convention entirely. Christonia is old enough that the continent is named for the nation, and the nation is not named for the continent, which makes it the one entry on the list that runs backward from every other.
- **Korut** comes from the AFN's own founding language, a compound roughly meaning "the scattered shore." It was chosen because the surveying captain could tell it was an archipelago, and no single landmass, before setting foot on any one island.
- **Skarnovia** was named for skarn, the mineral-streaked rock that its first colonial surveyors found exposed along its northern coastline. To any geologist of the period it was a dead giveaway that the ground underneath was worth fighting over. The name predicted the continent's whole subsequent colonial history before a single colony was founded there.
- **Drozdov** was named after Drozdov, the captain of the first prospecting expedition to chart the landmass during the mining rush, in keeping with the era's common practice of crediting a frontier's first serious survey to whoever led it. Nobody remembers anything else about him.
- **Numaria** comes from an old trade-pidgin term roughly meaning "counted ground." It was coined by the earliest mining surveys because the continent was one of the only landmasses worth doing careful mineral counts on before anyone had settled it. Anyone who studies the place notices the irony of naming a continent for careful accounting, given what it eventually became.
- **Pan-Anestria** is the plainest name on the list: "all of Anestria's." It was appended once it became clear that the Republic's reach covered nearly the entire landmass, Kharzun's stubborn desert interior being the one honest exception.

Every name on the map has a source behind it: a first-contact impression, a surveyor's own name, a founding people's own word for home, or (rarely, as with Pan-Anestria) a plain description of who holds the ground. Nothing on the map exists for no reason, and that includes the names themselves.

The Tectonic Plates of Aridexia

Every continent on the map sits where it does, and has the geology it has, for a reason older than any nation on it. Several details of the political history that look like accidents turn out to be far from arbitrary once the plates underneath them are accounted for.

Aridexia's crust is divided into seven plates. Two are old, thick, tectonically dead continental cratons. Two more carry an active margin on one edge and a quiet interior on the other. One is a genuine oddity, a fast-spinning volcanic island-arc microplate with no continental crust of its own. The last two are the planet's polar plates, both slowly rifting away from their nearest neighbours.

- **The Anestrian Craton** carries the whole of Pan-Anestria. It is the oldest, most tectonically quiet piece of ground on the planet, which is why Kharzun's political identity (Chapter 9) has gone unbroken for a couple of thousand years. A civilisation built on ground that never moves has less reason to change than one built on ground that does.
- **The Savoran Plate** carries Savorus and Candrasia together, which is the geological reason the two have always been treated as one physical landmass (Chapters 4 and 5). Its interior is quiet. Its eastern edge, facing the short strait toward the Numarian Plate, is not.
- **The Korut Arc** is no continental plate at all. It is a small, fast-rotating volcanic island-arc microplate, thrown up where the Savoran and Numarian Plates grind against each other across that same strait. This is the reason the All-Finian Empire settled "a chain of large islands" and not one landmass: that geology produces island chains, on this planet as it does on any other.
- **The Skarnovian Plate** is slowly converging with the Savoran Plate along its own northern edge. This is contact-metamorphism country, and the geological process behind skarn, the mineral-streaked rock the continent is named for, and behind the coal and iron wealth that started a three-way colonial scramble over it in the first place (Chapter 7). The mineral wealth was never a coincidence. It is what this kind of boundary makes.
- **The Numarian Plate** carries Drozdov and Numaria together, and it is the clearest case on the list of one plate telling two different stories. Drozdov rides the plate's old, quiet trailing shield: stable, predictable, easy to mine, with no internal rival (Chapter 8). Numaria rides the plate's active leading edge, still colliding with the Savoran Plate across the Korut strait. That means ongoing mountain-building and volcanism, and it is the geological source of the copper, then rare-earth, then uranium strikes that have funded every war Numaria has ever had, right up through the one it was still having. The continent's temperament was never a coin flip. It is built into which part of the plate you happen to be standing on.
- **The Heliodysseian Plate** and **the Kryodysseian Plate** are Aridexia's two polar plates, old, stable, and each slowly rifting away from its nearest continental neighbour: the Savoran Plate's

Candrasian coast in the north, and the Anestrian Craton's southern coast in the south. Neither rift is dramatic or fast. Both are slowly widening the cold seas at either end of the map, the same seas that Northland (Chapter 10) and the far south of Pan-Anestria already look out onto.

The Model, and Its Honest Limits

Each plate in the standard reconstruction is treated as a rigid body spinning at a constant rate around its own fixed point, plus a small constant drift. This is a deliberate simplification of real plate tectonics, which uses genuine Euler-pole rotation on a sphere, with poles and rates that themselves drift and change as boundary configurations shift over geological time. The reconstruction holds each plate's motion constant instead, the same "plausible, not rigorous" standard that governs the climate decay curves and territory keyframes of the historical record. Run far enough into the past or the future, and the plates will drift further than any single constant rotation could sustain over that timescale. That is the model's own honest seam, and it makes no hidden claim that Aridexia's geology is this simple.

26
Arms of the Wars

Nobody made weapons for fashion. A rifle on this list tells you who was winning, who was afraid and who was paying, and the exceptions prove the rule.

Here is every service arm of note, from the Syndicate's first select-fire rifle to the plain blued steel that Bavaria never had to change.

No nation on Aridexia armed itself out of ambition. Every major leap in infantry weapons on this timeline came directly out of a war, a war the nation was about to have, or a war it had just lost. None came from a peacetime research budget with nothing to prove. The same rule explains the exceptions: where no one was fighting, the rifles stood still for centuries. A rifle described here as the equivalent of a 1940s weapon should be read as one, and it looks and behaves like one. None of them is a modern weapon with the serial numbers changed.

This chapter follows the rifles nation by nation and says why each looks the way it does. It then describes how each one appears in the hand and to the eye, closely enough that any of them could be modelled and told apart from the rest at a glance. It closes with the full specifications of the two rifles that exist as finished canonical models.

The Starting Point

The Classical Age's AVMS AG-01 (Chapter 2) was the first semi-automatic rifle in Aridexian history, forced into existence in the final years of the 200-Year War. It is the ancestor of nearly every infantry weapon that follows on Savorus and Candrasia. Everything described below descends from it, was bought from whoever held its patents, or was built to answer it.

The Syndicate, the USN and Solenne

AVMS never stopped being a war-funded company, and its rifles trace a straight line through every conflict in this book.

The **AG-14** (0 to 500 AE) was a refined bolt-action derivative of the AG-01 and the standard sidearm of the infantry through the Age of Sail. It was unglamorous and reliable, and it was exported wherever Syndicate trade reached.

The **AG-40 "Light Repeater"** and the **M-3 "Sentinel"** tripod machine gun (500 to 900 AE) were AVMS's Industrial Revolution upgrade. They were developed alongside the Syndicate's own colonial expansion into Skarnovia and its economic push into Christonia. They were a repeater and a crew-served gun for a power that was starting to need both trade leverage and the ability to back it up.

The **SR-9** and the **PK-4** submachine gun (900 to 1000 AE) were the Syndicate's standard rifle and its close-quarters companion, the equivalent of the middle of the twentieth century. They were fielded just as Syndicate capital finished swallowing Christonia's own industrial base (Chapter 5), and the same capital that built Christonia's factories built these.

The **AR-22 "Vanguard"** (1000 to 1250 AE) was the Syndicate's first true select-fire assault rifle, adopted well before GAW1 and carried by the entire Syndicate-led coalition. Anestria, Luluke and the AFN all fielded license-built or imported AR-22s alongside their own weapons during the Thirty-Day War, since matching ammunition and parts mattered more than national pride in a thirty-day campaign. It remained the USN's standard infantry weapon through GAW2, was upgraded afterward to the **AR-22A** with the lessons of that war, and stayed in service right up to GAW3. Every Syndicate- and USN-issue AR-22 came out of **AVMS's Corvenna works**, in the Syndicate capital on Savorus, the same city whose financial district the Renner Faction tried to bomb in 1249 AE. Coalition partners built theirs under AVMS licence. The rifle fires the **6.8mm Syndicate** intermediate cartridge, roll-marked "CAL 6.8 SYND", the round every coalition partner had to match. Its full specification, and that of the canonical model, are given at the end of this chapter.

The **Solenne SR-30** (1300 AE onward) was Solenne's deliberate, symbolic break from the AR-22 lineage. It was a new, domestically redesigned service rifle, adopted within a few years of the war's end, because a government founded to be everything the USN wasn't did not want its soldiers carrying the dictatorship's own gun. The AR-22A never fully disappears from the map, as the account of PUSDR below shows. The SR-30 was formally adopted in **1303 AE**, during Farren Vane's single term as Solenne's first Jakaar (1300 to 1308, Chapter 16), with series production from 1304. The rifle carries an irony. Solenne inherited the USN's industry along with its territory, so the SR-30 was built by **AVMS**, the same firm, in the same Savoran plants, that had armed the dictatorship for a thousand years, now working under Solennese ownership. The break was in the design and not in the factory. It fires a new, lighter **5.6mm Solennese** high-velocity cartridge, deliberately different from the AR-22's 6.8mm Syndicate round. Its specification is also given at the end of the chapter.

Anestria and Its Successors

Anestria developed largely in parallel with the Syndicate and did not imitate it. Its own nuclear program (Chapter 6) was one arm of a broader, deliberately independent arms-development posture.

The **ROA M4 "Sentinel Standard"** (900 to 1000 AE) was the Republic's own semi-automatic service rifle, developed alongside its first tank and warship and built by the same industrial base that later produced its fission reactor. The **ROA AR-7** (1200s AE) was Anestria's own select-fire assault rifle, fielded in the same decade as its first nuclear test. The same shadow arms race that built the bomb also modernised the infantry that would have had to fight without it if deterrence ever failed.

After Anestria's post-GAW3 fracture into five successor states, all five kept building on the AR-7 pattern and none started over. CAR's own production runs claim direct succession from the original ROA line, which matches CAR's own political claim. Antares, Imperium, New Virgen and the Antilla-Vegan Union each field lightly modified variants off shared tooling. This explains why none of their post-war border skirmishes, the Vinear Coast War included, ever involved a serious weapons-compatibility problem.

Christonia, Under Two Different Arrangements

Christonia never built an independent small-arms industry worth the name, for the same reason its whole economy answered to Syndicate boardrooms by 1000 AE (Chapter 5): the capital to build one always came with strings attached. Pre-GAW1 Christonian infantry carried imported and license-built AVMS weapons (AG-40s, later SR-9s) bought on Syndicate financing. That small, previously unremarked detail makes the Renner Faction's 1249 AE bombing even more bitterly ironic, since the weapons the militants themselves carried were bought on the same credit lines they were trying to sever. After absorption into the USN, Christonian units standardised fully on AR-22s like everyone else.

Postwar, Einsenia, Northland, Southland and independent Christonia are all too small individually to run a serious domestic arms program. Each fields whatever mix of surplus AR-22A-pattern rifles and modest small-batch domestic work it can afford. The result is a patchwork, matching Candrasia's own crowded, post-imperial political patchwork (Chapter 10).

Luluke and the All-Finian Empire

Neither nation modernised at the Syndicate's pace, and neither needed to. Luluke's own **Kaldrun Pattern** rifle was a simple, rugged bolt-action design named for its capital, the way a design gets named after wherever it is made. It stayed in frontline service for Luluke's modest military into the 1200s AE. That reflected a diminished nation that never fully rebuilt its heavy industry (Chapter 5) and had no reason to spend scarce capital on re-arming instead of rebuilding.

The All-Finian Empire's **Finhaven Arms Co. FA-6** was solid and unremarkable, the product of a naval doctrine that put little weight on heavy infantry investment. It remained standard clear through the Empire's collapse. Its post-GAW3 successor city-states were never reconsolidated under one government (Chapter 18) and kept using existing FA-6 stockpiles rather than fund anything new, which is why none of the five AFN fragments has ever needed to agree on a

replacement.

Numaria: A Revenge Story Told in Rifles

Numaria's weapons history is the same occupier-becomes-occupied arc told in Chapter 8, this time through hardware. It is the most detailed weapons story on the list for that reason.

The **Ferrengrad Arms IR-11 "Ironhand"** (1000s AE onward) was Eisenreich's own infantry rifle: over-built on purpose, heavy, and simple to mass-produce. It was an occupier's weapon, meant to arm both the Iron Realm's own troops and its conscripted subject population without much regard for comfort or elegance.

PUSDR's resistance movement, during its generations under occupation, fought with a patchwork of captured IR-11s and, this is the detail worth remembering, smuggled **AR-22 carbines**, funnelled in by the USN as part of the same deniable proxy support described in Chapter 8. The same rifle that had helped conquer Christonia a war earlier ended up arming the people fighting to throw off Eisenreich.

When PUSDR's revolutionary civil war conquered Eisenreich right back, in the same immediate postwar window that GAW3 created, it captured Ferrengrad Arms' own factories intact and kept building the IR-11 under a new name: the **People's IR-11M**. The occupier's own gun, in the occupier's own factory, is now the liberator's standard-issue weapon. Nothing in the record shows the winner becoming what it hated more literally than that. The **People's IR-15** (a 9mm sidearm) and the semi-automatic **People's IR-10** rifle round out this immediate postwar wave. The same captured tooling was repurposed across the whole Ferrengrad product line and not only the flagship IR-11.

PUSDR's second generation: the Antiko Khoshlikova line

The People's IR-11M answered an immediate need: arming a revolutionary state with an occupier's own factories the week those factories changed hands. It was never going to be PUSDR's permanent answer, because a government founded on throwing off Eisenreich did not want to admit that its own army still ran on Eisenreich's gun forever. That answer came from the state-run designer **Antiko Khoshlikova**, and it started with a problem smaller than a rifle. The People's Revolutionary Army needed a sidearm reliable enough to survive Numaria's tropical belt without failing, and easy enough to maintain that a conscript force with limited armorer support could keep it running. The **PAS-12**, a 9mm semi-automatic pistol with an 8-round magazine, solved that problem so cleanly that its action became the basis for everything that followed.

The **AS-15** scales the PAS-12's proven action up into a 9mm submachine gun (semi- or full-automatic, 30-round box magazine). It was built for the People's Revolutionary Airborne Landing Force, with lightweight composites and a compact folding profile, which is what a paratrooper or a rear-echelon crew needs and nothing more.

The **AS-17** is the true break. It is a 7.62mm assault rifle (semi- or full-automatic, 32-round magazine) developed to replace both the aging People's IR-11M and the smuggled AR-22 carbines still lingering in PUSDR service. It was a deliberate, public statement that the People's Revolutionary Army no longer needed to fight on captured or smuggled foreign designs. It earns that statement on merit as well as symbolism. A simple action with generous internal clearances shrugs off dirt and sand that would jam a tighter-tolerance design, and prototype AS-17s already in the field during the Great Revolution against Eisenreich performed well despite their small numbers, well before full production ever started.

The AS-17 also became the reference point for **Kargopol's own ammunition standard**. Every Kargopol member that fields a domestic rifle (Nam Minh's Minh Chau MC-2, the Schwalbenheim SH-9, the ROA-descended weapons across the alliance's smaller partners) builds around the same 7.62mm cartridge family the AS-17 set. The logic is the one described under Modern Standardization below: it is cheaper to fight next to someone whose ammunition fits your gun. The AS-17 is currently fielded across most of Kargopol, in Nam Minh, the Yeshuren Union, the Schwalbenheim Republic and the alliance's other members. The one deliberate exception is Tianhai/Xue Lin, whose domestic rifle production run is so small that it has never needed Kargopol's ammunition standard.

The rest of the Antiko Khoshlikova family fills the gaps a modern revolutionary army needs covered.

- The **ASM-18** scales the AS-17's action up again into a 7.62mm light machine gun with a 38-round box magazine.
- The **ASM-19** is a longer-barrelled, belt-fed 12.7mm heavy machine gun built directly off the ASM-18. It trades the box magazine for sustained fire at long range, and is fielded almost exclusively on vehicles and by PUSDR's own specialised infantry, not as a general-issue weapon.
- The **ASK-10**, a 12.7mm semi-automatic anti-materiel rifle with a 6-round magazine, exists to put a single well-placed round through light armour or a hardened position. It shares ammunition with its heavier cousin: the **BMS-10P** explosive round, developed off the ASM-19's own 12.7mm platform, works in either weapon.
- The **ASP-20**, a 93mm semi-automatic rocket-propelled grenade launcher, was rushed into service during the Great Revolution against Eisenreich to answer Eisenreich armour. Its **BM-HEAT-1** tandem-warhead round proved effective enough against composite and reactive armour alike that it has stayed in frontline service well past the war that created it.

Skarnovia: Whatever the Metropole Was Retiring

Ostrenia, Velemira and Kesarova were never funded to develop their own arms industries. Each colony was issued whatever pattern its metropole was phasing out at the time of colonisation: surplus early AG-14s for Christonian-founded Ostrenia, surplus ROA M4s for Anestrian-founded Velemira, and surplus AG-40-era repeaters for Syndicate-founded Kesarova. Independence did not change this much, because new domestic production has always cost more than any of the three could justify.

Dravensk, never conquered by any of them, fights with whatever patchwork of captured Ostrenia, Velemira and Kesarova weapons its perpetual low-grade flashpoint status has put in its hands. It is a fitting arsenal for a nation that has never had a single supplier. Skotia, old, independent and never part of anyone's colonial scramble, is the one Skarnovian power with domestic small-arms production: the modest but perfectly serviceable **Skotharbor Pattern** rifle, built by a nation that could always afford to arm itself without asking anyone's permission.

Bavaria

Drozdov, in Chapter 8's words, has no internal rival at all, and its weapons history reflects it. The **Bavenhurst BR-5** is a solid, thoroughly unremarkable domestic rifle that has needed only minor updates across centuries of production, because a nation that has never had to fight for its own territory has never had the war-funded pressure to iterate quickly. It is the one arms lineage on the map that proves the rule by exception: no war, no leap.

The Rest of the Map

Everyone else has a rifle too, even the powers small enough that no one has bothered to write their arms history down until now. None of these carries the weight of the lineages above. They are listed so that nobody on the map is left standing there unarmed.

- **Pechorian Federation.** The **Pechora PK-2**, a simple, rugged bolt-action carbine that has needed no upgrade in a thousand years of never being attacked.
- **Hardluckia.** The **Drywell DW-3**, a basic lever-action desert rifle, cheaply produced and rarely improved.
- **The Schwalbenheimers.** The **Schwalbenheim SH-9**, rebuilt around Kargopol-standard ammunition once that alliance formed, replacing older desert-pattern stock.
- **Kharzun.** No single standard issue at all. Its desert clans carry whatever mix of Anestrian, Hardluckian and Schwalbenheimer surplus each can trade for, a fitting arsenal for a confederation with no central government to standardise one.
- **Vessek.** Likewise no factory of its own: captured Eisenreich IR-11s and improvised hunting rifles, the weapons of a resistance that has never controlled a single arms plant in centuries of fighting.
- **Safemoon Republic.** The **Moonhaven MH-4**, a modest, defensively doctrined rifle produced in smaller numbers than its neighbours' arsenals, from a nation that has always spent

more on walls than on offence.

- **Chicano States.** The **Gran Chicania GC-7**, a simple, mass-producible semi-automatic rifle, and the weapon that armed the Ashfields Campaign. It was chosen because a starvation campaign does not need precision engineering.
- **Nam Minh.** The **Minh Chau MC-2**, adopted after GAW2 and built around Kargopol-standard ammunition from its first production run.
- **The Yeshuren Union.** The **Arvangrad AV-5**, in service since well before GAW1 under the Arvansk name and largely unchanged since. A nominally sovereign PUSDR client does not get much say in prioritising its own rearmament.
- **Tianhai / Xue Lin.** The **Tiancheng TC-1**, a small-batch, precision-made rifle for a small, exceptionally well-educated population that has never had much interest in needing to use it.
- **Northland and Southland.** Both field the same surplus AR-22A-pattern rifles as the rest of postwar Candrasia (see Christonia, above), acquired secondhand in the same scramble that founded both states.

Physical Reference, For Modelling

Every weapon named above has a distinct, concrete silhouette, enough to model each one and tell it apart from every other at a glance. The entries run by lineage, in the same order as the account above.

The Syndicate, the USN and Solenne

AG-01. A long dark-walnut stock, an exposed brass receiver gone dull-green with age, iron post-and-notch sights, an integral bayonet lug welded rather than milled, and a boxy 8-round internal magazine loaded from the top. It looks hand-finished because it was.

AG-14. A cleaner, factory-produced descendant: blued steel in place of brass, a straight walnut stock with a shallow cheek rest, the bolt handle on the right turned down flat against the stock, a simple flip-up leaf sight, and a 5-round fixed magazine with a hinged floorplate.

AG-40 "Light Repeater". Shorter and lighter than the AG-14, with a tube magazine running under the barrel to a large exposed loop lever. The magazine tube is brass against a blued steel receiver, and the stock is a lighter, paler wood than its predecessors'.

M-3 "Sentinel". A crew-served tripod gun. It has a long finned or jacketed barrel for air cooling, a boxy stamped-sheet-steel receiver, a canvas ammunition belt feeding from the left, and spade grips at the rear. It is mounted on a folding three-legged steel tripod and finished in flat matte grey-green.

SR-9. A semi-automatic with a Garand silhouette: full wood stock and handguard, a gas cylinder running under the barrel as a distinct visible tube, an en-bloc-style top-loading box magazine, blued steel, and a prominent bayonet lug under the muzzle.

PK-4. A compact submachine gun with a stamped sheet-metal receiver showing visible spot-welds, a vertical magazine well feeding a curved stick magazine, a simple wire or folding stock, and a short barrel with a perforated cooling shroud.

AR-22 "Vanguard". The first weapon on the list that reads as modern. It has a hybrid wood-and-early-polymer furniture set, with a dark walnut-brown handguard over a black polymer pistol grip and stock, a curved box magazine, and a distinct three-position selector lever on the left side of the receiver. A tall front sight post sits inside a protective hood. The metal is matte black throughout.

AR-22A. The same silhouette with a flattened top receiver carrying a mounting rail (optics were never standard, but the rail is), a slightly enlarged trigger guard for gloved winter use, and a switch to fully black polymer furniture, with no wood left at all.

Solenne SR-30. It was built to look unlike the AR-22 family. The furniture is lighter grey-tan polymer instead of black, the receiver line is straighter and flatter, and an integrated carrying handle doubles as a sight housing. The magazine has a translucent window so a soldier can see the remaining rounds without pulling it. It was meant to read as a clean, optimistic, distinctly non-authoritarian design next to the AR-22's utilitarian menace.

Anestria and its successors

ROA M4 "Sentinel Standard". A desert-adapted semi-automatic with pale sand-toned wood furniture, lighter than any Syndicate-lineage stock. It has a wider ejection port and a dust cover to resist blowing sand, a stamped Republic emblem on the receiver's left side, and a tan-parkerized metal finish in place of bluing.

ROA AR-7. Anestria's own select-fire rifle. It keeps the sand-tan furniture tradition but in polymer rather than wood, with a straight-line stock in line with the barrel axis to control recoil and a distinct triangular handguard cross-section. It is desert tan and khaki throughout, never black, unlike the AR-22.

Successor-state AR-7 variants (CAR, Antares, Imperium, New Virgen, Antilla-Vegan). The same base silhouette, differing only in stock colour and stampings. CAR keeps the original tan. The others field faded olive, grey, or unpainted-metal batches, depending on which factory's leftover stock they inherited. They are near-identical apart from finish, since they are all the same tooling.

Christonia and Candrasia

Imported AG-40s and SR-9s from before GAW1 look as described above, with a small stamped Christonian import marking on the receiver. Postwar Einsenia, Northland, Southland and Christonia forces carry visually mismatched AR-22A-pattern rifles in whatever finish condition each surplus batch arrived in. The inconsistency is deliberate, a visual shorthand for the patchwork itself.

Luluke and the AFN

Kaldrun Pattern. An old-fashioned bolt-action with an ornately carved dark wood stock in place of a plain one, reflecting Luluke's older craft traditions. It has worn brass barrel bands and buttplate, a long thin barrel, and simple notch sights. It looks like a rifle hand-maintained across generations and not mass-produced.

Finhaven Arms Co. FA-6. A naval-doctrine rifle with a corrosion-resistant grey-green coated metal finish for shipboard salt exposure, and a shortened barrel and stock for handling belowdecks or on a rolling deck. The furniture is a simplified two-piece set in polymer and wood, and an AFN anchor-and-island emblem is stamped on the receiver.

Numaria

Ferrengrad Arms IR-11 "Ironhand". Crude and oversized: a thick stamped-steel receiver with visible weld seams, a blocky, minimally shaped dark wood stock, an oversized trigger guard sized for a mitten or glove, a wide bore, and a dull dark gunmetal-grey finish with no polish anywhere. It was built to be assembled fast and used by conscripts, and it looks it.

Smuggled AR-22 carbines (PUSDR resistance era). Standard AR-22s with cut-down barrels and stocks for concealment under clothing. Years of field improvisation and cannibalised parts have left them with mismatched replacement furniture, such as a black polymer grip on a wood-stocked example, or the reverse.

People's IR-11M. The same IR-11 tooling and silhouette, but with red-painted furniture accents (the grip and a stock band) replacing the original bare wood, and a simplified single-stamped receiver marking where the old Ferrengrad Arms logo used to be. It is visibly the same gun, marked on purpose as no longer the same regime's.

PAS-12. A compact 9mm service pistol in matte black polymer over a steel slide. It has a slightly oversized trigger guard for gloved use in the tropical belt it was built for, minimal external controls for easy field-stripping, and an 8-round magazine flush with the grip.

AS-15. Visibly built off the PAS-12's own action, scaled up: the same blocky polymer furniture family, a stubby barrel shroud, a folding wire stock for airborne compactness, and a curved 30-round magazine. It is matte black throughout, with no wasted ornamentation.

AS-17. Plain and rugged. It has dark olive-green polymer furniture and generous exposed clearance gaps around the bolt, visible even from outside the receiver (the "sand and dirt just falls back out" design showing on the exterior). The selector is a simple two-position one, and the magazine is a 32-round curve. It is a rifle that reads as built to be trusted and not admired.

ASM-18. The AS-17's silhouette lengthened and reinforced: a heavier barrel with a prominent bipod folded under the fore-end, the same olive polymer furniture family, and a 38-round box magazine feeding from the left.

ASM-19. A large belt-fed gun. It has a long finned barrel for sustained fire and an open-top ammunition tray feeding a canvas or linked belt from a side-mounted can. It is mounted on vehicle pintle hardware more often than on a bipod, and finished in flat matte green-grey.

ASK-10. An oversized bolt rifle with a single-shot profile despite its 6-round magazine. It has an enormous muzzle brake, a thick free-floated barrel, a folding bipod as standard, and a shoulder pad thick enough to visibly absorb 12.7mm recoil.

ASP-20. A shoulder-fired tube launcher: an open-frame steel tube with a distinctive flared rear blast cone and a simple optical sight offset to one side. When loaded, the BM-HEAT-1 round's own bulbous tandem warhead is visibly wider than the tube it is fired from.

Skarnovia

Ostrenia's surplus **AG-14**s, Velemira's surplus **ROA M4**s and Kesarova's surplus **AG-40**s all look as described above, only decades older and more worn than their originals: sun-faded stocks, replaced non-matching parts, and unit markings scratched over and re-stamped after independence.

Dravensk's patchwork. Visually chaotic on purpose. Any single Dravensk fighter might carry a captured AG-14, ROA M4 or AG-40, field-repaired with mismatched wood, wrapped grips and improvised sling hardware. No two rifles in a Dravensk unit look alike.

Skotharbor Pattern. A maritime lever-action and bolt hybrid, with weathered brass fittings gone green at the edges, a rope-wrapped foregrip for wet-hand grip, and a shorter barrel suited to boarding actions and close naval combat. The overall look is well maintained but clearly saltwater-worn.

Bavaria

Bavenhurst BR-5. Plain almost to the point of being featureless: dark blued steel, a straight unadorned stock with no carving or bands, a simple notch rear sight, no bayonet lug, no selector. Nothing distinguishes it visually across three centuries of production runs, because nothing about it has ever needed to change.

The rest of the map

Pechora PK-2 (Pechorian Federation). A short, cold-weather bolt-action carbine with a shortened barrel for handling in tight cold-weather gear, a stock wrapped partway in wool or felt padding against frozen-metal contact, and a weatherproofed matte grey finish resistant to salt spray.

Drywell DW-3 (Hardluckia). A desert lever-action with sand-toned wood or early polymer furniture matching Hardluckia's terrain, a dust cover flap over the ejection port, and simple fixed sights. It is cheaply stamped, and visibly so.

Schwalbenheim SH-9. A hybrid: older desert-pattern wood stock and furniture retrofitted around a newer barrel and action in the Kargopol-standard calibre. The mismatch between old

furniture and new barrel is obvious to anyone who looks closely. It is a nation re-arming around someone else's ammunition standard without replacing what it already had.

Kharzun's mixed arsenal. No single look at all, by design. Any given Kharzun fighter carries an Anestrian ROA M4, a Hardluckian DW-3 or a Schwalbenheimer SH-9, whichever its own clan traded for.

Vessek's mixed arsenal. Captured IR-11s, unmodified and taken straight off Eisenreich or PUSDR patrols, alongside crude single-shot break-action hunting rifles, hand-built in small mountain workshops, with plain unfinished wood stocks.

Moonhaven MH-4 (Safemoon). A defensively doctrined rifle with a heavier, thicker barrel profile for sustained accurate fire from fixed positions, a bipod fitted as standard rather than as an accessory, and simple dark furniture. It is built for a nation that fights from behind walls.

Gran Chicania GC-7 (Chicano States). Cheap and ugly: crude stamped-sheet-metal furniture with visible tooling marks, a boxy square-edged receiver, and rough unfinished welds, with no attempt at ergonomics or aesthetics anywhere on it. It was built to be handed to as many conscripts as fast as possible, which suited the Ashfields Campaign.

Minh Chau MC-2 (Nam Minh). A modern angular assault rifle in olive-green polymer, built around Kargopol-standard ammunition. It is visibly related to the People's IR-11M's cartridge family despite a completely different, more modern-looking receiver design.

Arvangrad AV-5 (Yeshuren Union). An older wood-stocked design predating GAW1, kept in service with only minor parts replacement for over a century. It looks noticeably dated next to the PUSDR-pattern weapons its patron fields.

Tiancheng TC-1 (Tianhai/Xue Lin). A sleek, small-batch precision rifle with a smooth, minimalist stock in a light hardwood or fine polymer, almost no visible hardware, and tight machining tolerances. It has a restrained, refined look, with none of the crude stamped-metal roughness common everywhere else on the list.

Modern Standardization

UARRO's Exclusive Economic Sector (Chapter 17) does for ammunition and spare parts what it was never chartered to do for ideology. Member states increasingly standardise calibres and magazine interfaces for interoperability, without ever fielding one single alliance-wide rifle. Kargopol runs the same logic in reverse, around whatever PUSDR is currently producing. Neither alliance has needed to formalise this. It is cheaper to fight next to someone whose ammunition fits your gun.

Once Solenne founds the **Pan-Savoran Union** (Chapter 17), the PSU follows the same pattern around the SR-30. Solenne offers the rifle and its 5.6mm Solennese cartridge to PSU partners, and members increasingly standardise on that cartridge and the SR-30's magazine interface rather than adopting one alliance-wide rifle. It is the Savoran mirror of Kargopol's AS-17

standard.

Canon Specifications (Modelled)

The two rifles described next exist as finished canonical 3D models. Their dimensions, markings and features are fixed by those models. Fuller treatment follows in the closing section of this chapter.

AR-22 "Vanguard" (AVMS, Corvenna works, 1000 to 1250 AE, AR-22A thereafter)

- **Dimensions and weight:** 1.14 m overall, barrel about 0.48 m plus a 6.5 cm slotted birdcage flash hider, about 4.0 kg empty, 4.6 kg loaded.
- **Action:** gas-operated, long-stroke piston above the barrel (the gas tube runs under the upper handguard to the front-sight gas block), rotating bolt, reciprocating charging handle on the right.
- **Ammunition:** 6.8mm Syndicate intermediate cartridge, 30-round curved steel box magazine with stamped stiffening ribs.
- **Sights and controls:** a rear aperture sight between two protective ears on the removable receiver cover, a tall front post inside a circular hood with a bayonet lug under the sight block, and a three-position selector on the left side, marked **S** (safe), **1** (semi) and **A** (auto, in red).
- **Furniture:** a two-piece dark walnut handguard, the lower half with finger grooves and the upper half covering the gas tube, held by two steel bands. A black early-polymer pistol grip with checkered panels. A fixed black polymer stock. A steel buttplate with a cleaning-kit trap door. A cleaning rod under the barrel. Sling swivels front and rear.
- **Markings** (left receiver): "AVMS AR-22 VANGUARD" over "CAL 6.8 SYND No. 41-207733" (the serial format is illustrative).
- **Finish:** matte black phosphate steel, worn bright at the edges where hands and kit rub it.
- **In service:** heavy and long by later standards, a first-generation assault rifle still carrying battle-rifle proportions. Its wood handguards swell and crack in wet climates, one reason the AR-22A went all-polymer. It had iron sights only until the AR-22A's rail, and it is recoil-heavy on full auto.

Solenne SR-30 (AVMS under Solennese ownership, adopted 1303 AE, production from 1304)

- **Dimensions and weight:** 1.07 m overall, with a stock that folds to the right, barrel about 0.40 m plus a 6 cm four-prong flash hider, about 3.4 kg empty, 3.9 kg loaded, roughly 0.6 kg lighter than the AR-22.
- **Action:** gas-operated rotating bolt, with the gas block enclosed under the handguard. A folding charging handle sits on top, under the carrying handle, usable from either side.
- **Ammunition:** 5.6mm Solennese high-velocity cartridge, 30-round translucent smoke-amber polymer magazine with a black collar and floorplate, the brass double stack visible through the wall.
- **Sights and controls:** an integrated carrying handle on raked posts, housing a low-power fixed optic (rubber eye guard at the rear, coated objective at the front), backup notch-and-post

iron sights on top of the handle, an ambidextrous selector, **S** / **1** / **A** (A in red), and an oversized moulded trigger guard for gloved hands.

- **Furniture:** a one-piece grey-tan polymer receiver with a moulded upper/lower seam and a dead-straight top line. A ventilated grey-tan handguard behind a black steel joint ring. A black nose cap and gas block, with a front sling loop. A grey-tan pistol grip with a finger groove and checkered panels. A straight-line folding skeleton stock, in line with the bore, with a rubber butt pad.
- **Markings** (left receiver, moulded): "SR-30" over "REPUBLIC OF SOLENNE" over "No. S-1304-055812" (the serial prefix encodes the 1304 production year).
- **In service:** the grey-tan finish was a political statement and not a tactical one, and it shows against dark terrain. The fixed carry-handle optic means no rail, which dated the design once lights and lasers became standard. Cracked translucent magazine bodies, in cold weather and after rough handling, are the commonest field complaint. The tall carry-handle sight line sits well above the bore, so close-range holdover is noticeable.

The Two Modelled Rifles

The two rifles above are the best documented small arms in the record, and between them they show what the Syndicate lineage and its Solennese rejection looked like in the hand.

The AR-22 "Vanguard"

The AVMS AR-22 "Vanguard" is a select-fire assault rifle built at the Corvenna works in the Syndicate capital on Savorus, with coalition partners building it under AVMS licence. It served from 1000 to 1250 AE as the AR-22, and as the AR-22A thereafter, through GAW3. It was the Syndicate's first true select-fire assault rifle and the most widely carried small arm in Aridexian history. It was adopted well before GAW1 and carried by the entire Syndicate-led coalition in the Thirty-Day War, when Anestria, Luluke and the AFN fielded license-built or imported AR-22s. It was the USN's standard infantry weapon through GAW2, and as the AR-22A it served right up to GAW3. The USN smuggled cut-down AR-22 carbines to the PUSDR resistance under Eisenreich occupation, and AR-22A-pattern surplus still arms Einsenia, Northland, Southland and independent Christonia.

Its lineage runs AG-01, AG-14, AG-40 "Light Repeater", SR-9, AR-22 "Vanguard", AR-22A. Solenne's SR-30 was adopted specifically to stop carrying "the dictatorship's own gun".

Dimension	AR-22 as modelled
Overall length	1.14 m (buttplate to flash-hider crown)
Barrel	about 0.48 m (receiver face to muzzle), plus a 6.5 cm slotted birdcage flash hider
Height	0.40 m with magazine
Receiver width	30 mm
Sight radius	about 0.59 m (rear aperture to front post)
Weight, empty	about 4.0 kg
Weight, loaded	about 4.6 kg, with a loaded 30-round magazine

The weights are estimated from the model's steel, wood and polymer volumes.

The action is gas-operated, with a long-stroke piston above the barrel. The gas tube runs under the upper handguard to the front-sight gas block. The bolt rotates, and the charging handle reciprocates on the right side. The calibre is the 6.8mm Syndicate intermediate cartridge, roll-marked "CAL 6.8 SYND", the round every coalition partner had to match. The magazine is a 30-round curved steel box with stamped stiffening ribs and a flared floorplate.

The rifle is built from a milled steel receiver with chamfered edges and a removable top cover, with rivets on both sides. The three-position selector sits on the left side of the receiver: S (safe), 1 (semi) and A (auto, marked in red). The roll marks on the left side read "AVMS AR-22 VANGUARD" over "CAL 6.8 SYND No. 41-207733". The rear aperture sight is protected by two ears on the receiver cover. A tall front sight post sits inside a circular protective hood, on the gas block and sight tower, with a bayonet lug below. The handguard is a two-piece dark walnut set, a lower U-section with finger grooves and an upper half over the gas tube, held by two steel bands. The black early-polymer pistol grip has checkered side panels, and the fixed stock is black polymer with a steel buttplate that carries a cleaning-kit trap door. The ejection port on the right has a hinged dust cover, and the bright bolt carrier shows through the port. A cleaning rod runs under the barrel, and there are sling swivels front and rear. All steel carries a matte black phosphate finish, with edge wear where hands and kit rub it bright.

Two variants are on record. The AR-22A, from after GAW2, has a flattened top receiver with a mounting rail, a slightly enlarged trigger guard for gloves, and all-black polymer furniture with no wood. The AR-22 carbine of the PUSDR resistance has a cut-down barrel and stock for concealment, with mismatched field-replacement furniture.

The rifle has limits. It is heavy and long by later standards, about 1.14 m and 4 kg, a first-generation assault rifle that still carries battle-rifle proportions, and it is slower to handle in buildings and vehicles than its successors. Wood handguards swell and crack in wet climates, which is part of why the AR-22A went all-polymer. It has iron sights only, with no optics provision until the AR-22A's rail. The long-stroke piston and heavy steel receiver make it reliable but recoil-heavy on full auto, so automatic fire is a suppression tool and not an accurate one. A fixed stock and no rail mean no adjustment for body armour or optics.

The Solenne SR-30

The SR-30 is Solenne's standard infantry rifle, and the only domestic Solennese service rifle on record. It is built by AVMS in the inherited Savoran plants under Solennese ownership. It was adopted in 1303 AE, in Farren Vane's term as first Jakaar (1300 to 1308), with series production from 1304. It was a deliberate, symbolic break from the AR-22 lineage: a government founded to be everything the USN wasn't did not want its soldiers carrying the dictatorship's own gun. It is the most widely issued small arm in Solennese service, though the AR-22A never fully disappears from the map, as PUSDR shows.

The SR-30 was the most visible symbol of "this is not the USN". Yet it was adopted in 1303, midway through Farren Vane's term, by the system that rebuilt the USN's instincts, and it was built by AVMS, the dictatorship's own gunmaker. The design changed. The factory, and the hands deciding who carried it, did not.

The design intent is stated plainly: it was meant to read as a clean, optimistic, distinctly non-authoritarian design next to the AR-22's utilitarian menace. Every visual choice answers the AR-22 directly.

The AR-22	The SR-30
Matte black and walnut	Light grey-tan polymer, no wood, no black furniture
Stepped, milled receiver	One long, straight, flat-topped moulded receiver
Hooded front post and aperture	Sights carried inside an integrated carrying handle
Opaque steel magazine	Translucent magazine, with rounds remaining visible at a glance

Dimension	SR-30 as modelled
Overall length	about 1.07 m (butt pad to flash-hider crown), the stock folds to the right
Barrel	about 0.40 m (receiver face to muzzle), plus a 6 cm four-prong flash hider
Height	about 0.36 m with magazine, including the carrying handle
Receiver width	34 mm
Weight, empty	about 3.4 kg
Weight, loaded	about 3.9 kg, with a loaded 30-round magazine

The weights are estimated from the model. The SR-30 is lighter than the AR-22 by about 0.6 kg, mostly from polymer replacing steel and wood.

The action is a gas-operated rotating bolt, with the gas block and piston enclosed under the ventilated handguard. A folding charging handle sits on top, under the carrying handle, and can be used from either side. The calibre is the 5.6mm Solennese high-velocity cartridge, deliberately different from the AR-22's 6.8mm Syndicate round. Through the Pan-Savoran Union, members increasingly standardise on this cartridge and the SR-30's magazine interface. The magazine holds 30 rounds in translucent smoke-amber polymer with a black collar and floorplate, and the double-stack column of brass cartridges shows through the wall.

The receiver is a single grey-tan polymer piece with a moulded upper/lower seam line and a flat, straight top line. The integrated carrying handle, on raked, tapered posts, houses a low-power fixed optic, with a rubber eye guard at the rear and a coated objective at the front. Backup notch and post irons sit on top of the handle. The ventilated grey-tan handguard has a black steel joint ring, a black nose cap and gas block, and a front sling loop. The selector is ambidextrous, S / 1 / A with A marked in red, and the moulded trigger guard is oversized for gloved use. The grey-tan pistol grip has a finger groove and checkered panels. The straight-line folding skeleton stock sits in line with the bore and carries a rubber butt pad and a rear sling loop. The moulded markings on the left side read "SR-30" over "REPUBLIC OF SOLENNE" over the serial "No. S-1304-055812". The ejection port on the right has a brass deflector bump, and the bolt is visible through the port.

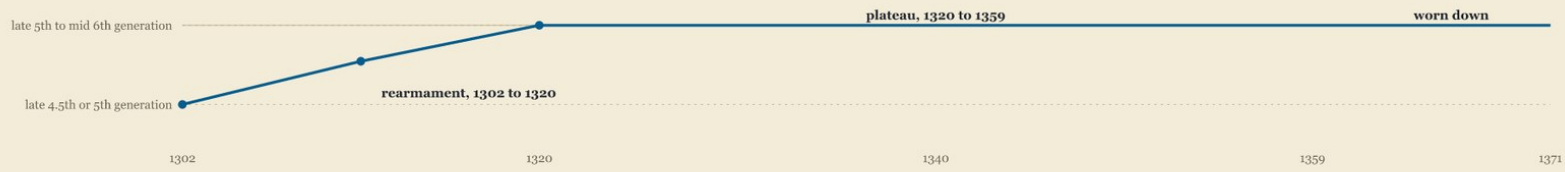
Its limits are these. The light grey-tan finish was a political statement and not a tactical one, and it stands out against dark terrain and at night more than the AR-22's black. The fixed optic in the carrying handle means no rail, so lights, lasers and alternative optics cannot be fitted without aftermarket clamps, which dates the design as accessories became standard. The translucent magazine is lighter and more informative but less tough than steel, and cracked magazine bodies in cold weather and after rough handling are the commonest field complaint. The tall carrying-handle sight line sits high above the bore, so close-range holdover is noticeable.

THE LADDER: PEOPLE AND TECHNOLOGY

How Aridexian numbers and machines climb from a founder handful to a spacefaring plateau, as the record gives them

	Era, AE	Feels like	What the record names	People
0	**Deep time** c. 50,000 years before GAW3	**A civilisation capable of ending itself, then nothing.**	A first civilisation on Typhon. Its archive does not survive the crossing.	A founder population small enough that 'handful' is no exaggeration.
1	**-270 to 0**	**Late Iron Age into early gunpowder**	Swords and matchlocks give way to rifles and armour. Irwin's fields the first internal-combustion engine, the first rechargeable battery and the AG-01 rifle. The AV-1 is the first armoured vehicle.	City-states of tens of thousands.
2	**0 to 500**	**Age of Sail to early Industrial**	The thunder-pipe about 290, the arquebus about 320. Koedul's rail and canals, about 360 to 412. The Syndicate's home continent is industrialised by 400.	Luluke falls to a fraction after Carina-11. Diaspora founders arrive with nothing left to lose.
3	**500 to 900**	**Industrial to the early 20th century**	Luluke's electric motor in the 700s. The printing press about 880. Anestria's steam to oil. Reyes fights early-19th-century wars in 795 to 812.	No census figures are given.
4	**900 to 1000**	**Early to mid 20th century**	A gold, copper and rare-mineral strike lifts Luluke about 900. Christonia reaches the level of 1940s America.	No census figures are given.
5	**1000 to 1250**	**Mid 20th century, accelerating**	Mechanised warfare and early nuclear physics. The AR-22 select-fire rifle. The first fission reactor in the mid-1100s and the first nuclear test in the early 1200s.	Nations of millions are the modern scale. None is counted.
6	**1250 to 1300**	**Cold War tension, then a nuclear exchange**	Tanks, carriers and aircraft at scale in 1250. Vivemus-1 in 1261, the first crewed capsule in 1265, the Lira landing in 1288. Eight warheads in 1300.	The USN mainland and Pelruvian Islands are left largely depopulated. A century and more to climb back.
7	**1302 to 1320**	**Rearmament**	Aircraft climb from late 4.5th or 5th generation to late 5th or mid 6th. SR-30, TV-24A, DKK-1. Sanctuary I reaches Lira in 1307.	Reconstruction. No census figures are given.
8	**1320 to 1359**	**The plateau**	Military hardware stalls at mid sixth generation. Investment turns to space and conservation. Asmedeus-1 flies in 1337.	Several thousand settlers reach Typhon in 1341.
9	**1359 to 1371**	**Same hardware, worn down**	No leap. Six years of conventional war with the plateau kit and no margin left for another.	Every Aridexian government falls. A colony of Ardekai and Ospyrans remains on Typhon.

AIRCRAFT GENERATION, THE RECORD'S OWN YARDSTICK, 1302 TO 1371



Technology climbs fast to the 1320 plateau and stalls there while the numbers fall, and the record gives population only as scale and never as a census.

Plate: Technology climbs fast to the 1320 plateau and stalls there while the numbers fall, and the record gives population only as scale and never as a census.

27
What They Wore

Every change in cut or colour on this list follows a war it came out of, a war it was about to fight, or a war it had just lost.

The chapter starts with the general account, war by war, and then goes to the closer studies: the USN's elite Corps, Anestria's long desert tradition, and Bavaria's plain grey-green.

The weapons of the wars say what a soldier carried (Chapter 26). This chapter says what he wore, what he slung his rifle on, and what the war did to both. The rule is the same as in the history of arms: nobody dressed an army for fashion. Every change in cut, colour and load-carriage that follows came out of a war, or was made for a war about to be fought, or was forced on a government by a war it had just lost.

The technology of cloth and kit follows the same touchstones as everything else on Aridexia (Appendix B). The Thirty-Day War reads as World War II-equivalent, the Second War as the 1950s, the Third War as the late Cold War, and everything from the Reclamation War onward as a mid-6th-generation plateau. The kit is better in the details, but nothing in it would look alien to a soldier from the last decade of the Third War.

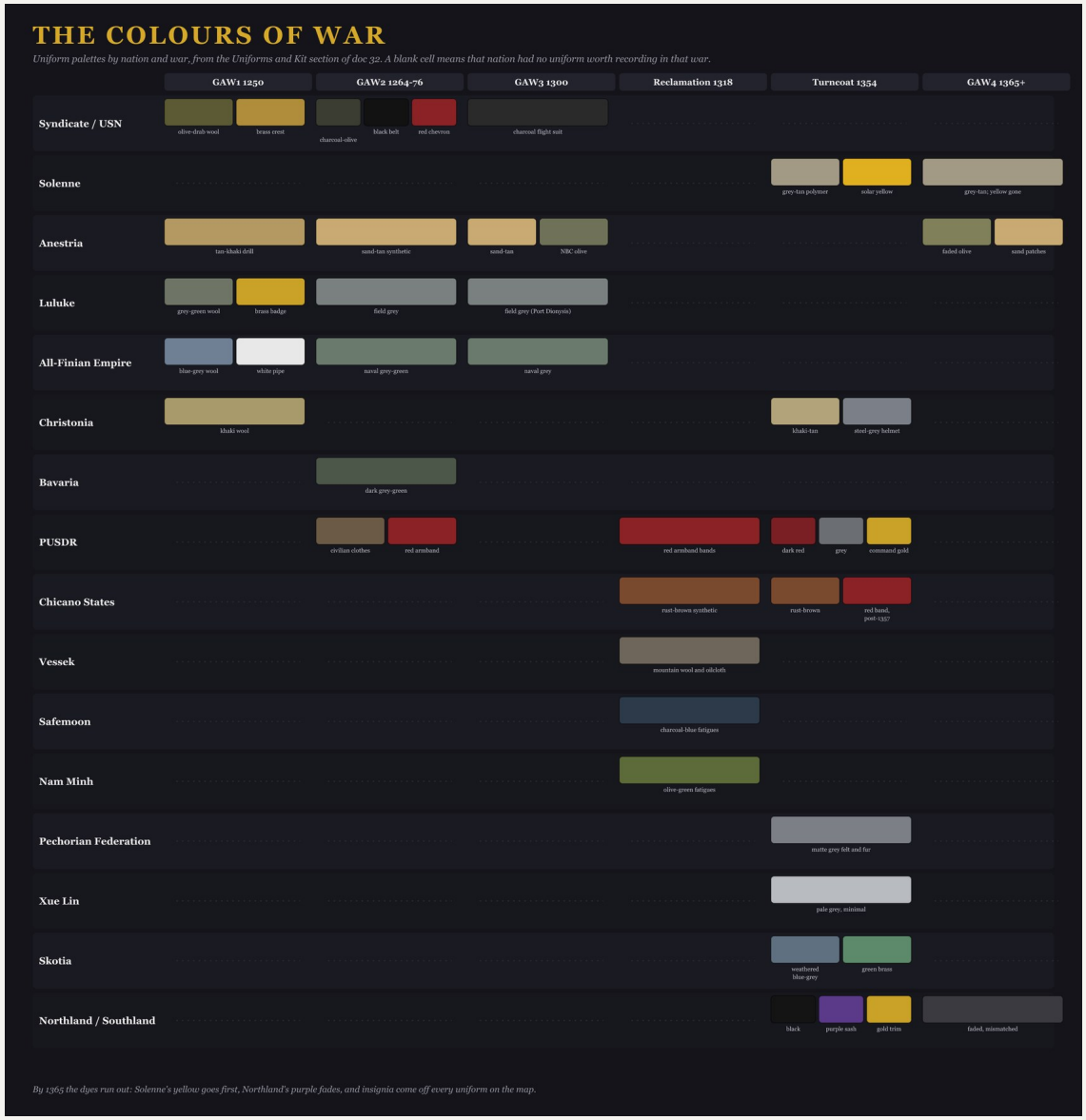


Plate: the colours of war.

The Thirty-Day War: Wool, Webbing and Steel Pots

The first war was fought in industrial-era cloth, leather and canvas (October to November 1250). No soldier carried anything that had not been recognizable a generation earlier.

The Syndicate fielded the best-equipped army of the coalition, and it was dressed accordingly. The tunic and trousers were dark olive-drab wool, with a high collar and a brass AVMS-style crest pin. Leather ammunition pouches and a canvas haversack hung on a Y-yoke, and the steel helmet carried a plain painted rim stripe by branch. The drabness was deliberate. The later palette of the United Syndicate Nations starts here, as a corporate uniform before it was a regime's.

Anestria dressed in tan-khaki cotton drill rather than wool. Rear-echelon troops wore a brimmed field cap in place of a steel pot, and everyone wore wide canvas gaiters against desert sand. The webbing was cotton, never leather, because leather cracks. A cloth Republic roundel was sewn at the left shoulder.

Luluke had the least modernized kit of the four, and visibly so. Its soldiers wore grey-green wool greatcoats cut in a decades-old long pattern, carried bolt-action rifles on hand-stitched leather slings, and wore a rounded steel helmet with a brass badge that officers polished anyway. The kit showed craft pride over uniformity.

The All-Finian Empire was a naval army, and its infantry dressed like one: blue-grey wool with a white-piped collar, an anchor-and-island cap badge, and canvas-and-rubberized-cloth rain capes as standard issue. The boots had sealed seams. Coastal units wore a kapok life vest over everything.

Christonia, the defender, was dressed like what Christonia was, a 1940s-America mirror (Chapter 5). It wore a khaki wool shirt and trousers, a webbing belt with suspenders, and a steel pot helmet with a stenciled unit mark. Its leather pouches were imported AVMS-pattern, stamped with the Syndicate import mark. This was the same financed equipment that made the Renner Faction's 1249 bombing so bitter. The kit was worn, mismatched, and overwhelmingly outnumbered.

Chicano States, Numaria's dominant power and no part of the coalition, was dressed as a great power that could still afford to look the part: a long charcoal wool greatcoat, a short shoulder cape lined in dark red, a black shield on the breast with a dark red star, a wide-brimmed felt hat and a wool muffler across the face. It is the most recognisable of the era's uniforms on the continent, and the first of the four Chicano patterns described later in this chapter.

The Second War: Twelve Years, Two Bloc Palettes

The Second Aridexian War (1264 to 1276) lasted long enough for the kit to change inside the war itself. The wool and leather of 1264 had given way by 1270 to cotton-synthetic blends, and field jackets replaced tunics on both sides.

The USN, anchor of the CPA, hardened its drab palette into a recognizable regime look: a charcoal-olive field jacket with a stand collar, matte-black belt and boots, no regimental colour anywhere, and a plain red-on-black chevron for rank. By 1270 the dictatorship's own insignia was a stamped steel pin, not cloth. It was the sign of a government that had started to treat its own soldiers as interchangeable.

Bavaria, also CPA, wore plain, practical dark grey-green, with the same blued-steel featurelessness as its rifles. It had no decoration, no unit flair, and a cloth strip on the sleeve for branch and nothing more. It was the one CPA member whose kit never needed to be explained. (Its uniform has a short section of its own at the end of this chapter.)

PUSDR's resistance, the CPA irregulars inside Eisenreich's occupied territory, had no uniform at all. They wore civilian work clothes and captured Eisenreich greatcoats dyed to hide the tell. A single red cloth armband was the only common marker. Some carried smuggled USN gear, such as an AR-22 carbine slung under a coat. The red armband outlived the war and became the colour PUSDR itself was founded around.

Anestria, in HAFDAP, matured its khaki-drill look into the first true desert uniform: a loose two-piece in sand-tan synthetic blend, a neck-shading cap flap, sealed boots in place of boot-top gaiters, and ROA-pattern webbing in tan polymer instead of cotton. These were petroleum-era materials, because Anestria's own energy crisis (Chapter 6) had made it the first power to understand what oil-derived fabric could do for a desert army.

Luluke, also HAFDAP, was slow to change and proud of it. It adopted a field-grey wool-synthetic jacket only in the war's last years, and kept the brass-badged helmet. It was visibly the best-looking army on the side that was losing in order to win.

The All-Finian Empire, the third HAFDAP power, replaced its old blue-grey with naval grey-green, and the white collar pipe became a branch colour. Amphibious troops received the first true foul-weather waterproof jacket on the continent, an AFN invention that Anestria licensed without announcing it.

Chicano States, no combatant in this war but still among the continent's strongest armies, could afford to be warm. Its soldiers wore a loose winter-white hooded smock-cloak over a bleached canvas vest with three magazine pouches, a white wool face gaiter and narrow-slit snow goggles, with a long grey skirted coat underneath in deep cold. The white was bleached cotton and wore to dirty grey. It was the last Chicano uniform built before the interwar collapse made cheap cloth a policy.

The Third War: One Night, Three Kinds of Uniform

The Third Aridexian War lasted one night, 17 January 1300, and its uniforms say less about an army than about a few specific jobs done on that night.

The **USN bomber crews**, eleven squadrons, wore charcoal flight suits and leather-and-fabric helmets with built-in radios, with oxygen masks and a fire-retardant liner. They wore no unit

patches at all. That was a deliberate security measure for a covert first strike, so that a downed crew's gear would identify no squadron and no base. The only insignia was a stamped number on the collar.

The **Port Dionysis garrison**, Luluke and allied, was the doomed. Its men wore standard Luluke field grey, and no one had been issued the flash-protective eyewear that nobody wore anyway. It was a garrison caught in barracks dress at 2 AM.

The **Anestrian marines**, who took the USN capital, were the war's best-equipped ground force by a wide margin. They wore the sand-tan synthetic uniform from the Second War, now with ceramic-plated body armour, a ballistic helmet with a night-vision rail, and the first NBC-protective overgarments issued in numbers on the planet. They put them on the day their own country's strikes had made them necessary.

The **AFN's last command** was no field force. It was a handful of staff officers in naval grey, with the Empire's own anchor badge on a final set of orders signed in formal dress at 6:30 AM, the day the uniform stopped meaning anything.

The Reclamation War: The First Post-Nuclear Uniforms

Every power in this account rebuilt its soldiers' kit from scratch in the 1310s, with new body armour, new webbing and new materials, and a visible lesson learned about fallout. The Reclamation War ran from 1318 to 1320.

Chicano States, the attacker, was rebuilt thin. It followed the same cheap-and-ugly principle as the GC-7 rifle (Chapter 26), in cloth: an olive-brown synthetic jacket and trousers with visible hand-sewn patches, a steel helmet painted rust-brown, a simple chest rig in cheap nylon, and stenciled numerals for rank. It was a well-equipped force for its size, but dressed like one that could not afford to look better.

Vessek still had no uniform. It wore mountain clothing: layered wool, felt-lined boots, hooded oiled-cloth cloaks in grey and brown, and bandoliers of whatever fitted whatever rifle was in hand. A strip of dyed cloth on the left arm showed, in colours, which mountain valley the fighter came from. It was the most resilient kit on this list, because none of it was meant to match.

Safemoon was defensive in dress as in doctrine: dark charcoal-blue heavy fatigues, a thick padded jacket, reinforced knee and elbow pads, and a bulky helmet with a drop-down face guard for urban and trench fighting. A canvas shoulder strap carried a bipod rifle. The soldier was built to hold a position and stay in it.

Nam Minh was modest and practical. Its fatigues were olive-green polymer and cloth, matched to its olive-green MC-2 rifle (Chapter 26), tropical in weight and quick-drying. In the field it wore a plain cloth cap or boonie hat and a lightweight rig. Nothing about it was built to impress, and it was deliberately the least aggressive-looking uniform in the war.

PUSDR backed Nam Minh with material, and sent no troops. Its own soldiers were not in this war, but its gear was. Kargopol-standard ammunition pouches (the AS-17 standard, Chapter 26) showed up on Nam Minh chest rigs in numbers, and the first red armband bands appeared as a Kargopol marker.

Solenne was an observer and supplier. It was not a combatant, and its postwar yellow (see below) was not yet on any battlefield. But its Savoran SR-30 grey-tan polymer rig was already the most distinctive silhouette in the PSU's early parades.

The Turncoat War: The Plateau Uniform at Full Maturity

By the Turncoat War (1354 to 1358) the mid-6th-generation kit had matured: fully integrated modular armour, helmet-mounted sensors and comms, and load-bearing vests built around a single standard rail and pouch system. Each nation's look was now an identity as much as a loadout.

Solenne had the war's best-supplied soldier, and now carried its colour on purpose. The grey-tan polymer plate carrier was trimmed in solar yellow at the shoulders and on the helmet band, with integrated translucent-window magazine pouches matching the SR-30, in clean lines, bright and optimistic by design. In Malakor's war the same cheerful palette took on a grimmer meaning, because it was now worn by soldiers committing atrocities (Chapter 20).

The Pechorian Federation was a cold-weather force dressed for it, in matte-grey felt-lined jackets, fur-trimmed hoods, insulated boots and goggles. It was unchanged in principle from the PK-2 era (Chapter 26), the dress of a nation that has never needed to change.

Xue Lin was small, elite and precise: minimalist pale-grey fatigues, no visible badges beyond a small discreet crest, and high-end ceramic plate in a slim carrier. It was the refined, restrained look of the Tiancheng TC-1 made into a uniform.

Skotia was maritime to the end. Its colours were weathered blue-grey with brass fittings turned green at the edges. Rope-wrapped carry handles were fitted to load-bearing gear, and rubberized waterproof outerwear was standard for every branch. It was the Skotharbor look extended from the rifle to the whole soldier.

Northland and Southland wore purple and black in their dress uniform, a deliberate inheritance from Nichozh's own regalia (Chapter 10): a long dark coat over armour, gold trim, and a purple mantle for officers. The field version was plain black with a single purple sash. The effect was stricter and more militarized than the two nations' welfare-state reputation suggests.

Christonia modernized its old khaki-and-webbing tradition: a khaki-tan tactical jacket, a steel-gray helmet, and a visible "Christonia" nameplate. It was recognizably descended from its 1250 look. It never stopped being 1940s America with better materials.

PUSDR, the VAPIK anchor, had the best-looking army against Solenne. Its dark red-and-grey modular uniform had the red armband migrated to a red helmet band, and was built around the

AS-17. Airborne Landing Force troops wore compact lightweight composite gear matching the AS-15 and BH-10 (Chapter 28). The look was distinct, purposeful, and a little menacing.

Cassius Altyr's PUSDR, at command level, dressed differently. Officers and the head of state's own guard wore maroon-and-gold, the royal-court look Cassius himself favoured (Chapter 16). It was ceremonial and impractical, and a visible contrast to the working red-and-grey uniform worn below them.

Safemoon refined its 1318 look, with heavier ceramic plate and the same defensive silhouette, and added a new thick padded vest rig that made a soldier look half again his actual size.

The Yeshuren Union and Nam Minh wore PUSDR-pattern gear in each nation's own colour. Yeshuren's was dark brown-grey with an old wood-furniture look, matching the AV-5, and Nam Minh's was unchanged olive green.

Vessek was unchanged, and still unbroken: no uniform, the same layered mountain clothing, now with salvaged modern ceramic plate worn under it where available.

Chicano States was the one nation in this war wearing two uniforms. The bribed original government's troops wore the same cheap rust-brown kit as in 1318, with Solenne-sourced polymer gear mixed in, visibly inconsistent. After the 1357 revolution, the troops of the Reyes-descended government tore off the old marks and added a plain red cloth band: a new flag over the same cheap clothes.

The Fourth War: Kit Under Attrition

The Fourth Aridexian War (1359 to 1371) brought no new gear. It was the same mid-6th-generation plateau, worn down. Every nation's uniform survived the war as a worse and more improvised version of itself, until the governments issuing them were gone.

In **1365**, when the signatories fell, Solenne, Northland-Southland, Chicano States and the Anestrian successors lost their supply chains first. The yellow dye ran out in Solenne's issue and its uniforms turned plain grey-tan. Northland's black and purple faded to mismatched dark cloth. Every unit insignia came off first, because nobody could afford to replace it.

From **1366 to 1369**, as Numaria, Drozdov, Candrasia, Skarnovia, the AFN successors, Luluke and Skotia fell, insignia disappeared and mixed-pattern field repairs became universal. Helmets lost their sensor packages and were painted in whatever paint remained. A soldier in AE 1368 looked like a soldier from no country in particular.

In **1371**, Hardluckia and the Schwalbenheimers' desert troops were the last uniformed armies on the map, the last two governments. By then "uniform" meant only that two people standing together wore the same sand-coloured rags. Aridexia's last soldiers were indistinguishable from the civilians they had spent six years unable to protect.

The Powers That Never Fought a Major War

Some powers on this list never fought a major war, and still dressed for the ones around them.

Eisenreich, until 1305, wore the occupier's uniform: an oversized dark gunmetal-grey coat over heavy canvas webbing and a wide-brimmed steel helmet, with no polish anywhere. It matched the IR-11's own deliberately crude look (Chapter 26). PUSDR's later red armband is a direct answer to it.

Kharzun, Hardluckia and the Schwalbenheimers wore desert clan kit throughout: loose sand-coloured robes over light body armour, scarf-wrapped faces, and rifle slings made from whatever had been traded for. Hardluckia's was the most uniform. Kharzun's, by design, was not.

Dravensk, Ostrenia, Velemira and Kesarova wore whatever their metropoles were retiring, as with their rifles (Chapter 26): old Christonian khaki, Anestrian desert tan, Syndicate drab. It was never standardized and never refreshed, and Dravensk's patchwork was the worst of all.

Tavelin was the one Korut island Solenne left alone. It was small and neutral, and dressed in whatever its trading partners supplied that year, in the same fence-sitting manner that marked its politics.

Chicano States: Four Patterns for the Cold

Chicano States wore four distinct uniforms in the period this book covers, and every one of them was built for the cold. Numaria's highlands, the Vessek border and the northern coast are frozen for half the year, and the Chicano soldier's cloth is designed around that fact. The face, neck, hands and wrists are covered in every pattern, and no pattern depends on a single heavy garment. The one rule that runs through all four is the Chicano rule of issue: the armour, helmet and optics are the expensive part and are made well, because the nation kept a real arms industry, and the cloth is the cheap part and is made badly. A Chicano soldier looks like a poor country's soldier carrying a rich country's equipment.

The Coat (1250). The coat-and-hat army of the Thirty-Day War period was charcoal and dark red. The hat was a wide-brimmed felt with a low flat crown, and a grey wool muffler was wound across the nose and mouth and tucked into the collar. The coat was double-lined charcoal wool to mid-calf, lighter grey below the knee so a muddy hem showed less, with a black heart-shaped shield of quilted canvas on the breast carrying a dark red star. A short shoulder cape lined in dark red carried snow off the sling. It weighed about 5.5 kg dry and 8 kg wet.

The Winter Cloak (1264 to 1276). The Second War's pattern was a loose winter-white hooded smock-cloak worn over a bleached canvas vest with three magazine pouches, with a white wool face gaiter and narrow-slit goggles against snow blindness, white mittens with a trigger-finger flap, felt-lined boots, and a long grey skirted coat underneath in deep cold. The white was bleached cotton and wore to grey. It was the last uniform the nation could afford to make well.

The Modular Kit (the 1310s to the Turncoat War). The first post-nuclear kit gave the poor cloth of doc 32 a rich skeleton. The cloth was an olive-brown synthetic jacket and trousers with visible hand-sewn patches and fleece lining. Over it went the rust-brown **CS-MC** helmet: a modular steel-and-polymer shell with side rails, a built-in radio headset moulded into the liner, a rear neck protector of overlapping plates, and a front mount for the **NV-9**, a binocular night optic on a flip-up bracket. Every helmet had the mount. About one soldier in four had the optic, which was the most capable object in the kit and the first to fail in the cold when its battery died. Clear ballistic goggles and a neoprene face cover sealed the face. The body armour was a heavy plate carrier with a large front plate, side plates, shoulder guards, a detachable groin apron and knee and elbow pads. The full kit weighed about 24 kg without weapon or ammunition. Assault infantry and armoured crews wore all of it. Line infantry wore the helmet and a carrier with side plates only.

The Revolutionary Pattern (1357 to the Last War). After the revolution the new government kept the cheap olive-brown cloth and the old armour, and tore the old marks off. The helmet became a lighter rounded shell with a round red-and-white badge on the front and no night mount or neck plate. A knitted grey or white face cover, hand-made in many cases, went over the nose. The carrier was lighter, with a chest rig of three magazine pouches and an admin panel at the top, and over it the troops wore a long grey-olive coat-skirt split at the front, which echoed the coat of 1250. The plain red cloth band sat on the upper left sleeve and, for officers, on the helmet. It weighed about 15 kg. From 1365 the replacement of badges and bands stopped, and the red band was the only constant.



Plate: Chicano States, four patterns for the cold.

The Black-Snake Corps

The USN's regular army, as the previous sections describe it, is drab on purpose: charcoal-olive, a matte-black belt and boots, no regimental colour, a plain red-on-black chevron for rank, and a stamped steel pin where a cloth badge would be. It is the uniform of a government that has started to treat its soldiers as interchangeable. The regular field jacket is charcoal-olive (`#3c3d32`) with a stand collar, and the regime's own insignia has been a stamped steel pin, not cloth, since the Second War. The Corps's bone and crimson is a deliberate contrast. The regular soldier is dressed to be forgotten, and the Corps to be remembered.

The **Black-Snake Corps** is the opposite of that army, and it is the USN's single deliberate act of vanity. After the Talona Crisis in 1290, the regime had a humiliated, disarmed and unpopular army and a security problem it could not solve by size. It could not afford a large force, so it invested in a small, spectacular one. The Corps was formed from the survivors and the instructors of **Operation Black-Snake**, the failed-but-partly-successful special-forces raid on Talona of 1286 to 1290, and it took the raid's name. It is the regime's praetorian formation: the guard of the capital and the leadership, the escort of the Office of Watch, and the unit that stands on every parade ground and in every newsreel. Its uniform exists to be seen. In a state whose army was dressed to be forgotten, the Corps was dressed so that nobody could forget it. The uniform was adopted in AE 1290.

The Corps's motto, stamped on its plaques and sewn on its cuff, is **CONTINUITY**, and its unofficial one is **WATCH AND ENDURE**.



Plate: the Black-Snake Corps, three orders of dress.

The Rules of Colour and Material

Four colours are allowed on a Corps uniform, and the same rules apply to every order of dress. **Bone** (`#e9e4d4`) is the colour of undyed wool, warm and slightly yellow and never pure white, and it is used for dress and the greatcoat only. **Graphite** (`#2b2e35`) is a blue-grey charcoal for trousers, boots, shoulder boards, coat gussets and the ground of the sleeve badge. **Crimson** (`#8a2226`) is the colour of the Corps, one shade everywhere and always the same. **Silver** is `#c9ccd2` when bright, for buttons, clasps, cord and badges, and `#8d929b` for shadow and engraving. Brass and gold are never worn. Both belonged to the Syndicate, and after 1250 gold was a thing the USN could not afford. Leather is graphite-black, polished to a deep gloss on dress and left matte in the field. The field cloth is ash olive (`#59604f`) with khaki webbing (`#7a7258`) and dark brown leather, matte and never black, the plain colours of any army of the decade.

Nothing else ever appears on a Corps uniform: no other colour, no unit numerals, regimental colours or names, and nothing worn as a band around the arm. Rank lives on the cuff. The Corps is meant to look like one body, and the Eye and the ring are the only decoration. The **ring** is the ouroboros, a snake swallowing its tail, in silver or crimson and about a palm wide. The **Eye** is an almond with an iris and pupil, in silver, and it stands for the Office of Watch, the security service the Corps escorts. The motto CONTINUITY appears on the cuff title, and the unofficial WATCH AND ENDURE is on the plaque. All measurements below are for a 1.78 m adult.

The bone has a reason. The Corps was founded in 1290, after the Talona Crisis, and the regime wanted a colour the Syndicate had never used and the regular army could not afford to keep clean. Undyed wool was the colour of the dead of the Second War in the funeral-parade tradition of the western coast, and the Corps took it on purpose. A guard that wears the colour of mourning is a guard that has already accepted the cost. It is also the one uniform in the country that shows every mark, which is why it is cleaned after every duty. The Corps kept the name Black-Snake from the operation and from the black snake in the state emblem. The dress has never matched the name.

Full Dress: "the Bone"

Full dress, called the Continuity Order, is the ceremonial uniform worn on parade, at state occasions and on the capital's guard. It is made to be seen from the far end of a parade ground and photographed from every side. It is also the most expensive uniform in the USN, and every item is tailored to the individual.

The headdress is a **kepi**, a low, straight-sided cap of bone wool with a flat, slightly oval top about 10 cm tall at the front, stiffened to hold its shape, with a narrow silver welt around the top edge. The band is crimson wool, 3.5 cm wide, with a thin silver line along its upper edge. The peak is short and straight, in graphite patent leather, angled slightly down. The badge is a round crimson disc of about 4.5 cm with a silver ring and a silver rim, centred on the band. The cap is worn level, with the peak a finger above the eyebrow. It is deliberately small and plain, so that the head looks clean and the shoulders carry the outline.

The **tunic** is a long frock of bone wool that falls to the knee, with a stand collar of 4 cm, a fitted waist and a slightly flared skirt with a vent at each side seam. The shoulders are straight and unpadded. Its signature is the closure, which is **off-centre**. A line of buttons starts at the base of the collar on the wearer's left, runs diagonally across the chest to the middle of the waist, and then drops straight down the front to the hem. The line is piped in crimson, 4 mm wide. Six domed silver buttons sit on the diagonal and three below the waist, each stamped with the ring. The collar is piped in crimson along its top edge and carries a small silver ring pin at the throat, and there are no collar tabs. A thin crimson piping runs around the hem and up both side vents. The fabric is bone wool serge lined in graphite silk, warm in winter and hot in summer, and worn anyway. The shoulder boards are graphite, about 5 cm wide and 11 cm long, edged in silver with a single crimson stripe. Staff officers add a silver aiguillette cord looped from one shoulder to the second button.

On the wearer's right shoulder only hangs the **mantle**, a crimson half-cape lined in graphite and edged along the hem in silver, which falls to the elbow. A silver clasp bearing the ring holds it at the neck. It does not cover the arm. It frames the shoulder, swings when the wearer turns, and is the single most photographed item of the Corps's dress. Every rank wears it on parade, and officers wear it on the state's own occasions. In the field it is left behind.

There is no belt and no cross-strap. A **crimson silk sash**, about 6 cm wide, is worn at the waist and knotted on the wearer's left hip, with two tails of unequal length hanging to mid-thigh. It is tied fresh for each duty, and its tails are set by the wearer's neighbour. Officers on duty wear a plain holster on the right hip, under the sash.

The sleeves are plain and close-fitting, with a slight taper to the wrist. The cuffs are deep crimson, about 8 cm tall, turned back and stitched, with a silver rule at the top edge, and **rank is worn on the cuff**. On the right cuff, sewn above the crimson, is a graphite band about 3 cm tall with the word CONTINUITY in silver capitals. On the left upper sleeve is the **sleeve badge**, a round stitched patch about 8 cm across, graphite with a silver ring and a silver rim. It is the unit mark, sewn flat, and nothing on the uniform is wrapped around the arm. On the wearer's left breast is the Eye in a silver ring, about 4 cm across, and below it a small bar badge of silver and crimson stripes for years of service.

The trousers are straight and tapered, in graphite wool, with a sharp pressed crease and no stripe. The boots are low graphite-black ankle boots, polished, with a slim crimson welt where the upper meets the sole, a low heel and a plain toe. The gloves are graphite leather and plain, with a small silver snap at the wrist.

It is worn buttoned to the throat in all weather. The cap is never removed on parade, and the trousers are pressed to a knife edge.

The Officer's Greatcoat

The greatcoat is the winter and reviewing-stand order. It keeps the colours of full dress and is longer, warmer and more theatrical. It is worn over the full-dress tunic in winter, and on the reviewing stand at any time of year.

The cap is a low, round-crowned peaked cap of bone wool, about 12 cm at the front, with a soft top, a crimson band with a silver line, a graphite patent peak, the silver ring on its crimson disc, and a silver cap cord over the peak. It has no flared crown and no wire ring. The coat is a long bone greatcoat falling to mid-shin, with a stand collar edged in crimson and a full, swinging skirt. It is split at the front from the waist, so that the skirt opens as the wearer walks, and each side of the opening is lined with **graphite inner gussets** that show as dark wedges in the swing. The fabric is thick bone wool melton, water-repellent, lined in graphite quilted silk, and heavy at about 4 kg.

Two columns of eight large domed silver buttons, each stamped with the ring and about 2.5 cm across, run down the front. The signature feature is the pair of **wide crimson-faced lapels**, about 11 cm at the widest, that open in a deep V from the collar down to the fifth button. A silver ring pin is worn on the left lapel. When the coat is worn open, the facings flash as the wearer moves. The shoulder boards are graphite, edged in silver, with a crimson centre stripe and a small silver button. A silver aiguillette cord is looped from the left shoulder and tucked into the second button, the mark of an officer on a commander's staff. A crimson band of about 3 cm runs around the bottom of the skirt and up the front edge, the only colour on the lower half of the coat. The cuffs are wide crimson turn-backs of about 10 cm, edged with a silver line, and carry the rank bands.

A narrow graphite half-belt with a silver buckle may be worn beneath the coat, visible at the opening. The round sleeve badge is on the left upper sleeve as in full dress. The gloves are graphite leather, and the boots are the same ankle boots as in full dress, with the coat falling over the tops.

It is worn open on the reviewing stand so that the crimson lapels show, and buttoned in the cold. The Corps's own officers wear it to receive the state's visitors, because the swing of the skirt and the lapels make a small man look large.

The Field Order

The field order is the 1300 AE pattern, the working uniform on operations, and it is deliberately plain and period-correct. It is the look of a late-Cold-War soldier, the touchstone for the Third War, and not the plateau-era gear of the 1320s. The only Corps colour is a small amount of crimson, and the cloth is the plain ash-olive and khaki of any army of the decade. The first design for this order had a sealed visor and a face mask. It was withdrawn as out of period, and this is the revised order.

The helmet is a steel-and-composite pot with a rounded dome and a short, all-round brim, in matte olive-grey (`#4c5246`), with a leather-and-nylon chin strap and a small chin cup. It weighs about 1.4 kg and has no visor, no face guard and no sensors. A crimson band (`#8a2226`), about 3 cm wide, is painted around the lower crown above the brim. It is painted, not cloth. A pair of ordinary dust goggles, with a rubber strap and round lenses, is pushed up on the front of the helmet and not worn over the eyes. They come down only in sandstorms. An optional netting of olive cord can be fitted as a helmet cover for foliage.

The face is bare: no mask, no visor and no paint, and stubble and dust are normal. A plain dark cloth scarf (`#3a2f2a`) at the throat can be pulled over the nose and mouth in dust. It carries no marking.

The jacket is an ash-olive two-piece field jacket in heavy cotton-nylon (`#59604f`), with a stand-up collar, four patch pockets with flaps, and a zip-and-button front. It is cut loose enough to wear over a vest. The matching trousers have two thigh pockets, reinforced knees, and a drawstring cuff bloused into the boots. The cloth fades to pale grey-green with wear.

Over the jacket goes a khaki canvas-and-nylon load-bearing vest (`#7a7258`), which is no plate carrier. It has plain panels, four magazine pouches across the front, a small utility pouch, a canteen and a folded entrenching tool. Ceramic plates, front and back, about 6 kg in all, are hidden inside the vest pockets, so the outline is boxy and cloth and shows no armour. The Corps's field mark is the crimson band round the helmet. The belt is a plain matte webbing belt with a simple buckle, carrying a holster, a knife and two grenade pouches. The gas mask is carried in a canvas bag at the left hip and put on only when the order is given, as in every army of the period.

All insignia are cloth and all are small. On the left upper sleeve is the same round stitched badge as on dress, about 8 cm across, sewn flat. On the chest, over the vest, is the Eye, a small round dark patch of about 5 cm with a silver Eye. Rank is a small crimson tab with silver bands on the front of the vest, over the heart. There is no unit insignia, no name tape and no numbers, and nothing is metal or reflective.

The gloves are tan leather, padded across the knuckles, and plain. The boots are dark brown leather ankle boots with canvas gaiters, laced, with a crimson stripe of about 2 cm sewn at the ankle as a visibility mark, matte, scuffed at the toes, with a lug sole. Socks and underlayer are wool, undyed. The weapon is the AR-22 Vanguard carbine, the USN's standard service rifle, slung across the front on a plain sling.

The kit is worn dirty and faded. The helmet band, the rank tab and the rim of the Eye patch are the only colour. The order is dressed down for night work, so in the dark the red is visible to the Corps's own people at close range and invisible to anyone at a distance. A trooper of the Corps looks like a hard, well-kept soldier of his own decade. What makes him frightening is who he answers to, and what he wears has nothing to do with it.

Other Orders of Dress

The **guard order**, an undress uniform, is the bone tunic without the mantle, the sash or the shoulder boards, worn with either the field helmet (with its band) or the kepi, and the graphite boots. Only the sleeve badge and the cuff rank are worn. It is used for sentry duty.

The **flight suit** was worn by the bomber crews of 17 January 1300 and is described above: a charcoal flight suit, a leather-and-fabric helmet with built-in radios, an oxygen mask, a fire-retardant liner, and no unit patches at all, as a security measure for the covert first strike. The only insignia is a stamped number on the collar. It is the one USN uniform with no Corps colour whatsoever.

The **winter field cloak** is a hooded charcoal wool cloak worn over the field order in deep cold, falling to the knee. Its crimson inner lining shows only at the hood's edge. It is an addition not drawn on the plate.

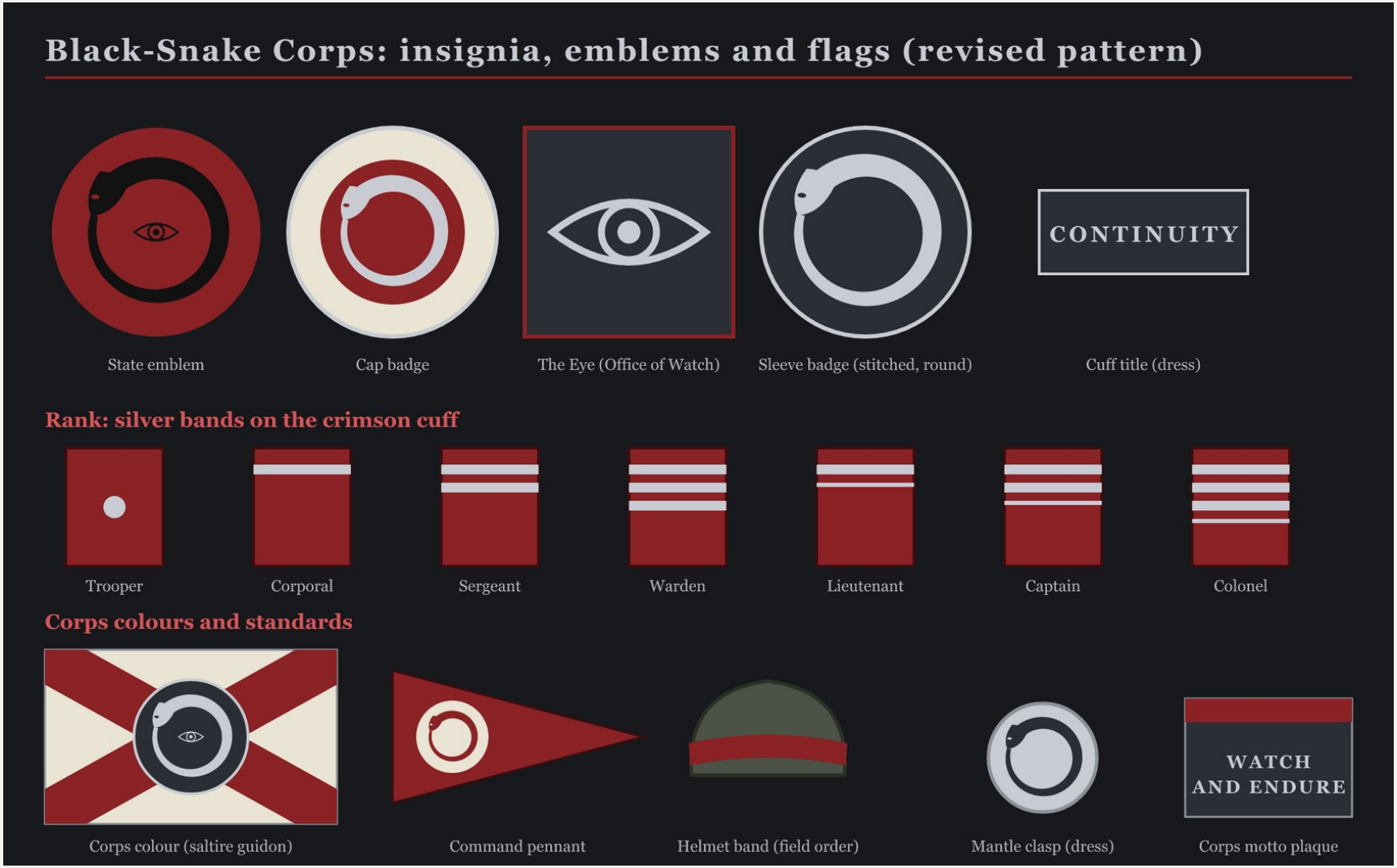


Plate: insignia, emblems and colours.

Insignia and Rank

The full set of Corps insignia is as follows. The cap badge is the silver ring on a crimson disc, and the breast emblem is the silver ring and Eye. The sleeve badge is a round stitched patch, graphite with a silver ring, on the left upper sleeve. The mantle clasp is a round silver clasp bearing the ring, on dress only. The cuff title is CONTINUITY, silver on graphite, on the right cuff, on dress only. The Corps colour is a bone guidon crossed by a crimson saltire, with the ring in a graphite roundel at the centre and a silver edge. The command pennant is a crimson triangular pennant with a bone roundel and a crimson ring, flown on staff cars and command vehicles. The motto plaque reads WATCH AND ENDURE, silver on graphite, under a crimson header bar.

Rank is worn on the cuff, as silver bands on the crimson.

Rank	Cuff
Trooper	a single silver disc
Corporal	one broad band
Sergeant	two broad bands
Warden	three broad bands (a revived title from the old Syndicate Pass-Wardens)
Lieutenant	one broad band over a thin one
Captain	two broad bands over a thin one
Colonel	three broad bands over a thin one

On the field order, rank is a small crimson tab with the same bands on the front of the vest, over the heart.

Wear, Weathering and What Became of the Corps

Each order has its own finish. Full dress is pristine: bone wool with a slight sheen, graphite leather polished to a mirror, silver buffed bright, and the sash freshly tied. The greatcoat is the same, with the wool slightly rough at the hem and the crimson facings very clean. The field order is faded ash olive, with dusty knees and elbows, scuffed boot toes, sun-bleached crimson (a little more brown than red), scratched helmet paint and dull gunmetal metal. The silhouette on dress is long and vertical, a column from the small cap to the knee with the mantle as its one asymmetry, and in the field a boxy, practical rectangle.

Two rules held across all orders. No order had visors, face guards, sealed helmets, glowing parts, tubes, hard-shell armour shapes, hex panels or science-fiction pauldrons. And all insignia are cloth patches, except the silver buttons, clasps and cap badge on dress.

The Corps was among the first formations that the 1300 collapse destroyed. Its uniform is everywhere in the newsreels of the 1290s and almost nowhere after. Solenne's founding laws made display of the Corps's insignia a criminal offence, and the surviving dress uniforms are in museums and private collections, where they are among the most valuable pieces of military clothing on the planet. The look itself, a pale coat with a single bold colour and silver, was copied by several later regimes, none of which ever had the Corps's reason to dress that way.

Anestria's Desert Uniform

Anestria's uniform, from 641 AE to the Fourth War, is a single idea carried through eleven centuries: a soldier who looks like the citizen he is. The Oasis Guard's green armband becomes the green rank tab. The roundel that the rebellion drew is still on the shoulder of a Third War marine. The three colours of the three kingdoms are in every flag the five successors fly, even those whose states can no longer agree on anything else. The Empire's black and rust are remembered as the thing Anestria chose not to be (Chapter 6).



Plate: Anestrian infantry, GAW1 to GAW4.

The Thirty-Day War. The infantry wore a tan-khaki cotton drill tunic and trousers, with four patch pockets, and no wool. Rear-echelon troops wore a brimmed field cap in place of a steel pot, and everyone wore wide canvas gaiters against the sand. The cotton webbing was in a Y-yoke, never leather, and a cloth Republic roundel was sewn at the left shoulder. The rifle was the AR-7, with a straight-line polymer stock in sand-tan. Anestria was one of the four powers (with the Syndicate, Luluke and the All-Finian Empire) that declared war on Christonia after the 1249 bombing, and its army fought alongside the Syndicate's olive-drab. The two looked the same only in cut: the Anestrian palette was lighter and the cotton visibly cooler. Tank crews wore the same drill with a padded cloth helmet. Naval ratings wore sand-grey, and officers wore the same cotton with a gold-embroidered roundel.

The Second War. The infantry wore the first true desert uniform, born from the Republic's own energy crisis: a loose two-piece in sand-tan synthetic blend, a neck-shading cap flap, sealed boots that replaced the gaiters, and ROA-pattern webbing in tan polymer in place of cotton. These were petroleum-era materials, because Anestria was the first power to understand what oil-derived fabric could do for a desert army. The chest rig carried four magazine pouches and a water bladder. Anestria was part of the HAFDAP bloc that backed Christonia's recovery against the USN, and its army was the best dressed for the actual desert fighting on the western fronts. The first air-crew flight suits, in synthetic sand-tan, and the first naval ratings' uniform, in synthetic sand-grey, date from this war.

The Third War. The marines were the war's best-equipped ground force by a wide margin. They wore the sand-tan synthetic uniform of the Second War, now with ceramic-plated body armour, a ballistic helmet with a night-vision rail, and the first NBC overgarment and mask issued in numbers on the planet. The overgarment was olive-grey, and was worn on the day their own country's strikes had made it necessary. It went on over everything else, so the marine is pictured in the overgarment with the mask canister at the chest. Anestria's marines took the USN capital. The Republic itself was struck during the war and, in its aftermath, fractured into five successors. The PK-P1 Parrot Lord pilots (78 built, 1295 to 1300) flew in synthetic flight suits with the roundel on the shoulder, and the crew of the AMS Adara wore sand-grey naval kit, matching the ship's hull.

The Fourth War. The Fourth War's kit was kit under attrition: no new gear, the same mid-6th-generation plateau, worn down. Anestria was one of the four Threshold Accord signatories. Bavaria and the Pechorian Federation armed separatist movements inside the successor-state patchwork during the proxy phase (1361 to 1363), and those militia fought in improvised kit: mismatched sleeves, the nearest colour of cloth, and an armband or a rag in the local colour. In 1365 the Anestrian successors were among the first governments the war cost. Their supply chains failed, and every unit insignia came off first, because nobody could afford to replace it.

The conscript of 1365 to 1368 in a successor state wore a faded-olive jacket with one sand-coloured sleeve from a different issue, a patched trouser leg, a bandolier of hand-loaded

magazines, a scarf over the lower face, and a helmet painted in whatever paint remained, with no insignia at all. His AR-7 had faded-olive furniture from whichever factory's leftover stock the unit had inherited. By 1368 a soldier from any of the five successors looked like a soldier from no country in particular.

In 1371 the last uniformed armies on the map were Hardluckia's and the Schwalbenheimers', in Pan-Anestria's own desert interior, where "uniform" meant two people wearing the same sand-coloured rags. They were the last Anestrian-desert soldiers, and they did not wear a roundel.

The Five Successors

When the Republic fractured after the Third War (ten administrative districts asserted independence), five successors emerged between 1302 and 1359. They share one rifle, the AR-7, produced from shared tooling. CAR keeps the original tan, while the others field faded olive, grey or unpainted batches, depending on which factory's stock they inherited. Each also has its own flag and shoulder patch.

State	Flag	Shoulder patch	AR-7 finish
Constitutional Anestrian Republic (CAR)	the old tricolour and roundel, with a black mourning canton and a white star	the roundel	original tan
Kingdom of Antares (restored)	red field, gold border, white eight-point star	white star on red	faded olive
Federated States of Imperium	iron-grey with a rust ring, seven stars and an anvil	rust ring with a star	grey
New Virgen	blue with a six-petal white lily	lily on blue	olive-drab
Antilla-Vegan Union	green over ochre, split on a diagonal, with a gold sun-disc	green disc on ochre	bare metal

Each state's kit has its own identity. **CAR** keeps the old Republic's sand-tan uniform and roundel, and claims succession from it in everything including clothes. Its B-4/2 tank crews wear the same tan. **Antares** reverts to a royal look for its guard, with red-and-white piping and a gold-edged cap on a sand uniform, while the line army wears the old tan with a red patch. **Imperium** dresses in iron-grey with rust trim, an unashamed callback to the Ferrosian iron, and its OMBT-1 tank crews wear grey overalls. **New Virgen** wears the Republic's tan with a blue sash and cap band. The **Antilla-Vegan Union** wears faded olive-ochre, close to what the old Guard wore, with a green patch.

The Vinear Coast War (December 1301 to February 1302 AE) between CAR and Antares was the first time two of the successors fought each other. It was fought entirely in the old Republic's tan on both sides, and its only visible difference was the colour of the armband.



Plate: Anestrian insignia.

Anestrian Insignia, Ranks and Colours

Rank is worn on a green tab at the collar. A private has a single disc. A corporal, sergeant and warrant officer have one, two or three pale chevrons. A lieutenant, captain and major have one, two or three gold stars, and higher ranks add a gold border to the tab. The Republic roundel goes on the left shoulder, on aircraft and on vehicles.

The palette is sand, tan, khaki, Antares red, iron grey, oasis green, rust and gold. No Anestrian uniform has ever been black. That colour belongs to the Ironguard, and the Republic's whole identity is that it is not the Empire. In 1365, the soldier whose insignia has been torn off and whose uniform no longer matches wears the same idea as before, with the cloth gone.

Bavaria's Plain Grey-Green

Bavaria's dress was plain, and that was the point of it. It was a member of the Communist Power Alliance from the alliance's own founding, and in the Second War it stood with the USN in the CPA. Its soldiers wore plain, practical dark grey-green. The look has the same blued-steel featurelessness as its rifles, with no decoration and no unit flair. The only mark of distinction was a cloth strip on the sleeve to show a soldier's branch, and nothing more. The record does not give the colours of the branch strips. Of all the members of the CPA, Bavaria was the one whose kit never needed to be explained.

Bavaria's small arms never needed to change, because Drozdov has no rival, and the same is true of how its soldiers dressed. The record shows no other change in Bavarian uniform before the Fourth War, in which its government fell in 1366 with those of PUSDR, Safemoon and the Pechorian Federation.



Plate: the Bavarian soldier.

28
Machines

What a country builds in the years it is not at war tells you what it plans to do when it is. This chapter goes nation by nation through the hardware, and then through the numbers: who built how many, at what cost, and who could never have afforded the things they have.

Chapter 26 dealt with what an individual soldier carries. This chapter deals with everything bigger: tanks, aircraft, warships, and the missiles that arm them. These are the fielded machines of Aridexia, each placed in its own timeline and tone. A design's role, silhouette and general capability class are fixed record. The exact price or performance figure of any single machine is not, and the same standing rule governs the hardware of Operation Fenwick. The entries below are organised by nation. Each names the platform, says when and why it was built, gives its role, and offers enough physical description for a model to be made of it later.

Solenne

Solenne's arsenal is the largest and most modern on the map. It is funded by a mature democratic economy with no dictatorship left to answer to, and everything below is dated 1300 AE or later, built during the post-GAW3 recovery and the run-up to Fenwick.

SCS-98 "Phantom Seas" (naval, supercarrier) is a nuclear-powered stealth flattop, the Syndicate Navy's old flagship concept inherited and modernized by Solenne. It has a low, faceted island structure and angled flight-deck edges that scatter radar instead of reflecting it, with a dark grey radar-absorbent topcoat over the whole hull and a deck crowded with fighters, AEW aircraft and helicopters. It is Solenne's most visible symbol of restored naval power.

INS "Devourer" (naval, superdreadnought) is an enormous gun-and-missile capital ship. Four massive railgun turrets run down the centerline in place of a flight deck, and a squat armored citadel superstructure bristles with vertical-launch missile hatches. It was built as the fleet's hammer and not its shield, the ship Solenne builds when it wants to be taken seriously.

CNS Veilpiercer (naval, submersible carrier) has a low black hull that rides at the surface only when necessary, a flush retractable sensor mast, and a covered flight deck that opens for STOVL launch and does not sit exposed. It was built for a first strike nobody sees coming, and is the

closest thing Solenne fields to Operation-Fenwick-style deniability at sea.

RoLS "Kaelis" (naval, guided-missile dreadnought) has a broad, pyramidal stealth superstructure over a heavily armored hull, two forward deck guns visible under angled gun-houses, and a huge vertical-launch missile deck amidships. It carries an old internal fleet designation ("RoLS") left over from an earlier naming scheme that nobody has bothered to change.

INS-2 "Tal-Mac" (naval, aviation cruiser) has a distinctive three-hulled trimaran silhouette, with wide stabilizing outrigger pontoons visible on either side of the main hull and a flat helicopter deck running most of its length. It was built for amphibious assault and fleet air defense, and not for fixed-wing strike.

Type-12 "Valiant" (naval, littoral combat boat) is a small, fast, heavily armored patrol boat with a stubby armored bow and a single gun turret amidships. Its low profile suits river mouths and beach approaches better than open water.

N-14 "Asmedeus" (air, multirole fighter) is already canon from the Fenwick Protocol. It is a compact single-seat jet with boxy intakes and a simple grey-and-blue low-visibility paint scheme, built cheap and reliable for border patrol, with no glamour. The name comes from Savoran folk religion and has no military tradition behind it. Asmedeus was the old sky god of the pre-Syndicate coastal villages that later became Corvenna's own suburbs, a figure the secular, thoroughly industrial Syndicate never worshipped but never fully stopped naming things after either. It is the same old habit that gets a real-world air force calling a jet after a god nobody in the cockpit prays to. Solenne inherited the habit along with the rest of Savorus. When its aerospace program needed a name for the first vehicle rated to carry people off-world, and not freight, it reached for the same god a second time. The crew transport flies as the **Asmedeus II**, a deliberate numbered sequel to the jet and no coincidence.

F/A-8 Chimera (air, multirole fighter) has an unusual three-engine layout, two turbofans and a centreline dual-mode scramjet that does the high-speed dash at up to Mach 4.5 on a fraction of the fuel, with forward-swept composite wings, a sharply angular cockpit canopy and a dark charcoal-grey finish. It is Solenne's high-end air-superiority answer, built once the postwar economy could afford one.

VBA-478 Wraith (air, V/STOL strike fighter) is a stubby, thick-bodied jet with twin lift-jet intakes visible just behind the cockpit, alongside the main afterburning engine. It was built for carrier decks too short for a conventional catapult launch.

N-15 "Flex" (air, transitional multirole fighter) is a plain, mid-generation fighter with conventional swept wings and a simple grey paint job. It was built as Solenne's affordable bridge design between the aging N-14 and its newer high-end jets.

TV-24A "Tempest" (ground, infantry suppression vehicle) is also canon from Fenwick. It is a boxy 6-wheeled, 11.8-ton armored car built around a 3-man crew, with a prominent six-barrel

20mm Gatling cannon (3,500 rounds per minute, 1,800 rounds carried ready) on a small turret, and twin TOW launcher tubes on each side with four reload missiles stowed internally. Its paint is matte olive-drab. It is deliberately under-armored, with 25mm RHA-equivalent frontal protection, no active protection, and only a blast-resistant V-hull and a mine-resistant belly, for the sake of cost and mobility. It reaches 122 km/h on roads and has a range of 760km. The doctrine it was built around treats it as expendable next to a proper IFV. It fights in groups of four to eight, in overlapping fields of fire against infantry and technicals, screening the tanks and never spearheading with them.

TV-24B "Tempest Sustainment" (ground, fire-support vehicle) is the TV-24A's static counterpart. It is heavier at 13.6 tons, and its rear deck is visibly bulked out where the A-variant's weapons locker used to be. That space now holds an automatic-feed magazine that nearly triples ready ammunition (5,200 rounds) and doubles the TOW's own reload stock (eight missiles instead of four). It trades the A's speed and range for that endurance, at 96 km/h and a range of 620km, because its job is to hold ground the A-variants have already cleared, and maneuver is no part of it. A typical Solenne platoon runs three Tempests forward with one Sustainment held back as a mobile fire base.

SCV-67 "Blowback" (ground, heavy fire-support vehicle) is a tall 8-wheeled armored car with a mid-sized autocannon turret and a retractable twin ATGM launcher folded flush against one side. It was built to sit between an IFV and a tank without pretending to be either.

Koedul-1 (space, expendable booster) was Solenne's first space-capable hardware. It is named for Vakkar Koedul, as the later Typhon Corridor Fleet's Koedul-class Heavy Transport is. It is a plain riveted steel-and-aluminum single-stage-to-orbit vehicle with a solid-grain booster-assist stage for initial thrust and a single fixed-nozzle kerosene/LOX sustainer, a simple ablative nose cone, and a launch from nothing more than a concrete pad and an umbilical tower. It is deliberately minimal. It has no closed-loop guidance beyond a stored pitch program, a structural safety factor left at the lowest number anyone would call acceptable for a vehicle meant to fly, and a first-series reliability target of only 65 to 70%. Solenne's postwar space program had a fraction of the USN-era Syndicate's old budget, and it needed a working booster before it could afford a refined one. Payload to low orbit runs 180 to 220kg, just enough to carry Solenne's own first payload.

Velis-1 (space, survey probe) is the simplest functional probe Solenne could build. It has no propulsion or active guidance of its own, only a spin-stabilized aluminum-honeycomb bus with two fixed solar panels and a single low-gain S-band antenna. It was built to confirm orbital mechanics and validate the Koedul-1 launch pipeline before anything more ambitious got funded. A single-channel photometer, a fluxgate magnetometer and a low-resolution monochrome camera are the whole instrument suite, since the probe existed to prove the booster worked and not to do science. Design life is only four to six months before battery degradation ends the mission, and it fits inside Koedul-1's own payload margin with room to spare. The two are the beginning of Solenne's own Space Age.

Asmedeus-1 (space, heavy-lift booster) is Koedul-1's successor, built once Solenne's colonization ambitions (Chapter 21) outgrew what a single-stage probe launcher could throw anywhere useful. It is a three-stage kerosene/LOX vehicle, with a five-engine first stage, a twin-engine vacuum second stage and a single-engine injection third stage, and up to six solid strap-on boosters available for maximum payload. It uses thick-walled tanks and conventional propulsion over anything more efficient: the biggest simple rocket that reliably works, and not the most elegant one. It is the same engineering philosophy that shaped Koedul-1, scaled up by two orders of magnitude. It throws 95 to 115 tons to low orbit and 22 to 28 tons of useful colonization mass on a Typhon transfer trajectory. Asmedeus-1 is the booster underneath the crewed Asmedeus II described under the Typhon Corridor Fleet in the Planetary System Dossier, the cargo-and-habitat half of the same naming lineage and no separate program.

Asmedeus Habitat Module (AHM-1) (space, colonization habitat) is Solenne's maximum-practical-crew colonization payload, flown as a single Asmedeus-1's cargo. It is a pressurized transfer-and-initial-surface habitat built to put headcount ahead of comfort, since every additional colonist fed through the pipeline matters more than any individual colonist's comfort during the 40 to 50 day transit. It has two main decks plus an observation and command cupola, with hot-bunking arrangements stretching 21 physical berths across 42 total crew (36 colonists plus 6 technical, medical and command staff), a galley, two hygiene units, a two-bed medical bay and a workshop, all inside 185 cubic meters of pressurized volume held at 70 kPa and 30 percent oxygen. Life support runs open-loop, with lithium hydroxide CO_2 scrubbing, stored oxygen with a backup solid-state generator, and limited humidity recovery. It is rugged and field-repairable with early industrial tools, and not efficient, the same "robust over refined" logic running through every other piece of Solenne's early space hardware. Polyethylene-water shielding doubles as a storm shelter in the module's most protected section. On arrival it either stays in orbit as a station core or soft-lands on a separately developed landing stage as the first physical structure of a new surface base. This is the hardware behind the "several thousand settlers" who reached Typhon's Hearthlands in AE 1341.

AGM-11 "Inferno" (missile, area-effect strike weapon) is also canon from Fenwick. It is a slim air-launched missile body that splits open above the target to scatter incendiary submunitions, with a matte grey finish and a distinctive finned tail section.

Anestria

Anestria's naval and AEW investment matches its established identity as the Syndicate's peer competitor. Its machines are built to project power at range, and defending a coastline is only part of their work.

AMS Adara (naval, fleet carrier) is Anestria's largest carrier. It is a straightforward angled-deck design without Solenne's stealth shaping, with sand-grey hull paint matching the nation's desert-continent identity and a tall conventional island structure.

DE-41 "Meerkat" (air, AEW&C aircraft) is a large radar-dome aircraft with a distinctive rotating disc-shaped radome mounted above the fuselage on twin struts, finished in plain grey-white naval paint. It was built to extend Anestria's carrier groups' eyes well past the horizon.

PUSDR

PUSDR's hardware runs newest and most aggressively funded of anyone on Numaria. That matches its role anchoring Kargopol and its recent revolutionary urgency. It is a nation that spent generations as an occupied people and now builds tanks as if it never wants to be caught without one again.

Tanks and armor: the JH-1 family

PUSDR's flagship tank program started as a competition at the state-run Zhokrova Tank Plant, and no single design was handed down from above. Three prototypes, the **Opytnyy 3**, **Opytnyy 5** and **Opytnyy 7**, competed for adoption. The OT-5 was the most advanced of the three and carried superior protection over both rivals, and the OT-7 split the difference. The People's Revolutionary Army chose the OT-3 anyway. It had a low-visibility hull and a 125mm smoothbore gun, and it was cheaper to mass-produce than either competitor. This is the same war-funded, need-over-prestige logic that shapes every other procurement decision on the map, from a revolutionary state that had just finished a war and could not afford its own army's vanity project. The OT-3 entered service as the **JH-1 "Zatychka."** It shipped with well-documented problems. Its opposed-piston two-stroke engine was cheap to build but difficult to train crews on, its transmission had chronic reliability issues, and its Krashlikova AT-5 carousel autoloader occasionally detonated rounds prematurely inside the carousel itself. The autoloader came from the same design-bureau lineage as Antiko Khoshlikova's small-arms work, one state arms industry spanning both rifles and tank internals. None of that stopped mass production. A revolutionary army that had just spent generations without its own armor was not going to wait for a perfect tank.

The **JH-1A "Ostanovka"** is the direct fix. It has a gas turbine engine, an upgraded transmission (the transmission issues persisted regardless, and were never fully solved across the whole line), and a Krashlikova AT-7 autoloader that finally addressed the premature-detonation problem. Its armor upgrade, **Zimmer-1** explosive reactive armor plus the **Strata** active protection system, gives it credible protection against anti-tank guided missiles for the first time in the family's history. The **JH-1AZ "Stena"** goes further still. It has a completely redesigned turret around **Zimmer-2** ERA, a new bustle-mounted autoloader (finally moving the autoloader out of the crew compartment entirely), the **Kyshka** APS, and an upgraded 125mm gun with higher muzzle velocity. This is the version that resolves the transmission's long-standing reliability problem, while keeping the JH-1A's gas turbine engine.

Three derivatives branch off the JH-1AZ's hull instead of starting new tooling from scratch, a revolutionary state getting the most out of one expensive, proven chassis and not funding three

separate programs.

The **JH-2 "Mita/OST"** is a self-propelled artillery piece on the same JH-1AZ hull. It mounts a 152mm rifled gun with a 78km maximum range and an upgraded transmission with extra reverse gears, added specifically for hit-and-run artillery tactics. Unusually for a self-propelled gun, it keeps the Strata APS, giving PUSDR artillery point-defense that most nations' guns never get.

The **JHT-3 "Razrushitel"** turns the same hull into a tank-support IFV. A crewless turret frees the crew compartment for the hull's core, and the engine moves forward to make room for dismounted infantry in the rear. It fields two 35mm autocannons (a direct scale-up of the JH-1's own 25mm twin-cannon setup) plus four 125mm anti-tank guided missile launchers, all while keeping the JH-1A's Strata APS.

The **BH-10 "Volnyk"** breaks from the JH-1 hull entirely. It was built to be airdropped by the AK-9 transport at the People's Airborne Landing Force's own request. It is an infantry fighting vehicle with a 100mm low-pressure rifled gun, a coaxial 35mm autocannon (the same lineage as the JHT-3's own guns), and amphibious capability at 7 mph in the water, built for the hit-and-run flanking and ambush work an airdropped force needs. The **RH-10 "Volnyk"** strips the 100mm gun for a full reconnaissance suite instead, with an advanced datalink feeding targeting data straight to JH-2 artillery batteries or airstrike units. It is the BH-10's own scouting half.

Air defense: the ZH family

All three PUSDR self-propelled anti-air systems share the JH-1AZ's hull with its composite armor plating stripped for mobility. PUSDR makes that trade only for its air-defense vehicles, since a system meant to shoot down incoming aircraft has less use for the weight than a frontline tank does.

The **ZH-3 "Nebosvod"** covers close-range targets that slip past the longer-ranged systems above it. It has quad 25mm autocannons off the same JH-1 lineage, an AESA radar dish, and an advanced fire control system built to catch what the ZH-4 and ZH-5 miss. The **ZH-3M "Nebosvod-M"** adds four M4-RGTAMV missiles on top of the same base, and an upgraded datalink to share targeting data with the ZH-4, the ZH-5 and any friendly air units nearby, so that it does not fight an isolated engagement. The **ZH-4 "Granit"** trades the ZH-3's close-range role for medium-to-long range coverage on a lengthened JH-1AZ hull. It is heavier than the ZH-3 but, thanks to the stripped armor and a more efficient drivetrain, faster, and it carries two 25mm autocannons and six M7-RGTAMV missiles. The **ZH-5 "Kupol"** shares the ZH-4's hull outright and drops the autocannons entirely in favor of four long-range M15-ERGTAMV missiles. It is the family's dedicated long-range shooter.

Legacy armor

The **TK-10 Medium Tank** has a smaller, older-looking low-profile hull with a thin, long-barreled gun and a distinctly dated rounded turret shape. It predates the whole JH-1 program. It is PUSDR's own legacy design, kept in secondary service and export use well after the JH-1 family took over frontline formations.

Aircraft: the PR, AK and DKK lineage

PUSDR's air arm has its own development history, and no single fighter appeared fully formed. The **PR-5 "Krashny"** was designed by **Polshinka Ratikova** before the Chicano Conquest of Numaria, a multirole fighter built around maneuverability and cost. It ultimately failed in service for the reason a lot of PUSDR-adjacent hardware fails early: poor supporting equipment, with the airframe itself sound. The **AK-3 "Klin"** followed, from the mind of **Antiko Kloinsha**, a swept-wing air superiority fighter built in the same pre-Conquest window. It is still in service decades later, having never failed on its own merits, held back only by the small numbers PUSDR could afford to build at the time.

The **DKK-1 "Flapjack"** is the workhorse. It was developed directly off the PR-5's own airframe with a far more refined design, out of the state-run **Dimikrov Katinka Krasny Design Bureau**, and built as a balance of quality and quantity: an AESA radar and modern missiles on a multirole fighter PUSDR can afford to field in numbers. It has spawned a family of variants. The **DKK-1E1 "Flapjack-B"** is the export model, fielded across Kargopol with the deliberate exception of Tianhai, the same standardization logic that keeps the AS-17 out of Tianhai's own small-batch arsenal. The **DKK-1MDMU "Flapjack-C"** is the naval variant built for Kargopol-standard carrier decks. The **DKK-1B "Flapjack-D"** is the air-show demonstrator, often seen in a distinctive knights-themed display camouflage. The **DKK-1M "Flapjack-E"** is a modernized DKK-1 with a better radar, engines and weapons fit for continued frontline relevance decades after the original's introduction.

Above the DKK-1's multirole niche sits the **DKK-5 "Flashfire,"** a dedicated high-speed interceptor built around a large radar and Mach 3+ performance, a specialist aircraft that only a nation with serious air-defense funding bothers to build alongside a multirole fleet. The **DKK-5E1 "Flashfire-B"** export variant goes only to Nam Minh and the Yeshuren Union, PUSDR's two closest Kargopol clients, and it does not reach the wider alliance the DKK-1E1 does. The **DKK-5R "Flashfire-C"** strips the radar for a dedicated reconnaissance operator's station instead.

PUSDR's stealth program produces the **DKK-7 "Frenzy,"** the People's Revolutionary Air Force's primary stealth fighter, with the **DKK-7MDMU "Frenzy-B"** as its own dedicated Kargopol-standard carrier variant. The **DKK-80 "Grendel"** is PUSDR's only helicopter design, built as a multirole machine, attack and transport in one airframe, so that two separate programs were not needed. The **DKK-80MDMU "Grendel-B"** is adapted for carrier operations and submarine hunting.

Rounding out the Air Force, the **CKK-10 "Poing"** is PUSDR's primary strike aircraft, the **BKK-22 "Grom"** its heavy tactical bomber, and the **BKK-32 "Groza"** its long-range bomber. Together they make a full independent strike triad, built by a nation that spent generations under someone else's air power and has no intention of being caught under it again. The **AK-9 "Trailblazer"** is PUSDR's primary transport, a long, high-winged strategic airlifter capable of airdropping up to four BH-10s directly into combat at the Airborne Landing Force's own request. The **AK-9RF "Ringer"** is its aerial-refueling variant, and the **AK-9EK "Flattop"** its airborne warning and control conversion. One airframe covers transport, refueling and AEW&C, as the JH-1AZ's hull covers four different armored roles, and the same procurement logic runs through PUSDR's whole modern arsenal.

The Pechorian Federation

Pechoria is a small, historically overlooked nation that survives by investing heavily in a handful of extremely capable platforms and keeping no large standing force. Quality is its deterrent, and quantity plays no part. It is arguably the reason nobody has bothered attacking it in a thousand years.

MK-72M1XT (ground, main battle tank) has a low, flat unmanned turret with no visible crew positions above the hull line, thick composite and reactive-armor modules stacked across the frontal arc, and a dark grey-green camouflage. It is the tank equivalent of Pechoria's whole national strategy: expensive, superb, and built in numbers too small to matter to anyone but whoever it is pointed at.

MK-299 Multirole Fighter (air, advanced fighter) is a sleek, faceted low-observable airframe with deeply recessed weapons bays and a dark blue-grey finish. It is Pechoria's premier deterrent aircraft, far more advanced than a nation its size would be expected to field.

MK-113 "Khazar" (air, light attack/trainer) has a simple tandem two-seat cockpit and straight, stubby wings loaded with hardpoints, on a plain unstealthy airframe. It is Pechoria's cheap, exportable workhorse next to the MK-299's showpiece.

Bavaria

Bavaria's small arms never needed to change, because Drozdov has no rival, but its heavy industry stayed busy anyway, building for UARRO export and collective alliance defense and not for a war of its own. Bavaria is, functionally, the alliance's arms exporter as much as its own army.

BL-1 (ground, main battle tank) has a conventional, unadorned tank silhouette, a single long 120mm gun, and plain slab-sided armor with no exotic composite modules visible. It was built to be affordable and exportable, and had no ambition to impress anyone.

FA-7 Artillery-13 (ground, heavy self-propelled artillery) is an enormous open-topped gun turret dominating a low hull, with a separate box-shaped radar/SAM mount bolted to the rear

deck. The bore diameter of its barrel and the nuclear-capable ammunition inside it make this Bavaria's most closely guarded design.

TB-18 (ground, multiple rocket launcher) is a boxy 18-tube launcher pack angled up from a wheeled chassis, with mixed rocket sizes visible in two rows of differently sized tube mouths.

Aegis Fang (ground, self-propelled air defense) has twin large-bore autocannons mounted high on a slim turret and a rectangular phased-array radar panel bolted to the turret rear. It was built to escort mechanized columns against drones and aircraft.

TH-1 (ground, unmanned tank destroyer) is a low, crewless boxy hull with a missile-launcher rack in place of a turret, and angular radar sensor panels replacing where a gunner's sight would normally sit. It was built to ambush from a hidden position and never risk a crew doing it.

AP-3 (ground, infantry fighting vehicle) is a plain wheeled or tracked troop carrier with a small autocannon turret and no unnecessary detailing. It is Bavaria's affordable, mass-exportable IFV.

BT-2 (air, multirole fighter) and **BT-3 "Strix"** (air, stealth fighter) form a pair. The BT-2 is a conventional twin-engine fighter with a large chin radar and a heavy hardpoint loadout. The BT-3 is its stealthier, later cousin, sharply faceted with an internal weapons bay and no external stores at all, and it shows Bavaria's jump from conventional to low-observable design within a single generation.

RS-1 Stealth Attack Drone (drone, unmanned strike aircraft) has a flying-wing silhouette with no vertical tail, a smooth blended fuselage, a dark matte grey finish, and an internal weapons bay flush with the belly.

LAM-0A "Surfer" (air, naval light attack jet) is a stubby, folding-wing carrier jet with a wide delta planform and twin non-afterburning engines. It was built for cheap sustained coastal strike sorties and not for high-end air combat.

THE ARSENAL OF BAVARIA

Built for UARRO export and collective defence rather than a war of its own. Three systems are modelled; the rest are in doc 32.



BL-1 MAIN BATTLE TANK

About 380 built, 1329 to 1351, 7.5M each.
A conventional tank: one long 120 mm gun, plain slab-sided armour, no exotic modules. Affordable and exportable.



AH-9 ATTACK HELICOPTER

About 240 built, 1333 to 1352, 11M each.
Bavaria's attack helicopter; a game-ready model with a spec sheet. Cheap enough to be bought by allies.



RS-1 STEALTH ATTACK DRONE

About 4M each (13M for the programme).
Flying wing, no tail, internal bays; 1,650 km radius with 1,700 kg of weapons. A quarter the cost of a fighter.

NOT YET MODELLED (from doc 32, Section XXV)

FA-7 ARTILLERY-13
Heavy self-propelled artillery: an enormous open-topped gun turret on a low hull, a box radar/SAM mount on the rear deck. Nuclear-capable shells; Bavaria's most guarded design.

TB-18
Multiple rocket launcher: a boxy 18-tube pack on a wheeled chassis, two rows of different-sized tube mouths.

AEGIS FANG
Self-propelled air defence: twin large-bore autocannons on a slim turret, a phased-array panel at the turret rear.

TH-1
Unmanned tank destroyer: a crewless boxy hull with a missile rack instead of a turret and angular sensor panels.

AP-3
Infantry fighting vehicle: a plain wheeled or tracked carrier with a small autocannon turret. Bavaria's cheap export IFV.

BT-2 and BT-3 STRIX
BT-2: twin-engine fighter with a large chin radar. BT-3 Strix: its stealthier, faceted cousin with an internal bay and no external stores.

LAM-0A SURFER
Naval light attack jet: stubby, folding-wing, wide delta, twin non-afterburning engines, for cheap coastal strike.

BR-5 (SMALL ARMS)
The Bavenhurst BR-5 rifle: dark blued steel, unadorned, unchanged for centuries (see the soldier plate).

Plate: the arsenal of Bavaria.

Chicano States

Chicano's most advanced hardware dates to its pre-GAW2 dominant era. This is the arsenal that funded the continent's largest power and enabled the Ashfields Campaign, and the diminished postwar state could never field it again. Most of it was captured, scattered or scrapped by its neighbors once Chicano lost every grid of Numarian territory in the 1276 to 1300 interwar collapse, a fitting, literal loss of teeth to match the loss of land.

MBT-90 "Crimson Titan" (ground, heavy main battle tank) has an oversized, aggressively angular hull and turret and a huge single gun barrel with a heavy double-baffle muzzle brake. Its deep red-brown livery (the "Crimson" in its own name) is unlike any other nation's more muted tank paint. It is a tank built to be seen and feared, matching a regime that wanted its dominance visible.

XF-79 "Phantom Talon" (air, advanced stealth fighter) is an extremely sleek, needle-nosed airframe with no external ordnance visible anywhere and a dark charcoal stealth coating. It is the most technologically advanced thing Chicano ever built, and the clearest proof that its dominance was never an accident.

SPA-41 "Howler" (ground, self-propelled artillery) has a long automatic howitzer barrel on a boxy tracked chassis, with an oversized ammunition-handling housing at the turret rear. It is the gun that likely fired on Safemoon's own farmland during the Ashfields Campaign.

ADDS-12 "Skyfang" (ground, mobile air-defense system) is a tracked chassis carrying a rack of eight long surface-to-air missile canisters at a steep upward angle, with a box-shaped search radar folded down for travel behind the launcher rack.

Safemoon Republic

Everything Safemoon fields postwar reads as a direct answer to nearly being starved into nonexistence: "never again," expressed as the most overbuilt defensive hardware on the map. Safemoon has always spent more on walls than on offense, and this is what that philosophy looks like scaled up to armor.

V-1201 "Titanmover" (ground, ultra-heavy breakthrough vehicle) has an enormous boxy hull, twin massive cannon barrels side by side in an oversized turret, and composite armor plates visibly layered thick across every face. It is the heaviest, most expensive vehicle on this entire list, built by a nation that decided being conquered once was enough for a lifetime.

ACS-1 Bastion Combat System (ground, infantry body armor, not a vehicle) is a full soft-armor combat suit and no machine. It has a light tan or khaki fabric shell with visible ventilation panel seams and modular hard-plate pockets across the chest, and was built for Safemoon's climate and not for looking impressive.

WMA-09 "Bat" (air, heavy interceptor) is a large twin-seat fighter with variable-sweep wings shown fully extended, a long slender nose radome, and naval grey-blue paint. It was built to

intercept threats far out from Safemoon's coast before they get close.

CCAS-1351 "Odin" (transport, heavy-lift aircraft) is a massive high-winged cargo jet, with ten engines across a wide wingspan on the original heavy-lift variant and a rear loading ramp large enough to drive a tank up into. Its later variant, **"Odin A,"** trims down to a smaller tilt-rotor VTOL transport for company-sized rapid response instead of full strategic lift.

FTS-100 "Swiftline" (transport, coastal troop carrier) has a low, planing hull with visible hydrofoil struts beneath the waterline and an open low-profile troop deck. It was built for speed across Safemoon's own narrow coastal waters, and had no blue-water range.

LR/MA (ground, mobile rocket/missile artillery) and **LSA 3109** (ground, super-heavy artillery) are a pair. The LR/MA is a lighter tracked 12-cell launcher with a modular rack of mixed rocket and missile tubes. The LSA 3109 is a massive four-barreled howitzer carriage, easily the widest gun platform on the continent, built for the kind of siege warfare Safemoon never wants to be on the receiving end of again.

VMWP-902 A (ground, quad-cannon fighting vehicle) has four rotary autocannon barrels clustered together on a compact turret, giving it a distinctly insectoid silhouette from the quad-barrel cluster alone. It was built as a flexible answer to infantry, light armor and aircraft alike.

Nam Minh

Nam Minh's one entry matches everything already said about the nation: modest, practical, built by a country that came of age after GAW2, watching bigger neighbors' wars and not fighting its own.

DLT-1 (ground, light tank destroyer) has a very low, flat hull barely taller than a man standing beside it, a long thin gun barrel with a distinctive multi-slot muzzle brake, and plain unpainted or matte-green welded steel. It is cheap enough to mass-produce and low enough to hide in a treeline, built for a nation that cannot afford to trade tank-for-tank with anyone bigger.

Northland

Young, small, and built on a postwar budget, Northland has hardware that reflects a nation choosing to see trouble coming and not trying to punch above its weight.

IAD-4 "Goshawk" (air, light multirole fighter) is a simple, affordable single-engine jet with straight wings and an unremarkable grey paint job. It was chosen for cheap maintenance and fast sortie generation over any high-end capability.

RVO-1 "Lammergeier" (air, strategic reconnaissance aircraft) is a large, slow, high-winged aircraft bristling with sensor blisters and antenna fairings along its belly and nose, with no weapons anywhere on it. It was built to watch and never to fight.

UMFI (air, prototype unmanned interceptor) is an experimental, never fully fielded design from Northland's own fledgling aerospace industry: a slim tailless delta shape with no cockpit canopy at all, an ambitious idea for a nation this young and this poor.

The Canon Vehicle Registry

Every vehicle in the registry exists as a finished 3D model with a written spec sheet, and Chapter 36 gives the datasheets. The status column of the table marks each vehicle either as named in the entries above, or as "model", meaning that the model and spec sheet are finished but the nation or designation has not been written into the record yet.

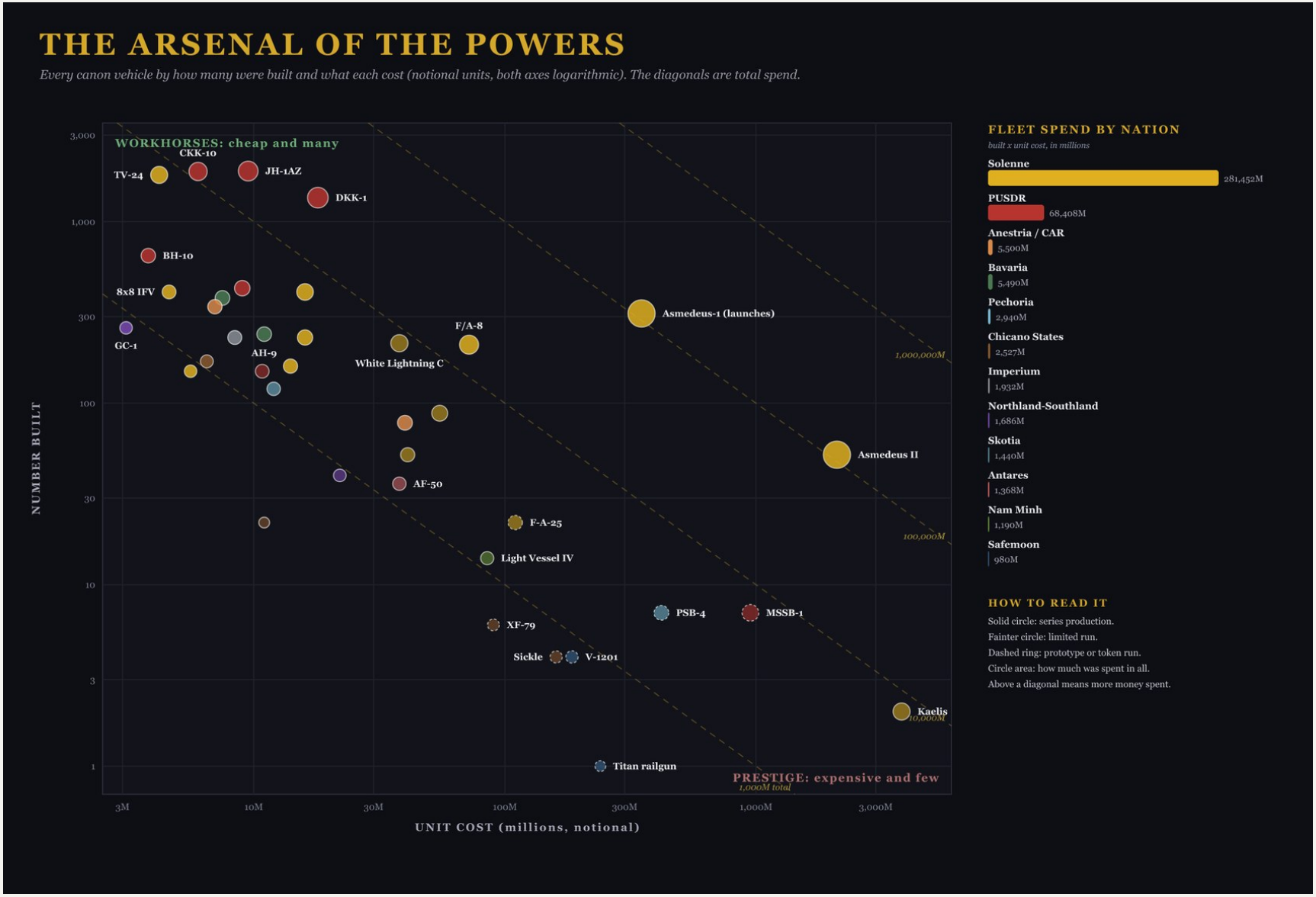


Plate: the arsenal of the powers.

Vehicle	Domain	Operator	Tier	Built	Status
AF-50 Twin-Engine Multirole Fighter	Air	Kingdom of Antares	Limited production	36 (3 prototypes + 33 series, 1338 to 1352)	model
AH-9 Attack Helicopter	Air	Bavaria	Series production	about 240 (1333 to 1352)	model
CKK-10M Poing-D	Air	PUSDR	Series production	about 90 IR-40 (Eisenreich, captured) + about 1,050 CKK-10 (1303 to 1319) + about 130 new-build Ms (1356 to 1357), 620 rebuilt to M standard 1324 to 1327	canon
CS-XF-79 Phantom Talon	Air	Chicano States	Prototype / token run	6 (2 prototypes + 4 pre-series)	canon
DKK-1 Flapjack and DKK-1B Flapjack-D (Knights)	Air	PUSDR	Series production	about 1,100 DKK-1 (1309 to 1338) + about 160 DKK-1E1 exports + about 96 DKK-1MDMU naval + about 450 rebuilt to DKK-1M + 12 DKK-1B display aircraft	canon
DKK-80 Grendel	Air	PUSDR	Series production	about 430 (1321 to 1352) including 56 DKK-80MDMU naval/anti-submarine	canon
F/A-8 Chimera	Air	Solenne	Series production	about 210 (1332 to 1356)	canon
GA-7 Anvil	Air	Solenne	Series production	about 160 (1333 to 1350)	model
MSSB-1 Strategic Stealth Bomber	Air	PUSDR	Prototype / token run	7 (2 prototypes + 5 production)	model
PK-P1 Parrot Lord	Air	Anestria (the Constitutional Anestrian Republic holds the survivors)	Series production	78 (1295 to 1300)	model
RS-1 Stealth Attack Drone	Air	Bavaria	To be set	To be set	canon
PSB-4 Ostrog	Air	Pechorian Federation	Prototype / token run	7	model
SG-16 Veyra	Air	Skotia	Series production	about 120 (1328 to 1346)	model
TRC-201 Serbius	Air	Solenne	Series production	about 40 USN-built + about 190 Solenne-built (1304 to 1350)	canon

Vehicle	Domain	Operator	Tier	Built	Status
VTOL Strike Jet 478 (VBA-478 Wraith)	Air	Solenne	Limited production	about 88 (1335 to 1353)	canon
IADM-6 Northland	Air	Northland-Southland	Limited production	about 40 (1349 to 1356)	model
F-A-25	Air	Solenne	Prototype / token run	about 22 (1350 to 1357)	model
8x8 IFV (SCV-67bv8, predecessor of the SCV-67 Blowback)	Ground	Solenne	Series production	about 410 (1331 to 1348), superseded by the SCV-67 in front-line service from 1349	model
B-4/2 Main Battle Tank	Ground	Constitutional Anestrian Republic (CAR)	Series production	about 340 (1331 to 1352)	model
BH-10 Volnyk Infantry Fighting Vehicle	Ground	PUSDR	Series production	about 540 BH-10 + about 110 RH-10 (1326 to 1352)	canon
BL-1 Main Battle Tank	Ground	Bavaria	Series production	about 380 (1329 to 1351)	model
CS-AADS-12 Skyfang	Ground	Chicano States	Limited production	22 (1344 to 1356), hand-assembled	model
CS-MLRS-26 Sickle	Ground	Chicano States	Prototype / token run	4 launchers, about 140 missiles supplied	model
CS-1 Main Battle Tank	Ground	Chicano States	Series production	about 170 (1336 to 1352)	model
GC-1 Andrew Gunnery Car	Ground	Northland-Southland	Series production	about 260 (1334 to 1349)	model
JH-1AZ Stena Main Battle Tank	Ground	PUSDR	Series production	about 1,900 JH-1AZ (new + converted, 1331 to 1357), about 4,600 for the whole JH-1 family including JH-2, JHT-3 and the ZH air-defence variants	canon
JH-1AZ-B Main Battle Tank	Ground	PUSDR	Limited production	about 150 (1352 to 1357)	canon
MK-72M1XT Main Battle Tank	Ground	Pechorian Federation	Limited production	about 90 (1338 to 1356)	model
OMBT-1 Main Battle Tank	Ground	Federated States of Imperium	Series production	about 230 (1335 to 1352)	model
SPH-155 Self-Propelled Howitzer	Ground	Solenne	Series production	about 150 (1336 to 1354)	model
V-1201 Titanmover	Ground	Safemoon	Prototype / token run	4 (3 as A, 1 later rebuilt as B)	model

Vehicle	Domain	Operator	Tier	Built	Status
V-1201 Titanmover, Variant B	Ground	Safemoon	Prototype / token run	1 conversion of a V-1201 (counted in the four above)	model
Titanmover Railgun Carrier	Ground	Safemoon	Prototype / token run	1	model
TV-24 Tempest	Ground	Solenne	Series production	about 1,450 TV-24A (1303 to 1341) + about 360 TV-24B (1306 to 1341)	canon
White Lightning, Variant A	Ground	Solenne	Limited production	about 52 (1322 to 1326), 41 later converted to DET-3C	model
White Lightning, Variant B	Ground	Solenne	Paper design only	0	model
DET-3C White Lightning, Variant C	Ground	Solenne	Limited production	214 built or converted by 1340	model
BBG-01 Kaelis Guided-Missile Battleship	Naval	Solenne	Limited production	2	canon
CAG-01 Aurelan Guided-Missile Heavy Cruiser	Naval	Solenne	Limited production	4	model
Light Vessel IV Light Corvette	Naval	Nam Minh (hull built at PUSDR's yards)	Limited production	14 (12 for Nam Minh, 2 for PUSDR trials, 1339 to 1352)	model
Asmedeus-1 Heavy-Lift Booster	Space	Solenne / D.S-H.P	Series production	about 312 launches (1337 to 1359)	canon
Asmedeus II Crew Transport	Space	Solenne / D.S-H.P	Series production	52 hulls (1338 to 1359), about 24 in the first wave, about 2,880 settlers	canon

Who could afford what. Production numbers are the honest measure of a nation's power on this map, and the list above is deliberately uneven. Three constraints cap everyone. Rationed semiconductors (the CKK-10's own spec sheet counts its cost in them) limit any stealth, sensor or directed-energy system far more than steel or labour do. The fissile material GAW3 burned means no strategic weapon here carries a nuclear warhead. And no state on the map except Solenne and PUSDR runs an arms industry big enough to design a front-line aircraft or tank from scratch.

Where a nation fields something visibly beyond its means, the spec sheet says so and says what paid for the handful that exist. **Safemoon's V-1201 Titanmover** (four built, 185M each, about twenty JH-1AZs apiece) exists because UARRO resource-sector money paid for a nation that spends on walls to build a wall that moves, and it cannot be built in quantity. **PUSDR's MSSB-1** (seven built, about fifty DKK-1s apiece) is a status symbol aimed at Solenne and no fleet. **Chicano's CS-MLRS-26 Sickle** (four launchers) exists only because Malakor Vane's Turncoat

bribe money bought the missiles and paid the bills (Chapter 20). When the 1357 revolution stopped the money, the Sickle became useless overnight. **The Pechorian Federation's PSB-4 Ostrog** (seven built) is a small, quiet nation's strategic bomber, funded and engined by Solenne through the PSU. **Northland's IADM-6** (about forty) is an airframe a welfare state could not have designed itself, descended from PUSDR's DKK-1 and obtained quietly by way of Xue Lin. **Solenne's F-A-25, Kaelis-class capital ships and White Lightning tanks** are the most advanced things on the list, built in handfuls to hundreds because even the richest state on the map runs out of rationed electronics before it runs out of money. **Antares' AF-50** (36) is the cautionary middle: stealth-shaped only where it is cheap to be.

By contrast the true series vehicles are the cheap ones: PUSDR's JH-1AZ (about 1,900), CKK-10 (over a thousand) and DKK-1 (over a thousand), Solenne's TV-24 (about 1,800), Bavaria's BL-1 and AH-9, and Solenne's 8x8 IFV (hundreds each). About a dozen of the vehicles in the registry have operators assigned because their spec sheets named none: the AF-50, AH-9, PK-P1, SG-16, F-A-25, 8x8 IFV, B-4/2, GC-1, OMBT-1 and Light Vessel IV, with the GA-7 and IADM-6 placed by later notes. Those assignments are the record's best attribution and not settled fact, and could be revised.

What AeroLab found. Every aircraft that has been through the lab and carries a stealth-shaped or high-agility planform comes out statically unstable in pitch: the MSSB-1 flying wing by a wide margin (about 20% of chord), the DKK-1B Flapjack-D about 10%, and the F-A-25 about 12%. None of them can fly without constant flight-computer control, which fits the mid-6th-generation plateau (see Appendix B). These aircraft are as capable as the economy was ever going to make them, and as dependent on working electronics as an aircraft can be. The IADM-6 Northland and the F/A-8 Chimera come out stable or neutral in pitch, the Chimera barely (static margin 0.3%). On the ground, the B-4/2 would need a crosswind of roughly 1,000 km/h to overturn, which is to say wind is no threat to any tank on this list.

A Gallery of Canon Vehicles

Every canon vehicle with a finished model, one render each, in alphabetical order. Specifications are in the registry above.



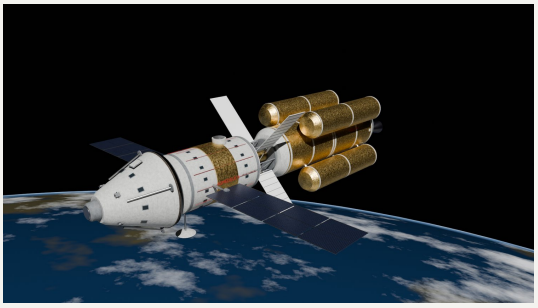
8x8 IFV (SCV-67bv8, predecessor of the SCV-67 Blowback)



AF-50 Twin-Engine Multirole Fighter



AH-9 Attack Helicopter



Asmedeus II Crew Transport



Asmedeus-1 Heavy-Lift Booster



B-42 Main Battle Tank



BBG-01 Kaelis Guided-Missile Battleship



BH-10 Volnyk Infantry Fighting Vehicle



BL-1 Main Battle Tank



CAG-01 Aurelan Guided-Missile Heavy Cruiser



CKK-10M Poing-D



CS-1 Main Battle Tank



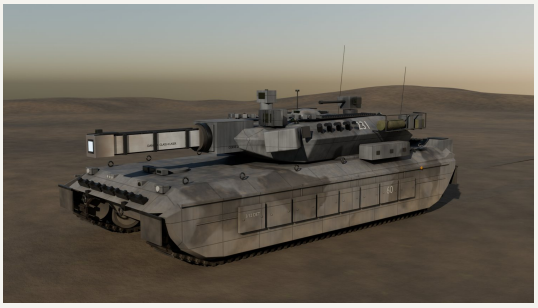
CS-AADS-12 Skyfang



CS-MLRS-26 Sickle



CS-XF-79 Phantom Talon



DET-3C White Lightning, Variant C



DKK-1 Flapjack and DKK-1B Flapjack-D (Knights)



DKK-80 Grendel



F-A-25



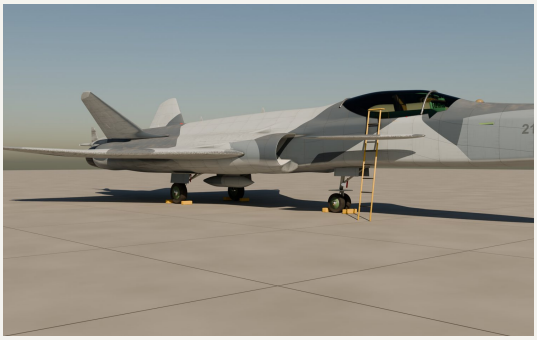
FA-8 Chimera



GA-7 Anvil



GC-1 Andrew Gunnery Car



IADM-6 Northland



JH-1AZ Stena Main Battle Tank



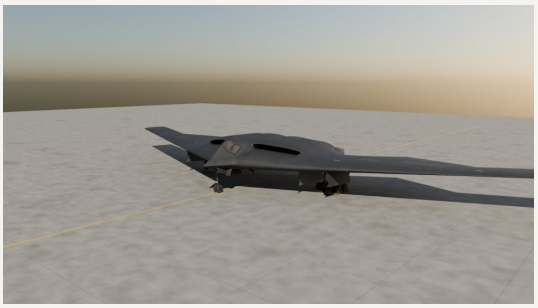
JH-1AZ-B Main Battle Tank



Light Vessel IV Light Corvette



MK-72M1XT Main Battle Tank



MSSB-1 Strategic Stealth Bomber



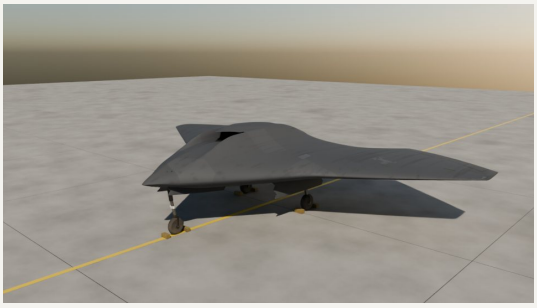
OMBT-1 Main Battle Tank



PK-P1 Parrot Lord



PSB-4 Ostrog



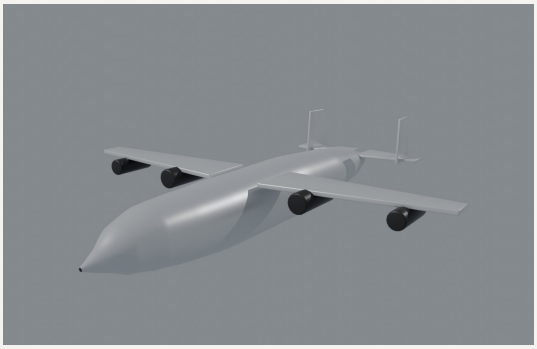
RS-1 Stealth Attack Drone



SG-16 Veyra



SPH-155 Self-Propelled Howitzer



TRC-201 Serbius



TV-24 Tempest



Titanmover Railgun Carrier



V-1201 Titanmover



V-1201 Titanmover, Variant B



White Lightning, Variant A



White Lightning, Variant B

29
Flags and Seals

A flag is the shortest history a country writes about itself. Here are the flags of the three states that grew from one lineage, and what each kept from the last.

One Lineage, Three Flags

The three states of the western continent are one country wearing three faces, and the flags say so. The line of descent is short. The **Syndicate** was a capital-and-contracts power that became the western continent's dominant state. In 1250 AE it absorbed Christonia and Mesaland into the **United Syndicate Nations**, and it kept that government through the Second War and the Talona Crisis. The union was destroyed by its own first strike in GAW3 (1300 AE), and **Solenne** was founded in the wreckage as a deliberate break.

Each flag keeps something from the last and throws something away, and what is kept is the record of what the people in charge were thinking.

	Syndicate	USN	Solenne
Colours	black and gold	black and crimson	blue and gold, cream hoist
Layout	plain field, gold hoist band, gold bars	eight-wedge field, centre device	plain field, hoist band, centre device
Centre device	a ring with three peaks over water	a snake eating its tail (1250), the same with an Eye in the centre (1290)	a sixteen-ray sun around a star in a laurel ring
What it says	we own the ground and the sea routes	the state is a closed loop and it is watching	the state is open, and it is named for the sun
What the next flag kept	gold (Solenne) and the ring-in-the-middle layout (USN)	the radial geometry and the ring (Solenne)	n/a
What the next flag threw out	gold (USN spent it)	red, black, the snake, the Eye (Solenne)	n/a

The three flags side by side, in order, are shown in the lineage plate.

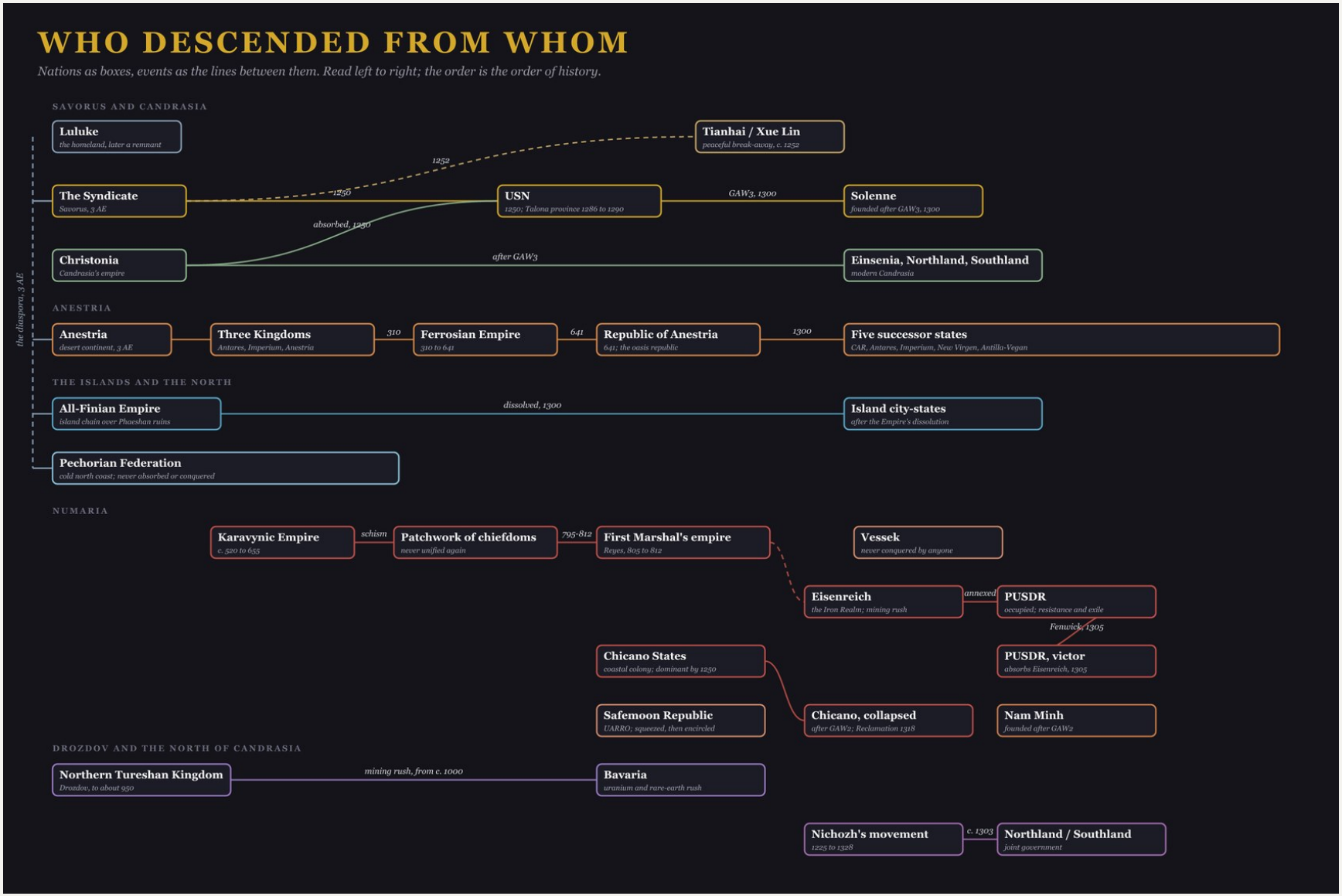


Plate: who descended from whom.

The Syndicate

Colours. The Syndicate flew black `#121212` and gold `#d6a92a`, with a shade of gold, `#a8801a`, for shadow and embroidery. Black is the ledger and the night sea, and gold is coin. The Syndicate never used a third colour on any national flag, and its trading companies were required by charter to fly the same two.

The flag. The field is black. Down the hoist edge runs a gold band cut with black chevrons, the first image anyone ever associated with Syndicate property. The same band is painted on warehouse doors, crate ends, harbour gates and company vehicles, so that it reads as "this is owned" at a distance. Two pairs of thin gold bars run the length of the flag along the top and bottom edges, said to represent the ledger rules in a double-entry book. In the centre sits the seal.

The seal. The seal is a gold ring bearing twelve small beads, one for each of the twelve founding fiefs, later the twelve charter-houses, the trading companies whose merger is the Syndicate (Chapter 4 tells their story). Inside the ring, three peaks stand over two swells of sea. The peaks are the temperate, mountainous continent the diaspora landed on, Savorus. The sea is the route west that the largest single group of the diaspora sailed to get there. Nothing in the seal is a weapon, a crown or an animal. Every other flag on the planet that early used a lion, an eagle or a sword, and the Syndicate's refusal to do so was deliberate. It presented itself as infrastructure.



Plate: the Syndicate flag.

Other Syndicate marks.

- **The brass crest pin.** The AVMS-pattern crest on the collar of the Syndicate army's olive-drab tunic is the seal reduced to a brass disc. The later USN uniform palette starts here, as a corporate uniform before it was a regime's.
- **House flags.** Each of the twelve houses flew the Syndicate flag with a coloured pennant of its own at the hoist. These were the only non-black, non-gold colours legally permitted on Syndicate property.
- **The naval ensign.** The Syndicate Navy flew the flag with the hoist band moved to the lower edge, so that it lay flat and legible on a mast. The later USN navy, and then Solenne's, inherited the arrangement.

The Twelve Houses

The Syndicate was formed out of twelve fiefs, each held by a **Lord-Principal** and each with a fixed role in the whole. Each house bears the Syndicate's black field (the colour of charcoal, iron and ink), a chief in its own colour, and one charge in gold. Gold is the Table's metal and the colour of its seal, and no house may carry it as a field. Each also flies a pennant at the hoist in its own colour, which is the origin of the house flags described above.

House	Colour	Charge	Seat	Role
Aldrek	crimson	tower	Aldrek Keep	border fortress and the northern pass
Brasmere	sea-green	ship	Brasmere Quay	harbour, fishing fleet and coastal trade
Corvane	orange	crossed picks	Corvane Deeps	ore and the deep mines
Dunmar	slate blue	wheel	Dunmar Mill	grain, mills and the central valley
Esselt	violet	scales	Esselt Court	law, weights and measures, the Ledger Court
Falkreth	silver-white	key	Falkreth Gate	customs at the mountain gates
Garnoth	rust	anvil	Garnoth Forges	steel, armour and the arms trade
Halvane	forest green	sheaf	Halvane Vale	farmland and stock
Ilmar	teal	bridge	Ilmar Span	rivers, bridges and the toll roads
Jurak	plum	bell	Jurak Tower	the beacon-and-bell alarm network
Kessane	ice-blue	hammer	Kessane Quarry	stone, masons and the fortress works
Lorrow	olive	lantern	Lorrow Watch	surveyors, wayfinders and the maps

The twelve houses are interdependent on purpose. No fief grows its own food, forges its own steel, and holds its own gate. A house that left the Table would starve in a season, and the founders designed it that way. Three of them matter more than the rest for later history. **House Esselt** holds the Ledger Court and so the law, and its seal can void another house's bonds. **House Garnoth** makes the steel and so the arms. **House Lorrow**'s surveyors are the people from whom Koedul's survey crews would grow, which is why a canal-and-rail engineer with no

title and no company is nonetheless a Lorrow man in everything but name.

The United Syndicate Nations

Colours. The USN flew black `#121212` and crimson `#8a2226`, with a thin crimson rule (`#8a2226`) cut through the black. Gold is gone completely. The union of 1250 AE was financed on the Syndicate's credit, and the war of 1264 to 1276 spent the rest. A USN flag that carried gold would have been a lie, and the regime already had enough of those to maintain.

The flag of 1250 AE. The field is divided into eight wedges. Four crimson wedges stand on the diagonals and four black wedges on the compass points, divided by thin crimson rules that run to the edges of the flag. The wedges read as a saltire when the flag hangs limp and as a starburst when it is stretched flat, and the design was chosen for that: from far off it looks like a cross, and from close it looks like a mechanism. In the centre is the **ouroboros**, a black snake swallowing its own tail, its body broken by a dashed line to mark the "seam" where the Syndicate, Christonia and Mesaland were joined. The snake's meaning was spelled out in the 1250 settlement itself: a union with no outside, whose end is its beginning. It was meant to read as stability.

The Eye of 1290 AE. After the Talona Crisis, in which much of the USN's own senate and administration defected to a breakaway province, the regime added a single element to the centre of the ring: an **Eye**, drawn as a plain almond with an iris and pupil, in black on the crimson. The Eye is the **Office of Watch**, the security service created in the aftermath. The snake had meant "the state is a closed loop", and the Eye turned it into "the loop has something at its centre that sees everything inside it". The flag is otherwise unchanged, and that is the point. The regime did not redesign its flag in 1290, it let the flag admit what the state had become. The 1290 version is the one the world knows.

The emblem. Stripped of the field, the ring-and-Eye is the USN's emblem and the most widely reproduced image of the regime. It appears in silver on the uniform of the Black-Snake Corps (Chapter 27), as a stamped steel pin on the regular army's (a pin, and no cloth), and as a plain black stencil on vehicles and aircraft. The bomber squadrons that launched the January 1300 first strike carried none of it, by design. They wore no unit patches, only a stamped number on the collar, so that a shot-down crew would identify no base.

What happened to it. The flag, the Eye and the ring were banned in Solenne the year it was founded, and are still illegal to fly or display there. Collectors and museums keep the originals. PUSDR and the other CPA-descended states never used the USN flag after 1300, though the red-and-black colour pairing was kept by several of them for reasons of their own.

Solenne

Colours. Solenne flies blue `#075d8e`, gold `#d8ab2e` and cream `#f6f0dc`. The blue replaces the USN's black and crimson wholesale. The gold is the Syndicate's, which the USN gave up and which Solenne chose to take back. Solenne wanted to show it was not the USN, and the oldest Syndicate colour was the one available that was not the USN's.

The flag. The field is a deep blue, with a cream hoist band bearing five small repeats of the seal, stacked vertically. The centre device is a sixteen-ray gold sun, its rays alternating long and short, each carrying a thin blade beside it. At the heart of the sun is a ring, and inside the ring a five-point star within a laurel wreath. This is the flag Solenne flies on every government building, ship and vehicle.

Reading the sun. The sun is **Solis**, the system's own star, from which the nation takes its name. The rays are a deliberate reversal of the USN's wedges: the same radial geometry, thrown outward as light instead of cut inward as a mechanism. The laurel is civic peace. The star is the new republic's sole piece of explicit national symbolism, which is why it is in the middle and nothing else is.

The ring. This is the part people notice and few say out loud. The ring around the star is where the ouroboros stood. The founders removed the snake and kept the circle. That was no accident. They discussed it, and Chapter 16 explains why the choice has aged badly. A flag designed to be everything the USN was not still has, at its centre, the same closed circle. Foreign commentators have been saying so for a long time. It is also in the nature of the design that nobody inside Solenne who raises it is thanked.

The hoist band. The five seals stand for the five founding regions, and they are the only part of the flag that can change: when a region is added, a seal is added. The cream is the colour of the paper on which the founding constitution was printed, and the band is meant to read as a page.

The Jakaar's standard. The head of state's personal flag is the sun and ring on blue, framed by a double gold border with a gold star in each corner. It flies over wherever the Jakaar is physically present, and from the capital when the Jakaar is in residence. Nothing else on it differs from the national flag, and the border is the only thing that says the person is in the room.

The seal. The sun, ring, star and laurel without the field make the national seal. It is stamped on every official document and is the face of every coin, and in every case it appears in gold on a blue ground.



Plate: the national seal of Solenne.

Anestria and the Five Successors

The roundel and the tricolour. The Anestrian Republic's emblem was born in 641 AE, when the rebellion against the Ferrosian Empire succeeded. It is a sand-coloured disc bearing a date palm and a gold sun, ringed in the colours of the three old kingdoms: red, iron-grey and green. The Republic's flag is the same three colours as horizontal bands with the roundel at the centre. Anestria's popular founding myth ("three kingdoms, one short war, one democracy, unified by 535 AE") is the flag's own story told in a cleaner and more flattering order. The actual order (Chapter 6 tells it) is conquest, empire, rebellion.

The five successors. When the Republic fractured after GAW3 and ten administrative districts asserted independence, five successors emerged (1302 to 1359 AE). They share one rifle, the AR-7, produced from shared tooling. The Constitutional Anestrian Republic keeps the original tan, while the others field faded olive, grey or unpainted batches depending on which factory's stock they inherited. Each also has its own flag and shoulder patch.

State	Flag	Shoulder patch	AR-7 finish
Constitutional Anestrian Republic (CAR)	the old tricolour and roundel, with a black mourning canton and a white star	the roundel	original tan
Kingdom of Antares (restored)	red field, gold border, white eight-point star	white star on red	faded olive
Federated States of Imperium	iron-grey with a rust ring, seven stars and an anvil	rust ring with a star	grey
New Virgen	blue with a six-petal white lily	lily on blue	olive-drab
Antilla-Vegan Union	green over ochre, split on a diagonal, with a gold sun-disc	green disc on ochre	bare metal

The kit of each successor carries its identity. CAR keeps the old Republic's sand-tan uniform and roundel, and claims succession from it in everything including clothes. Its B-4/2 tank crews wear the same tan. Antares reverts to a royal look for its guard, with red-and-white piping and a gold-edged cap on a sand uniform, while the line army wears the old tan with a red patch. Imperium dresses in iron-grey with rust trim, an unashamed callback to the Ferrosian iron, and its OMBT-1 tank crews wear grey overalls. New Virgen wears the Republic's tan with a blue sash and cap band. The Antilla-Vegan Union wears faded olive-ochre, close to what the old Guard wore, with a green patch.

The Vinear Coast War (December 1301 to February 1302 AE) between CAR and Antares was the first time two of the successors fought each other, and it was fought entirely in the old Republic's tan on both sides. Its only visible difference was the colour of the armband.

Insignia and colours. Rank is worn on a green tab at the collar: a single disc for a private, one, two or three pale chevrons for a corporal, sergeant and warrant officer, and one, two or three gold stars for a lieutenant, captain and major. Higher ranks add a gold border to the tab. The Republic roundel goes on the left shoulder, on aircraft and on vehicles. The palette is sand, tan,

khaki, Antares red, iron grey, oasis green, rust and gold. No Anestrian uniform has ever been black. That colour belongs to the Ironguard, and the Republic's whole identity is to be the opposite of the Empire.



Plate: the flags of Anestria and its five successors.

Bavaria

Bavaria's flag has a sky blue field (`#81abdb`) bearing a rearing crimson (`#b62a37`) horse, with two clusters of white stars, five on each side. Across it runs a band of white, crimson and white, with three gold (`#ffc754`) Cyrillic letters on the crimson, and a sky-blue band lies along the lower edge. The palette names are Drozdov sky, Crimson, White and Gold.

The Peoples' Union

PUSDR is a union of four republics, and its flags record how it was put together (Chapter 15). Its colours are dark red and gold. The dark red stands for the sacrifice of the people of Kargopol and Altyr, the two founders, and so also keeps the single red armband of the resistance. The gold stands for the future, for grain and for a brighter era. Every flag of the Union carries the same emblem. A hammer for the working class as a whole stands in the middle, between a gear for Kargopol, the more industrial republic, which is half of the Union, and a sickle for Altyr, the more agrarian republic, which is the other half. Gear and sickle together form a circle round the hammer, which stands for the Yedinstvo Treaty. Above it is a star, the guiding principle of the Union and socialism itself.

Before the Union's republics came together, each founding state had its own flag. Altyr flew a pale field with a sky-blue star in the upper corner and two sky-blue stripes across the lower half. Kargopol flew a dark red field cut by white rays edged in navy, with a navy disc at the centre. The Taran Kingdom flew navy, white and dark red in horizontal bands, with a white patterned ornament at the hoist. The Federal Province of Kinzel flew green over a thin white line over red.

Before the occupation. The Union's first flag is a plain dark red field with a gold star above the gold emblem, set in the centre.

After the Great Revolution. The second flag has a brighter red field and an outlined gold star. A broad pale gold band crosses the flag at the height of the emblem. The band stands for the new republics of Taran and Kinzel and for the unity of the Union, and also for the revolution, which cut across the flag as it cut through Eisenreich. The emblem has moved toward the hoist, and its movement shows the base of the Union: Kargopol and Altyr are its base, and the new republics start from the emblem in the same way they joined the two founders.

After the occupation ended. The third flag, used after Eisenreich was absorbed in 1305, has a deep crimson field and a small gold star over the emblem, which again sits near the hoist, and its movement stands for the undying spirit of the Union. Gold rays spread from the emblem across the flag, because the Union had become the guiding light of socialism and freedom around the world. The rays are uneven because liberty and revolution arrived at once and not evenly. A black strip runs along the foot of this flag and of the four republics' flags below it.

The republics. Each republic of the Union flies its own variant on the crimson field. The Altyr Federal Socialist Democratic Republic flies the dark red field with a white star over the emblem. The Kargopol Socialist Democratic Republic has a small emblem at the hoist and a white and

gold diagonal stripe. The Taran Socialist Democratic Republic sets the emblem on a shield over a gold, navy and gold band. The Kinzel Socialist Democratic Republic sets the emblem in a gold disc on an orange band.



Plate: the flags of the PUSDR, its founding states and its republics.

PART SEVEN

The Encyclopedia

30
Nations A to Z

Every nation and polity in the record, in alphabetical order. Each entry collects what the history says about its origin, government, economy, forces and fate, and points back to the chapters where the story is told in full.

A

All-Finian Empire

The All-Finian Empire (AFN) was a monarchy founded by one of the four groups that fled Luluke after the Carina-11 famine of about 3 AE. Its people sailed east and settled a chain of large islands, the Korut chain, on ground that had once belonged to the Phaeshan Federation. The name Korut comes from the Empire's own founding language and roughly means "the scattered shore". The surveying captain chose it because he could tell the islands were an archipelago before he set foot on any of them. The chain is the Korut Arc, a small, fast-rotating volcanic island-arc microplate thrown up where the Savoran and Numarian plates grind together, which is the geological reason the Empire settled islands and not one landmass. Its ancient capital was Finhaven.

The Empire prospered without fuss. Luluke's gold, copper and rare-mineral strike of about 900 AE gave it a trading partner, and the two nations signed a trade compact in 980 AE. Over the next two and a half centuries it grew into the closest thing the map had to an old, comfortable friendship: Luluke's minerals went east to AFN shipyards, and AFN manufactured goods went west to a Luluke that had never rebuilt its heavy industry. Neither grew dominant. Both stayed on good terms with the Syndicate because that was cheap, and when the Syndicate asked for allies in 1250 AE the Empire answered out of a business relationship it did not want to put at risk.

In the Thirty-Day War the Empire lost 302 people and 10.9 percent of its economy, the lightest burden of the five combatants. Its soldiers wore blue-grey wool with a white-piped collar even in the infantry, an anchor-and-island cap badge, rubberised rain capes and sealed-seam boots, and

coastal units wore a kapok life vest over everything. Its standard rifle was the Finhaven Arms Co. FA-6, a naval-doctrine weapon with a corrosion-resistant grey-green finish, a shortened barrel and stock, and an anchor-and-island emblem stamped on the receiver. In the Second War the Empire stood with Anestria and Luluke in the Historic Alliance For Democracy And Prosperity (HAFDAP). Its kit changed to naval grey-green and the white collar pipe became a branch colour. Its amphibious troops received the first true foul-weather waterproof jacket on the continent, an AFN invention that Anestria licensed without advertising the fact.

On 17 January 1300 the nuclear first strike dealt the Empire a mortal blow. Its last surviving leadership authorised two nuclear strikes on USN soil, the whole of its much smaller wartime stockpile, and the Empire formally dissolved at 6:30 in the morning that day. Its last command was a handful of staff officers in naval grey, signing final orders in formal dress. The islands fractured into a patchwork of independent city-states with no single successor government. They are described under Korveil and the Successor City-States.

See also: Phaeshan Federation, Korveil and the Successor City-States, Luluke, Syndicate, Anestria, Chapter 3, Chapter 5, Chapter 11, Chapter 12, Chapter 14, Chapter 15, Chapter 27.

Anestria

The desert-continent power of Pan-Anestria, and for most of its history the Syndicate's peer competitor. Its people were one of the four groups who fled Luluke after the Carina-11 famine around 3 AE, sailing south to a continent of oases. The continent was already occupied. The Kharzun clans held the dry interior and were never conquered. The newcomers settled in three kingdoms, **Antares**, **Imperium** and **Anestria-proper**.

Antares held the coast and the caravan roads. It was a trading kingdom of ports and wells with the best bowmen and the worst armour of the three, and its colour was red. Imperium sat over the iron-bearing sands, and by about 220 AE its smiths were a full technological step ahead of their neighbours. Anestria-proper held the central oases and the farmland, fielded the largest and least armoured army (a farmers' levy), and wore oasis green. Each kingdom had a king and a council of oasis-lords who held wells, farm districts or stretches of road on the king's behalf. A lord's wealth was measured in water rights, and wells cannot be moved, which made the kingdoms loose and easy to take apart. Imperium conquered both neighbours over generations, and by 310 AE the continent was one realm, the Ferrosian Empire.

The Empire lasted until the Ferrosian Rebellion (630 to 641 AE), a popular uprising that replaced governors-as-lords with an elected Council of Oases, one delegate per oasis, and founded the **Republic of Anestria** in 641 AE. The Council chooses a President-in-Council. The army became the Oasis Guard, a citizen militia of one regiment per oasis with officers elected for three-year terms. The Republic's emblem is a sand-coloured roundel bearing a date palm and a gold sun, ringed in the three kingdoms' colours (red, iron-grey and green). The flag is the same three colours in horizontal bands with the roundel at the centre. The popular founding myth ("three kingdoms, one short war, one democracy, unified by 535 AE") is a cleaner story than the

true order of conquest, empire and rebellion.

The Republic's industrial boom ran through the 800s to 900s AE under the firm MiguelTek: steam, then oil, then a uranium find that produced the system's first experimental fission reactor in the mid-1100s. By 900 AE it was the region's second power. Anestrian intelligence had watched the Syndicate absorb Christonia for over a century and concluded that a power able to buy a nation's industry without firing a shot could not be deterred by conventional means. The Republic therefore held the system's first nuclear test in the early 1200s. Its rifles were the ROA M4 "Sentinel Standard" (900 to 1000 AE) and the select-fire ROA AR-7 (1200s AE). It launched the first orbital satellite, Vivemus-1, in 1261 AE and flew the first crewed capsule in 1265 AE.

Anestria joined the Syndicate-led coalition in the Thirty-Day War (1250 AE), losing 611 dead and 13.5 percent of its economy. Its support for Christonia lapsed in 1260 AE, with a domestic energy crisis as the stated reason as industry converted from coal to petroleum. In 1262 AE it founded the Historic Alliance For Democracy And Prosperity (HAFDAP) with Luluke and the All-Finian Empire, and it fought the whole of the Second Aridexian War on that side. On 17 January 1300 AE it answered the USN's first strike with conventional bombers alone. In a single day they destroyed every remaining major city on the USN mainland and the Pelruvian Islands, while Anestria kept its own nuclear weapons unspent as the one deterrent left standing. Anestrian marines took the USN capital that evening and executed the last of its officials.

Its hardware included the carrier AMS Adara, the DE-41 "Meerkat" airborne radar aircraft and the PK-P1 Parrot Lord fleet fighter (78 built 1295 to 1300). After the war the Republic fractured as its ten administrative districts asserted independence: the Constitutional Anestrian Republic, the Kingdom of Antares, the Federated States of Imperium, New Virgen and the Antilla-Vegan Union. Anestria was nonetheless one of the three Founding Members of UARRO, with a permanent veto, and one of the four signatories of the Threshold Accord in 1359 AE. The successors lost their governments in 1365.

Anestrian uniforms never used black, which belonged to the Ironguard of the Empire. The palette is sand, tan, khaki, Antares red, iron-grey, oasis green, rust and gold.

See also: Ferrosian Empire, Kharzun, Constitutional Anestrian Republic, Kingdom of Antares, Federated States of Imperium, New Virgen, Antilla-Vegan Union, Chapters 6, 12, 14, 26, 27, 29.

Antilla-Vegan Union

One of the five successor states that emerged when the Republic of Anestria broke apart after the Third Aridexian War (1300 to 1302 AE). It lies in the northern part of Pan-Anestria, where the polities are smaller, more numerous and more prone to conflict than the large, stable blocks of the south held by the Constitutional Anestrian Republic and Antares. The record gives no capital, leader or founding date beyond the fracture itself.

Its flag is green over ochre, split on the diagonal, with a gold sun-disc, and its shoulder patch is a green disc on ochre. Its soldiers wear faded olive-ochre, close to what the old Oasis Guard wore,

with a green patch. Like all five successors it builds on the shared tooling of the ROA AR-7 rifle, and its examples are issued in bare metal.

The Union is one of the Anestrian successor states that Solenne's president Malakor Vane bribed with promises of land on Typhon to sabotage rival space programmes during the Turncoat War (1354 to 1358). During the proxy phase of the Fourth Aridexian War (1361 to 1363) Bavaria and the Pechorian Federation armed dissident movements inside the successor patchwork. In 1365 the successors were among the first governments the war cost, and the Union fell with them.

See also: Anestria, Constitutional Anestrian Republic, Kingdom of Antares, Federated States of Imperium, New Virgen, Chapters 15, 20, 22, 26.

Arvansk

The name under which the Yeshuren Union was known throughout the First and Second Aridexian Wars (1250 and 1264 to 1276 AE). Arvansk sat directly against PUSDR-occupied territory, and later PUSDR-controlled territory, so the relationship between the two governments could grow close. Its rifle, the Arvangrad AV-5, entered service under the Arvansk name before the First Aridexian War and was kept for over a century with only minor parts replacement.

The ground it held is the western mountain fringe of the old Karavynic Empire, which formally recognised the schismatic reading of Litharic doctrine in 630 AE and stopped paying tribute. After the Second Aridexian War the state renamed itself the Yeshuren Union, a change that marked its open turn toward the anti-Eisenreich movement of the USN and PUSDR's resistance.

See also: Yeshuren Union, Karavynic Empire, Peoples' Union of Socialist Democratic Republics, Chapters 8, 15.

Ashwick

A Numarian kingdom conquered by the First Marshal, Salvador Reyes of Chicano States, in 806 AE. Ashwick's defence rested entirely on its navy, and Reyes never gave the navy the chance to matter. At dawn the Chicano fleet forced the anchorage at the Battle of Ashwick Bay and caught Ashwick's ships still moored and largely unmanned. With the coast open, the Chicano army landed and marched on the capital almost unopposed. The Fall of Calmouth followed within three weeks, and it was a formality more than a siege. It was the shortest of Reyes' five wars and the only one that went as he had planned.

When Reyes was killed at Kelvath Hollow in 812 AE, Ashwick rose at once with the other conquered nations, and the garrisons he had left behind were pushed out within months. By 816 AE the same loose coalition had occupied Chicano States' own home territory. Nothing of the conquest was retained.

See also: Chicano States, Corvath, Prynn, Talgrave, Vessek, Chapter 8.

B

Bavaria

The major power of Drozdov, the quiet half of the eastern landmass, and one of the few nations old enough to have existed before the Third Aridexian War and still stand in the first rank after it. The name Drozdov comes from the captain of the first prospecting expedition to chart the landmass. The ground had been the home of the Northern Tureshan Kingdom until its people emigrated west and the last settlements thinned out around 950 AE. Prospectors from Luluke, the Syndicate and later the USN arrived about fifty years afterwards and found it uninhabited. From roughly 1000 AE the rush for copper, then rare earths, then uranium-bearing ore built Bavaria. Its mining concessions consolidated early and stayed consolidated, and since no second faction ever had the capital to contest them, Bavaria has no domestic rival. Drozdov rides the old, quiet trailing shield of the Numarian Plate, stable and easy to mine, and it is among the calmest places on the map.

Bavaria was a member of the Communist Power Alliance from its founding and fought in the Second Aridexian War on the USN's side. In the Charter of UARRO (about 1304 AE) it was one of the three Founding Members, with a permanent veto alongside Solenne and Anestria. In practice it is the alliance's arms exporter as much as a military power in its own right, building for export and collective defence rather than for any war of its own.

Its soldiers wear plain, dark grey-green with a cloth sleeve strip for branch and nothing more. Its rifle, the Bavenhurst BR-5, is a featureless blued-steel weapon that has needed only minor updates over centuries. It is the one arms lineage on the map that shows no war means no leap. The national flag bears a rearing horse.

Its heavy industry produced the BL-1 main battle tank (service from 1329, about 380 built to 1351, a 55-tonne three-crew tank with an autoloaded 120mm gun, built by Bavenhurst Vehicle Works), the FA-7 Artillery-13 heavy self-propelled gun with nuclear-capable ammunition, the TB-18 rocket launcher, the Aegis Fang air-defence vehicle, the TH-1 unmanned tank destroyer, the AP-3 infantry fighting vehicle, the BT-2 fighter, the stealthy BT-3 "Strix", the RS-1 stealth attack drone, the LAM-0A "Surfer" carrier jet and the AH-9 attack helicopter (service from 1333, about 240 built to 1352, by Bavenhurst Aerospace).

In the Turncoat War (1354 to 1358) the Solennese coalition opened a front out of Bavaria against PUSDR, and BL-1 crews fought alongside the invaders. In the proxy phase of the Fourth Aridexian War (1361 to 1363) Bavaria and the Pechorian Federation armed separatist movements in the Anestrian successor states, and kept quiet about it. Bavaria lost its government in 1366, when Numaria and Drozdov went down together.

See also: Northern Tureshan Kingdom, Peoples' Union of Socialist Democratic Republics, Anestria, Chapters 8, 17, 22, 26, 28.

C

Chicano States

A Numarian coastal power that rose, fell and rose again more than once. It was the one nation on the continent to produce both a conqueror and a revolution from the same family name.

Origins and the First Marshal. It began as a small coastal colony of refugees, and its first settlements, Gran Chicania, Exodus and Univar, still stand. Around 795 AE it seized roughly a quarter of Vessek's mountains. In 805 AE a war hero of that campaign, Salvador Reyes, was acclaimed to power by popular sentiment and took the title First Marshal. In seven years he conquered Ashwick (806), Talgrave (807 to 808), Corvath (809) and Prynn (810 to 811) and fought a continuous campaign against Vessek, so that by 811 AE he held very nearly the whole Numarian landmass. He was ambushed and killed at Kelvath Hollow in 812 AE, and every conquered nation rose at once. By 816 AE a coalition of them had occupied Chicano States itself, which regained independence in the early 820s, smaller and chastened.

The climb and the squeeze. Over the following centuries it expanded until, by the eve of the First Aridexian War, it was Numaria's single dominant power, with more territory than Eisenreich or Vessek. Much of this was built by squeezing the Safemoon Republic down to the ground around its capital, Moonhaven. Rather than storm the city, Chicano's high command ran the Ashfields Campaign in the years before the Second Aridexian War, burning farmland and fouling wells to starve a cornered population. Its rifle was the Gran Chicania GC-7, cheap and mass-producible. Its advanced hardware dates from this era: the MBT-90 "Crimson Titan" heavy tank in deep red-brown livery, the SPA-41 "Howler" howitzer, and the CS-XF-79 "Phantom Talon" stealth fighter (first flight about 1258 AE, six built, two prototypes and four pre-series), the most advanced thing the nation ever made.

The Union and its civil war. By the eve of GAW1 it styled itself the **Union of the Chicano States**, a union of dozens of provinces, most of them with Spanish names: Valdora, Sanver, Montara, Bellavista, Loravia, Castella, Maravilla, Solaria, Ventura, Almeria, Rivara, Serrano, Valencia, Estrella, Mirador, Carmona, Rosalia, Trevino, Avelino, Cordova, Verona, Palmera, Montesa, Dorado, Salvador, Vallera and Granada, and in the south the province of Nam. It kept the strongest navy on the continent, which controlled the waters south of Numaria, and one of the strongest armies and air forces in the world. Chicano States was not a combatant in GAW1 or GAW2. It spent those years consumed by its own troubles: terrorist attacks, political assassinations, corruption, plague, and a territory too large to govern, so that outlying provinces were granted autonomy that some of them treated as independence. In the interwar years (1276 to 1300 AE) it came apart in a civil war. The army, navy and air force split against themselves, with the same machines on both sides: MBT-90 tanks against MBT-90s, the few XF-79 fighters against each other, warships and submarines against their own sister ships. The southern provinces broke away, among them Nam, which became the nation of Nam Minh, and the republics of Omnere and Modovia, whose later history is not recorded here. What remained

retreated to its islands, which is the exile the record calls survival 'elsewhere on the map', and sat out GAW3 there. After the war the remnant did not try to rebuild the Union. It reclaimed the small southern coastal slice it had started from, and the 1318 attack on Vessek was a later government's gamble.

Collapse and return. The strain of overextended military spending broke that dominance after the Second Aridexian War, Safemoon retook most of its ground, and between 1276 and 1300 AE Chicano States lost every remaining grid of Numarian territory and survived only in exile. The Third Aridexian War hit it lightly, so afterwards it was able to reclaim a small slice of its old southern coast, with the original cities renamed Nueva Chicania, Exodus Point and Navarro, and a new foundation, Verdad. Fortaleza, Valentia, Prospera, Union, Properio and Fortero remain under other flags.

The Reclamation War (1318 to 1320 AE). Chicano attacked Vessek for its mineral wealth and gained ground on Vessek's mainland fringe. Safemoon declared war in Vessek's defence and was driven back to Moonhaven, where the advance was stopped. Nam Minh, backed by PUSDR, declared war in 1319. Three fronts exhausted the smaller army, and a negotiated ceasefire in 1320 left Chicano holding permanent gains on Vessek's fringe and three enemies it never forgot. Its troops wore cheap olive-brown kit and rust-brown helmets. Its mainstay tank was the CS-1 (service from 1336, about 170 built to 1352, a plain 57-tonne tank with a roof anti-aircraft gun).

The Turncoat War. Solenne's president Malakor Vane bribed Chicano States with the promise of Typhon land to sabotage rival space programmes. The money bought a few extraordinary systems, including four CS-MLRS-26 "Sickle" hypersonic launchers (1355 to 1357, about 140 missiles, supplied turnkey by Solenne's aerospace houses) and 22 hand-assembled ADDS-12 "Skyfang" air-defence vehicles, but the corruption hollowed out the state. In 1357 a revolution led by a direct descendant of Salvador Reyes, aged 29, seized power, switched sides to PUSDR's coalition and ended the Sickle programme when the bribe money stopped. The new government's troops added a plain red cloth band to the old kit.

Chicano States was a signatory of the Threshold Accord in 1359, was targeted by PUSDR-backed proxies in its reclaimed southern territory during 1361 to 1363, and lost its government in 1365.

Uniform. Four patterns across the record, all built for the cold: the charcoal coat and star shield of 1250, the white hooded winter cloak of the Second War, the modular kit of the 1310s with its CS-MC helmet and NV-9 night optic, and the lighter revolutionary pattern of 1357 with its plain red band. The armour is good and the cloth is poor, a rich country's equipment on a poor country's clothes. See Chapter 27. *See also: Ashwick, Corvath, Prynn, Talgrave, Vessek, Safemoon Republic, Peoples' Union of Socialist Democratic Republics, Chapters 8, 19, 20, 22, 26, 28.*

Christonia

Christonia, whose homeland continent is Candrasia, is one of the two founding powers of the ancient world. It began as a community in the north of the Central Continent under Christian Palazzolo, who instilled early law, communal food-sharing and the beginnings of a written language, Christonian. The Christonian calendar still marks his memory every 15 June. The Empire shared the Solvane river system with Luluke, and the two fought an intermittent war over its floodplain for about two centuries. At Year 0 a broken Christonia signed the Treaty of the 200-Year War. It paid reparations, ceded southern territory including the Solvane's richest floodplain reaches, accepted a capped military, and allowed free movement into Christonian lands for Luluke citizens (but not the reverse). Around 3 AE, when the Carina-11 outbreak began, it revoked that free movement to contain the contagion.

From the 700s and 800s AE Syndicate-chartered trading companies offered Christonia the capital, machinery and expertise it could not generate itself, in exchange for resource concessions, exclusive trade terms and finally a say in economic policy. The printing press of about 880 AE unified the Christonian language and also let a Syndicate-funded press speak it back to the people. By 1000 AE Christonia had reached a mid-20th-century level of industry (roughly the level of 1940s America), but most of that industry answered to Syndicate boardrooms as much as to its own elected president and Conjunctioner council. Nothing was ever declared or voted on, so there was no treaty to break. In the 1190s the Conjunctioner Elin Renner left the council to found the Renner Faction, a nationalist movement for economic self-determination. It never held power, and its militant cells decided that persuasion had run out. In late 1249 AE one of them bombed the financial district of the Syndicate capital, killed a handful of clerks, and gave the Syndicate its pretext.

The Thirty-Day War of October and November 1250 cost Christonia 4,025 dead and 84.2 percent of its economy. Its soldiers wore khaki wool, webbing belts with suspenders and steel pots with stencilled unit marks. They carried imported or licence-built AVMS weapons (AG-40s, later SR-9s) bought on Syndicate credit, the same lines the Renner militants had tried to cut. The Syndicate absorbed Christonia and Mesaland into the United Syndicate Nations. Christonia regained full independence in 1276 and restored its president and Conjunctioner government. It backed the breakaway Confederate States of Talona with money and military advisors in 1286. In the nuclear strike of 1300 its capital, Christona, was destroyed, and the government collapsed. It has since rebuilt, and survives beneath Einsenia as the older civilisational identity of Candrasia. Its modern troops wear a khaki-tan tactical jacket, a steel-grey helmet and a visible "Christonia" nameplate, and carry surplus AR-22A-pattern rifles. It joined UARRO after the 1304 ratification, and in the Turncoat War it was part of the invading coalition. It lost central government in 1367.

Christonia ran Ostrenia on Skarnovia as a resource colony. Its frontier garrison district at Candrasia's northern tip passed, after 1300, to the state that became Northland.

See also: Luluke, Syndicate, United Syndicate Nations, Mesaland, Confederate States of Talona, Einsenia, Northland, Skarnovian Colonies, Chapter 2, Chapter 3, Chapter 5, Chapter

10, Chapter 11, Chapter 14, Chapter 27.

Confederate States of Talona

Talona was the industrial coastal city of Coastville, which broke away from the United Syndicate Nations in 1286 and declared itself the Confederate States of Talona. Christonian funding and military advisors backed it, though not openly. It offered a far higher standard of living than the USN, which was then economically collapsed and had a discredited, disarmed army, and much of the USN's own senate and administration began defecting to it. For a dictatorship already humiliated by the loss of Christonia, this was an existential threat.

The USN answered with a special-forces raid, Operation Black-Snake. It failed to kill Talona's leadership or cripple its military, but it destroyed Talona's only warship and its main tank-production depot. The Talona Crisis, which ran from 1286 to 1290, ended in a settlement and was no reconquest: Talona was reabsorbed as an autonomous province. The USN survived, but it was drained and paranoid, and convinced it could never again be caught militarily unprepared. After the crisis it formed the Black-Snake Corps from the survivors and instructors of the raid, and added the Eye of the Office of Watch to its flag.

See also: United Syndicate Nations, Christonia, Syndicate, Chapter 13, Chapter 29.

Constitutional Anestrian Republic

Usually called CAR. It is the successor state that claimed direct succession from the old Republic of Anestria after the Third Aridexian War, and the one that held the most of its former territory. It holds one of the large blocks of southern Pan-Anestria. The record notes that it lost most of the territory it claimed within a few years of the war.

Its flag is the old Anestrian tricolour and roundel with a black mourning canton and a white star, and its shoulder patch is the roundel. Its soldiers keep the old Republic's sand-tan uniform, and its AR-7 rifles keep the original tan finish. Its armour crews wear the same tan. Its state armour works kept the Anestrian tank line running on ROA tooling, because a tank factory is a cheap way to prove succession. The result was the B-4/2 main battle tank (service from 1331, about 340 built to 1352, about 290 in service, a 57-tonne tank with a faceted low-profile turret and a roof weapon station, a 1,500 horsepower V12 diesel and a road speed of 68 km/h). It also held 22 of the 41 surviving PK-P1 Parrot Lord carrier fighters, which were kept as fleet defenders because the line could never be restarted.

CAR fought the first postwar conflict among the successors, the Vinear Coast War of December 1301 to February 1302 AE, against the Kingdom of Antares for the loosely governed, resource-rich Vinear Coast. The dispute began over the port of Bredezen, which Antares had annexed. The Siege of Bredezen and the Battle of Ornwellburg followed, a two-month standoff that Antares broke only with the arrival of its first tank divisions. Both armies fought in the old Republic's tan, and only the colour of the armband told them apart.

CAR was among the nations Malakor Vane bribed during the Turncoat War and counted among the Anestrian successors in the Threshold Accord. It collapsed in 1365.

See also: Anestria, Kingdom of Antares, Federated States of Imperium, New Virgen, Antilla-Vegan Union, Chapters 15, 20, 22, 28.

Corvath

A Numarian realm conquered in 809 AE by Salvador Reyes of Chicano States. Corvath's government had watched Ashwick fall in three weeks and Talgrave endure a full winter siege and still lose, and chose to repeat neither experience. At the Battle of the Corvath Crossing a Corvath covering force was routed with minimal Chicano losses. It was a demonstration more than a contest, and the government sued for terms within days. For the only time in seven years Reyes accepted something short of annexation: Corvath kept a nominal government of its own, operating under his supervision.

After Reyes was killed in 812 AE, Corvath's survivors joined the general rising of the conquered nations. None of the land was retained by Chicano States.

See also: Ashwick, Chicano States, Prynn, Talgrave, Chapter 8.

E

Einsenia

Einsenia is a state linked by origin to Numaria's Eisenreich, the Iron Realm. After the Third War it became the dominant modern power of Candrasia, the small continent across a short strait from Savorus. Old Christonia survives underneath it as the older civilisational identity and was not erased. Candrasia is a deliberately crowded, post-imperial patchwork of Christonia, Einsenia, Northland and Southland, a condition made more marked by the nuclear strike on its cities in the Third War. Einsenia, like its neighbours, is too small to run a serious domestic arms industry. It fields a mix of surplus AR-22A-pattern rifles and modest small-batch domestic work. It lost central government in 1367, with Christonia.

The record is otherwise silent on Einsenia's founding, its capital and its leaders.

See also: Christonia, Northland, Southland, Chapter 10, Chapter 15, Chapter 22.

Eisenreich

The "Iron Realm" of Numaria. It rose from the same mining rush that built Bavaria and became the continent's dominant industrial power generations before the Third Aridexian War, strong enough to conquer and annex the homeland of the two republics that formed the early PUSDR, Altyr and Kargopol. For generations it held PUSDR's people under occupation, and it treated Vessek's resistance as a domestic security problem. The USN, looking for a lever against a rival great power on the same continent, backed PUSDR's underground resistance and government-in-exile as a deniable proxy.

Its arms industry was Ferrengrad Arms, which produced the deliberately crude, over-built IR-11 "Ironhand" rifle, issued to Eisenreich's own troops and to its conscripted subjects alike. In 1284 Eisenreich wrote the requirement for an attack aircraft to police its occupied highlands under gun and short-range missile fire. Ferrengrad Arms flew it in 1292 as the IR-40 "Ironback" and had built about ninety when the Great Revolution captured the airframe hall, jigs and drawings intact in 1300 AE. Eisenreich's soldiers wore oversized dark gunmetal-grey coats over heavy canvas webbing and wide-brimmed steel helmets, with no polish anywhere. PUSDR's red armband was a direct answer to it. The Safemoon Republic was always its neighbour and aligned itself with UARRO rather than with Eisenreich.

The Third Aridexian War shattered the old order everywhere. In that same chaos PUSDR's occupied population rose in a revolutionary civil war, re-established itself as an independent socialist state, and conquered Eisenreich outright. The name no longer appears on a map of Numaria by 1305 AE. Its factories, captured intact, went on producing the IR-11 for its conquerors.

See also: Peoples' Union of Socialist Democratic Republics, Safemoon Republic, Vessek, Bavaria, Chapters 8, 15, 19, 26.

F

Federal Province of Kinzel

Originally a province of Eisenreich near its eastern border. During Eisenreich's civil war its people had had enough of being exploited and revolted. It existed for one month and then decided to join PUSDR as its fourth republic, the Kinzel Socialist Democratic Republic. The record gives no dates and no terms. Its own flag shows green over a thin white line over red, and its republic flag is crimson with the Union's emblem on a gold disc set on an orange band.

See also: Peoples' Union of Socialist Democratic Republics, Taran Kingdom, Eisenreich, Chapters 15, 29.

Federated States of Imperium

One of the five successor states of the Republic of Anestria. It took the name of the first of the three founding kingdoms, the one that sat over the iron-bearing sands, ruled the desert continent's first unification and gave the Ferrosian Empire its capital. The Federated States lie in the northern part of Pan-Anestria, where polities are smaller and more conflict-prone. No capital or leader is recorded.

Its flag is iron-grey with a rust ring, seven stars and an anvil, and its shoulder patch is a rust ring with a star. It dresses in iron-grey with rust trim, an unashamed callback to the Ferrosian iron, and its AR-7 rifles are issued in grey. Its armour crews wear grey overalls.

Its main battle tank is the OMBT-1 (service from 1335, about 230 built to 1352, about 170 serviceable), built by Imperium's state works on shared Anestrian-successor tooling. It is a low-profile tank, 2.0 metres tall by specification, with an autoloaded 130mm smoothbore gun, steeply sloped plate armour with reactive armour, and both hard-kill and soft-kill active protection. A low tank was a cost-conscious way for a smaller state to arm itself. The tanks fought Imperium's own frontier conflicts. The Federated States collapsed in 1365 with the other successors.

See also: Anestria, Ferrosian Empire, Constitutional Anestrian Republic, New Virgen, Antilla-Vegan Union, Chapters 6, 15, 28.

Ferrosian Empire

The first state to unify the desert continent of Pan-Anestria, ruling from 310 to 641 AE. It grew out of Imperium, one of the three founding kingdoms, whose oases sat over the richest iron-bearing sands. By about 220 AE Imperium's smiths made tools and weapons a full step ahead of Antares and Anestria-proper, and the ruling house used the edge for a slow conquest of both neighbours, one generation at a time. The Empire took its name from the iron that built it.

It held for over three centuries because Anestria's oases are naturally isolated from one another, and an empire that already controlled every oasis worth controlling faced no external test. Its capital was Imperium's own. The throne was the Iron Throne. Beneath it an Imperial Governor ruled each oasis, and under the governors stood three great offices. The Water-Courts, run by Waterkeepers, owned the sluices and metered every channel. The Ironguard held the garrisons, with the Sand Riders as camel scouts and raiders. The Collectors took the taxes and the grain tithe. Farmers worked leased water, caravaneers and smiths worked under governor's licence, and the Kharzun clans stood outside the system, never conquered.

The Ironguard, the Empire's heavy infantry, wore a black lamellar coat to the shin, a closed iron helm and a rust-red sash and gorget, and carried a tower shield and a long straight blade. Black and rust were the Empire's colours. By the 600s the governors, generations removed from the first dynasty and answering to a capital most had never seen, had become a hereditary aristocracy holding each oasis as a personal estate. The Ferrosian Rebellion (630 to 641 AE) was

a popular uprising and no palace coup. It deposed the last emperor and replaced the governors with an elected council, and its militia wore a green armband, the oasis colour, as the one thing they had in common. This is the actual founding of the Republic of Anestria in 641 AE.

See also: Anestria, Federated States of Imperium, Kharzun, Chapter 6.

H

Hardluckia

A desert power of Pan-Anestria's unconquerable interior, which it shares with Kharzun and the Schwalbenheimers. The three coexist without a formal border, as Kharzun itself coexists with Anestria, because nothing in that terrain was ever worth the cost of taking it by force. Hardluckia later joined UARRO, so that by the time of Operation Fenwick (1305 AE) the organisation had nine members.

It aligned with UARRO while the Schwalbenheimers aligned with Kargopol, an ideological split through the same stretch of desert that neither government ever needed to fight over. Its rifle is the Drywell DW-3, a basic lever-action desert weapon with sand-toned furniture and a dust-cover flap over the ejection port, cheaply produced and rarely improved. Its clan-style desert kit, loose sand-coloured robes over light body armour and scarf-wrapped faces, is the most uniform of the three interior powers.

Hardluckia's government was one of the last two left standing anywhere on the map. It fell in 1371, the final year of the Fourth Aridexian War, together with the Schwalbenheimers, in the interior that was always going to be the last place the collapse reached. By then "uniform" meant only that two people standing together wore the same sand-coloured rags.

See also: Kharzun, Schwalbenheimers, Anestria, Chapters 9, 17, 22, 27.

K

Karavynic Empire

The first, and for twelve and a half centuries the only, empire to unify nearly all of Numaria. The Litharic Church, carried from the Northern Tureshan Kingdom in the 500s AE, fell on fertile ground among the feuding river-valley chiefdoms of Numaria's north. Within two generations the largest chiefdom, which ruled the fertile lowlands nearest the strait from Drozdov and was first to convert, used the Church's doctrine of rightful, unbroken inheritance to absorb its unconverted neighbours one by one. By 560 AE its ruling house held very nearly the whole landmass under one crown.

It was never at peace. The throne spent its existence putting down revolts and raids, garrisoning river crossings and passes with permanent standing detachments. Because the Church's blessing made suppression "restoration" rather than conquest, the fighting stayed internal, punitive and one-sided. In effect Numaria was at war with itself for nearly a century, in a form organised enough that outsiders reading tribute rolls could call it one empire.

The doctrine that held it together also ended it. Numaria's clergy, free of Tureshan oversight, drifted toward a different reading: whether rightful continuity could pass through a conquered people or only through blood. By 610 AE the priesthood was openly split and a local governor had a religious reason to ignore the capital's priests. In 630 AE the outer provinces went first and seceded: the southern coast, later the ground of Chicano States, and the western mountain fringe, later Arvansk's homeland. In 655 AE the core gave out when the throne could no longer afford its garrisons, and the empire fractured into the mutually hostile territories it had been built from, now with a religious grievance layered on top. Numaria has never been unified since. Salvador Reyes would build and lose a second empire on the same ground without ever knowing the first existed.

See also: Northern Tureshan Kingdom, Arvansk, Chicano States, Chapter 8.

Kharzun

A confederation of interior desert clans in Pan-Anestria's driest, least arable heartland, and a standing contradiction of the Anestrian founding myth. The three kingdoms did not settle an empty continent. Kharzun was already there, and it was never worth the logistical cost of conquest for a young, coastally concentrated state. By the time later Anestrian governments had the reach to try, Kharzun had a couple of thousand years of unified political identity behind it. The Anestrian Craton, the oldest and quietest piece of ground on the planet, carries the whole continent, which is part of why Kharzun's identity has gone unbroken. A civilisation on ground that never moves has less reason to change.

It has never been conquered and sits inside Anestrian territory on every map, which makes it a pressure point whichever direction events turn. Its relationship to the five successor states is deliberately unsettled. It shares its desert with two smaller powers, Hardluckia and the Schwalbenheimers, without a formal border. Pan-Anestria takes its name from the Republic's reach over nearly the whole landmass, and Kharzun's interior is the one honest exception.

Kharzun has no central government to standardise arms. Its clans carry whatever Anestrian, Hardluckian and Schwalbenheimer surplus each can trade for, whether a ROA M4, a Drywell DW-3 or a Schwalbenheim SH-9. Its fighters wear loose sand-coloured robes over light body armour with scarf-wrapped faces, with no uniformity by design. The record does not give the fate of its clans separately from the collapse that took Hardluckia and the Schwalbenheimers last, in 1371.

See also: Anestria, Hardluckia, Schwalbenheimers, Ferrosian Empire, Chapters 6, 9, 26, 27.

Kingdom of Antares

One of the five successor states of the Republic of Anestria, and the restored form of the oldest of its three founding kingdoms. The original Antares held the coast and the caravan roads. It was a trading kingdom of ports and wells named for a star, whose people were archers and riders in cream robes and red kaftans. After the Third Aridexian War the monarchy returned. It holds one of the large blocks of southern Pan-Anestria.

Its flag is a red field with a gold border and a white eight-point star, and its patch is a white star on red. Its guard wears a royal look in red-and-white piping and a gold-edged cap on a sand uniform, while the line army wears the old tan with a red patch. Its AR-7 rifles are issued in faded olive.

In the Vinear Coast War (December 1301 to February 1302 AE) it faced the Constitutional Anestrian Republic over the Vinear Coast, having illegally annexed the port of Bredezen for its salvageable naval infrastructure. It broke the two-month standoff at Ornwellburg with its first tank divisions. Its principal aircraft was the AF-50 twin-engine fighter (first flight 1338, service entry 1344, 36 built, three prototypes and 33 series, by Antares State Aircraft Works on tooling and engines inherited from the old Anestrian industry). The AF-50 was stealth-shaped only where that was cheap and was limited by fixed intakes to under Mach 2. It equipped two squadrons, the most the budget and rationed avionics chips could carry. About 29 were flying. They flew border patrols through the Turncoat War and were lost with the rest of the Antares air force when the government fell in 1365.

See also: Anestria, Constitutional Anestrian Republic, Federated States of Imperium, Chapters 6, 15, 22, 28.

Korveil and the Successor City-States

When the All-Finian Empire dissolved on 17 January 1300 its islands never reconsolidated. Five small independent city-states stand on the Korut chain, and none is large enough to force the other four into line. None has fought another outright, and none has agreed on who speaks for what is left of the Empire.

Korveil is the largest and most industrially capable. It has no claim to the old imperial seat, which lies inside a much smaller neighbour. It holds the seat on behalf of AFN interests in UARRO, which it joined after the 1304 charter, while the other four stayed outside. By the time of Operation Fenwick UARRO had nine members. **Finhaven** is named for and built directly on the Empire's ancient capital. It is militarily and economically the weakest of the five, but every history book still points to it when it says "the AFN", a symbolic legitimacy Korveil resents. **Halvern** is the second largest and mercantile, and it takes no interest in the Korveil-Finhaven rivalry while its shipping lanes stay open. **Tavelin** is small and aligns with whichever bigger neighbour offers better trade terms that year. **Skerrow** is the smallest by far, barely a functioning government, named for an old sailor's word for a bare, isolated rock. Their soldiers kept using existing stockpiles of the FA-6 rifle, which is why they have never needed to agree on a

replacement.

In the Turncoat War Solenne's navy took Halvern, Korveil and Finhaven, then undefended Skerrow, quickly and cleanly. It left only Tavelin uncommitted, and Tavelin dressed in whatever its trading partners supplied. The seizure was the war's one permanent territorial result. Tavelin outlasted its neighbours by a decade and lost its government in 1368.

See also: All-Finian Empire, Solenne, Phaeshan Federation, Chapter 15, Chapter 17, Chapter 20, Chapter 22, Chapter 25.

L

Luluke

Luluke is the oldest continuously existing nation on Aridexia and the first durable civilisation: a loose union of independent city-states in the south of the Central Continent, bound by a culture built around luminonion, a root vegetable central to diet and religion. Its largest founding city-state supplied the ruling family, which formalised into a monarchy at Year 0. Its modern capital is Kaldrun. In the ancient war with Christonia over the Solvane river it won through the armaments firm Irwin's (later AVMS). Irwin's first practical internal-combustion engine, rechargeable battery, AG-01 semi-automatic rifle and brass-armoured AV-1 armoured vehicle gave Luluke a decisive edge. The Treaty of the 200-Year War followed at Year 0.

About 3 AE a new pesticide, viriditas, poisoned the luminonion crop with a food-borne, contagious toxin, Carina-11. Famine, disease and exodus followed, and four new nations were founded: the Syndicate, the All-Finian Empire, Anestria and the Pechorian Federation. Luluke itself survived at a fraction of its former size and shared Savorus with the Syndicate as a small enclave that never competed. It built the first practical electric motor in the 700s, struck gold, copper and rare minerals about 900 AE, and signed a trade compact with the All-Finian Empire in 980 AE.

Luluke never modernised at the Syndicate's pace. Its Kaldrun Pattern rifle, a rugged bolt-action with a carved dark-wood stock, stayed in frontline service into the 1200s. In 1250 it joined the Syndicate, Anestria and the Empire against Christonia, and lost 993 people and 35.2 percent of its economy. Its soldiers wore grey-green wool greatcoats of an old long pattern and a rounded steel helmet with a brass badge. In the Second War it joined HAFDAP with Anestria and the Empire, and adopted a field-grey wool-synthetic jacket only in the war's last years. On 17 January 1300 the allied garrison at Port Dionysis was destroyed and the reconstituted Luluke government collapsed. Luluke has since been a stable, technologically advanced and famously slow-changing state. It and Skotia, the oldest independent trading nations on the continent, lost their trade networks and then their governments in 1368.

See also: Christonia, All-Finian Empire, Syndicate, Savorus, Nations of, Chapter 2, Chapter 3, Chapter 5, Chapter 11, Chapter 12, Chapter 14.

M

Mesaland

Mesaland was a small, contentedly minor island nation off Candrasia's coast, close enough to Christonia to trade with it constantly and far enough to avoid joining it. Its modest economy was tied to Christonian shipping routes. When the Thirty-Day War came it had no army worth the name. It entered the United Syndicate Nations in 1250 as a detail nobody argued about and was never treated as a conquered enemy. When the Second War ended in 1276 Christonia regained independence, but Mesaland ceased to exist as a distinct nation. Its territory and people were absorbed permanently into what remained of the USN and never regained separate status.

See also: Christonia, United Syndicate Nations, Chapter 5, Chapter 11, Chapter 12.

N

Nam Minh

A medium-sized Numarian nation founded after the Second Aridexian War (after 1276 AE) on the continent's southern reach, near Chicano States and the old Vaurek Concession ground. It is a deliberately unaggressive state that came of age watching bigger neighbours' wars. After the Third Aridexian War it joined Kargopol, a natural fit for a nation that had watched Eisenreich's occupation and PUSDR's resistance from next door. In the Reclamation War it declared war on Chicano States in 1319 AE rather than wait to be the next target of a state visibly rebuilding its appetite, with PUSDR supplying material and logistical support but no troops.

Its soldiers use the Minh Chau MC-2, an olive-green polymer assault rifle built from its first production run around Kargopol's 7.62mm ammunition standard. They wear olive-green polymer-and-cloth fatigues with a cloth cap or boonie hat, the least aggressive-looking uniform of the Reclamation War. Its one native armoured vehicle is the DLT-1, a very low, cheap light tank destroyer. Other equipment came from PUSDR: the CKK-10E1 "Poing-B" attack aircraft (about 36, from 1316), the DKK-5E1 "Flashfire-B" interceptor, and the Light Vessel IV corvette, a joint project with PUSDR's yards building the hulls to Nam Minh crews and coastal doctrine (14 built 1339 to 1352, 12 for Nam Minh, 83 metres long, 1,150 tonnes, 28 knots). The aerospace bureau that designed PUSDR's MSSB-1 stealth bomber was of Nam Minh origin and outlived its home country.

Nam Minh was a member of VAPIK, PUSDR's coalition in the Turncoat War, and lost its protection when PUSDR fell. It collapsed in 1369.

See also: Peoples' Union of Socialist Democratic Republics, Yeshuren Union, Chicano States, Vaurek Concession, Chapters 17, 19, 20, 22.

New Virgen

One of the five successor states of the Republic of Anestria, in the northern part of Pan-Anestria, where polities are smaller, more numerous and more prone to conflict. No capital, leader or founding date is recorded beyond the fracture of 1300 to 1302 AE.

Its flag is blue with a six-petal white lily, and its shoulder patch is a lily on blue. Its soldiers wear the old Republic's tan with a blue sash and cap band, and its AR-7 rifles, built on the tooling shared by all five successors, are issued in olive-drab.

New Virgen was among the Anestrian successors bribed by Malakor Vane to sabotage rival off-world programmes in the Turncoat War, and was one of the Anestrian successor states targeted by Bavarian and Pechorian proxy movements in 1361 to 1363. It lost its government in 1365 with the other Anestrian successors.

See also: Anestria, Constitutional Anestrian Republic, Kingdom of Antares, Federated States of Imperium, Antilla-Vegan Union, Chapters 15, 20, 22.

Northern Tureshan Kingdom

The civilisation of Drozdov before Bavaria. For most of Deep Prehistory and the whole of the Classical Age, Drozdov's temperate southern coast supported a single continuous royal line that for the better part of a thousand years fought no war worth naming. The ground was so stable (the quiet trailing edge of the Numarian Plate) that it had no geological reason to either.

Its end was arithmetic. Drozdov's resources were thin and diffuse, and every generation found that the booming trade networks of Savorus and Candrasia, first Luluke's and then the Syndicate's, paid better and asked less than another season on the quiet coast. The emigration was a slow westward bleed and no exodus, and by roughly 950 AE the last true Tureshan settlements were too thin to support a court. The land was never conquered. Its people walked away from it.

The one institution that outlasted the Kingdom was its state religion, the Litharic Church, formalised around 400 AE and built around continuity and inheritance. It emigrated with its population, and by the 500s AE Tureshan traders and missionaries had carried it across the strait to northern Numaria, where it found an audience hungry for the continuity Numaria had never had. It became the doctrinal foundation of the Karavynic Empire. Bavaria's prospectors, arriving about fifty years after the last settlements faded, found ground with no one left to contest it.

See also: Bavaria, Karavynic Empire, Chapter 8.

Northland

Northland occupies Candrasia's northernmost tip. Before it was a state the region was a neglected Christonian frontier garrison district, too small and cold to incorporate, held by a scatter of mutually hostile clan-holdings under one distant flag. After the nuclear strike on Christona in 1300 destroyed the government with nominal authority over the district, **Nikolai Nichozh** (born 1225) turned his garrison command outward and unified four clans by force. He was the son of a Christonian garrison general who gave him a name from the old root-words for "worthless", and of a conscripted labourer, and he stood 6 feet 6 inches tall. A conscript at 25 in the Thirty-Day War, he rose to captain by about 30, held the frontier command through the Second War, and was the district's senior officer in 1300.

The Verrenkai and Kholvag came in peacefully. The Drenmoor needed convincing, and Nichozh burned two border settlements. The Oyun-Tash held out in their highlands, and their fighting-age population was executed after a siege. The state still calls it "the hard winter of unification". In February 1303, in a battle that killed thousands in one glacial valley, the 78-year-old Nichozh lost the use of an eye. Northland was founded that year. His father fled to a holdout faction and died in a night-long confrontation with him, in a version of events only Nichozh survived to tell. Nichozh abolished slavery by decree, built a relief corps for the underclass he came from, and ruled a mutualist, civic-nationalist welfare state. His younger half-brother led the ethno-supremacist Iron Union in a cordoned enclave, and Nichozh personally authorised its destruction, instructing commanders in a surviving order not to take the garrison alive. He died in 1328, aged 103, venerated almost as a living god. A gold-and-cream band across the eyes was his signature, which let a devout culture avoid beholding a god's face. Northland's dress uniform is purple and black: a long dark coat over armour, gold trim, and a purple mantle for officers.

Northland was a full UARRO member from the 1304 ratification. A few years after its expansion its lower third separated as Southland, and the two have acted jointly since. Its hardware is modest: the IAD-4 "Goshawk" light fighter, the RVO-1 "Lammergeier" reconnaissance aircraft, an unfielded UMFI unmanned interceptor prototype, the GC-1 Andrew gunnery car (about 260, 1334 to 1349), and the IADM-6 (about 40, 1349 to 1356), an airframe descended from PUSDR's DKK-1 and obtained quietly through Xue Lin. In the Turncoat War the joint government took Malakor Vane's bribes, and in late 1359 it signed the Threshold Accord. Its capital fell in 1365.

See also: Southland, Christonia, Einsenia, Tianhai / Xue Lin, Solenne, Chapter 10, Chapter 20, Chapter 22, Chapter 27, Chapter 28.

P

Pechorian Federation

The Pechorian Federation was founded in 3 AE, the same year as the Syndicate, by a smaller diaspora group that followed the Syndicate's route west and then sailed north to settle a long, cold coastal strip above the Syndicate's own territory. It chose that ground because it was not worth fighting over. It has stayed independent of the Syndicate, USN and Solenne lineage ever since: never conquered, never absorbed, and left alone by bigger neighbours with bigger fights. Its economy was fisheries and modest shipping.

Its standard arm is the Pechora PK-2, a short bolt-action carbine in a weatherproofed grey finish with a padded stock, which has needed no upgrade in a thousand years of never being attacked. Its troops wear matte-grey felt-lined jackets, fur-trimmed hoods, insulated boots and goggles. The Federation invests in a few extremely capable platforms and not in numbers: the MK-72M1XT main battle tank with a low unmanned turret and layered composite and reactive armour (about 90 built, 1338 to 1356), the MK-299 low-observable multirole fighter, and the MK-113 "Khazar" two-seat light attack aircraft. Its seven PSB-4 Ostrog strategic bombers (first flight 1348) were built with Solennese money and engines under the PSU. They flew stand-off missile strikes in the Turncoat War, where two were lost over the Korut front.

The Federation signed the UARRO charter as a full member in 1304 and later joined the Pan-Savoran Union, whose funds Malakor Vane used for Project Turncoat. It was in the Turncoat War's invading coalition. In 1361 to 1363 it and Bavaria armed separatists inside Anestria's successor states, keeping the matter quiet. It lost its government in 1366.

See also: Syndicate, Solenne, Savorus, Nations of, Chapter 5, Chapter 17, Chapter 20, Chapter 22, Chapter 27, Chapter 28.

Peoples' Union of Socialist Democratic Republics

Usually called PUSDR. It is the Numarian revolutionary state that anchors Kargopol, and the most important fact about it is that occupier and occupied traded places within five years. It is a union of states and never a single country. Four republics stand in it: Altyr, Kargopol, Taran and Kinzel. Kargopol names both one of those republics and the alliance bloc the Union anchors, and the city of Kargopol is the Union's natural capital.

Origins. In the years before the occupation the early PUSDR was just two states. The Republic of Altyr was a small agrarian state formed after several tribes of Numaria were forcibly relocated by Eisenreich. Its neighbour, the Socialist Republic of Kargopol, had been driven from its homeland by the same power, and an influential activist, Nikolai Chezkiv, had turned its struggling people to socialism. As Eisenreich expanded west toward Altyr, Kargopol showed its neighbour socialism, which Altyr had not known, and Altyr turned socialist quickly. Kargopol, fearing the expanding Eisenreich, then proposed the Yedinstvo Treaty, which joined the two as the Peoples' Union of Socialist Democratic Republics. One of its key terms was that any republic unhappy in the Union could hold a statewide referendum and leave it peacefully. The Union's homeland was conquered and annexed by Eisenreich. For generations its underground

resistance and government-in-exile fought on, joining the Communist Power Alliance unofficially by the 1260s, backed by the USN as a deniable proxy against Eisenreich. Tianhai formed a personal friendship with the movement after 1276 AE. The resistance fought with captured IR-11 rifles, smuggled AR-22 carbines and a single red cloth armband as its only common marker, and red became PUSDR's colour. When the Third Aridexian War broke the old order in 1300 AE, its occupied population rose in a revolutionary civil war (the Great Revolution) and declared an independent socialist state, the Union restored. In the ensuing civil war in Eisenreich it gained two more republics, the Taran Kingdom, a breakaway from Eisenreich that lasted a few years before joining, and the Federal Province of Kinzel, which revolted from Eisenreich, lasted one month and then joined. It captured Eisenreich's Ferrengrad factories intact and by 1305 AE had absorbed Eisenreich entirely.

Structure. The four republics sit in one Council of the Union at Kargopol, each with a delegation of the same size. Altyr is agrarian and Kargopol is industrial, and each held its place in the Union's emblem for that reason. Taran is a former monarchy and Kinzel was a republic for a month before it joined. The referendum clause of the Yedinstvo Treaty stayed in force, so any republic could in principle leave, and the record names no vote held under it. Each republic has its own flag, the Altyr Federal Socialist Democratic Republic, the Kargopol Socialist Democratic Republic, the Taran Socialist Democratic Republic and the Kinzel Socialist Democratic Republic.

Flags and emblem. The emblem is a hammer for the working class between a gear for Kargopol and a sickle for Altyr, under a star for socialism. Dark red stands for the sacrifice of the people of both founding republics and gold for the future and the grain. The Union's first flag, used before the occupation, is a dark red field with a gold star above the emblem. The flag of the Great Revolution adds a gold band for the new republics of Taran and Kinzel and for the revolution cutting across the flag as it cut through Eisenreich. The flag used after the occupation ended, after Eisenreich was absorbed in 1305, adds uneven gold rays for the Union as a guiding light and for liberty and revolution arriving at once. See Chapter 29.

Alliances and wars. Kargopol formed around it about 1301 AE. PUSDR's prime was the early Kargopol years, from the bloc's formation about 1301 to the absorption of Eisenreich and the move on Safemoon in 1305. In that stretch it carried the alliance and led it: the largest ground and air fleets in the registry, the only full arms industry on the continent, and the ammunition standard the rest of Kargopol built to. The Yeshuren Union became a nominally sovereign client, and Nam Minh and Tianhai joined. Its encirclement of the Safemoon Republic was the direct trigger for Operation Fenwick (1305), where Solenne answered. It backed Nam Minh in the Reclamation War (1318 to 1320). In the Turncoat War (1354 to 1358) it led VAPIK, with Vessek, Safemoon, the Yeshuren Union and Nam Minh, under its young head of state Cassius Altyr (born 1329), who inherited the leadership instead of earning it in the revolution. Operation Fenwick ended that peak. UARRO closed ranks around Safemoon in 1305 and PUSDR's bid failed, so the leader of Kargopol lost to UARRO at its first real test. Its factories kept running and it stayed the largest arms producer on Numaria, but it never again projected power beyond its own borders or

led the bloc as it had, which is why the Turncoat War stalled on the ground, and in 1366, the year Numaria and Drozdov fell together, it lost its government.

Arms. Its People's Revolutionary Army, Airborne Landing Force and People's Revolutionary Air Force were equipped by the Zhokrova Tank Plant, the Ferrengrad works and the Dimikrov Katinka Krasny (DKK) and Chernova Katinka Krasny (CKK) bureaus. The designer Antiko Khoshlikova produced the PAS-12 pistol, AS-15 submachine gun, AS-17 7.62mm rifle (the reference for Kargopol's ammunition standard), ASM-18, ASM-19, ASK-10 and ASP-20. The first captured weapons became the People's IR-11M, IR-10 and IR-15. The JH-1 tank line began in 1306 from the OT-3, chosen over the more advanced OT-5 and the OT-7 because it was cheaper. The JH-1AZ "Stena" (1331) numbered about 1,900, and about 4,600 for the whole family including the JH-2, JHT-3 and ZH air-defence variants. About 150 JH-1AZ-B followed from 1352. The BH-10 "Volnyk" airdrop infantry vehicle (1326, about 540 plus 110 RH-10) served the Airborne Landing Force. In the air the DKK-1 "Flapjack" (service 1309, about 1,100, plus 160 export, 96 naval and about 450 rebuilt DKK-1M) and the CKK-10 "Poing" (service from March 1303, about 1,050 plus 130 new-build in 1356 to 1357, rebuilt from Eisenreich's IR-40) did the work, with the DKK-80 "Grendel" helicopter (1321, about 430). The DKK-7 "Frenzy" was the primary stealth fighter, and the seven-aircraft MSSB-1 strategic stealth bomber was a status symbol aimed at Solenne and never a fleet.

Its uniform is dark red and grey with a red helmet band. Airborne troops wear compact composite gear and the leadership dresses in maroon and gold.

See also: Eisenreich, Republic of Altyr, Socialist Republic of Kargopol, Taran Kingdom, Federal Province of Kinzel, Yedinstvo Treaty, Chezkiv, Nikolai, Yeshuren Union, Nam Minh, Vessek, Safemoon Republic, Chapters 8, 15, 17, 19, 20, 22, 26, 28, 29.

Phaeshan Federation

The Phaeshan Federation was a loose union of trading city-states that once held the Korut chain of islands. About forty years before Year 0 a chain-wide sequence of eruptions and tsunamis struck most of its coastal cities within a few years. The evidence is disrupted stratigraphy and a silence in the few surviving written records. What happened to its population, whether death, scattering or both, cannot be recovered. When All-Finian ships arrived about four decades later, after the 3 AE diaspora, the cities were ruins, the harbours reshaped, and there was nobody left to ask.

See also: All-Finian Empire, Korveil and the Successor City-States, Chapter 3, Chapter 25.

Prynn

A Numarian realm centred on a mountain fortress, and the one war of Salvador Reyes that he did not win cleanly. In the autumn of 810 AE the Chicano First Marshal attacked the fortress directly and was thrown back with heavy losses, against defences conventional infantry tactics could not carry. He settled in for a blockade through the winter and into 811 AE. Prynn held for the better part of a year until hunger forced its surrender, and the field army never beat it. It was the hardest of the five campaigns because the fast, personally led strike that had worked everywhere else did not apply.

When Reyes died in 812 AE, Prynn took part in the general rising of his conquests, and none of the land was retained.

See also: Ashwick, Chicano States, Corvath, Talgrave, Chapter 8.

R

Republic of Altyr

A small agrarian state formed after several tribes of Numaria were forcibly relocated by Eisenreich. As Eisenreich expanded west toward it, its neighbour the Socialist Republic of Kargopol, which had suffered the same removal, showed it socialism, a concept Altyr had not known, and the poor country turned socialist quickly. Altyr and Kargopol then joined by the Yedinstvo Treaty as PUSDR. Altyr was the more agrarian of the two and so took the sickle in the Union's emblem, as half of the Union. Its own flag is pale with a sky-blue star and two sky-blue stripes. Eisenreich conquered and annexed it with Kargopol, and the Union restored it after the Great Revolution as the Altyr Federal Socialist Democratic Republic, whose flag is dark red with a white star over the emblem.

See also: Peoples' Union of Socialist Democratic Republics, Socialist Republic of Kargopol, Yedinstvo Treaty, Chapters 15, 29.

S

Safemoon Republic

A small, defensively postured Numarian nation whose capital is Moonhaven. It was always Eisenreich's neighbour and aligned itself with UARRO rather than with Eisenreich or later PUSDR. Over the centuries Chicano States squeezed it down to the ground immediately around Moonhaven and, in the Ashfields Campaign, burned its hinterland farmland and fouled its wells. Safemoon clawed most of the land back once Chicano's grip loosened after the Second Aridexian War.

The fall of Eisenreich left it half-encircled by PUSDR, the trigger for Operation Fenwick in 1305 AE. Safemoon was a full UARRO member from the Charter's ratification, so its situation was a binding obligation for Solenne and no mere humanitarian concern. In AE 1303 Safemoon founded the Moonhaven Spaceflight Authority and began the Sanctuary Program, building on DS-HP's launch sites and tracking stations. Two uncrewed precursor flights flew in 1304 and 1305. In 1307 Sanctuary I carried commander Ilsa Marrenkov and pilot Dorian Vask to Lira's surface and home, the first Aridexians to leave their planet. Marrenkov's recorded first words were "Solid ground, and none of it ours to lose," and are taught unaltered in Safemoon schools.

In the Reclamation War it declared war on Chicano States in Vessek's defence, was driven back to Moonhaven and held there, a siege that taught it not to rely on a thin line of defenders.

Its equipment is defensive and often overbuilt. The rifle is the Moonhaven MH-4, a heavy-barrelled weapon with a standard bipod. The V-1201 "Titanmover" is a 188-tonne turbine-electric breakthrough vehicle designed in 1321. Four were built from 1326 to 1334, three operational by 1357, one lost to a drivetrain fire in 1339 and one rebuilt as Variant B in 1346, each costing about twenty JH-1AZs and paid for with UARRO resource-sector money. A railgun carrier conversion in 1349 never entered service and was cannibalised in 1353. Other designs include the ACS-1 Bastion Combat System body armour, the WMA-09 "Bat" interceptor, the CCAS-1351 "Odin" heavy-lift transport, the FTS-100 "Swiftline" coastal carrier, the LR/MA rocket launcher, the LSA 3109 super-heavy howitzer and the VMWP-902 A quad-cannon vehicle. Its soldiers wear charcoal-blue heavy fatigues and bulky padded rigs, built to hold a position.

It was a member of VAPIK in the Turncoat War and lost its government in 1366.

See also: Chicano States, Eisenreich, Peoples' Union of Socialist Democratic Republics, Vessek, Chapters 8, 15, 17, 19, 22, 26, 28.

Savorus, Nations of

Savorus is the temperate continent the Syndicate settled, and it is the reserved continent of the map: older, more settled, with fewer and larger nations. Its soil gave the continent its name, from an old Luluke word for "flavourful, sustaining ground". Four polities share it. The Syndicate, later the United Syndicate Nations and then Solenne, holds the greater part. Luluke's small enclave shares the landmass. It arrived diminished from the Carina-11 famine and was never a competitor, and the two trade across their border. Tianhai, later Xue Lin, is the small educated enclave that broke away in 1252. The Pechorian Federation holds the long, cold strip along the northern edge. Savorus and Candrasia sit together on the Savoran Plate, which is the geological reason the two are treated as one landmass.

See also: Syndicate, Solenne, Luluke, Tianhai / Xue Lin, Pechorian Federation, Chapter 4, Chapter 5, Chapter 25.

Schwalbenheimers

One of three powers of Pan-Anestria's unconquerable desert interior, with Kharzun and Hardluckia, sharing it for the same reason: nothing in the terrain was ever worth taking. The state is also referred to as the Schwalbenheim Republic. It aligned with Kargopol while Hardluckia aligned with UARRO, an ideological split down the same stretch of desert that neither government ever needed to fight over.

Its rifle is the Schwalbenheim SH-9, rebuilt around Kargopol's standard ammunition after the alliance formed and replacing older desert-pattern stock. It is a hybrid whose older wood furniture sits visibly awkwardly on a newer barrel and action. The AS-17 is fielded across Kargopol, including in the Schwalbenheim Republic. Its troops wear the same loose sand-coloured robes, light body armour and scarf-wrapped faces as the other interior powers.

With Hardluckia, it was one of the last two governments left standing anywhere. It fell in 1371, the final year of the Fourth Aridexian War.

See also: Kharzun, Hardluckia, Peoples' Union of Socialist Democratic Republics, Chapters 9, 17, 22, 27.

Skarnovian Colonies

Skarnovia was claimed early, by sail, and without asking the people who lived there. The Syndicate made a formal claim by about 20 AE, and Anestria and Christonia arrived within the next two centuries. By about 210 AE the three claims had hardened into borders drawn along whatever river or ridgeline each surveyor reached first. Skarnovia is named for skarn, the mineral-streaked rock found along its northern coast. The Skarnovian Plate converges with the Savoran Plate there, which is why the continent has coal and iron. The four states are in a two-thousand-year-old colonial grudge match that simmers and rarely boils over, because none can beat the other three combined.

Ostrenia was Christonia's colony, the largest, built around the coal and iron belt and run as a resource colony. It is a technocratic, faintly authoritarian state that still exports raw ore to the country that once owned it, and resents it. **Velemira** was Anestria's holding, agriculturally richer, in the south. During the Second War, with the metropole absorbed in the Pelruvian campaign, it declared independence in 1268 almost as an afterthought. It is Skarnovia's most stable state. **Kesarova** was the Syndicate's, later the USN's, the oldest claim and the most integrated into its metropole. When the USN ended in one day in 1300 it received no negotiated independence and no transition, and its chronic weak governments and ore-shipping infrastructure trace to that day. **Dravensk** was never conquered. All three colonisers judged the highland interior not worth pacifying, and its people stayed armed and mobile. It is landlocked and poor, surrounded by three states that each hold a colonial-era paper claim to slices of it, and it is the continent's most reliable flashpoint.

None funded its own arms industry. Ostrenia was issued surplus AG-14s, Velemira surplus ROA M4s, Kesarova AG-40-era repeaters, and Dravensk fights with a patchwork of captured weapons. Their uniforms follow their metropoles' discards: old Christonian khaki, Anestrian desert tan, Syndicate drab. Ostrenia, Velemira, Kesarova and Dravensk all lost central government in 1367.

See also: Skotia, Christonia, Syndicate, Anestria, Chapter 7, Chapter 25, Chapter 26, Chapter 27.

Skotia

Skotia is an old seafaring island nation off Skarnovia's coast, like the All-Finian Empire but entirely separate from it. It was founded in the same general era as the Syndicate. It was never part of any colonial scramble and has stayed independent throughout. It is the one Skarnovian power with domestic arms production of any size, centred on the Skotharbor yards and aircraft works. Its rifle is the Skotharbor Pattern, a maritime lever-action and bolt hybrid with weathered brass fittings and a rope-wrapped foregrip. Its SG-16 "Veyra" single-engine light fighter flew first in 1325 and entered service in 1328. It fell short of its requirements and was moved to training from about 1338. About 120 were built by 1346. Its troops wear weathered blue-grey with brass fittings turned green and rubberised waterproof outerwear in every branch.

Skotia was in the Turncoat War's invading coalition and its Veyras flew coastal patrol for the Pan-Savoran Union. In 1368 it and Luluke lost their trade networks and then their governments.

See also: Skarnovian Colonies, All-Finian Empire, Luluke, Chapter 9, Chapter 22, Chapter 27.

Socialist Republic of Kargopol

An industrial state formed after its people were expelled from their homes by Eisenreich. It turned socialist when an influential activist, Nikolai Chezkiv, changed the minds of a nation struggling financially. After the socialist republic was formally founded, its government saw Eisenreich expanding west at a terrifying speed and proposed to its neighbour, the Republic of Altyr, the Yedinstvo Treaty, which joined the two as PUSDR. Kargopol was the more industrial half and so took the gear in the Union's emblem. Its city, Kargopol, was the occupiers' seat of government under Eisenreich and is the Union's natural capital. The name also belongs to the alliance bloc that PUSDR anchors (see Kargopol in Chapter 17). Its own flag is a dark red field cut by white rays edged in navy, with a navy disc at the centre. After the Great Revolution it is the Kargopol Socialist Democratic Republic, whose flag is crimson with a white and gold diagonal stripe and a small emblem at the hoist.

See also: Peoples' Union of Socialist Democratic Republics, Republic of Altyr, Yedinstvo Treaty, Chezkiv, Nikolai, Chapters 15, 17, 29.

Solenne

Solenne was founded in the months after 17 January 1300, in the devastated Syndicate heartland and the Pelruvian Islands, the territory of the United Syndicate Nations. It is named for Solis, the system's star, and its colour is solar yellow, worn nowhere in the USN's drab palette. It was presented to its citizens as a full democracy built to be everything the USN was not. Its flag is a deep blue field with a cream hoist band bearing five seals and, in the centre, a sixteen-ray gold sun round a five-point star in a laurel ring, where the USN's ouroboros once stood. The Jakaar's standard adds a double gold border with a gold star in each corner. USN flags and symbols are illegal there.

The head of state is the Jakaar, elected for eight years in three stages, with the right to appoint one politician of their choice straight into the final election. After two terms a Jakaar may run again with 60 percent of the vote. Taxes divide 50 percent to the central government, 25 percent to a regional pool and 25 percent to programmes the taxpayer chooses. There is no legislature, court or election authority independent of the Jakaar's appointees, and Department-Y, nominally a research body, keeps files on the population's politics. The system was designed by **Farren Vane** (born 1262), a USN general who foresaw the collapse, erased his own record and won the first election. He served 1300 to 1308 and handed power down a chain of loyal successors. His son **Malakor Vane**, born in 1337 and raised under a cognitive programme with IQ 260, entered the final election at 16 in 1353 and won.

Solenne inherited the USN's industry. Its SR-30 rifle (adopted 1303, 5.6mm Solennese, built by AVMS) replaced the AR-22. Its first indigenous vehicle was the TV-24 Tempest (about 1,450 TV-24A and about 360 TV-24B). It is the largest arms producer on the map: the F/A-8 Chimera (about 210), VBA-478 Wraith, GA-7 Anvil, N-14 "Asmedeus", N-15 "Flex", SCV-67 "Blowback", SPH-155, the White Lightning directed-energy tanks (214 DET-3Cs), the Kaelis battleships (two built), the supercarrier SCS-98 "Phantom Seas", and the F-A-25 prototype (about 22). Its space programme runs from Koedul-1, the Velis-1 probe and the Asmedeus-1 booster (about 312 launches, 1337 to 1359) to the Asmedeus II crew transport that carried the first Typhon settlers in 1341. Its troops wear grey-tan plate carriers trimmed in yellow.

In 1304 it signed the UARRO charter as a Founding Member with a permanent veto. Its agency VEIL is the alliance's intelligence hub, and it leads UARRO's dealings with the space body DS-HP. It ran Operation Fenwick in 1305 from a remote forward base, with Tempest armour, N-14 strike aircraft carrying AGM-11 "Inferno" missiles and Serbius and Arquem transports, and its crews went in undertrained. It stood aside in the Reclamation War of 1318 to 1320, and its first Typhon settlers, several thousand strong, reached the Hearthlands in 1341. The Departments of Defensive Logistics and of Trial are among its appointed ministries. It later founded the Pan-Savoran Union. In the Turncoat War (1354 to 1358) it took the Korut Islands but could not conquer Numaria, and Malakor left for Typhon mid-stalemate. It signed the Threshold Accord in late 1359 and its homeland government fell in 1365.

See also: United Syndicate Nations, Syndicate, Korveil and the Successor City-States, Tianhai / Xue Lin, Chapter 15, Chapter 16, Chapter 17, Chapter 19, Chapter 20, Chapter 21, Chapter 22, Chapter 26, Chapter 28, Chapter 29.

Southland

Southland is the lower third of Northland, which split away a few years after Northland's expansion under Nichozh. Both governments agreed to the separation, and war had nothing to do with it. The two have operated very closely together ever since and are usually written as the joint Northland-Southland government. They signed the Threshold Accord together in late 1359 with Solenne, Chicano States and Anestria, and Malakor Vane bribed them during Project Turncoat. Southland shares Northland's surplus AR-22A rifles and its black-and-purple uniforms, and its aircraft are those listed under Northland. The joint government lost control in 1365, in the Accord's first collapse.

See also: Northland, Einsenia, Christonia, Solenne, Chapter 10, Chapter 20, Chapter 22.

Syndicate

The Syndicate was founded by the largest group of the Luluke diaspora, which sailed west about 3 AE to Savorus, a temperate and mountainous continent. Its people brought literacy and craft but no state, and built "feudalism by contract": twelve fiefs held by signed, revocable bonds. Their houses were Aldrek, Brasmere, Corvane, Dunmar, Esselt, Falkreth, Garnoth, Halvane, Ilmar, Jurak, Kessane and Lorrow, each with a colour, a charge and a role. A Table of twelve Lords-Principal made war and peace under an annual Chair. A Ledger Court, supplied by House Esselt, kept the law, and Marshals commanded Bannermen, Pass-Wardens and, from the 200s, hired companies. Its weapons ran from the stonebow to the thunder-pipe (about 290 AE) and the arquebus (about 320 AE). By about 340 AE land rent was worth less than freight, and the fiefs became twelve chartered trading houses, the Table a board and the Chair a chairman. Its seal's twelve beads still stand for the fiefs.

The engineer Vakkar Koedul (about 360 to 412 AE) built the first freight rail and canal network on Savorus, and by 400 AE the continent was industrialised. Its capital is Corvenna. From the 700s its trading companies bought Christonia's industrial base by contract, and by 1000 AE most of Christonia's industry answered to Syndicate boardrooms. It claimed Skarnovia by about 20 AE and, with Anestria, funded the Long Survey that charted the two poles. Its flag is black and gold, with a gold ring of twelve beads round three peaks over water. Its weapons trace from the AG-01 through the AR-22 "Vanguard", built at AVMS's Corvenna works. In 1250 it declared war with Anestria, Luluke and the All-Finian Empire after the Renner bombing of its financial district. The Thirty-Day War cost it 1,442 dead and 16.3 percent of its economy. Its army wore dark olive-drab wool with a brass AVMS-style crest pin on a high collar, and its navy flew the flag with the hoist band moved to the lower edge. The victors formed the United Syndicate Nations.

See also: United Syndicate Nations, Solenne, Christonia, Luluke, Pechorian Federation, Skarnovian Colonies, Chapter 4, Chapter 5, Chapter 11, Chapter 26, Chapter 27, Chapter 29.

T

Talgrave

A Numarian kingdom conquered by Salvador Reyes of Chicano States in 807 to 808 AE, and the one that cost him most among his conventional campaigns. At the Battle of the Tolgen Fords in 807 he forced his army across a defended river line. It was the bloodiest day of any of his non-Vessek wars, and he won it only because he personally led the third crossing attempt after the first two broke. Talgrave's government withdrew into its fortified capital, Vantor, and held through the winter of 807 to 808 in a siege that dragged for months, the cold hurting the besiegers nearly as much as the besieged. The garrison surrendered in early 808, malnourished and out of powder, and the Talgrave Armistice ended the war. The kingdom lost because it ran out of everything at once.

Talgrave rose against the Chicano garrisons when Reyes died in 812 AE, and kept none of Chicano's land afterwards.

See also: Ashwick, Chicano States, Corvath, Prynn, Chapter 8.

Taran Kingdom

A kingdom that broke away from Eisenreich during its civil war and lasted only a few years before joining PUSDR as its third republic, the Taran Socialist Democratic Republic. The record gives neither the dates nor the terms. Its own flag is navy, white and dark red in horizontal bands, with a white patterned ornament at the hoist. The republic flag is crimson with the emblem on a shield over a gold, navy and gold band.

See also: Peoples' Union of Socialist Democratic Republics, Federal Province of Kinzel, Eisenreich, Chapters 15, 29.

Tianhai / Xue Lin

Tianhai was a small, dense, extraordinarily well-educated enclave of Savorus that broke away peacefully in about 1252 AE, soon after the Thirty-Day War, and has never rejoined. The USN had just absorbed Christonia and Mesaland and could not afford to hold a cooperative population of scientists, engineers and administrators with no strategic resources, so it let Tianhai go and kept it as a technical partner. After the Second War, Tianhai befriended PUSDR's resistance and government-in-exile, which the USN was also quietly backing. When PUSDR's revolution succeeded it followed its friend into the Kargopol bloc, although it borders Solenne. The membership stayed on paper: it never admitted Kargopol forces or fought in the Fenwick-era conflict, and Solenne never attacked or sanctioned it.

When UARRO reverted to a trade body and Solenne founded the Pan-Savoran Union, Tianhai joined it and renamed itself Xue Lin, a deliberate clean break, though its population and territory are continuous. Its rifle is the Tiancheng TC-1, a small-batch precision weapon, and its troops wear minimalist pale-grey fatigues with a small discreet crest. It never took Kargopol's AS-17 ammunition standard or the DKK-1E1 export fighter. It was in the Turncoat War's invading coalition and its government fell in 1369.

See also: Solenne, Pechorian Federation, Northland, Savorus, Nations of, Chapter 9, Chapter 17, Chapter 20, Chapter 22, Chapter 27.

U

United Syndicate Nations (USN)

The United Syndicate Nations was created in 1250 AE, after the Thirty-Day War, when the victorious Syndicate absorbed the defeated Christonian Empire and the island nation of Mesaland into a single reconstruction union. Its flag was black and crimson, with an eight-wedge field and, in the centre, an ouroboros whose dashed body marked the seam between the three. After the Talona Crisis it added an Eye for the Office of Watch. It was the anchor of the Communist Power Alliance (CPA), which also included Bavaria, and it backed PUSDR's resistance with smuggled AR-22 carbines, keeping the aid quiet.

In 1264 it seized the Pelruvian Archipelago for its offshore petroleum, and the Second Aridexian War followed. It lost Christonia and Mesaland by 1276, but the dictatorship did not fall. It tightened. The Talona Crisis (1286 to 1290) ended with the breakaway reabsorbed as an autonomous province, and the survivors of Operation Black-Snake became the Black-Snake Corps, its praetorian guard. Its army wore charcoal-olive field jackets with stamped steel pins. Its rifle was the AR-22, upgraded to the AR-22A after the Second War. It built the Serbius transport, first designed in 1291.

Between 1299 and 1300 it ran a secret Uranium Crisis nuclear programme, supplied from the Vaurek Concession. In the early hours of 17 January 1300 eleven bomber squadrons dropped six warheads on Port Dionysis, Christona, Apokka, Sulsbury, New Geneva and Freeport. The All-Finian Empire answered with two. Anestria destroyed the USN's cities with conventional bombers, and its marines took the capital that evening. The dictatorship that had ruled the Syndicate heartland for over a thousand years ended in an afternoon. Kesarova, its colony, lost its metropole with it. Solenne was founded in its wreckage.

See also: Syndicate, Solenne, Christonia, Mesaland, Confederate States of Talona, Tianhai / Xue Lin, Chapter 11, Chapter 12, Chapter 13, Chapter 14, Chapter 26, Chapter 27, Chapter 29.

V

Vaurek Concession

A leasehold mining operation in the remote southern ground of Numaria that Chicano States had just been forced out of. On paper it was held by a trading company chartered by the USN. In practice, and never on paper, it was the supply line behind the Uranium Crisis of 1299 to 1300 AE: ore extracted far outside the USN's inspectable territory, refined off the books and shipped home labelled as something else. No inspection regime existed yet to catch it, and the vacancy left by Chicano States' fall made the site useful. The USN's dictatorship preferred to route its bomb programme through someone else's recently vacated backyard rather than build an enrichment site its neighbours could watch. The ore became six warheads, the entire smuggled stockpile, all spent on 17 January 1300 AE.

When the Third Aridexian War ended the USN, the Concession's ownership became void overnight, a company chartered by a state that no longer existed on a lease nobody was left to enforce or revoke. Solenne inherited no clear claim. Its status was left unresolved. Nam Minh was later founded on Numaria's southern reach near the same ground.

See also: Chicano States, Nam Minh, Solenne, Chapters 14, 15.

Vessek

The original people of Numaria's mountainous core, a highland nation never formally conquered by anyone. It was out-populated and out-capitalised, and pushed into ever smaller pockets of the mountains whose name it carries. Whoever held the rest of the continent, Eisenreich and later PUSDR, treated its continuing resistance as a domestic security problem and never as a political one, which is the framing that keeps a conflict unresolved for centuries.

Its record against invaders is unbroken. Around 795 AE Chicano States seized a quarter of Vessek. During the Long Campaign (805 to 812 AE) Reyes won the Battle of Dorrenheim Heights in 806 and by 811 held about 80 percent of Vessek. Even so, the highland core swallowed a Chicano regiment at the Kessel Pass in 809 and killed Reyes himself in the ambush at Kelvath Hollow in 812. His reported last words, "Every nation on this continent bent. Only the mountains never did," are remembered as "the mountains never bent." Punitive columns and burned villages, including in the Ashvale valley cluster, never produced a conquest. In the Reclamation War (1318 to 1320) Chicano took ground on Vessek's mainland fringe, the lower settlements and mining towns, but not the highlands. In the Turncoat War Vessek belonged to VAPIK, and the Solennese land fronts stalled against it as every invader's had.

Vessek has never controlled an arms plant. Its fighters carry captured IR-11 rifles and hand-built single-shot hunting rifles. They have no uniform: layered wool, felt-lined boots, oiled-cloth cloaks in grey and brown, bandoliers and a strip of dyed cloth in the colours of the fighter's valley, with salvaged ceramic plate worn underneath in the 1350s. The record does not state what became of Vessek in the final collapse.

See also: Chicano States, Eisenreich, Peoples' Union of Socialist Democratic Republics, Safemoon Republic, Ashwick, Chapters 8, 9, 19, 20, 26, 27.

Y

Yeshuren Union

A Numarian state that went by the name Arvansk through the First and Second Aridexian Wars, sitting directly against PUSDR-occupied territory so the relationship between the two governments could grow close. After the Second Aridexian War it renamed itself the Yeshuren Union, marking a turn toward open alignment with the anti-Eisenreich movement of the USN and PUSDR, and became influential in the region. The goodwill it earned is why PUSDR treated it as a client rather than a target.

When the postwar scramble reached Numaria after the Third Aridexian War, neighbours moved on Yeshuren territory as they did on everyone's. PUSDR stepped in as patron once Kargopol formed (about 1301 AE). The Union lost real territory but survived as a nominally sovereign puppet rather than being annexed, a better outcome than most small Numarian states got.

Its rifle is the Arvangrad AV-5, an old wood-stocked design that predates the First Aridexian War and is noticeably dated beside PUSDR's weapons. It receives PUSDR export equipment, including about 30 CKK-10E1 "Poing-B" attack aircraft from 1320 and the DKK-5E1 "Flashfire-B" interceptor, and fields the AS-17 across Kargopol. Its soldiers wear PUSDR-pattern gear in dark brown-grey with an old wood-furniture look. It belonged to VAPIK in the Turncoat War, and lost its protection when its patrons fell, collapsing in 1369.

See also: Arvansk, Peoples' Union of Socialist Democratic Republics, Nam Minh, Chapters 8, 17, 20, 22, 26.

31
People

Every named person in the record, alphabetised by surname. Rulers and engineers, generals and clerks: where the record gives dates, family and last words, the entry gives them.

A

Altyr, Cassius (b. AE 1329)

Head of state of PUSDR during the Turncoat War, and the successor to the revolutionary generation that threw off Eisenreich. He was twenty-five when the war began in AE 1354. The record does not give his exact title or say how he came to power, and it is silent on what became of him after he took the field. It does say that he inherited PUSDR's leadership and did not earn it in the revolution, and that he was the product of that inherited comfort: regal, cocky and smug, visibly more at ease in his own authority than the revolutionary generation ever was.

In the war's opening phase he did not fight, and its human cost did not register with him. He is described walking past PUSDR's suffering and homeless population without a second look, a man who had never had to notice hardship and so had never formed the habit. That changed as the damage began to arrive in front of him instead of in a report: injured soldiers shipped back from PUSDR's own front, and civilians starving in the streets of the nation he nominally ran. He took the field himself later in the war. He was neither its most reluctant convert to fighting nor its readiest, and the distance between where his arc starts and where it ends is the substance of it.

As an adult he stood 6'1", with tousled dark hair and amber-gold eyes, and favoured rich maroon-and-gold court dress. His officers and the head of state's own guard dressed the same way, the royal-court look that contrasted with the working red-and-grey uniform worn below them. Cassius is the Turncoat War's third principal figure and its clearest outside observer. He stands beside Malakor Vane, who began cold and came apart, and the Reyes-descended leader of the Chicano revolution, who began warm and calcified.

See also: Vane, Malakor, Reyes, Isador, Chapter 20, Chapter 27, Chapter 30 (PUSDR).

Asmedeus

The old sky god of the pre-Syndicate coastal villages of Savorus, the villages that later became the suburbs of Corvenna. He belongs to Savoran folk religion and was never the god of any state faith. The secular, industrial Syndicate never worshipped him and never entirely stopped naming things after him, and Solenne inherited the habit along with the rest of Savorus. The N-14 "Asmedeus" strike aircraft carries his name. When Solenne's aerospace programme needed a name for the first vehicle rated to carry people off-world, where earlier vehicles had carried only freight, it used him a second time: the crew transport flies as the Asmedeus II, a deliberate numbered sequel to the jet. The heavy-lift booster beneath it is the Asmedeus-1, and the colonisation habitat it carries is the Asmedeus Habitat Module (AHM-1).

See also: Koedul, Vakkar, Chapter 13, Chapter 21, Chapter 28.

C

Chezkiv, Nikolai

An influential socialist activist of the Socialist Republic of Kargopol, active before the occupation. Kargopol was a small state of people expelled from their homes by Eisenreich, struggling financially, and Chezkiv changed its people's minds until it turned socialist. He was an older man, very good with words, with a large bushy beard, and often wore ushankas. After the socialist republic was founded, its government proposed the Yedinstvo Treaty to Altyr. The record is silent on his later life.

See also: Socialist Republic of Kargopol, Republic of Altyr, Yedinstvo Treaty, Chapter 15.

D

Department of Trial, head of the (name unrecorded)

The man who headed Solenne's Department of Trial in AE 1342 and was Lensi Vane's lover. Farren Vane discovered the affair on returning early from a diplomatic trip to Anestria and shot him dead on the spot. It was an unambiguous murder, committed by a private citizen who had held the Jakaar's office thirty-four years earlier. It never became a public scandal, a prosecution or even a rumour, because the sitting Jakaar and the Department of Trial's surviving leadership answered to Farren's network before they answered to the law. The record does not name him.

See also: Vane, Farren, Huono, Lensi, Chapter 16.

Drozdov, captain

The captain of the first prospecting expedition to chart the landmass east of Savorus during the mining rush. The era's practice was to credit a frontier's first serious survey to whoever led it, so the landmass was named Drozdov after him. The record says nobody remembers anything else about him.

See also: Chapter 8, Chapter 33.

H

Huono, Lensi (Lensi Vane)

The wife of Farren Vane and the mother of Vaussen, Marcus, Lilian and Malakor Vane. She married Farren only once his political position was completely secure, when his loyalist succession chain already ran on its own momentum and no rival could touch him. He was 67 when their first child was born. The record does not give her birth or death dates.

She and Farren argued constantly over how he treated their children. The strain drove her into an affair with the head of the Department of Trial, whom Farren discovered and shot dead in AE 1342. She did not leave afterwards. No agency in Solenne was free of Farren's influence in any way that mattered, and three more children remained in a household she had no power to take them from. She stayed, and kept losing the same argument for the rest of the years the record covers.

See also: Vane, Farren, Vane, Vaussen, Vane, Malakor, Department of Trial, head of the (name unrecorded), Chapter 16.

K

Khoshlikova, Antiko

The state-run designer behind PUSDR's second generation of small arms. The People's IR-11M, made in the captured Ferrengrad Arms factories, answered an immediate need, but a government founded on throwing off Eisenreich did not want its army to run on Eisenreich's gun forever. Khoshlikova's first problem was smaller than a rifle. The People's Revolutionary Army needed a sidearm reliable enough to survive Numaria's tropical belt and easy enough for a conscript force with limited armourer support to keep running. The result was the PAS-12, a 9mm semi-automatic pistol with an 8-round magazine, and its action became the basis of everything that followed.

From it came the AS-15, a 9mm submachine gun for the People's Revolutionary Airborne Landing Force, and the AS-17, a 7.62mm assault rifle intended to replace both the People's IR-11M and the smuggled AR-22 carbines still in PUSDR service. Prototype AS-17s were already

performing well during the Great Revolution against Eisenreich. The AS-17 also set the ammunition standard for Kargopol. The family continues with the ASM-18 light machine gun, the ASM-19 12.7mm heavy machine gun, the ASK-10 anti-materiel rifle (which shares the BMS-10P explosive round with the ASM-19), and the ASP-20 rocket-propelled grenade launcher with its BM-HEAT-1 tandem warhead, rushed into service against Eisenreich armour. The record ties the Krashlikova AT-5 and AT-7 tank autoloaders to the same design-bureau lineage, so that one state arms industry covers both rifles and tank internals.

See also: Kloinsha, Antiko, Ratikova, Polshinka, Chapter 26, Chapter 28.

Kloinsha, Antiko

The designer of the AK-3 "Klin", a swept-wing air superiority fighter built in PUSDR's pre-Conquest window, before Chicano States' domination of Numaria. The aircraft is still in service decades later. It never failed on its own merits and was held back only by the small numbers PUSDR could afford to build at the time.

See also: Ratikova, Polshinka, Khoshlikova, Antiko, Chapter 28.

Koedul, Vakkar (c. 360 to 412 AE)

The Syndicate-era engineer whose rail and canal network was the first infrastructure on Savorus built to move freight between cities. Earlier works had merely extracted from the ground beneath any one of them. By 400 AE the Syndicate had industrialised its home continent from end to end, and Koedul had done more than anyone to turn that from a set of unconnected boomtowns into a single economy. He never held office and never led a company larger than the survey crews under his own direct command. He died decades before the Syndicate built the economic empire it later ran over Christonia.

That is the reason his name outlasted the passage from Syndicate to USN to Solenne largely untouched: he was a builder from before the ambition that made the USN existed. His survey crews grew from the surveyors and wayfinders of House Lorrow, one of the twelve fiefs, which makes him a Lorrow man in everything but name though he held no title and no company. The trading houses his network first connected began to look outward by 700 AE, first with capital and then in the Christonian concessions.

Solenne's aerospace programme honoured him twice. Its first space-capable hardware, the single-stage Koedul-1 booster that launched the Velis-1 survey probe, bore his name, and so does the Koedul-class Heavy Transport, the workhorse of the Typhon Corridor Fleet. Every structure standing on Typhon before local manufacturing began arrived on a Koedul. The record sets him beside Salvador Reyes on the short list of widely remembered Aridexians, honoured for the opposite reason. Reyes is remembered for what he conquered, and Koedul for what he connected.

See also: Reyes, Salvador, Asmedeus, Chapter 4, Chapter 5, Chapter 13, Chapter 21.

M

Marrenkov, Ilsa

Commander of Sanctuary I, the Safemoon Republic's crewed lunar mission of AE 1307, and with her pilot Dorian Vask one of the first two Aridexians to leave their planet. The mission flew through translunar injection and lunar orbit, made a crewed descent to Lira's surface, and returned to Aridexia in full. It followed two uncrewed precursor flights in AE 1304 and 1305, both recovered, and belonged to the Sanctuary Program of the Moonhaven Spaceflight Authority, founded in AE 1303.

Her recorded first words on Lira's surface were "Solid ground, and none of it ours to lose." The line is still taught in Safemoon schoolrooms as spoken. The record reads it as pure Safemoon in six words.

See also: Vask, Dorian, Chapter 18, Chapter 33 (Lira).

N

Nichozh, father of Nikolai (name unrecorded)

A Christonian garrison general on the northern frontier and father of Nikolai Nichozh. He was obsessed with the purity of his bloodline. He gave his son by a conscripted labourer a name from old Christonian root-words for "worthless" and had the boy rotated into the garrison's expendable conscript regiment, hoping the front would do what he could not bring himself to do. After the collapse he refused to recognise the new order and fled to a holdout faction. A night-long confrontation ended with the general drawing a pistol on his son and Nikolai's dying reflex killing him in return. The official account, taught in every Northlandish school, is a tragedy and a death in self-defence. By Nichozh's own later account it is also the only version anyone was left alive to contradict. The record notes that it was also the most useful story a new head of state could have told, and does not claim to know which parts are more true than convenient. The father had a second family, steeped in the same purism, from which the Iron Union's founder came.

See also: Nichozh, Nikolai, Nichozh, half-brother of Nikolai (name unrecorded), Chapter 10.

Nichozh, half-brother of Nikolai (name unrecorded)

The younger half-brother of Nikolai Nichozh, raised apart from the frontier in the household of the general's other family, which shared the same bloodline purism. He rejected the new Northland outright and organised an armed ethno-supremacist faction, the Iron Union, in a cordoned-off pocket of Northland's territory. It ran on forced labour and on the caste ideology the state had abolished everywhere else. Northland's security forces contained it, and some years into Nichozh's rule it was defeated inside its enclave in an operation Nichozh personally authorised. The state remembers this as necessary self-defence. The Iron Union's descendants remember it in private as a purge, with mass detentions, summary executions of captured fighters and at least one razed settlement that the state's casualty figures never reconciled with outside estimates. The record does not name the half-brother or say what became of him.

See also: Nichozh, Nikolai, Nichozh, father of Nikolai (name unrecorded), Chapter 10, Chapter 32 (Iron Union).

Nichozh, Nikolai (AE 1225 to 1328)

Founder of Northland, a three-war veteran who lived to 103. He was born on the Christonian frontier in AE 1225, the son of a Christonian garrison general and a conscripted labourer with no legal standing to refuse. His father, who measured his honour by the purity of his bloodline, gave the boy a name drawn from old Christonian root-words for "worthless", so that he would carry the insult for life. He then arranged for the boy to be rotated into the garrison's conscript regiment, the unit the frontier command treated as expendable. His mother's heritage showed in light brown skin against his father's paler line. He grew to 6'6".

His first combat came at 25 in the Thirty-Day War, as a conscript in a defeated regiment, one of very few of its men to survive the rout. The newly formed USN folded Christonia's frontier garrisons into its own order of battle. A night flanking march through terrain his commanders had written off as impassable then broke an entrenched position without a man lost in the breach. It made him a captain commanding real frontier forces before he was thirty. He held that command through the Second Aridexian War. In one action a mountain-pass ambush cut a mechanised column's supply route using only avalanche timing and mortar placement. In another he relieved a besieged garrison by a weeks-long deception that convinced the besiegers they were outnumbered ten to one. Both are still taught in Northland's military academies.

When the USN's first strike destroyed Christona in January 1300, the government with nominal authority over his district vanished. At 75, with nothing above him to answer to, he turned his command against the frontier's four clan-holdings and began unifying them by force. The Verrenkai and Kholvag came in peacefully. The Drenmoor needed convincing, and he burned two of their border settlements instead of negotiating through a winter. The Oyun-Tash were besieged in their highlands, and their fighting-age population was executed once the siege broke them. In February 1303, in the worst day of bloodshed the region had known, he lost the use of one eye. The last resistance broke, and Northland was founded.

He abolished slavery by decree on the day he took power, built a state relief corps for the underclass he was born into, and ran a mutualist, civic-nationalist welfare state. He also personally authorised the final operation against the Iron Union and left a surviving field order instructing his commanders not to take the enclave's garrison alive. Late in life he wore a wide gold-and-cream band across his eyes, which covered the wound and let the belief that a god's face must not be seen operate without his endorsing it. He dressed in a long high-collared black coat over dark armour, trimmed in gold, under a fur-lined purple mantle. He died of natural causes in AE 1328, thirty-one years before GAW4 began.

See also: Nichozh, father of Nikolai (name unrecorded), Nichozh, half-brother of Nikolai (name unrecorded), Chapter 10, Chapter 29, Chapter 30 (Northland).

P

Palazzolo, Christian

Founder of what became the Christonian Empire, active in the Classical Age before Year 0 AE. In the north of the Central Continent he gathered a community around early law, communal food-sharing and the beginnings of a written language, Christonian. He is still venerated by Christonian people, whose calendar marks his memory every 15 June. The record gives no birth or death dates.

See also: Chapter 2, Chapter 30 (Christonia).

R

Rajan

A cartographer, known in the record by one name only, who first mapped the current sheet of Solis's heliosphere, the plasma boundary that tilts by up to 78 degrees at solar maximum. It is called the Rajan Sheet in the cartographer's honour. The record gives no dates or nation.

See also: Appendix A, Chapter 33.

Ratikova, Polshinka

The designer of the PR-5 "Krashny", a multirole fighter built around manoeuvrability and cost and designed before the Chicano domination of Numaria. It failed in service for the reason much PUSDR-adjacent hardware fails early, poor supporting equipment, and the record counts the airframe itself as sound. The DKK-1 "Flapjack", PUSDR's workhorse fighter, was developed directly from the PR-5's airframe by the Dimikrov Katinka Krasny Design Bureau.

See also: Kloinsha, Antiko, Khoshlikova, Antiko, Chapter 28.

Renner, Elin

A Christonian Conjunctioner who broke from the council in the 1190s AE to organise what she called Christonian economic self-determination. Everyone else called it the Renner Faction. It was a nationalist movement built on the accurate observation that Christonia's president answered to Syndicate creditors more readily than to Christonian voters. The Faction never held political power, because the council that could have backed it was financed by the same Syndicate money it would have had to reject. By the 1240s its militant offshoots had concluded that persuasion had run out of road.

In late AE 1249 one such cell detonated a bomb meant for the Syndicate capital's financial district, to sever the arrangement at its source. It killed a handful of clerks, damaged one building and achieved nothing, because the Syndicate's economy no longer had a single point that sabotage could cut. It gave the Syndicate a clean public pretext, and the Syndicate, Anestria, Luluke and the All-Finian Empire declared war together, which became the Thirty-Day War. The record notes the bitter irony that the militants' own weapons were AVMS rifles bought on the same credit lines they were trying to sever. Elin Renner is not recorded as taking part in the bombing, and the record gives no dates for her life. A later descendant of the same family funded the Renner Prize, awarded roughly once a decade for the paleogenetic work judged to have advanced the Aridexian Descendant Problem furthest. It has been awarded eleven times, and no recipient has claimed to solve the Problem outright.

See also: Chapter 5, Chapter 11, Chapter 24, Chapter 32 (Renner Faction).

Reyes, Isador (b. AE 1328)

The leader of the revolution of AE 1357 in Chicano States, a direct descendant of Salvador Reyes. His name is Isador Reyes. What is fixed is that he was twenty-nine years old when the Turncoat War's largest battles came, that his lineage ran directly back to the First Marshal, and the shape of the arc described below. The record also calls him the Second Marshal's Ghost, the name of the section that tells how the old government fell.

Chicano States entered the Turncoat War on Solenne's side, bribed by Malakor Vane with the promise of land on Typhon in return for sabotaging rival off-world programmes. Running those errands hollowed the state out from within, and by 1357 the government was bankrupt in every sense. A domestic revolutionary movement under Isador Reyes overthrew it, and the new, revolutionary Chicano State took the war's final year on VAPIK's side, against the Solenne that had bribed its predecessor. Its troops tore off the old marks and added a plain red cloth band.

The leader began the war grounded in an understanding of people, their fear, their grief and their capacity for hope, and of how directly these shape a battlefield. That did not hold. After taking personal field command, the leader began sacrificing the nation's own people, hesitantly at first and then with a widening moral distance. Love for those close to the leader never changed, but the strangers once fought and felt for on principle stopped being individuals somewhere in the middle of the war. Malakor Vane started cold and destabilised, and the Chicano leader started

warm and calcified: the same trajectory run in the opposite direction.

See also: Reyes, Salvador, Vane, Malakor, Altyr, Cassius, Chapter 8, Chapter 20, Chapter 30 (Chicano States).

Reyes, Salvador (d. AE 812)

General, then First Marshal of Chicano States, and one of the most widely known figures in Aridexian history. He was a war hero of the AE 795 campaign in which Chicano States, then a mid-sized coastal power, seized roughly a quarter of Vessek's mountainous territory. In 805, ten years later, popular sentiment acclaimed him to power, with no coup, and he took the title First Marshal. He fought every campaign personally at the head of his army, in wars of roughly early-nineteenth-century character: massed infantry, smoothbore muskets, field artillery and age-of-sail warships.

His first war, against Ashwick in 806, was won at dawn at the Battle of Ashwick Bay, where the fleet was caught at anchor, and the Fall of Calmouth followed within three weeks. The Talgrave War (807 to 808) cost him more. At the Battle of the Tolgen Fords he personally led the third and final crossing attempt after two had failed, and the Talgrave Armistice ended the war after the siege of Vantor. In 809 the Battle of the Corvath Crossing was so one-sided that Corvath sued for terms in days, and he accepted a nominal government under his supervision, the only time in seven years he took less than annexation. In 810 and 811 the siege of Prynn was his hardest campaign, taken by blockade after a direct assault failed.

Under all of them ran the Long Campaign against Vessek, which he never finished. A victory at the Battle of Dorrenheim Heights in 806 let him claim about 80 percent of Vessek's remaining territory by 811, but the highland core defeated him. At the Kessel Pass disaster in 809 an entire regiment was destroyed to the last man, and the war became one of punitive columns and reprisals in the Ashvale valleys. In 812 his column was ambushed at Kelvath Hollow and he was killed with most of his escort. As he lay dying he is reported to have said "Every nation on this continent bent. Only the mountains never did." Time has worn it to four words, *the mountains never bent*.

His empire, held together by his personal legitimacy, broke at once. Every conquered nation rose within months and none of the land was kept. By 816 the loose coalition occupied Chicano States itself, and Chicano States regained independence only by the early 820s, smaller and chastened. A descendant of his led the Chicano revolution of 1357. The names Ashwick, Talgrave, Prynn and Corvath are placeholders and are not final canon.

See also: Reyes, Isador, Koedul, Vakkar, Chapter 8, Chapter 9, Chapter 20, Chapter 30 (Chicano States, Vessek).

T

Typhon excavation field note, author of the (unsigned)

One of several members of the joint Ardekai and Ospyran survey team that found the skull in the flooded cave system between the Hearthlands and Farside Reach in AE 1371. The note was appended unsigned to the excavation log, and the exact authorship was never formally settled. It reads in part: "It did not choose Ardekai. It did not choose Ospyran. It just waited." The note also holds that the colonists were the second people to need that ground badly enough to fight over it, after others who had come before. They were the ones who came back and forgot they had ever left.

See also: Chapter 23, Chapter 24, Chapter 33 (Typhon).

V

Vane, Farren (b. AE 1262)

First Jakaar of Solenne (AE 1300 to 1308), the designer of the government that Solennese citizens are taught to regard as a democracy, and the father of Malakor Vane. Born in AE 1262, he was a high-ranking USN general by his late thirties, young for the rank, because GAW1 and GAW2 had emptied the officer corps. That position gave him insider sight of the covert Uranium Crisis programme years before GAW3, and let him see the dictatorship's collapse coming. He went into hiding and spent what resources he could move quietly erasing his own public record of USN service, every photograph and every service record. When the USN ceased to exist on 17 January 1300, he emerged into the vacuum that founded Solenne. With a small, loyal network and a traumatised public he designed and installed the Jakaar system. He ran in Solenne's first election and won.

Every surviving account calls him deeply charismatic, persuasive and manipulative. He served a single eight-year term and did not seek a second, because leaving office in good order, on schedule and by his own choice was the most convincing evidence the early public ever had that the democracy worked. He used the appointed-finalist rule to hand the office to a loyal successor, who did the same in turn, an unbroken chain of Farren-aligned Jakaars that never announced itself as one. His influence thereafter was that of a private citizen, resting on personal loyalty. The SR-30 rifle, symbol of Solenne's break with the USN, was adopted in 1303 during his term, and built by AVMS in the same plants that had armed the dictatorship.

He married Lensi Huono only when his position was completely secure, and was 67 when his first child, Vaussen, was born in AE 1329. Marcus and Lilian followed in 1334 and Malakor in 1337, when Farren was 75. He raised all four under a regimen of intensive education and psychological pressure meant to maximise measurable intelligence. Using Department-Y's research mandate in early-childhood cognition, he diverted homeless and impoverished Solennese children, and later abducted others, into the same protocols. In 1342 he shot dead the head of the Department of Trial, his wife's lover. When Vaussen tested at 172 in 1340 he ordered

the protocol escalated regardless of cost. For Malakor, the last child, he used a final formula with no remaining safeguards. The record does not say when or how he died.

See also: Vane, Malakor, Vane, Vaussen, Vane, Marcus, Vane, Lilian, Huono, Lensi, Department of Trial, head of the (name unrecorded), Chapter 16, Chapter 26, Chapter 29.

Vane, Lilian (b. AE 1334)

Younger twin of Marcus Vane and third child of Farren and Lensi Vane. Tested at eleven in AE 1345 under a partially revised formula, she scored 208. It was not enough for her father. The record places her nowhere in the story after that test result.

See also: Vane, Marcus, Vane, Farren, Chapter 16.

Vane, Malakor (b. AE 1337)

Youngest child of Farren Vane and Lensi Huono, and president (Jakaar) of Solenne from AE 1353. The final, unrestrained intelligence protocol left him with bipolar disorder and ADHD, and he was diagnosed psychotic and antisocial by age eleven. Tested at that age he scored 260, an Aridexian record. Older, looser testing had reported scores as high as 278, but converted to modern standards they settle into the flat 200s. At full growth he stands 6'1", with light platinum-gold blond hair (it shines like pale gold in the light, clearly yellow-blond and never white) and heterochromia, one eye bright green and the other bright blue.

In AE 1353, at sixteen, he was appointed into the final presidential election by a sitting Jakaar loyal to his father's network, bypassing the earlier stages, and won. He beat his older brothers Vaussen and Marcus, who had risen through legitimate regional politics. Before a camera he was warm, funny and commanding, the most charismatic figure Solenne had put before its electorate. In private he is incapable of empathy toward anyone but himself, manipulative, narcissistic and cold. When Department-Y developed medication to let him feel ordinary sympathy, he took it more than once and rejected it permanently, hating the feeling as weak and compromising. It was never offered again.

He understood what Solenne's leadership was slow to say aloud: Aridexia lacked the resources for any real off-world effort to save everyone. He secured his own departure for Typhon early. His Project Turncoat committed the funds of the PSU states (Solenne, the Pechorian Federation and Xue Lin) to the most advanced space programme Aridexia had built. At the same time he bribed Northland-Southland, Chicano States and Anestria's successor states with promised Typhon land to sabotage rival programmes. When VAPIK competed anyway, he escalated to war crimes, and in the year Solenne's first crewed missions launched he had Solenne intercept and destroy VAPIK crewed launches already in flight.

The Turncoat War (1354 to 1358) was fought less to win than to see what he could make happen. Solenne's navy took the Korut Islands, but the land war on Numaria stalled against PUSDR and Vessek, and he left for Typhon in 1358, mid-stalemate, without a treaty or surrender. The record

shows him beginning calm and ending with psychotic breakdowns and escalating frustration. Solenne's government fell in 1365, seven years after he left it. By 1371 he is already on Typhon, "having never looked back once".

See also: Vane, Farren, Vane, Vaussen, Vane, Marcus, Altyr, Cassius, Reyes, Isador, Chapter 16, Chapter 20, Chapter 21, Chapter 22.

Vane, Marcus (b. AE 1334)

Elder twin of Lilian Vane and third child of Farren and Lensi Vane. Tested at eleven in AE 1345 under a partially revised formula, he scored 201, and it was not enough for his father. He built a career through Solenne's legitimate regional politics in a different state from his brother Vaussen, and lost the AE 1353 election to their youngest brother Malakor. His later fate, and whether he became a check on Malakor or another loyalist, is not decided in the record.

See also: Vane, Lilian, Vane, Vaussen, Vane, Malakor, Chapter 16, Chapter 20.

Vane, Vaussen (b. AE 1329)

Eldest child of Farren and Lensi Vane. Tested at eleven in AE 1340, he scored 172, a genuine genius-level result that his father still judged insufficient, and Farren ordered the protocol escalated regardless of cost, personally authorising the abduction of more Solennese children as subjects. Vaussen built a political career through Solenne's legitimate regional process and lost the AE 1353 election to Malakor. The record leaves open his fate afterwards, and whether he became a check on Malakor or another loyalist.

See also: Vane, Marcus, Vane, Farren, Vane, Malakor, Chapter 16.

Vask, Dorian

Pilot of Sanctuary I, the Safemoon Republic's AE 1307 crewed lunar mission, flown with commander Ilsa Marrenkov. With her he was one of the first two Aridexians to leave their planet, and the pair made a crewed descent to Lira and returned safely. The record gives no other details of his life.

See also: Marrenkov, Ilsa, Chapter 18.

32
Organisations, Wars and Events

Alliances, institutions, churches and formations, and the treaties, crises, operations, wars and battles. The wars have their own chapters. These entries are the quick reference.

A

Aldrek, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was crimson, its charge a tower and its seat Aldrek Keep. Its role was to serve as the border fortress and guardian of the northern pass. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Anestrian Coprosperity Sphere (to 1300 to 1302 AE)

The name given in the record to Anestria as it stood through the Third Aridexian War. It was nominally united through the war itself and had ten administrative districts. Almost immediately after the war the districts asserted independence, and five successor states emerged from what became known as the former Sphere: the restored Kingdom of Antares, the Federated States of Imperium, New Virgen, the Antilla-Vegan Union, and the Constitutional Anestrian Republic (CAR). CAR claimed direct succession from the old Republic and went on to lose most of that claimed territory to internal revolt within a few years. The five share one rifle, the ROA AR-7, built from shared tooling, and they are held together by an uneasy postwar armistice rather than a lasting peace. Each has its own flag and shoulder patch. *See also: Third Aridexian War, Vinear Coast War, Anestrian Marines, Chapters 6, 15.*

Anestrian Founding Myth (535 AE)

The popular story of the Republic of Anestria's origin: three kingdoms, one short war, one democracy, all unified by 535 AE. It is cleaner and more flattering than the record. The real order was conquest by Imperium (by 310 AE), three centuries of imperial rule, and a popular uprising that founded the Republic in 641 AE. The myth also leaves out the Kharzun clans, who held the desert interior when the kingdoms arrived. *See also: Ferrosian Empire, Ferrosian Rebellion, Chapter 6.*

Anestrian Marines (17 January 1300 AE)

The marine force that took the USN capital on the evening of 17 January 1300 AE, found its government already fled or in hiding, and executed the last of its officials. In the record they are the war's best-equipped ground force by a wide margin. They wore the sand-tan synthetic uniform of the Second Aridexian War, with ceramic-plated body armour and a ballistic helmet with a night-vision rail. They also carried the first NBC overgarments and masks issued in numbers on the planet, in olive-grey, worn on the day their own country's strikes had made them necessary. *See also: Anestrian Strategic Bomber Force, Third Aridexian War, Fall of the USN Capital, Chapter 14.*

Anestrian Nuclear Programme (1100s to early 1200s AE)

Anestria's deliberate, independent arms posture, which began with an eleventh-century uranium find. It led to the system's first experimental fission reactor in the mid-1100s AE and to the first nuclear weapons test, conducted in the early 1200s. Anestrian intelligence had watched the Syndicate absorb Christonia for over a century by the time the reactor went critical. It concluded that a power able to buy a nation's industrial base without firing a shot would eventually be a power no conventional balance could deter. The weapon was built as insurance against a war Anestria correctly suspected would come from the Syndicate's direction. The doctrine built around it outlived that war by a century, and it ended the Third Aridexian War before it was fought. Fissile ore is rare on Aridexia, and the programme, like every other, topped out far short of an arsenal industry. *See also: MiguelTek, Anestrian Strategic Bomber Force, Third Aridexian War, Chapters 6, 14.*

Anestrian Strategic Bomber Force (17 to 18 January 1300 AE)

Anestria's long-range bomber force, which retaliated for the first strike of 17 January 1300 AE. Anestria chose to spend none of its long-husbanded warheads on the retaliation. Over the following day the bombers systematically destroyed every remaining major city on the USN mainland and in the Pelruvian Islands with purely conventional ordnance. The decision was deliberate and preserved the one meaningful nuclear deterrent left on the continent, since an arsenal that could never be quickly replaced should not be drawn down. *See also: Anestrian Marines, Anestrian Nuclear Programme, Third Aridexian War, Chapter 14.*

Annexation of the Korut Islands (1354 to 1358 AE)

The one real and permanent territorial result of the Turncoat War. Solenne's navy, with uncontested naval superiority, took the four essentially undefended island governments of the former All-Finian chain cleanly and quickly: Halvern, Korveil and Finhaven, then the small, undefended Skerrow. Only Tavelin was left uncommitted. Tavelin was never annexed and outlasted its neighbours by a full decade, until it fell in 1368 with the others. The islands became the base of one of the war's three fronts against PUSDR. *See also: Turncoat War, Chapter 20.*

Annexation of the Pelruvian Archipelago (1264 AE)

The USN's move on a scattered island chain in 1264 AE, which triggered the Second Aridexian War. The islands meant nothing to anyone strategically but sat on an offshore petroleum field that the USN's aging coal-based industry badly needed. Anestria's own energy crisis had made everyone aware that such a field was worth fighting over. The archipelago was weakly defended and distant from any neighbour's home territory, and the USN moved while its rivals were divided. It was less a prize the USN wanted than the one resource base left on the map that a state in its position could still plausibly take. The Pelruvian campaign became the chief front of the war, and the islands were later devastated in the Third Aridexian War. *See also: Second Aridexian War, Pelruvian Campaign, United Syndicate Nations, Chapter 12.*

Ardekai (colonial faction, AE 1360 to 1371)

The colonial position on Typhon that the colony is Aridexia's continuation. On this view the nations, flags and histories that brought everyone to Typhon continue to matter, and carrying them forward is the point of surviving. The faction keeps Ardekai, the old formal word for human, as its name for itself, and wears it deliberately. It made land claims through an Ardekai-identifying settlement council in the Hearthlands, and it fought the Ardekai-Ospyran War. Its critics accused the Ardekai of carrying Aridexia's own violence across space like a disease it never left behind. *See also: Ospyran, Fracture of the Typhon Colony, Ardekai-Ospyran War, Chapter 23.*

Ardekai-Ospyran War (AE 1366 to 1371)

The war fought on Typhon between the Ardekai and Ospyran factions of the colony. Neither side began as an army, and both ended as one. It opened with a disputed claim boundary, a mining crew turned away at gunpoint, and a death both sides sincerely blamed on the other. The fighting never produced a clean map, because the Hearthlands are too small, interdependent and geologically hazardous for either side to hold a stable front. It produced burned infrastructure (both sides lost a water-reclamation plant), civilian casualties, and accusations that hardened into folklore: the Ardekai as carriers of Aridexia's violence, the Ospyran as users of "peace" as a slogan. By 1371 it had cost more lives proportionally than any single named Aridexian war, and it had produced no winner. The discovery in 1371 of the Farside skull mattered more than the war itself. The war ran on almost the same calendar as the Fourth Aridexian War, and neither side learned of the other's. *See also: Fracture of the Typhon Colony, Farside Excavation, Fourth Aridexian War, Ardekai, Ospyran, Chapter 23.*

Aridexian Descendant Problem (named in the modern era, recognised from about 900 AE)

The standing gap in Aridexian science. The planet's fossil record is dense and continuous for every major branch of life, including a long, unbroken lineage of primate-analogues stretching back tens of millions of years. Yet at the point where early Ardekai should appear, small-brained, more robust and transitional, there is nothing. Modern Ardekai remains appear already fully modern, with no gradual approach beneath them. No researcher has ever found a partial skull, a tool assemblage or a genetic marker bridging the native primates and Ardekai, and thousands of genetic comparisons show no meaningful shared ancestry recoverable on any measurable timescale. It is named for the question it refuses to answer: descended from what?

Four native lineages have been excluded. The Velmoth is a heavy canopy-dweller of Savorus's warmer forests, the most human-shaped and the most often cited as an Ardekai relative. The Skarrin is a small, fast, social ground-dweller of Pan-Anestria's dry interior, whose stick-probing for insects was taken around 1000 AE as evidence of shared cognitive ancestry. The Pallow is a solitary, nocturnal woodland species of Candrasia, the control case. The Ashtail is a gregarious lineage of Korut's forested islands, extinct on the mainland islands but thriving on smaller ones, with the only consistent alarm-call vocabulary among them. The official status in every major scientific institution is unresolved. In Aridexian culture "descended from nothing" is a common idiom, and natural history museums give the Problem a permanent wing, usually their most-visited. The Farside skull, found on Typhon in 1371, supplied the answer. *See also: Special Origin Schools, Convergence Hypothesis, Arrival Theories, Renner Prize, Farside Excavation, Chapters 1, 24.*

Armies of the Three Kingdoms (about 3 to 310 AE)

The forces of the three kingdoms that the Anestrian diaspora group founded on its desert continent. Each kingdom had a king and a council of oasis-lords, who held a well, a farm district or a stretch of road on the king's behalf and raised troops from it. A lord's wealth was measured in water rights, not land. A king could not move a lord without moving the lord's wells, and that made the kingdoms loose and easy for Imperium's iron to take apart. Antares, the coast and caravan kingdom, fielded light archers and riders with the sunbow (the composite recurve), in red kaftans. They were the best bowmen and had the worst armour of the three. Imperium, over the iron-bearing sands, fielded the Ironclad, with a lamellar iron cuirass, conical helm and the curved Ferrosian sabre, in iron-grey and rust. Anestria proper, holding the central oases and farmland, fielded a farmer's levy in oasis green with wicker-and-hide shields and the long oasis spear. It was the largest army of the three and the least armoured. *See also: Ferrosian Empire, Ferrosian Rebellion, Oasis Guard, Chapter 6.*

Arrival Theories (fringe, about 950 AE to the present)

The minority position that Ardekai simply arrived on Aridexia already formed, by some mechanism its proponents were rarely specific about. The theories were never mainstream and were mocked in respectable circles for most of their history, treated as a restatement of the Special Origin schools in science-flavoured costume. "Arrival theorist" has been a lasting insult in academic culture, meaning someone who has stopped doing science and started doing mythology. In the modern era it has softened to a fringe position taken more seriously than it used to be. The Farside skull vindicated it, though the mechanism of the crossing remains unrecoverable. *See also: Aridexian Descendant Problem, Special Origin Schools, Farside Excavation, Chapter 24.*

Ashfields Campaign (shortly before 1264 AE)

A deliberate scorched-earth operation run by the high command of Chicano States against the Safemoon Republic's remaining agricultural hinterland in the final years before the Second Aridexian War. Farmland was burned and wells fouled on purpose, to starve a cornered population into capitulation rather than fight for Moonhaven street by street. It worked in the narrow sense that Safemoon never made a last stand that would have made Chicano pay for the ground. It is the ugliest act on Numaria's long list. Chicano's weapon for it was the Gran Chicania GC-7 rifle, and probably the SPA-41 "Howler" artillery piece. Modern Chicano does not advertise the campaign, and Numaria's other powers do not let it be forgotten. *See also: Chicano Interwar Collapse, Reclamation War, Moonhaven Spaceflight Authority, Chapter 8.*

Ashwick War (806 AE)

The first of the campaigns of Salvador Reyes, the First Marshal of Chicano States, and the shortest of his wars. Ashwick's defence rested on its navy. At dawn Chicano's fleet forced the anchorage at the Battle of Ashwick Bay, catching Ashwick's ships moored and largely unmanned. The stroke ended naval campaigns outright in real wars at this technological level. With the coast undefended, Chicano's army landed and marched on the capital almost unopposed, and the Fall of Calmouth followed within three weeks, less a siege than a formality. It was the only one of Reyes's wars that unfolded almost as he had planned. *See also: Battle of Ashwick Bay, First Marshal's Empire, Talgrave War, Chapter 8.*

Asmedeus Habitat Module (AHM-1)

Solenne's maximum-practical-crew colonisation payload, flown as a single Asmedeus-1's cargo. It is a pressurised transfer-and-initial-surface habitat that puts headcount before comfort. It has two main decks and an observation and command cupola, with hot-bunking that stretches 21 physical berths across 42 crew (36 colonists plus 6 technical, medical and command staff). It also has a galley, two hygiene units, a two-bed medical bay and a workshop, inside 185 cubic metres held at 70 kPa and 30 percent oxygen. Its life support is open-loop, with lithium hydroxide CO2 scrubbing, stored oxygen with a backup solid-state generator and limited humidity recovery, rugged and field-repairable. A polyethylene-water shield doubles as a storm shelter. On arrival it either stays in orbit as a station core or soft-lands on a separate landing stage as the first structure of a surface base. It is the hardware behind the "several thousand settlers" reaching the Hearthlands in 1341, on a 40 to 50 day transit. *See also: Asmedeus-1, Typhon Corridor Fleet, Typhon Colonisation, Chapter 21.*

Asmedeus II-class Crew Transport

The only vehicle in the Typhon Corridor Fleet rated to carry settlers rather than cargo, and the reason there is a colony on Typhon. It is a deliberate numbered sequel to the N-14 "Asmedeus" fighter, named for the old Savoran sky god. It has a larger life-support loop and a radiation-hardened crew module for the cruise, and enough berths per flight to make the sustained population transfer logistically possible. The first wave reaching Typhon in AE 1341 flew on it. Fifty-two hulls were built (1338 to 1359), about 24 in the first wave, carrying about 2,880 settlers. *See also: Typhon Corridor Fleet, Asmedeus-1, Typhon Colonisation, Chapter 21.*

Asmedeus-1 (Solenne heavy-lift booster)

Koedul-1's successor, built when Solenne's colonisation ambitions outgrew a single-stage probe launcher. It is a three-stage kerosene/LOX vehicle (five-engine first stage, twin-engine vacuum second stage, single-engine injection third stage) with up to six solid strap-on boosters, thick-walled tanks and conventional propulsion, the biggest simple rocket that reliably works. It throws 95 to 115 tons to low orbit and 22 to 28 tons of colonisation mass on a Typhon transfer trajectory. It is the booster underneath the crewed Asmedeus II. About 312 launches were made (1337 to 1359). *See also: Koedul-1, Asmedeus Habitat Module, Asmedeus II-class Crew Transport, Chapter 21.*

Aurelia Mining Operation (from DSY 31, AE 1307)

The continuous logistics chain of mining on Aurelia, Keplanus's industrial moon, canonical from DSY 31 (AE 1307), by which time the outer-system economy was mature. Aurelia sits outside Keplanus's most intense radiation belts, and differentiation has concentrated platinum-group metals in its upper mantle, exposed by the Aevum basin. It is also the staging base for missions to Keplanus. *See also: Outer System Mining Concord, Orjust Pipeline, Chapter 18.*

AVMS (Armored Vehicle Manufacturing System) (founded in the last years of the Luluke-Christonian War, as Irwin's)

An armaments firm founded during the Luluke-Christonian War under the name Irwin's and later renamed AVMS. It fielded the first practical internal-combustion engine, the first rechargeable battery and the first semi-automatic rifle (the AG-01), and its brass-armoured AV-1 was the first armoured fighting vehicle on Aridexia. The record does not say how the firm passed from Luluke's side of the war into Syndicate hands.

AVMS never stopped being a war-funded company, and its rifles trace a line through every war of the record: the AG-14 (0 to 500 AE), the AG-40 "Light Repeater" and M-3 "Sentinel" tripod machine gun (500 to 900 AE), the SR-9 and PK-4 submachine gun (900 to 1000 AE), and the AR-22 "Vanguard" (1000 to 1250 AE), later the AR-22A. Every Syndicate and USN AR-22 came from AVMS's Corvenna works in the Syndicate capital, the same city whose financial district the Renner Faction tried to bomb in 1249 AE. The coalition partners of the Thirty-Day War built theirs under AVMS licence. The Syndicate army's brass collar crest pin was an AVMS-pattern crest.

After the fall of the USN the firm kept its plants on Savorus under Solennese ownership and built the Solenne SR-30, adopted in 1303 AE with series production from 1304. The design broke with the dictatorship's rifle, but the factory did not. The firm had armed the dictatorship for a thousand years. *See also: Luluke-Christonian War, Ferrengrad Arms, Renner Bombing, Chapters 2, 26, 28.*

B

Bannermen (about 3 AE to about 340 AE)

The mounted knights of the Syndicate under the fiefs, and one of the three arms of the force commanded by the Marshals. A Bannerman held a sub-fief, called a holding, from a Lord-Principal on a bond of service. Each raised a lance of men and fought under his house pennant. He wore a mail hauberk under a black tabard with the house colour in a diagonal half, an open helm with a nasal bar, and a kite shield bearing the full house arms, and he carried a lance with the house pennant. Bannermen were the most visible people on a battlefield and were dressed to be. The arrival of the arquebus, the weapon of the hired companies, ended their standing as the best soldiers in the Syndicate. When the fiefs were converted to charters about 340 AE, Bannermen were absorbed into company management. *See also: Marshals of the Syndicate, Hired Companies, The Table, Chapter 4.*

Battle of Ashwick Bay (806 AE)

The opening battle of the Ashwick War. At dawn Chicano's fleet forced the anchorage of Ashwick and caught the navy on which Ashwick's whole defence rested still moored and largely unmanned. A fleet caught at anchor in this way ceases to exist as a fighting force in a single morning, and Ashwick's did. *See also: Ashwick War, First Marshal's Empire, Chapter 8.*

Battle of Dorrenheim Heights (806 AE)

A battle of the Long Campaign against Vessek, fought in open, low-elevation ground, in which a disciplined Chicano line broke a larger but poorly organised Vessek levy. That battle, with a string of smaller ones following the same pattern through 807 to 809, let Reyes claim roughly 80% of Vessek's remaining territory by 811 AE. It was also where the war stopped being winnable by those methods. Once Chicano's columns climbed into Vessek's highland core, the terrain began to fight back. *See also: Long Campaign, Kessel Pass Disaster, First Marshal's Empire, Chapter 8.*

Battle of Kelvath Hollow (812 AE)

The ambush in which Salvador Reyes, the First Marshal, was killed. In 812 AE, personally leading another punitive column into the Vessek highlands, he was ambushed at Kelvath Hollow and died with most of his escort. It happened in the same mountains and against the same tactics that had cost him a regiment at Kessel Pass three years earlier. He is remembered for what he reportedly said as he lay dying, looking back toward the peaks his aide was already retreating from: "Every nation on this continent bent. Only the mountains never did." History has worn it down to four words most Aridexians would recognise, "the mountains never bent." His empire could not survive the loss of the man whose personal legitimacy held it together. *See also: Long Campaign, Kessel Pass Disaster, Collapse of the First Marshal's Empire, Chapter 8.*

Battle of Ornwellburg (December 1301 to February 1302 AE)

The decisive standoff of the Vinear Coast War, fought with the Siege of Bredezen. It was a two-month standoff between the Constitutional Anestrian Republic and the Kingdom of Antares, and Antares broke it only with the arrival of its first tank divisions. Both armies wore the old Republic's tan, and the only visible difference was the colour of the armband. *See also: Vinear Coast War, Siege of Bredezen, Chapter 15.*

Battle of the Corvath Crossing (809 AE)

The single, one-sided engagement of the Corvath War, in which a Corvath covering force was routed with minimal Chicano losses. It was less a contest than a demonstration, and it was enough. Corvath's government sued for terms within days. *See also: Corvath War, First Marshal's Empire, Chapter 8.*

Battle of the Tolgen Fords (807 AE)

The battle that opened the Talgrave War. It forced Reyes's army across a defended river line under sustained fire and was the single bloodiest day of any of his wars outside Vessek. It was won only because Reyes personally led the third and final crossing attempt after the first two broke against Talgrave's defenders. It gave him the open country, though it did not give him the kingdom. *See also: Talgrave War, Siege of Vantor, First Marshal's Empire, Chapter 8.*

Black-Snake Corps (formed 1290 AE, destroyed 1300 AE)

The USN's praetorian formation, formed after the Talona Crisis from the survivors and instructors of Operation Black-Snake, whose name it took. The regime had a humiliated, disarmed and unpopular army and a security problem it could not solve by size, so it invested in a small, spectacular force. The Corps guarded the capital and the leadership, escorted the Office of Watch, and stood on every parade ground and in every newsreel. Its motto, stamped on its plaques and sewn on its cuff, was CONTINUITY, and its unofficial one was WATCH AND ENDURE.

Its uniform was the USN's single deliberate act of vanity. It was undyed bone wool with graphite trim and a single colour, crimson, with silver and the ring and Eye emblem, in three orders of dress: full dress ("the Bone"), the officer's greatcoat, and the 1300 pattern field order. Its ranks were Trooper, Corporal, Sergeant, Warden (a revived title of the old Syndicate Pass-Wardens), Lieutenant, Captain and Colonel. Its weapon was the AR-22 Vanguard carbine. The Corps was among the first formations the collapse of 1300 destroyed. Solenne's founding laws made display of its insignia a criminal offence, and surviving dress uniforms are in museums and private collections. The look, a pale coat with a single bold colour and silver, was copied by several later regimes. *See also: Operation Black-Snake, Office of Watch, Pass-Wardens, Talona Crisis, Chapters 13, 27, 29.*

The Bond System (about 3 AE to about 340 AE)

The way the Syndicate under the fiefs held people and land. A fief was leased, not granted. A Lord-Principal held it by a signed bond sealed in wax, renewable and revocable, a Bannerman held his holding from him by another bond, and a Freeholder held his lease from the Bannerman by a third. Nobody held anything by blood alone. Freeholders held a lease from a Bannerman or Reeve, owed a crossbow levy, and made up most of the free population. Bondfolk were bound by debt, not by birth, and could buy their way out at any time at the price entered in their bond. A bondman's children were free, which was the Syndicate's most distinctive social rule. The Unbonded were travellers and newly arrived refugees with no protection and no obligations, who had a short time to find a bond or leave. Bondfolk and the Unbonded wore undyed wool and leather with the bond number sewn at the breast, and a bonded freeman wore a thin black band on the sleeve. *See also: Ledger Court, Syndicate Under the Fiefs, Stewardship, Chapter 4.*

Brasmere, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was sea-green, its charge a ship and its seat Brasmere Quay. Its role was the harbour, the fishing fleet and coastal trade. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

C

Carina-11 Famine (about 3 AE)

The catastrophe that ended Luluke's post-war prosperity. Around 3 AE a newly developed agricultural pesticide, viriditas, turned out to poison luminonion crops with a toxin now known as Carina-11. The toxin was deadly, food-borne and highly contagious as it spread through the food supply. Luluke's diet and economy were built on luminonion, and the result was famine, disease and mass exodus. The Christonian Empire had previously been bound to accept Luluke travellers freely under the Treaty of the 200-Year War, but it revoked the arrangement to contain the outbreak. Luluke survived at a fraction of its former population. The refugees founded four new nations (see Diaspora of 3 AE). *See also: Diaspora of 3 AE, Treaty of the 200-Year War, Chapter 3.*

The Chair (about 3 AE to about 340 AE)

The presiding office of the Syndicate's Table. One Lord-Principal was chosen each year by the Table from among its own members. The Chair presided, spoke for the Syndicate to outsiders and held no extra vote, and no one could be chosen twice in three years. It is the ancestor of the Syndicate's later chairmanship, and it explains how a mercantile superstate could be run for centuries by a rotating, nominally equal board. After about 340 AE the Chair became a chairman, and the Seal-Mace is still carried into the room. *See also: The Table, Charter-Houses of the Syndicate, Chapter 4.*

Charter-Houses of the Syndicate (from about 340 AE)

The twelve trading companies into which the Table converted the fiefs about 340 AE, when Koedul's survey crews and his rail and canal network showed that land rent was worth less than the freight that crossed it. The twelve Lords-Principal became the heads of twelve charter-houses with the same names, colours and charges. Bannermen and Factors were absorbed into company management, and the levy was replaced by paid companies. The Tallymen's registry became the Syndicate's accounting office, the Table became a board and the Chair a chairman. By 400 AE the fiefs had been commuted into chartered houses. Each house flew the Syndicate flag with a pennant of its own at the hoist, the only colours other than black and gold legally permitted on Syndicate property, and the Syndicate's trading companies were required by charter to fly black and gold.

The twelve are Aldrek, Brasmere, Corvane, Dunmar, Esselt, Falkreth, Garnoth, Halvane, Ilmar, Jurak, Kessane and Lorrow. The twelve beads on the Syndicate seal stand for them. The Syndicate-chartered trading companies that later moved into Christonia descended from the Factors of the fief period. *See also: Syndicate Under the Fiefs, The Table, Syndicate-Chartered Trading Companies, Economic Absorption of Christonia, Chapters 4, 5, 29.*

Chicano Interwar Collapse (1276 to 1300 AE)

The fall of Chicano States from the continent's single dominant power to a refugee state in two generations. Its dominance did not survive the Second Aridexian War, a war in which it was not a combatant. The war's shockwaves strained the same overextended military spending that had built its expansion. Safemoon clawed back most of what it had lost the moment Chicano's grip loosened, with a population that remembered why it was fighting. Chicano held a real but much smaller core through the rest of the pre-war era. In the chaotic years between the Second and Third Aridexian Wars, after terrorism, assassinations, corruption and plague had worn the state down, it fell into a civil war in which its army, navy and air force fought themselves with the same machines on both sides. It lost every remaining grid of Numarian territory and survived only in exile, on its islands, under the same name, elsewhere on the map. The southern provinces broke away, among them Nam, which became Nam Minh. Because it was hit more lightly than the continent's major powers, it had the strength to reclaim a small slice of its southern coastal territory after the Third Aridexian War, the cluster it started from, renamed to mark the new era. Gran Chicania became Nueva Chicania, Exodus became Exodus Point, Univar became Navarro, and there was one new foundation, Verdad. Its other expansion-era cities (Fortaleza, Valentia, Prospera, Union, Properio and Fortero) still stand under other flags. Most of its advanced hardware was captured, scattered or scrapped by neighbours. *See also: Ashfields Campaign, Reclamation War, Postwar Scramble on Numaria, Chapter 8.*

Chicano Land Claim of 795 AE

The seizure of roughly a quarter of Vessek's mountainous territory by Chicano States, at the time a mid-sized, ambitious coastal power, in about 795 AE. It was a real but limited land grab, of the sort a regional power makes when a weaker neighbour looks momentarily distracted, and it was not the opening move of a planned conquest. Salvador Reyes, a war hero of the campaign credited with its success, was acclaimed to power ten years later, in 805 AE, and treated the claim as a down payment. *See also: First Marshal's Empire, Long Campaign, Vessek Resistance, Chapter 8.*

Chicano Revolution of 1357

The overthrow of Chicano States's government during the Turncoat War. Chicano had been bribed into the war by Solenne's president Malakor Vane with a promise of Typhon land, in exchange for sabotaging every rival off-world programme on the continent it could reach. The money and the sabotage worked for a while. But the corruption required to run Malakor's errands hollowed the state out from the inside faster than any external enemy, and by 1357 the government was bankrupt in every sense. A domestic revolutionary movement overthrew it, led by a direct descendant of Salvador Reyes, who was twenty-nine at the time of the war's largest battles. The new government built something meant to outlast its leader, and it switched sides outright, joining the war's final year on VAPIK's side against Solenne. Its troops tore off the old marks and added a plain red cloth band. The leader began warm and grounded in an understanding of people. As he took personal field command he started sacrificing his own people with a widening moral distance, the mirror image of Malakor's own trajectory. *See also: Turncoat War, Project Turncoat, VAPIK, Ashfields Campaign, Chapter 20.*

Collapse of the First Marshal's Empire (812 to the early 820s AE)

The unravelling of Salvador Reyes's conquests after his death at Kelvath Hollow. An empire built in seven years and held together by one man's personal legitimacy, with no real administrative capacity to garrison and govern it, could not survive losing him. Every conquered nation rose the instant word of his death spread, because none had accepted the conquest as final. Vessek, Ashwick, Talgrave, Prynn and the survivors of Corvath pushed out every garrison within months, and none of the land was retained. By 816 AE the same loose coalition, bound by circumstance and not by treaty, pushed into Chicano States's own home territory and occupied it outright. Chicano's surviving government reorganized and by the early 820s had fought and negotiated its way back to full independence, chastened and considerably smaller but sovereign. The episode left no lasting territorial mark, and Chicano's later history resumed from the baseline it held before 795 AE. *See also: Battle of Kelvath Hollow, First Marshal's Empire, Chapter 8.*

Collectors (310 to 641 AE)

The tax-scribes and grain-tithe officers of the Ferrosian Empire, one of the three great offices beneath the Imperial Governors. After the Rebellion they became salaried and audited. *See also: Ferrosian Empire, Water-Courts, Council of Oases, Chapter 6.*

Communist Power Alliance (CPA) (before 1250 AE to 1300 AE)

The ideological bloc of the USN, which predates HAFDAP by decades. It dated back to the Syndicate era before the Thirty-Day War and was inherited wholesale by the USN once the Syndicate became its heartland government. Bavaria had been a member since the alliance's founding. By the time HAFDAP formed, the roster also included, unofficially, the underground resistance and government-in-exile of what would become PUSDR, a coordinated ideological partner not yet a state in its own right. In the Second Aridexian War the CPA, anchored by the USN and backed by Bavaria and PUSDR's government-in-exile, fought HAFDAP. The red-and-black colour pairing of the USN was kept after 1300 by several CPA-descended states for reasons of their own. *See also: Historic Alliance For Democracy And Prosperity, Second Aridexian War, PUSDR Resistance and Government-in-Exile, Kargopol, Chapter 12.*

Confederate States of Talona (1286 to 1290 AE)

The breakaway state declared by the industrial coastal city of Coastville during the USN's post-war collapse, backed discreetly by Christonian funding and military advisors. Its far higher standard of living drew much of the USN's own senate and administration into defecting to it. For a dictatorship already humiliated by the loss of Christonia a decade earlier, this was existential and not merely embarrassing. A USN special-forces raid, Operation Black-Snake, destroyed Talona's only warship and its main tank-production depot but failed to kill its leadership. The crisis ended in an uneasy settlement in which Talona was reabsorbed as an autonomous province rather than retaken by force. *See also: Talona Crisis, Operation Black-Snake, Office of Watch, Chapter 13.*

Conjunctioner Council (Christonia)

The council of Christonia's elected government, which with the president formed its formal government. Its Conjunctioners could break from it, as Elin Renner did in the 1190s. By the mid-1200s it was financed by Syndicate money and unable to back the Renner Faction. It was restored with the president when Christonia regained independence in 1276 AE. *See also: Renner Faction, Economic Absorption of Christonia, Second Aridexian War, Chapter 5.*

Convergence Hypothesis (about 900 to 1100 AE)

The leading scientific explanation of the Descendant Problem once genetics matured enough to run the comparisons. It took convergent evolution to an extreme: Ardekai-like intelligence and anatomy were so strong an evolutionary attractor that they could arise from radically different starting material with no detectable shared ancestry. It was the polite, mainstream textbook answer for roughly two centuries and remains taught as the leading model. The teaching carries the explicit caveat that the hypothesis has never closed the fossil gap or explained why no transitional Ardekai fossils exist. *See also: Aridexian Descendant Problem, Special Origin Schools, Arrival Theories, Chapter 24.*

Corvane, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was orange, its charge crossed picks and its seat Corvane Deeps. Its role was ore and the deep mines. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Corvath War (809 AE)

Reyes's third campaign. By 809 AE his reputation was doing work his army no longer had to. Corvath's government had watched Ashwick fall in three weeks and Talgrave grind through a full winter siege before losing anyway, and it chose not to repeat either. The Battle of the Corvath Crossing, one-sided and brief, was enough, and the government sued for terms within days. For the only time in seven years Reyes accepted something short of outright annexation. Corvath kept a nominal government of its own, under his supervision rather than his direct rule. *See also: Battle of the Corvath Crossing, First Marshal's Empire, Chapter 8.*

Council of Oases (from 641 AE)

The governing body of the Republic of Anestria, formed by the Ferrosian Rebellion to replace the governors-as-lords. It seats one delegate per oasis, each answerable to its own population, and chooses a President-in-Council, who answers to it. Every citizen has an equal vote and every citizen serves in the Oasis Guard. *See also: Ferrosian Rebellion, Oasis Guard, Oasis Courts, Chapter 6.*

D

Department of Defensive Logistics

One of the major departments of the Solennese government, whose lower-level leader the Jakaar must appoint. Nothing requires such appointments to be confirmed, reviewed or even publicly justified. *See also: Jakaar System, Department of Trial, Department-Y, Chapter 16.*

Department of Trial

The Solennese department that tries cases, headed by an appointee of the Jakaar with no confirmation or review. Its head, like the head of Department-Y, had every professional incentive to protect the administration that appointed him. In AE 1342 Farren Vane shot dead its then head, who had been having an affair with his wife Lensi. The murder never became a public scandal, prosecution or even a rumour, because the sitting Jakaar and the Department's surviving leadership both answered to Farren's network before the law. *See also: Jakaar System, Department-Y, Farren Vane's Intelligence-Optimisation Programme, Chapter 16.*

Department-Y (from the founding of Solenne)

A body never publicly acknowledged and referred to internally only by that designation. Its official mandate is maintaining Solenne's technological edge, as a research-and-development body. Its real function, known to a narrow circle across every Jakaar's administration since the founding, is comprehensive personal surveillance. It keeps detailed files on the civilian population, including political sympathies, reported privately to whichever Jakaar holds office. It never needs to make an arrest to work, since a population that suspects the state already knows its politics polices its own speech. It also carried out Farren Vane's early-childhood cognitive research. Early in Malakor Vane's presidency it developed pharmaceutical treatments intended to correct what its own protocol had broken, which Malakor took and then rejected permanently. *See also: Jakaar System, Farren Vane's Intelligence-Optimisation Programme, Department of Trial, Chapter 16.*

Destruction of Port Dionysis (17 January 1300 AE)

The first target of the USN's first strike. Port Dionysis in Luluke housed an allied military garrison, which the strike hit along with the eleven-squadron attack on the major cities of Christonia, Luluke, the All-Finian Empire and Anestria. The detonation at Port Dionysis was one of six within roughly three hours (with Christona, Apokka, Sulsbury, New Geneva and Freeport). The garrison wore Luluke's standard field grey and was caught in barracks dress at 2 AM, without the flash-protective eyewear it had not been issued or had not worn. *See also: Third Aridexian War, United Syndicate Nations, Chapter 14.*

Diaspora of 3 AE (about 3 AE onward)

The scattering of Luluke's people after the Carina-11 Famine. The refugees founded four new nations. The Syndicate, the largest group, sailed west to a temperate, mountainous continent. The All-Finian Empire sailed east and settled a chain of large islands, on a coast where the Phaeshan Federation had once lived. Anestria went south into a desert continent of oases and later fractured into three founding kingdoms, Antares, Imperium and Anestria proper. The Pechorian Federation followed the Syndicate's route but kept sailing north to a long, cold coastal strip above the Syndicate's territory, and was founded the same year as the Syndicate. Luluke itself survived at a fraction of its former population. The Syndicate, Anestria and the All-Finian Empire crossed open ocean in the same ships that carried them away, and Skarnovia was claimed within the same decades. *See also: Carina-11 Famine, Phaeshan Federation, Skarnovian Scramble, Syndicate Under the Fiefs, Chapter 3.*

Dimikrov Katinka Krasny Design Bureau

PUSDR's state-run design bureau, builder of the DKK-1 "Flapjack", developed off the PR-5's own airframe, a balance of quality and quantity with AESA radar and modern missiles. It produced the DKK-1 family (E1 export, MDMU naval, B display aircraft, M modernised), the DKK-5 "Flashfire" interceptor, the DKK-7 "Frenzy" stealth fighter and the DKK-80 "Grendel" helicopter. *See also: People's Revolutionary Air Force, Chapter 28.*

Diplomatic Resource War (AE 1359 to 1361)

Phase I of the Fourth Aridexian War. The Threshold Accord leaked within months of signing, and every excluded nation reacted with total diplomatic rupture. UARRO fractured for good, unable to hold trade-bloc unity between members on opposite sides of the Accord. Kargopol used the crisis as a recruitment tool. DS-HP faced the first legitimacy crisis in its history. Half the planet accused it of providing intellectual cover for what the other half called a death sentence for everyone outside the Accord's four borders. *See also: Threshold Accord, UARRO, Kargopol, DS-HP, Chapter 22.*

Dissolution of the All-Finian Empire (17 January 1300 AE)

The end of the All-Finian Empire. After the USN's first strike dealt it a mortal blow, its last surviving leadership authorised two nuclear strikes on USN soil, the whole of its much smaller wartime stockpile. The Empire formally dissolved at 6:30 AM that morning, with a handful of staff officers in naval grey signing a final set of orders in formal dress. Its island territories fractured into a loose patchwork of independent city-states with no single successor government: Korveil, Finhaven, Halvern, Tavelin and Skerrow. *See also: Third Aridexian War, Chapter 14.*

Drozdov Mining Rush (from about 1000 AE)

The settlement of Drozdov, the second time it was settled, by waves of prospectors from Luluke, the Syndicate and later the USN, chasing copper, then rare-earth and then uranium-bearing strikes from roughly 1000 AE onward. It built Bavaria, one of the major powers before the Third Aridexian War. Bavaria has no serious domestic rival on Drozdov. The Northern Tureshan Kingdom that might have contested it was already gone, and the mining concessions that built Bavaria consolidated fast and stayed consolidated. The same rush on Numaria produced Eisenreich. *See also: Northern Tureshan Kingdom, UARRO Foundational Charter, Chapter 8.*

DS-HP (Deep Space Human Preservation) (founded 1265 AE)

The initiative founded in 1265 AE, nominally Syndicate-subsidised but built and staffed as an independent international scientific consortium. By 1270 it operated launch sites, vehicle assembly facilities and tracking stations across several continents, with a mandate to locate, evaluate and eventually settle habitable worlds elsewhere in the APS system. Its decentralised, international structure, deliberately insulated from any single government, is why it survived the Third Aridexian War. Afterwards it shifted from exploratory science to something nearer an insurance policy for the species, accelerating off-world settlement. DS-HP-administered colonies now exist on Lira, Typhon, Orjust, Anquilla and several of Keplanus's moons. Its own calendar, DSY, is anchored to 1276 AE (DSY = AE minus 1276).

UARRO coordinates its space operations through it, with Solenne as lead representative. Malakor Vane compromised it from inside during the Turncoat War, to a depth its wider staff never fully learned. In 1359 it published the resource assessment that began the Fourth Aridexian War, as pure math, and recommended restraint. It then faced the first legitimacy crisis of its history, and its Aridexia-side administrative headquarters was bombed twice in 1363 to 1365. Its Historical and Cartographic Division issued the political histories and the stellar dossier. In 1341 it overrode its own Astrobiology Programme's planetary-protection mandate and began settling Typhon. *See also: Typhon Astrobiology Programme, Typhon Colonisation, Threshold Accord, Sanctuary Program, UARRO, Chapters 13, 18, 21.*

DS-HP Historical and Cartographic Division

The division of DS-HP under whose heading the Consolidated Political History and its companion volumes are issued. The stellar system dossier carries the heading of its Cartographic Division. *See also: DS-HP, Chapter 34.*

Dunmar, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was slate blue, its charge a wheel and its seat Dunmar Mill. Its role was grain, mills and the central valley. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

E

Economic Absorption of Christonia (700s AE to 1249 AE)

The Syndicate's long conquest of Christonia by capital rather than arms. By 700 AE the trading houses that Koedul's network had connected were looking outward. In the 700s and 800s Syndicate-chartered trading companies moved into Candrasia. They offered a Christonian Empire rebuilding from its treaty terms the investment capital, industrial machinery and technical expertise it could not generate itself, in exchange for resource concessions, exclusive trade terms and eventually seats at the table when Christonian economic policy was decided. The printing press of about 880 AE unified Christonian as a written language, and it also let a Syndicate-funded press run the language back at the people who spoke it. By 1000 AE, when Christonia reached a mid-twentieth-century level of industry, most of its industry answered to Syndicate boardrooms as much as to its own elected president and Conjunctioner council. The arrangement was never declared, voted on or resisted by the formal government, because there was no single treaty to break, only a hundred years of contracts running the same direction.

Christonian infantry carried imported and licence-built AVMS weapons bought on Syndicate financing. The Syndicate treated "informal economic empire, then formal one" as its whole playbook. The arrangement was completed formally by the Thirty-Day War and the creation of the United Syndicate Nations in 1250 AE. *See also: Syndicate-Chartered Trading Companies, Renner Faction, Thirty-Day War, United Syndicate Nations, Chapter 5.*

Eisenreich Occupation of PUSDR (generations before 1300 AE)

The conquest and annexation by Eisenreich, the "Iron Realm" and Numaria's dominant industrial power, of the homeland of the early PUSDR, the Republic of Altyr and the Socialist Republic of Kargopol, joined by the Yedinstvo Treaty. Under occupation PUSDR's underground resistance and government-in-exile survived with outside friends. The USN treated them as a useful proxy against a rival great power on the same continent, with real but deniable support, including smuggled AR-22 carbines, and Tianhai built a friendship with them after 1276. Resistance fighters wore civilian work clothes and captured Eisenreich greatcoats dyed to hide the tell, with a single red cloth armband as their only common marker. The armband became the colour PUSDR was founded around. The occupation ended in the revolution that followed the Third Aridexian War. *See also: PUSDR Resistance and Government-in-Exile, Great Revolution, Ferrengrad Arms, Chapter 8.*

Election of Malakor Vane (AE 1353)

The presidential election in which Malakor Vane, at 16, was appointed directly into the final election by a sitting Jakaar loyal to his father's network, bypassing the regional and statewide stages. He won, and beat his own older brothers Vaussen and Marcus, both of whom had risen through legitimate regional politics in different states. Before a camera or a crowd he was the most charismatic public figure Solenne had put before its electorate. The Typhon colony's fracture is tied to this date, because Project Turncoat began redirecting resources and political pressure toward making Solenne alone the power that decided what the colony became. *See also: Jakaar System, Project Turncoat, Turncoat War, Chapter 20.*

Esselt, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate, and one of the three that mattered most to later history. Its colour was violet, its charge scales and its seat Esselt Court. Its role was law, weights and measures. It held the Ledger Court and so the law, supplying the Justiciars, and its seal could void another house's bonds. *See also: Ledger Court, Charter-Houses of the Syndicate, Chapter 4.*

F

Falkreth, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was silver-white, its charge a key and its seat Falkreth Gate. Its role was customs at the mountain gates. *See also: Charter-Houses of the Syndicate, Pass-Wardens, Chapter 4.*

Fall of Calmouth (806 AE)

The fall of Ashwick's capital, Calmouth, within three weeks of the Battle of Ashwick Bay. With the coast undefended, Chicano's army landed and marched on the capital almost unopposed, so the fall was less a siege than a formality. *See also: Ashwick War, Battle of Ashwick Bay, Chapter 8.*

Fall of the USN Capital (17 January 1300 AE)

The end of the United Syndicate Nations as a state. By the evening of 17 January 1300 AE, after Anestria's bombing campaign had destroyed the remaining major cities, Anestrian marines took the USN capital, found its government already fled or in hiding, and executed the last of its officials. The dictatorship had ruled the Syndicate's heartland for over a thousand years, through the Syndicate era, the USN and the Talona crisis. It ended in an afternoon, brought down by the weapon it had built to guarantee its own survival. *See also: Anestrian Marines, Third Aridexian War, United Syndicate Nations, Founding of Solenne, Chapter 14.*

Farren Vane's Intelligence-Optimisation Programme (AE 1329 onward)

Department-Y's research into early-childhood cognitive development, invested in heavily by Farren Vane from his own wealth and government influence. It subjected his own four children, and diverted homeless and impoverished Solennese children, minors with no legal standing to refuse, to intensive education and psychological pressure designed from infancy to maximise measurable intelligence. His own children were its most closely tracked subjects. Vaussen (born 1329) tested at 11 in AE 1340 at 172. The twins Marcus and Lilian (born 1334) tested at 11 in AE 1345 at 201 and 208. Farren was dissatisfied each time and ordered the protocol escalated regardless of cost, personally authorising the abduction of more children. Malakor (born 1337), the last, was switched onto a final unrestrained formula with no safeguards. He developed bipolar disorder and ADHD, was diagnosed as psychotic, was antisocial by 11, and tested at 260, an Aridexian record. Older, less rigorous methods occasionally produced scores as high as 278, which settle back into the flat 200s under modern standards. *See also: Department-Y, Jakaar System, Election of Malakor Vane, Chapter 16.*

Farside Excavation (AE 1371)

The joint mining and survey operation on Typhon that found the Farside skull. A joint Ardekai-Ospyran research team, together for a practical reason (both sides needed the same ore and neither could survey Farside Reach alone under wartime conditions), located a flooded cave system on the margin between the Hearthlands and Farside Reach, with cave calcite and dull copper outcrops visible from the entrance. Clearance and construction began on a joint mining operation, one of the only pieces of infrastructure either side would still build with the other. In an air pocket deep in the flooded system construction crews found a skull, structurally consistent with modern human anatomy, unmistakably pre-Ardekai, old and primitive, in strata predating anything either colony had touched. Dating placed it at roughly 50,000 years before GAW3.

The inference was that Ardekai did not evolve on Aridexia. The species evolved on Typhon in a civilisation that reached Aridexia roughly 50,000 years ago and did not survive its own arrival in recognisable form. A tiny, traumatised founder population climbed back from near nothing across tens of thousands of years, looking like ordinary evolutionary emergence though faster, with no memory because nothing functioning survived to inherit it from. The Farside Anomaly is a depression 4.1 km deep and 38 km wide with no meteoritic explanation. It is not proven to be the scar of what ended the first civilisation, but it is the sort of scar such a civilisation would leave, and it explains why Hearthlands ore was thin: it had been worked before. The record presents all this as its strongest read of the evidence, and does not call it settled science. Within a year the site was the most-visited location on Typhon, by Ardekai and Ospyran settlers alike. The war did not end because of it, but the find removed the ground both founding arguments stood on. An unsigned field note appended to the excavation log said the skull "did not choose Ardekai. It did not choose Ospyran. It just waited." *See also: Aridexian Descendant Problem, Ardekai-Ospyran War, Typhon Colonisation, Chapters 23, 24.*

Far-Side Radio Observatory

The radio observatory hosted by Crater Demeryn on Lira, a 78 km crater with a complex central peak. *See also: DS-HP, Lira Pact, Chapter 33.*

Ferrengrad Arms (by the 1000s AE, captured 1300 to 1305 AE)

Eisenreich's state arms firm, maker of the IR-11 "Ironhand" rifle from the 1000s AE onward. The rifle was deliberately over-built, heavy and simple to mass-produce, to arm both the Iron Realm's troops and its conscripted subject population. When PUSDR's revolutionary civil war conquered Eisenreich in the immediate postwar window, PUSDR captured Ferrengrad's factories intact and kept building the IR-11 as the People's IR-11M, with a new marking and red-painted furniture. The People's IR-15 sidearm and the semi-automatic People's IR-10 rifle followed from the same captured tooling. *See also: Great Revolution, Eisenreich Occupation of PUSDR, People's Revolutionary Army, Chapter 26.*

Ferrosian Empire (310 to 641 AE)

The first unification of the desert continent. Imperium sat over the richest iron-bearing sands, and by roughly 220 AE its smiths made tools and weapons a full step ahead of Antares or Anestria proper. Its ruling house used that edge for a slow, generation-spanning conquest of its neighbours, and by 310 AE the continent was united under one crown, ruling from Imperium's capital and named for the material that built it. The Empire held for over three centuries because Anestria's oases are naturally isolated, and an empire that already holds every oasis has little external pressure. Beneath the Iron Throne at the capital sat an Imperial Governor for each oasis, and below them the Water-Courts, the Ironguard and the Collectors. By the 600s the governors, generations removed from the original dynasty, had become a hereditary aristocracy running each oasis as a personal holding. The Ferrosian Rebellion ended the Empire in 641 AE. *See also: Ferrosian Rebellion, Water-Courts, Ironguard, Sand Riders, Collectors, Chapter 6.*

Ferrosian Rebellion (630 to 641 AE)

A popular uprising against the Ferrosian Empire, and no rival dynasty's palace coup. It deposed the last Ferrosian emperor and replaced the whole apparatus of governors-as-lords with an elected council answerable to each oasis's own population. It is the founding event of the Republic of Anestria, dated to 641 AE. The rebel militia wore mismatched kit and patched tunics, carried wooden spears with pruning-hook heads, a water-skin and a small round buckler, and wore a green armband, the oasis colour, as their one common mark. The armband outlived the revolt and became the Republic's first insignia. The Republic's emblem was born the same year: a sand-coloured disc with a date palm and a gold sun ringed in the three kingdoms' colours (red, iron-grey and green). *See also: Ferrosian Empire, Council of Oases, Oasis Guard, Anestrian Founding Myth, Chapter 6.*

Final Battle of the Unification of Northland (February 1303 AE)

The last battle of Nikolai Nichozh's unification, against what remained of Oyun-Tash resistance in a single glacial valley. It is remembered as the worst single day of bloodletting the region had ever produced, with thousands dead. Nichozh, 78, was at his own front line and was maimed badly enough to lose the use of one eye. The last organised resistance broke, and the four clan-holdings became one nation. He later wore a wide gold-and-cream band low across the eyes. *See also: Unification of Northland, Verrenkai, Kholvag, Drenmoor and Oyun-Tash, Chapter 10.*

First Crewed Capsule Flight (1265 AE)

Anestria's first crewed capsule flight, following Vivemus-1 in 1261 AE, the same year DS-HP was founded. *See also: Vivemus-1, DS-HP, Chapter 13.*

First Crewed Lira Landing (DSY 12, AE 1288)

The first crewed landing on Lira, at Mare Concordis, the largest visible mare, in DSY 12 (AE 1288), during the Talona Crisis. It was a DS-HP effort. Safemoon's Sanctuary I in 1307 was the first landing by a single nation's own crew. *See also: Sanctuary Program, Lira Pact, Talona Crisis, Chapter 13.*

First Marshal's Empire (805 to 812 AE)

The second Numarian empire, and its second cautionary tale about how fast one can collapse. Around 795 AE Chicano States, then a mid-sized, ambitious coastal power, seized roughly a quarter of Vessek's mountainous territory. In 805 AE a war hero of that campaign, Salvador Reyes, was acclaimed to power in Chicano States by popular sentiment, without coup or bloodshed, and took the title First Marshal. For seven years he treated the land claim as a down payment and fought every campaign personally at the head of his own army. The wars were fought at roughly an early-nineteenth-century level, with massed infantry in line and column, smoothbore muskets, field artillery, cavalry still a real arm, and warships still age-of-sail.

His wars were the Ashwick War (806), the Talgrave War (807 to 808), the Corvath War (809), the Siege of Prynn (810 to 811) and, underneath all four, the Long Campaign against Vessek (805 to 812). By 811 AE he controlled very nearly the entire Numarian landmass, every polity on it except Drozdov, which had nothing on it yet worth the trouble. Only Vessek's deep mountain core still openly defied him. He was killed at Kelvath Hollow in 812 AE, and the empire fell with him. *See also: Ashwick War, Talgrave War, Corvath War, Siege of Prynn, Long Campaign, Collapse of the First Marshal's Empire, Chapter 8.*

Founding of Solenne (1300 AE)

The establishment of Solenne in the vacuum left by the USN, on the ash and fallout of the worst night in Aridexian history. It was a deliberate, total break from the USN. The USN had been an authoritarian one-party state that answered a domestic crisis with secret weapons and a first strike. Solenne organised itself from the outset as a democracy, with open elections, a legislature and civilian control of the military, so that it could never again do what the USN had done in its name. It inherited the USN's territory, industry and reputation, but not its government, ideology or instincts. It took its name from Solis, the system's star, and its national colour is yellow, plainly solar and worn nowhere in the USN's drab palette. The first election was won by Farren Vane, who had designed the system. The USN's flag, Eye and ring were banned in Solenne in its founding year and remain illegal to fly or display there. *See also: Jakaar System, Farren Vane's Intelligence-Optimisation Programme, United Syndicate Nations, Third Aridexian War, Chapters 15, 16.*

Fourth Aridexian War (AE 1359 to 1371)

The Last War, also called GAW4, which ended Aridexian civilisation as a going concern. It grew out of resource arithmetic. By 1359, the year after the Turncoat War ended, DS-HP's accounting showed that Aridexia's remaining launch-grade propellant, precision alloys and fissile material could sustain one off-world effort, not two. DS-HP published the assessment as pure math and recommended restraint. Four nations chose enforcement instead and signed the Threshold Accord in late 1359. The war ran in four phases: the Diplomatic Resource War (1359 to 1361), the Proxy War (1361 to 1363), the Terrorist Campaign (1363 to 1365) and Open War (1365 to 1371). It was fought almost entirely with conventional arms, because GAW3 had burned the fissile stockpile and the Accord's resource logic made building more impossible. It was fought with the same mid-sixth-generation plateau hardware, worn down by six years of continuous war.

Governments fell in sequence. In 1365 the four signatories fell: Solenne (collapsing at home, with Malakor Vane already gone), the joint Northland-Southland government, Chicano States, and Anestria's successor states. In 1366 came Numaria and Drozdov: PUSDR, Bavaria, Safemoon and the Pechorian Federation. In 1367 Christonia, Einsenia, Ostrenia, Velemira, Kesarova and Dravensk fell. In 1368 the All-Finian successor city-states (including Tavelin), Luluke and Skotia followed. In 1369 came Nam Minh, the Yeshuren Union and Xue Lin. In 1371 Hardluckia and the Schwalbenheimers, the last two governments left, fell. There was no armistice and no treaty, only exhaustion so total that the fighting stopped because nothing was left to continue it. By 1371 no nation of the record was a going concern. The species survived on Typhon, which did not know. The Ardekai-Ospyran War on Typhon ran on the same calendar, 1366 to 1371. *See also: Threshold Accord, Diplomatic Resource War, Proxy War, Terrorist Campaign, Open War, Ardekai-Ospyran War, Chapter 22.*

Fracture of the Typhon Colony (AE 1360 to 1366)

The split of the Typhon colony into two identities. By 1360 the Hearthlands were stable enough to stop being a survival project, and an argument that had sat under the surface finally had room. The question was whether the colony was Aridexia's continuation (the Ardekai position) or the chance to stop, a break from an unbroken history of war, named Ospyran after Osprey, the world itself. The split came from what happened once home stopped treating the colonists as one people worth keeping that way, and nothing the colonists did caused it. Malakor Vane's Project Turncoat redirected resources toward Solenne alone. By 1366 land claims around the Hearthlands' two richest remaining ore pockets were being made twice, once by an Ardekai settlement council and once by an Ospyran one, over the same ground. *See also: Ardekai, Ospyran, Ardekai-Ospyran War, Project Turncoat, Chapter 23.*

G

Garnoth, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate, and one of the three that mattered most to later history. Its colour was rust, its charge an anvil and its seat Garnoth Forges. Its role was steel, armour and the arms trade. Because it made the steel, it made the arms: the mountain steel of the Syndicate's mail, plate and harness came from Garnoth's forges. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Glocian Express

A 14-year cycler loop between Aridexia and Glocius, providing continuous low-delta-v logistics for non-urgent cargo. Ferris's mass driver delivers pre-refined ore to interplanetary trajectories. *See also: Aurelia Mining Operation, Orjust Pipeline, Chapter 33.*

Great Revolution (PUSDR) (1300 to 1305 AE)

PUSDR's revolutionary civil war. In the chaos that the Third Aridexian War created everywhere, Eisenreich included, PUSDR's occupied population rose and re-established itself as an independent socialist state. In Eisenreich's own civil war it gained two more republics, the Taran Kingdom and the Federal Province of Kinzel. It then pushed on to conquer Eisenreich outright within the same half-decade, so that the name Eisenreich no longer appeared on a map of Numaria by AE 1305. Occupier and occupied traded places in a single half-decade. Prototype AS-17 rifles and the ASP-20 rocket launcher, rushed into service against Eisenreich armour, served in it. PUSDR captured Ferrengrad Arms' factories intact. The USN had helped, discreetly, to make the liberation possible, and PUSDR became Solenne's chief rival within five years of its birth, anchoring the Kargopol bloc. *See also: Eisenreich Occupation of PUSDR, Ferrengrad Arms, Kargopol, People's Revolutionary Army, Chapter 15.*

H

Halvane, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was forest green, its charge a sheaf and its seat Halvane Vale. Its role was farmland and stock. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Hearthlands Research Station

The semi-permanent headquarters of the Typhon Astrobiology Programme, in the Hearthlands, Typhon's largest landmass and most volcanically active region. *See also: Typhon Astrobiology Programme, Typhon Colonisation, Chapter 21.*

Helian (about 0 to 600 AE)

A confederated civilisation of coastal city-settlements on the milder fringes of Heliodysseia, the north polar continent. It was populous by the standards of a polar coastline and traded fish, whale-oil and worked ivory down the coast in numbers the modern Ilvennaq would find unrecognizable. Its decline came from neither war nor plague. Ice-core and coastal-terrace evidence shows a multi-century cooling trend across roughly 550 to 850 AE, which advanced the permanent ice line south along the coast every generation and shrank Helian's habitable fringe faster than any settlement pattern could adapt. The settlements grew smaller, more mobile and more scattered until "confederated civilisation" no longer described anything living there. The Ilvennaq are Helian's direct descendants. The cooling is the mirror image of the drying trend that shaped the Luluke-Christonian War. *See also: Luluke-Christonian War, Long Survey, Chapters 1, 9.*

Hired Companies (from the 200s AE)

Paid soldiers on a term contract in the Syndicate's fief period, one of the three arms of the Marshals' force. They appeared in the 200s as the Table's answer to the fact that a levy cannot be kept in the field through a campaign, and they are the ancestor of the Syndicate's long habit of buying force rather than raising it. When the Table wants a war it hires a company rather than call out the levy, so that Freeholders stay on the land. From about 320 AE the companies carried the arquebus. The levy was replaced by paid companies when the fiefs became charter-houses. *See also: Marshals of the Syndicate, Bannermen, Charter-Houses of the Syndicate, Chapter 4.*

Historic Alliance For Democracy And Prosperity (HAFDAP) (1262 AE to 1300 AE)

The coalition formalised by 1262 AE by Anestria, Luluke and the All-Finian Empire after Anestria's support for Christonia's recovery lapsed (first, in 1260, citing its own energy crisis, as industry converted from coal to petroleum and its reserves ran behind demand). The name was deliberately broad, vague enough that a monarchy (the AFN), a republic (Anestria) and an old mercantile state (Luluke) could all sign it without agreeing on much beyond their shared, freshly soured relationship with the USN. It fought the Communist Power Alliance in the Second Aridexian War. The three founding members had supported Christonia's recovery after the Thirty-Day War, and that support never squared with Christonia being folded into its former conqueror's government. *See also: Communist Power Alliance, Second Aridexian War, United Syndicate Nations, Chapter 12.*

I

Ilmar, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was teal, its charge a bridge and its seat Ilmar Span. Its role was rivers, bridges and the toll roads. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Innus-class Relay

The comms-relay satellite constellation of the Typhon Corridor Fleet, small enough to launch on expendable boosters, stationed in Osprey orbit and at Selache, keeping Aridexia and the Typhon colony in continuous contact. It is the named system behind the thinning and silence of Aridexia's final transmissions during the Fourth Aridexian War. An Innus relay does not stop because it breaks. It stops because no one on the Aridexia side is left to transmit to it. *See also: Typhon Corridor Fleet, Fourth Aridexian War, Chapter 21.*

Iron Union (about 1303 AE onward)

An armed ethno-supremacist faction organised by a younger half-brother of Nikolai Nichozh, from his father's other family, which rejected the new Northland state. It held a cordoned-off pocket of Northland's territory, built on forced labour and the caste ideology the state had abolished. Northland's security forces contained it. Its eventual military defeat inside its enclave, some years into Nichozh's rule, is remembered by the state as necessary self-defence and by the Union's descendants as a purge, with mass detentions, summary executions of captured fighters and at least one razed settlement that official casualty figures have never reconciled with outside estimates. Nichozh personally authorised the final operation and, in a surviving field order, told his commanders not to take the garrison alive. *See also: Unification of Northland, Northland State Relief Corps, Chapter 10.*

Ironguard (310 to 641 AE)

The garrison force of the Ferrosian Empire under Ironguard captains, its heavy infantry and its colour. The uniform was a black lamellar coat to the shin, a closed iron helm with a crest and a slit face-plate, a rust-red sash and gorget, a tower shield with a rust ring and a long straight blade, in black and rust. Black and rust are remembered in Anestria as the thing the Republic chose not to be, and no Anestrian uniform since has been black. The Oasis Guard replaced the Ironguard. *See also: Ferrosian Empire, Sand Riders, Oasis Guard, Chapter 6.*

J

Jakaar System

Solenne's government, headed by the Jakaar, elected to an eight-year term. An election runs in three stages. Citizens in each region vote, and each state may advance up to two regional winners into a statewide contest, but only one of them advances to the final national election as the state's single representative. All states carry equal electoral weight because Solenne's borders were drawn to keep population consistent. At the end of a term the sitting Jakaar may also appoint one politician of their choosing directly into the final election. A Jakaar may serve two ordinary terms, after which the same person may keep running indefinitely if they win at least 60% of the vote at every later election. That check works only if elections are free and independently administered, which Solenne's are not. Taxes split three ways: 50% to the central government, 25% to a regional pool spent by community vote, and 25% allocated by the individual taxpayer from a published menu of programmes, which rewards visibility over necessity.

There are no separate branches. There is no legislature independent of the Jakaar's appointees, no court insulated from executive control, and no election authority that answers to anyone but the sitting government. The Jakaar appoints the leaders of the major departments, among them Defensive Logistics and Trial, without confirmation. Department-Y does surveillance in secret. The system is self-reinforcing without any single Jakaar needing to be a tyrant. Loyal department heads protect the administration that appointed them, the appointed-finalist rule means the fastest route to office is pleasing whoever holds it, and the 60% threshold becomes a target a sufficiently entrenched network can manufacture. Elections happen on schedule and confirm a network never at risk of losing. Farren Vane designed it and was the first Jakaar (1300 to 1308), and a chain of Farren-aligned Jakaars followed. The Jakaar's standard flies wherever the Jakaar is present. *See also: Founding of Solenne, Department-Y, Department of Trial, Department of Defensive Logistics, Farren Vane's Intelligence-Optimisation Programme, Chapters 15, 16.*

Jurak, House, and the Bell-and-Beacon Network (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was plum, its charge a bell and its seat Jurak Tower. Its role was the beacon-and-bell alarm network. In the Syndicate's defence in depth through the passes, the Pass-Wardens held the gates and the Jurak network warned the interior within an hour of an enemy appearing at any gate. *See also: Pass-Wardens, Charter-Houses of the Syndicate, Chapter 4.*

K

Karavynic Empire (about 520 to 655 AE)

The first Numarian empire, unified by 560 AE. Within two generations of the Litharic Church's arrival on Numaria in the 500s, the continent's largest chiefdom, ruling the fertile lowlands nearest the Drozdov strait, was the first to convert. It used the Church's doctrine of rightful, unbroken inheritance to justify absorbing its unconverted neighbours one at a time, "restoring" them to a continuity none of them had shared. Its ruling house unified nearly the entire landmass under one crown for the first time. It was never at peace. The throne spent essentially its whole existence putting down local revolts and border raids, garrisoning river crossings and mountain passes with permanent detachments. The fighting stayed internal, punitive and one-sided enough that the Church's blessing preserved the throne's legitimacy, since putting down a valley was "restoration" and not conquest.

The Church's Numarian clergy drifted into a different reading of the doctrine, and the Litharic Schism broke the empire in three stages: 610, 630 and 655 AE. Numaria has never been unified since, and every later Numarian power has fought over ground that was once briefly whole. *See also: Litharic Church, Litharic Schism, Northern Tureshan Kingdom, First Marshal's Empire, Chapter 8.*

Kargopol (about 1301 AE onward)

The anti-Solenne bloc formed about a year after the Third Aridexian War around PUSDR, hardening the USN-era proxy relationship into a real alliance once PUSDR had a state to anchor it. The name also belongs to the Socialist Republic of Kargopol, one of PUSDR's own republics, whose city is the Union's natural capital. Nam Minh joined after the war, the Yeshuren Union became a nominally sovereign PUSDR puppet in it, the Schwalbenheimers aligned with it and Tianhai joined formally. In practice Tianhai's membership was on paper only, since it never allowed Kargopol forces onto its soil. Its ammunition standard is PUSDR's 7.62mm cartridge family, set by the AS-17, and members that field a domestic rifle (Nam Minh's MC-2, the Schwalbenheim SH-9) build around it. The DKK-1E1 export fighter reached all of it except Tianhai. It used the Fourth Aridexian War's Phase I to recruit, presenting itself as the alliance for everyone Solenne's bloc had written off. The red armband first appeared on Nam Minh chest rigs as a Kargopol marker. *See also: PUSDR Resistance and Government-in-Exile, UARRO, Pan-Savoran Union, Realignment of Tianhai, VAPIK, Chapter 17.*

Keplum Cryobot Campaign

The system's flagship astrobiology programme at Keplum. Phase 1 (Year 0): a heavy orbiter maps shell thickness and picks a thin-shell site. Phase 2 (Years 2 to 4): a lander delivers an RTG-heated cryobot. Phase 3 (Years 4 to 9): the cryobot descends through the ice at 1 to 3 m/hr, paying out a fibre-optic tether. Phase 4 (Years 9 to 12): a swarm of four to eight hydrobot AUVs explores the ocean, samples vent fluids and maps the silicate floor. Phase 5 (Year 12+): a sample-return decision under the highest planetary-protection protocol, with a minimum 30-year quarantine analysis. It targets hydrothermal sites such as the Astraea Vent Field beneath the ice. *See also: DS-HP, Chapter 33.*

Kessane, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate. Its colour was ice-blue, its charge a hammer and its seat Kessane Quarry. Its role was stone, masons and the fortress works. *See also: Charter-Houses of the Syndicate, Syndicate Under the Fiefs, Chapter 4.*

Kessel Pass Disaster (809 AE)

An episode of the Long Campaign in which an entire Chicano regiment was drawn into a narrow mountain defile in the Vessek highlands and destroyed to the last man. It is remembered on both sides as the moment everyone understood the war had stopped being conventional. The occupation that followed over the next three years used punitive columns, burned villages in the Ashvale valley cluster and reprisal executions against a resistance with no capital to capture and no army to defeat in the open. *See also: Long Campaign, Battle of Dorrenheim Heights, Battle of Kelvath Hollow, Chapter 8.*

Koedul Rail and Canal Network (about 360 to 412 AE)

The first infrastructure on Savorus built to move freight between cities, where earlier works had only extracted it from the ground beneath any one of them. It was the work of the engineer Vakkar Koedul, who held no office and led no company larger than the survey crews under his own command. The network made the Syndicate's industrial base more than a set of unconnected boomtowns, and by 400 AE the Syndicate had industrialised its home continent end to end. The Table had already begun converting the fiefs into charters about 340 AE, because freight was proving worth more than land rent. Koedul's survey crews grew out of the surveyors of House Lorrow. Solenne later named its heavy-cargo transport line, and its first space booster, for him. *See also: Koedul-1, Lorrow, House, Charter-Houses of the Syndicate, Chapter 5.*

Koedul-1 (Solenne booster)

Solenne's first space-capable hardware, named for Vakkar Koedul. It is a plain riveted steel-and-aluminium single-stage-to-orbit vehicle with a solid-grain booster-assist stage and a single fixed-nozzle kerosene/LOX sustainer, launched from a concrete pad and an umbilical tower. It was deliberately minimal, with no closed-loop guidance beyond a stored pitch programme, the lowest acceptable structural safety factor, and a first-series reliability target of only 65 to 70 percent. The postwar programme had a fraction of the Syndicate's old budget and needed a working booster before a refined one. Payload to low orbit was 180 to 220 kg, enough to carry Velis-1. *See also: Velis-1, Asmedeus-1, Koedul Rail and Canal Network, Chapter 13.*

Koedul-class Heavy Transport

The workhorse of the Typhon Corridor Fleet, named for Vakkar Koedul. An interplanetary cruise stage handles the Hohmann leg, and a second stage aerocaptures into Typhon orbit and descends on the 1,860 m/s round-trip budget. It carries bulk freight: prefabricated habitat modules, construction plant and raw material. It is uncrewed save for a minimal maintenance detachment on longer legs. Every physical structure on Typhon before local manufacturing arrived on a Koedul. *See also: Typhon Corridor Fleet, Koedul-1, Chapter 21.*

Kryodysseian Non-Militarisation Norm

The informal arrangement governing Kryodysseia, the south pole, which is about 90% ice with no permanent population. A scatter of research and mineral-survey stations is claimed on paper by whichever great powers can afford one, with overlapping and unresolved territorial claims. Over them sits a gentleman's-agreement norm against militarisation, which has never been tested by anyone with a serious reason to test it. *See also: Long Survey, Chapter 9.*

L

Ledger Court (about 3 AE to about 340 AE, its registry continues as the Syndicate's accounting office)

The law of the Syndicate under the fiefs. House Esselt supplied the Justiciars, who judged in benches of three, and the Notaries and Tallymen kept every bond, tally and seal in a registry that outlasted any lord. Punishment was mostly debt: a fine, a bond of labour or the loss of a lease. Death sentences were rare and required the whole Table. Tallymen wore a long black robe with a white band at the collar and a flat black cap with a gold tassel and a gold cord. They carried a ledger, quill and the house seal on a gold chain, and bore no weapon. They were the most feared people in any room because they held the bonds. When the fiefs became charter-houses, the Tallymen's registry became the Syndicate's accounting office. *See also: Esselt, House, The Table, Bond System, Chapter 4.*

Lira Pact

The agreement protecting Aridexia's moon, Lira, from large-scale strip mining. Lira stabilises Aridexia's axial tilt to within one degree over billions of years. Without it, obliquity excursions of 0 to 60 degrees would be possible. *See also: First Crewed Lira Landing, Sanctuary Program, Chapter 18.*

Litharic Church (from about 400 AE)

The state religion of the Northern Tureshan Kingdom, formalised around 400 AE. It was a faith built around continuity and inheritance, with no interest in conquest or revelation. It outlasted the Kingdom and emigrated with its own population, and by the 500s Tureshan traders and missionaries had carried it across the short strait to Numaria's northern reaches. There it found an audience hungry for continuity, because Numaria had never had any. Its doctrine of rightful, unbroken inheritance justified the unification of the Karavynic Empire, and a dispute within its Numarian clergy about how that continuity could pass broke the empire apart in the Litharic Schism. *See also: Northern Tureshan Kingdom, Karavynic Empire, Litharic Schism, Chapter 8.*

Litharic Schism (610 to 655 AE)

The split in the Numarian priesthood of the Litharic Church over whether "rightful continuity" could pass through a conquered people at all, or only through blood inheritance. The clergy, freed from Tureshan oversight by the width of the strait, had drifted into a different reading of the doctrine, and by 610 AE they had split into two openly hostile factions. The Karavynic throne, whose legitimacy rested on the Church's blessing, could not survive picking a side. The collapse ran in three stages. In 610 AE the schism became public and irreversible, so that both readings had ordained clergy and a local governor had religious justification for ignoring the capital's priests. In 630 AE the outer provinces went first: the southern coastal holdings (the ground that would one day be Chicano States) and the western mountain fringe (Arvansk's later homeland). They recognised the schismatic reading and stopped paying tribute. In 655 AE the core gave out, and the last of it fractured back into the patchwork of small, hostile territories the Church had once organised into an empire, now with a religious grievance permanently layered on top of the old ethnic and territorial ones. *See also: Litharic Church, Karavynic Empire, Chapter 8.*

Long Campaign (805 to 812 AE)

The war against Vessek that ran for the whole length of Reyes's reign, underneath all his other wars. He never finished it. It began with conventional victories, notably the Battle of Dorrenheim Heights (806), which let him claim roughly 80% of Vessek's remaining territory by 811. When his columns pushed into the highland core, the terrain began to fight back. The Kessel Pass Disaster (809) destroyed a whole regiment, and the next three years were an occupation of punitive columns, burned villages and reprisal executions. Reyes never accepted that this half of the war could not be won by the methods that had worked on every other nation. In 812 AE he was killed in the ambush at Kelvath Hollow. *See also: Battle of Dorrenheim Heights, Kessel Pass Disaster, Battle of Kelvath Hollow, First Marshal's Empire, Vessek Resistance, Chapter 8.*

Long Emptying (AE 1338 to 1341)

The years in which DS-HP prepared to settle Typhon. The Third Aridexian War had cost Aridexia uranium it never had much of, and it confirmed that a species with one homeworld is one bad century from having none. After 1300 nobody with authority disagreed with DS-HP's quiet warnings. Typhon had been surveyed for over a decade, and the Typhon Astrobiology Programme's planetary-protection mandate said no to large-scale landing. Forty years after GAW3, DS-HP overrode it. The Programme's senior staff put their internal dissent on the permanent record before the first landing craft launched. The argument that won was that a species running out of room does not wait for perfect information. The first wave, several thousand settlers drawn disproportionately from the parts of Aridexia hit hardest by the postwar resource crunch, reached the Hearthlands in 1341. *See also: Typhon Colonisation, Typhon Astrobiology Programme, DS-HP, Chapter 21.*

Long Survey (about 103 AE)

A coordinated pair of expeditions jointly funded by the Syndicate and Anestria roughly a century after the diaspora of 3 AE, to chart the planet's two poles before either nation could claim one unilaterally. The two ships left port on the same day. The northern ship reached what is now Heliodysseia in the depth of northern summer, when the sun never sets, and named it from *helios* (sun) with the suffix for a long outward voyage. The southern ship reached what is now Kryodysseia in the depth of southern winter, when the sun never rises, in cold sharp enough to crack hull fittings, and named it from *kryos*. Both reports reached the survey office within days and went into the record as written, sun-journey and ice-journey, filed side by side. The summer crew described a coastline that could support people, as the Ilvennaq's milder fringes turned out to. The winter crew described a place with nothing further to report. *See also: Helian, Kryodysseian Non-Militarisation Norm, Diaspora of 3 AE, Chapters 9, 25.*

Lorrow, House (fief from about 3 AE, charter-house from about 340 AE)

One of the twelve fiefs of the Syndicate, and one of the three that mattered most to later history. Its colour was olive, its charge a lantern and its seat Lorrow Watch. Its role was surveyors, wayfinders and the maps. Its surveyors were the people from whom Vakkar Koedul's survey crews grew. *See also: Koedul Rail and Canal Network, Charter-Houses of the Syndicate, Chapter 4.*

Luluke-All-Finian Trade Compact (980 AE onward)

Luluke's first international trade relationship, opened by 980 AE after a gold, copper and rare-mineral strike around 900 AE gave Luluke's economy a second wind. Over the following two and a half centuries it matured into the closest thing the map had to an old, comfortable friendship. Luluke's mineral wealth moved east to All-Finian shipyards, and All-Finian manufactured goods moved west to a Luluke that had never rebuilt its own heavy industry. Both nations grew steadily without either becoming dominant, and both stayed on good terms with the Syndicate because that was cheap and the alternative, everyone increasingly understood, was not. When the Syndicate sought allies in 1250 AE, Luluke and the All-Finian Empire answered out of a business relationship neither wanted to jeopardise more than out of ideology. *See also: Thirty-Day War, Historic Alliance For Democracy And Prosperity, Chapter 5.*

Luluke-Christonian War (about -270 to 0 AE)

The first great war of recorded Aridexian history, fought between Luluke and the Christonian Empire for roughly two centuries and also called the 200-Year War. The two powers fought an intermittent, grinding war along the Solvane, the one river system draining the Central Continent's interior highlands to the sea on either side. Every acre of farmland able to grow luminonion reliably lay in its floodplain, so the river was the only water source either side had. Tree-ring and lakebed records recovered centuries later show a multi-generational drying trend across almost the whole span of the war, and the Solvane ran measurably lower in most decades than in the two centuries before it. Neither side ever framed the war that way at the time.

The war was an arms race as much as a shooting war, escalating from swords and early muskets to cannon and rifled firearms. In its final years an armaments firm founded during the conflict, Irwin's (later AVMS), fielded the first practical internal-combustion engine, the first rechargeable battery and the first semi-automatic rifle, the AG-01. Mounted on a brass-armoured chassis, these produced the AV-1, the first true armoured fighting vehicle in Aridexian history, which gave Luluke a decisive edge. The war ended in 0 AE with the Treaty of the 200-Year War, and that treaty marks Year 0 of the Aridexian Era. The drying trend eased not long after, on its own schedule, with no war able to take credit for it. *See also: AVMS, Treaty of the 200-Year War, Carina-11 Famine, Chapter 2.*

M

Marshals of the Syndicate (about 3 AE to about 340 AE)

The war office of the Syndicate under the fiefs, commanding the three arms of its force: the Bannermen, the Pass-Wardens and the hired companies. The Table appointed them to make the war it chose. Defence in depth through the passes and offence by contract were the force's two tactical habits. *See also: Bannermen, Pass-Wardens, Hired Companies, The Table, Chapter 4.*

MiguelTek (8th to 10th century AE)

The firm that led Anestria's industrial boom of the 8th to 10th centuries AE: steam, then oil, then a uranium find that led to the system's first experimental fission reactor in the mid-1100s. The same industrial base produced the Republic's first tank and warship and the ROA M4 "Sentinel Standard" semi-automatic rifle (900 to 1000 AE). By 900 AE Anestria was the region's second power. *See also: Anestrian Nuclear Programme, Anestrian Coprosperity Sphere, Chapter 6.*

Moonhaven Spaceflight Authority (MSA) (founded AE 1303)

The Safemoon Republic's space agency, named for its capital, founded in AE 1303 with a mandate to put a Safemoon crew on Lira alive and bring them home before anyone else managed it. It built on DS-HP's pre-war network of launch sites and tracking stations, and on staff insulated enough from the Third Aridexian War to keep working, folding a small new national agency into existing infrastructure. Safemoon supplied the crewed hardware, the money and an institutional obsession with redundancy. It ran the Sanctuary Program. *See also: Sanctuary Program, DS-HP, Siege of Moonhaven, Chapter 18.*

N

Northern Tureshan Kingdom (to about 950 AE)

The long-lived and peaceful civilisation of Drozdov's temperate southern coast: a single continuous royal line that never fought a war worth naming for the better part of a thousand years, on the stable trailing edge of the Numarian Plate. It ended by arithmetic, with no conquest, plague or disaster. Drozdov's resource base was thin, and every generation found better opportunity in the booming trade networks of Savorus and Candrasia, first Luluke's and then the Syndicate's. A slow bleed of population westward continued across centuries, and by about 950 AE the last Tureshan settlements had thinned beyond supporting a royal court. Bavaria's prospectors, arriving fifty years later, found good, uninhabited ground with nobody whose claim they would have to contest. Its state religion, the Litharic Church, survived it. *See also: Litharic Church, Karavynic Empire, Chapter 8.*

Northland State Relief Corps

The state relief corps built under Nikolai Nichozh to feed and house the underclass he was born into, part of a mutualist, civic-nationalist welfare state. Slavery was abolished by decree on the day he took power. The welfare state improved material conditions for a population no government had tried to help before. It was one of the powers that signed the Threshold Accord, and it lost its capital in 1365. *See also: Unification of Northland, Iron Union, Chapter 10.*

O

Oasis Courts (from 641 AE)

The Republic of Anestria's courts, successors to the Water-Courts. They have elected judges, and the Waterkeepers remained, now accountable. *See also: Water-Courts, Council of Oases, Chapter 6.*

Oasis Guard (from 641 AE)

The citizen militia of the Republic of Anestria, which replaced the Ironguard: one regiment per oasis, with officers elected by their regiment for three-year terms. Every citizen serves in it. It descends from the rebel militia of the Ferrosian Rebellion, and its pride is that it never tried to be the Ironguard. Its early look was plain and cheap: a sand-coloured cotton robe or tunic, a green armband (later a green sash by regiment), a round wicker shield, a spear or short bow, and a head-wrap, with no armour. As it industrialised, it kept the green sash and the roundel and moved to a tan cotton-drill tunic and trousers. It traded wicker and spear for webbing and rifle, and never went over to leather or to a regimental colour beyond the sash. *See also: Ferrosian Rebellion, Council of Oases, Ironguard, Chapter 6.*

Office of Watch (from 1290 AE)

The security service of the United Syndicate Nations, created in the aftermath of the Talona Crisis, in which much of the USN's own senate and administration had defected to a breakaway province. Its emblem is the Eye, which the regime added to the centre of the ring on the USN flag in 1290 AE. The snake had meant "the state is a closed loop", and the Eye made it "the loop has something at its centre that sees everything inside it". The regime did not redesign its flag. It let the flag admit what the state had become. The Black-Snake Corps escorted the Office of Watch. The Eye on a plain almond with iris and pupil, in silver on black, is its badge on the Corps's dress breast and field patch. *See also: Black-Snake Corps, Talona Crisis, United Syndicate Nations, Chapters 13, 29.*

Open War (AE 1365 to 1371)

Phase IV of the Fourth Aridexian War. Terrorism failed to move the Threshold Accord, and in 1365 the excluded nations stopped pretending restraint served them. What followed was declared, total, continent-spanning war. It was fought almost entirely with conventional arms, because GAW3 had burned nearly all of the fissile stockpile and the Accord's resource logic made building more impossible. There was no single decisive strike to end it in an afternoon, as there had been in GAW3, so the war ground on for six continuous years, spending down industrial capacity, population and infrastructure on every continent, by every major power. It did not fall all at once. Governments fell in sequence from 1365 to 1371. *See also: Fourth Aridexian War, Terrorist Campaign, Threshold Accord, Chapter 22.*

Operation Black-Snake (during the Talona Crisis, 1286 to 1290 AE)

The USN's last-ditch special-forces raid against the breakaway Confederate States of Talona. It failed to kill Talona's leadership or cripple its military, but it destroyed Talona's only warship and its main tank-production depot. Its survivors and instructors became the core of the Black-Snake Corps, formed in 1290 and named for the raid. *See also: Talona Crisis, Confederate States of Talona, Black-Snake Corps, Chapter 13.*

Operation Fenwick (AE 1305)

A covert interdiction operation, also called the Fenwick Protocol, run by Solenne in 1305 AE, five years after the Third Aridexian War, in answer to PUSDR's move on the Safemoon Republic. PUSDR had just absorbed Eisenreich outright, and Safemoon, an encircled, UARRO-aligned neighbour, was in territory PUSDR now considered its own. Solenne was the UARRO member with the most to lose and the most reach, though it was itself barely five years old. It ran the operation out of a remote forward base on its own territory with TV-24A Tempest armour, N-14 "Asmedeus" strike aircraft carrying AGM-11 "Inferno" missiles, and TRC-201 "Serbius" and TRC-101 "Arquem" transports. Its crews went in green and undertrained because the training order that should have prepared them never landed. The operation was covert and deniable, and no full alliance mobilisation took place, because Solenne answered under Article III on Safemoon's behalf. It is the founding crisis of the postwar era. *See also: UARRO Foundational Charter, Great Revolution, Safemoon-Vessek Mutual-Defence Understanding, Chapter 19.*

Opytnyy Tank Competition

The competition at the state-run Zhokrova Tank Plant from which PUSDR's JH-1 emerged. Three prototypes, Opytnyy 3, 5 and 7, competed. The OT-5 was the most advanced and had superior protection, and the OT-7 split the difference. The People's Revolutionary Army chose the OT-3 anyway, with its low-visibility hull and 125mm smoothbore gun, because it was cheaper to mass-produce. It entered service as the JH-1 "Zatychka", with an opposed-piston two-stroke engine that was hard to train crews on, a chronically unreliable transmission and a Krashlikova AT-5 carousel autoloader that occasionally detonated rounds in the carousel. The JH-1A "Ostanovka" and JH-1AZ "Stena" followed. *See also: Zhokrova Tank Plant, People's Revolutionary Army, PUSDR State Arms Industry, Chapter 28.*

Orjust Pipeline (from DSY 18, AE 1294)

The autonomous mining operation on Orjust, operating since DSY 18 (AE 1294) and delivering about 140 t/yr of refined metals to the Aridexia-Solis L1 propellant depot. Orjust is the only world in the system where low delta-v, accessible surface chemistry and zero biospheric risk make large-scale autonomous mining viable. It also tracks Comet Ostrey as a standing calibration source. *See also: Aurelia Mining Operation, DS-HP, Chapter 18.*

Ospyran (colonial faction, AE 1360 to 1371)

The Typhon colonial position that the colony is the chance to stop: Aridexia's recorded history reads as an unbroken argument for never repeating any of it. The faction was named Ospyran after the world itself, chosen deliberately over the old planet's name still sitting inside Ardekai. It claimed ground in the Hearthlands through an Ospyran settlement council and fought the Ardekai-Ospyran War. It was blamed for making Aridexia's violence its own weapon the moment it suited it. *See also: Ardekai, Fracture of the Typhon Colony, Ardekai-Ospyran War, Chapter 23.*

Outer System Mining Concord

A chartered economic body distinct from any inner-system government, seated on Aurelia, Keplanus's industrial moon. *See also: Aurelia Mining Operation, Orjust Pipeline, Chapter 33.*

P

Pan-Savoran Union (PSU)

The security-focused alliance founded by Solenne once UARRO stood back down after the Fenwick crisis, because a trade organisation could not provide a security guarantee. The Pechorian Federation and Xue Lin (the renamed Tianhai) both joined at its founding. Its members increasingly standardise on Solenne's 5.6mm Solennese cartridge and the SR-30's magazine interface, the Savoran mirror of Kargopol's AS-17 standard. It is Solenne's security answer to Kargopol. In the Turncoat War, Malakor Vane committed PSU funding (Solenne, the Pechorian Federation and Xue Lin) to Project Turncoat. Solenne funded and engined the Pechorian Federation's PSB-4 Ostrog bomber through the PSU. Its parades showed the SR-30's grey-tan rig early. *See also: UARRO, Kargopol, Realignment of Tianhai, Project Turncoat, Chapter 17.*

Pass-Wardens (about 3 AE to about 340 AE)

The mountain militia of the Syndicate under the fiefs, raised from the high valleys and paid in kind, who held the gates and passes. They were the Syndicate's defensive spine, since an invader had to get through the mountains to reach anything worth taking. A Warden wore a heavy black-grey wool cloak with a fur collar, a hood with a slit snow-shade and cleated boots. He carried a round shield painted with the three peaks in gold and a winged pass-spear. The three peaks are the Syndicate's seal, and the Wardens were its first users. The title Warden was revived as a rank of the USN's Black-Snake Corps, to claim an older and more respectable ancestry for a very new guard. *See also: Jurak, House, and the Bell-and-Beacon Network, Marshals of the Syndicate, Black-Snake Corps, Chapter 4.*

Peaceful Secession of Tianhai (about 1252 AE)

The peaceful break-away, in the aftermath of the Thirty-Day War, of a small, dense, extraordinarily well-educated enclave of Savorus that has never rejoined. The USN had just won a war and swallowed Christonia and Mesaland, a huge commitment for a government that had existed for a few months. Tianhai held no strategic resources and no army worth suppressing. Its population was concentrated in science, engineering and administration, the USN's own intellectual capital. Holding a small, cooperative, brilliant population during a moment of maximum overextension was a bad trade against letting them go as trading and technical partners and spending the army on Christonia and Mesaland. Both sides had incentives to keep the split permanent and quiet. *See also: Thirty-Day War, United Syndicate Nations, Chapter 9.*

Pelruvian Campaign (1264 to 1276 AE)

The chief front of the Second Aridexian War, fought over the Pelruvian Archipelago, which the USN annexed in 1264 AE. Anestria's naval and administrative attention was pulled entirely into it. That left Velemira's colonial government without a metropole able to enforce anything for over a decade, and Velemira declared independence in 1268 AE. *See also: Annexation of the Pelruvian Archipelago, Second Aridexian War, Velemiran Independence, Chapter 12.*

People's Revolutionary Air Force (PUSDR)

PUSDR's air arm, with a long development history. The PR-5 "Krashny" was designed by Polshinka Ratikova as a multirole fighter, and it failed in service from poor supporting equipment. The AK-3 "Klin" is Antiko Kloinsha's swept-wing fighter, still in service. The DKK-1 "Flapjack" workhorse came out of the Dimikrov Katinka Krasny Design Bureau, with the DKK-5 "Flashfire" interceptor and the DKK-7 "Frenzy" as its primary stealth fighter. It also operates the CKK-10 "Poing" strike aircraft, the BKK-22 "Grom" heavy tactical bomber and the BKK-32 "Groza" long-range bomber, a full independent strike triad, built by a nation that spent generations under someone else's air power. Its transport is the AK-9 "Trailblazer", with refuelling and AEW&C conversions. *See also: Dimikrov Katinka Krasny Design Bureau, People's Revolutionary Army, People's Revolutionary Airborne Landing Force, Chapter 28.*

People's Revolutionary Airborne Landing Force (PUSDR)

PUSDR's airborne force (also called the People's Airborne Landing Force). The AS-15 submachine gun was built for it, with lightweight composites and a compact folding profile, and the BH-10 "Volnyk" infantry fighting vehicle was designed for it, to be airdropped by the AK-9 at its request, up to four at a time. Its troops wear compact lightweight composite gear matching the AS-15 and BH-10. *See also: People's Revolutionary Army, People's Revolutionary Air Force, PUSDR State Arms Industry, Chapter 28.*

People's Revolutionary Army (PUSDR)

PUSDR's army, a revolutionary force that took Eisenreich's factories and its own state's arms industry and wanted its own weapons. It needed a sidearm reliable in Numaria's tropical belt, which produced the PAS-12. It replaced the People's IR-11M and the smuggled AR-22 carbines with the AS-17 assault rifle. It chose the OT-3 tank, which became the JH-1 family. In the Turncoat War it wore a dark red-and-grey modular uniform with a red helmet band, the red armband of the resistance era migrated upward. Its prototype AS-17s were already in the field in the Great Revolution. *See also: Great Revolution, PUSDR State Arms Industry, Opytnyy Tank Competition, Zhokrova Tank Plant, Chapter 26.*

Phaeshan Federation (to about -40 AE)

A loose union of trading city-states that once lived on the islands later settled by the All-Finian Empire. Korut's geology, a fast-spinning, young volcanic island-arc microplate, is unusually active even for island chains. Around -40 AE, a chain-wide sequence of eruptions and tsunamis hit most of the Federation's coastal city-states within the same handful of years. The timing is reconstructed only from disrupted stratigraphy and a population-wide silence in the few surviving Phaeshan written records. What happened to its population afterward (death, scattering or some mixture) cannot be recovered. When All-Finian sails reached the coast some four decades later, in the years after the diaspora of 3 AE, the cities were ruins and the harbours reshaped, and nobody was left to ask. *See also: Diaspora of 3 AE, Dissolution of the All-Finian Empire, Chapters 3, 5.*

Postwar Scramble on Numaria (1300 to 1305 AE)

The grab by neighbouring states for each other's territory after the Third Aridexian War. The Yeshuren Union lost territory, but PUSDR moved in as its patron once Kargopol formed (about 1301). That left it a nominally sovereign PUSDR puppet and not an annexed state, a better outcome than most of Numaria's smaller states got. Within the scramble, PUSDR's revolutionary civil war conquered Eisenreich and Chicano States reclaimed a small slice of its southern coast. *See also: Great Revolution, Chicano Interwar Collapse, Kargopol, Chapter 15.*

Project Turncoat (AE 1353 to 1358)

Malakor Vane's space-resource programme, begun after his election in 1353. It committed PSU funding (Solenne, the Pechorian Federation and Xue Lin) to building the most advanced space-travel programme Aridexia had produced, funnelled exclusively into Solenne's own aerospace companies and never shared beyond them. At the same time, Malakor bribed Northland-Southland, Chicano States and Anestria's successor states with promised land on Typhon, in exchange for sabotaging every rival agency's off-world programme instead of building competing ones. Rival agencies, PUSDR's VAPIK coalition chief among them, began competing in earnest anyway, and he escalated into open war crimes against them. In the year Solenne's first crewed missions launched for Typhon, Solenne ran military operations inside its bribed client states to intercept and destroy crewed VAPIK launches in flight. He justified it publicly with DS-HP's resource arithmetic. He had already secured his own departure for Typhon, and the war it produced, the Turncoat War, was a private experiment. The shooting-down doctrine the Threshold Accord's enforcers later used started here. *See also: Turncoat War, Election of Malakor Vane, Threshold Accord, Typhon Colonisation, Chapter 20.*

Proxy War (AE 1361 to 1363)

Phase II of the Fourth Aridexian War. Diplomacy having failed, the excluded nations turned to the playbook the USN and PUSDR had written against each other a lifetime earlier: fund someone else's internal enemies and skip the declaration of war. Bavaria and the Pechorian Federation armed separatist and dissident movements inside Anestria's successor-state patchwork. PUSDR did the same inside Chicano States's reclaimed southern territory. None of it was officially acknowledged, and everyone understood all of it. The militia that fought in the successor states used improvised kit: mismatched sleeves and an armband or a rag in the local colour. *See also: Threshold Accord, Fourth Aridexian War, Terrorist Campaign, Chapter 22.*

PUSDR Resistance and Government-in-Exile (generations before 1300 AE)

The underground resistance movement and government-in-exile of the people occupied by Eisenreich. The USN treated it as a useful proxy against a rival great power, and the Communist Power Alliance treated it as a coordinated ideological partner while Eisenreich still held its homeland. Its fighters wore civilian work clothes, captured Eisenreich greatcoats and a single red armband, and carried smuggled AR-22 carbines and captured IR-11s. Tianhai built a friendship with it after 1276, independent of Tianhai's cooler relationship with the USN. After the Third Aridexian War it became PUSDR. *See also: Eisenreich Occupation of PUSDR, Great Revolution, Communist Power Alliance, Chapter 8.*

PUSDR State Arms Industry

The state arms industry of PUSDR, spanning rifles and tank internals from one design-bureau lineage. The Antiko Khoshlikova line of small arms includes the PAS-12 9mm pistol, the AS-15 submachine gun, the AS-17 7.62mm assault rifle that set Kargopol's ammunition standard, the ASM-18 light machine gun, the ASM-19 12.7mm heavy machine gun, the ASK-10 anti-materiel rifle with the BMS-10P explosive round and the ASP-20 93mm rocket launcher with the BM-HEAT-1 tandem warhead, rushed into service in the Great Revolution. The Krashlikova design-bureau lineage produced the AT-5 and AT-7 autoloaders. The industry also made the People's IR-11M, IR-10 and IR-15 from captured Ferrengrad tooling. *See also: Ferrengrad Arms, People's Revolutionary Army, Zhokrova Tank Plant, Chapter 26.*

R

Realignment of Tianhai (1301 AE onward)

Tianhai's shift from friend of PUSDR to Kargopol member to Pan-Savoran Union member. After the Second Aridexian War, Tianhai built a friendship with PUSDR's resistance and government-in-exile. When PUSDR's revolution succeeded and the state joined the anti-Solenne Kargopol bloc, Tianhai followed its friend and joined Kargopol, though it physically borders Solenne. In practice the alignment stayed on paper: Tianhai admitted no Kargopol forces, and Solenne neither attacked nor sanctioned it. When UARRO stood down and Solenne founded the Pan-Savoran Union, Tianhai moved to join it and renamed itself Xue Lin, a deliberate clean break. The population and territory are continuous, and the political identity is deliberately not. *See also: Kargopol, Pan-Savoran Union, Peaceful Secession of Tianhai, Chapter 9.*

Reclamation War (1318 to 1320 AE)

A war launched by Chicano States against Vessek, widening to Safemoon and Nam Minh. By 1318 Chicano had spent thirteen years on the small reclaimed coastal core it had crawled back to, and its government wanted both mineral wealth and a winnable war. Vessek's mountain interior held mineral wealth, and Vessek's strength was terrain and a refusal to quit, with little in the way of hardware. Chicano's smaller army was better armed than Vessek's larger population, and it made progress from the opening weeks. Months of brutal fighting followed, which carried it onto Vessek's accessible mainland for the first time, though not into the highland core. Safemoon declared war on Chicano in Vessek's defence under the Safemoon-Vessek Mutual-Defence Understanding and was driven back to Moonhaven, where its defences, built for just that position, stopped the advance. Nam Minh declared war in 1319, rather than wait to be the next target, with material and logistical support (but no troops) from PUSDR as the anchor of Kargopol.

Three simultaneous fronts, Vessek's mainland, a stalled siege at Moonhaven and a Kargopol-backed Nam Minh, were more than Chicano's army could sustain, and by 1320 exhaustion produced a negotiated ceasefire. Chicano kept permanent gains on Vessek's mainland fringe, the basis of the somewhat larger Chicano States seen by the eve of the Turncoat War. But Moonhaven was unbroken, Vessek's highland core was as unconquered as ever, and Chicano had three new enemies it never forgot. The grudge was still live thirty-four years later, when Malakor Vane went looking for a Numarian power willing to fight PUSDR's VAPIK coalition. Uniforms of the war were the first post-nuclear generation: Chicano in cheap olive-brown, Vessek still without uniform, Safemoon in heavy charcoal-blue fatigues, and Nam Minh in olive-green. *See also: Safemoon-Vessek Mutual-Defence Understanding, Siege of Moonhaven, Vessek Resistance, Ashfields Campaign, Turncoat War, Chapter 19.*

Reeves and Factors (about 3 AE to about 340 AE)

The two offices of the Syndicate's Stewardship, which handled land and money. Reeves ran a district for their Lord-Principal and collected the rents. Factors were merchant agents who bought, sold and carried bonds for a house, and they were the direct ancestors of the company men of later centuries. The Syndicate-chartered trading companies of the 700s and 800s descended from them. *See also: Stewardship, Syndicate-Chartered Trading Companies, Charter-Houses of the Syndicate, Chapter 4.*

Renner Bombing (late 1249 AE)

The act that gave the Syndicate its pretext for the Thirty-Day War. In late 1249 AE a cell of the Renner Faction detonated a bomb intended for the Syndicate capital's financial district, a strike meant to sever Christonia's dependency at its source. It killed a handful of clerks, damaged one building, and accomplished nothing it set out to do, because the Syndicate's economy no longer had a single point that sabotage could sever. The weapons the militants carried were bought on the same credit lines they were trying to cut. The bombing gave the Syndicate a clean, public pretext to finish formally what a century of contracts had already finished informally, and the Syndicate, Anestria, Luluke and the All-Finian Empire jointly declared war. *See also: Renner Faction, Thirty-Day War, Economic Absorption of Christonia, Chapter 11.*

Renner Faction (1190s AE to 1249 AE)

A Christonian nationalist movement organised in the 1190s AE by the Conjunctioner Elin Renner, who broke from the council to pursue what she called Christonian economic self-determination. It was built on the accurate observation that Christonia's own president answered to Syndicate creditors more readily than to Christonian voters. The Faction never held political power, because the council that could have backed it was itself financed by the same Syndicate money. By the 1240s its more militant offshoots had concluded that persuasion had run out of road, and in late 1249 AE one cell carried out the Renner Bombing. A later Renner family descendant funded the Renner Prize. *See also: Renner Bombing, Renner Prize, Economic Absorption of Christonia, Chapter 5.*

Renner Prize (modern era)

A prize named for the family of the Renner Faction, funded generations later by an unrelated descendant. It is awarded roughly once a decade to the paleogenetic work judged to have advanced the Aridexian Descendant Problem furthest, whether or not it produced an answer. It has been awarded eleven times, and no recipient has ever claimed to have solved the Problem. *See also: Aridexian Descendant Problem, Renner Faction, Chapter 24.*

S

Safemoon-Vessek Mutual-Defence Understanding (by 1318 AE)

A mutual-defence understanding between two of Numaria's most habitually squeezed peoples. Neither was ever the continent's dominant power, and both had been on the losing end of a Chicano expansion war at some point in their history. Chicano's renewed aggression against Vessek activated it in 1318, and Safemoon declared war on Chicano in Vessek's defence. *See also: Reclamation War, Vessek Resistance, Siege of Moonhaven, Chapter 19.*

Sanctuary Program (AE 1303 to 1307)

Safemoon's programme, run by the Moonhaven Spaceflight Authority, to put a crew on Lira. Solenne did not yet have a functioning booster. The first time one nation sent its own crew off the planet, under its own flag and on its own booster, was a Safemoon mission (the 1288 landing on Lira had been a DS-HP effort, and belonged to no nation). The reasons had little to do with space: a small, defensively postured nation just encircled by PUSDR needed something bigger than a wall to make the continent think twice. The programme's philosophy was redundancy, with every system doubled or tripled and every abort mode rehearsed. Two uncrewed precursor flights (AE 1304 and 1305) tested the full translunar and return profile and were recovered. Sanctuary I launched in AE 1307 with commander Ilsa Marrenkov and pilot Dorian Vask, through translunar injection, lunar orbit and a crewed descent to Lira, and returned. Marrenkov's recorded first words on the surface, "Solid ground, and none of it ours to lose", are still taught in Safemoon schoolrooms as spoken. Its payoff was an achievement no larger power could take from a small, endangered nation. *See also: Moonhaven Spaceflight Authority, First Crewed Lira Landing, DS-HP, Chapter 18.*

Sand Riders (310 to 641 AE)

The camel scouts and raiders of the Ferrosian Empire, its long arm across the desert, and the one Imperial soldier who dressed like a desert fighter. He wore a light cotton robe over a leather-free mail vest and a head-wrap covering the face, and carried a curved sabre and a short spear. They answered to the Ironguard. *See also: Ironguard, Ferrosian Empire, Chapter 6.*

The Seal-Mace (about 3 AE onward)

The Table's staff of office: a gilt staff with the three-peaks seal on its head, carried before the Chair. It is ceremonial. It survived the conversion of the Table into a board, and is still carried into the room. *See also: The Table, The Chair, Chapter 4.*

Second Aridexian War (1264 to 1276 AE)

The twelve-year war between the Communist Power Alliance and HAFDAP, triggered by the USN's annexation of the Pelruvian Archipelago in 1264 AE. On one side were the CPA, anchored by the USN and backed by Bavaria and PUSDR's government-in-exile. On the other were HAFDAP's Anestria, Luluke and the All-Finian Empire. The war ran across multiple fronts, the Pelruvian campaign chief among them, and ground down the USN's cohesion from within. By its end in 1276 AE the union was crippled but had not collapsed. Christonia regained full independence, restoring its president and Conjunctioner government. Mesaland ceased to exist as a distinct nation, its territory and population absorbed permanently into the USN. The USN survived, reduced to its Syndicate heartland on Savorus, discredited abroad, financially exhausted and turning inward. The humiliation hardened it. It became smaller, poorer and more paranoid, and its dictatorship tightened its grip. Chicano States was not a combatant, but its spending was strained by the war's shockwaves, and Velemira declared independence in 1268. The war's uniforms moved from wool and leather in 1264 to cotton-synthetic blends by 1270. The Second Aridexian War is also called GAW2. *See also: Annexation of the Pelruvian Archipelago, Pelruvian Campaign, Communist Power Alliance, Historic Alliance For Democracy And Prosperity, Talona Crisis, Chapter 12.*

Separation of Southland (a few years after 1303 AE)

The split of Northland's lower third, a few years after Northland's expansion under Nichozh, as Southland. It came by mutual decision of both governments, with no war, and the two have operated very closely together ever since, including signing the Threshold Accord jointly. Together with Christonia and Einsenia, they share one of the smallest continents on the map. *See also: Unification of Northland, Threshold Accord, Chapter 10.*

Siege of Bredezen (December 1301 to February 1302 AE)

The central siege of the Vinear Coast War. Bredezen, a port city on the Vinear Coast, was annexed illegally by the Kingdom of Antares and valued for its salvageable pre-war naval infrastructure. The dispute over it escalated into open war with the Constitutional Anestrian Republic. The siege, with the Battle of Ornwellburg, set the tone for a fragile, contested peace along the successor states' new borders. *See also: Vinear Coast War, Battle of Ornwellburg, Chapter 15.*

Siege of Moonhaven (1318 to 1320 AE)

The stalled siege of the Safemoon Republic's capital during the Reclamation War. Chicano's momentum, already running from the Vessek front, drove Safemoon back to Moonhaven. Its defences had been built for holding this kind of last-ditch position, and they stopped the advance at the place they were always going to be strongest. Moonhaven stayed unbroken. *See also: Reclamation War, Safemoon-Vessek Mutual-Defence Understanding, Moonhaven Spaceflight Authority, Chapter 19.*

Siege of Prynn (810 to 811 AE)

Reyes's fourth campaign, the one war he did not win cleanly, which very nearly ended his campaigns a year early. His first attempt, a direct assault on Prynn's mountain fortress in the autumn of 810, was a rare outright failure. He was thrown back with heavy losses against defences that conventional infantry tactics could not carry. He settled in for a blockade through the winter and into 811. Prynn held for the better part of a year before hunger, and no defeat in the field, forced its surrender. It was the hardest of his campaigns because it was the one time the model that had worked everywhere else, a fast, decisive, personally led strike, did not apply. *See also: First Marshal's Empire, Corvath War, Chapter 8.*

Siege of Vantor (807 to 808 AE)

The winter siege that followed the Battle of the Tolgen Fords. Talgrave's government withdrew into its fortified capital, Vantor, and held through the winter of 807 to 808 in a siege that dragged on for months, the cold doing nearly as much damage to the besiegers as to the besieged. Vantor's garrison surrendered in early 808, malnourished and out of powder, though it had never been beaten in the field. *See also: Talgrave War, Talgrave Armistice, Battle of the Tolgen Fords, Chapter 8.*

Skarnovian Scramble (about 20 to 210 AE)

The partition of Skarnovia among the Syndicate, Anestria and Christonia, contemporaneous with the diaspora. It was carried out by sail, with no later industrial advantage behind it: the continent was claimed early, badly, and without asking the people who already lived there. The Syndicate arrived first, being closest, with a formal claim by about 20 AE. Anestria and Christonia arrived within the next two centuries. By about 210 AE the three claims had hardened into fixed borders, drawn along whatever river or ridgeline each side's surveyors reached first, cutting through the same ethnic and trade regions that make the successor states hostile today. The results were Ostrenia (Christonian), Velemira (Anestrian) and Kesarova (Syndicate, later the USN's). Dravensk, in the interior highlands, was never conquered by any of the three over two thousand years. Colonial states were issued whatever arms their metropoles were retiring, and Skarnovia is a four-way colonial grudge match that simmers constantly but rarely boils. Skarnovia is named for skarn, the mineral-streaked rock found along its northern coast. *See also: Velemiran Independence, Third Aridexian War, Diaspora of 3 AE, Chapter 7.*

Solenne Space Programme (AE 1300 onward)

Solenne's aerospace effort, built in the postwar recovery on a fraction of the Syndicate's old budget. It needed a working booster before it could afford a refined one, so its first hardware was deliberately minimal: the Koedul-1 booster, carrying the Velis-1 probe. It grew to the Asmedeus-1 heavy-lift booster and the Asmedeus Habitat Module, and it designed and built the Koedul-class and Asmedeus II-class vehicles of the Typhon Corridor Fleet, flown under DS-HP's umbrella. Solenne's aerospace base underwrites most of the corridor's hardware. Before Sanctuary I in 1307 Solenne had not so much as a functioning booster. Its heavy-cargo transport line and first booster are named for Vakkar Koedul, and its crew transport for the old sky god Asmedeus, also the name of its N-14 fighter. Malakor Vane funnelled Project Turncoat funding exclusively into Solenne's aerospace companies. *See also: Koedul-1, Velis-1, Asmedeus-1, Asmedeus Habitat Module, Typhon Corridor Fleet, Project Turncoat, Chapter 13.*

Special Origin Schools (before about 900 AE)

The dominant explanations of the Descendant Problem before comparative genetics could test anything. They were frankly theological or quasi-mystical: Ardekai as a fundamentally separate creation, favoured or placed rather than evolved. Several major religious traditions on multiple continents converged on some version of this independently, which later naturalists took as evidence about human psychology and not about biology. *See also: Aridexian Descendant Problem, Convergence Hypothesis, Arrival Theories, Chapter 24.*

The Stewardship (about 3 AE to about 340 AE)

The office of land and money in the Syndicate under the fiefs. Its Reeves ran districts and collected rents, and its Factors bought, sold and carried bonds for the houses. *See also: Reeves and Factors, The Table, Bond System, Chapter 4.*

Syndicate Navy (by 1250 AE)

The Syndicate's fleet, which flew the Syndicate flag with the hoist band moved to the lower edge so that it lay flat and legible on a mast. The later USN navy, and then Solenne's, inherited the arrangement. Solenne's supercarrier SCS-98 "Phantom Seas" is described as the Syndicate Navy's old flagship concept, inherited and modernised. *See also: United Syndicate Nations, Chapter 29.*

Syndicate Under the Fiefs (about 3 to about 340 AE)

The roughly three centuries between the landing on Savorus and the Syndicate's conversion to a mercantile state. The refugees arrived with literacy, a few thousand books and people who remembered how things were made, but without power plants, steel industry or rail grid. What they built was feudalism by contract: land leased by signed bond rather than granted by blood. The system was formed by about 40 AE, matured through the 100s and 200s, and gave way after about 340 AE, when Koedul's freight network proved worth more than land rent. The Luluke enclave that shared Savorus stayed small and was never part of it.

The Syndicate was formed from twelve fiefs, each held by a Lord-Principal. Their authority met in the Table, with the Ledger Court for law, the Marshals for war and the Stewardship for land and money. Boundary posts between the fiefs were painted in gold and black chevrons so they could be seen in snow, fog and dusk. That is the origin of the gold-and-black hoist band on the Syndicate flag and of the hazard-striping that still marks Syndicate property. Gunpowder came late: the thunder-pipe, a hand bombard, from about 290 AE, and the arquebus from about 320 AE. The twelve charter-houses that became the Syndicate are the twelve fiefs, renamed. *See also: The Table, Charter-Houses of the Syndicate, Bond System, Marshals of the Syndicate, Chapter 4.*

Syndicate-Chartered Trading Companies (700s AE to 1250 AE)

The firms through which the Syndicate bought into Christonia. They descended from the Factors of the fief period and, as charter-houses, flew the Syndicate's black and gold. Moving into Candrasia in the 700s and 800s, they offered capital, machinery and expertise in exchange for resource concessions, exclusive trade terms and seats in Christonian economic policy. Nothing about it looked like conquest, and undoing it would have meant giving back the railroads, ports and factories that had built the industrial base every outside observer still called purely Christonian. The Vaurek Concession was held on paper by a USN-chartered trading company. *See also: Economic Absorption of Christonia, Reeves and Factors, Vaurek Concession, Chapter 5.*

T

The Table (about 3 AE, a board from about 340 AE)

The governing body of the Syndicate: the twelve Lords-Principal, one vote each. It made war and peace, set the levy and amended the weights and measures. It met at the Seat in the central valley, in a hall with twelve chairs and one empty thirteenth, kept for "the Syndicate itself". Its staff of office is the Seal-Mace, and its presiding officer the Chair, chosen yearly. Gold was the Table's metal and the colour of its seal, and no house could carry it as a field. A house that left the Table would have starved in a season, because no fief grew its own food, forged its own steel and held its own gate, and the founders designed it that way. About 340 AE the Table became a board. *See also: The Chair, Seal-Mace, Charter-Houses of the Syndicate, Ledger Court, Chapter 4.*

Talgrave Armistice (808 AE)

The settlement that ended the Talgrave War after the surrender of Vantor's garrison. It formally ended the war on the same terms as the surrender. Talgrave was a kingdom that lost because it ran out of everything at once, and no single battle decided it. *See also: Talgrave War, Siege of Vantor, Chapter 8.*

Talgrave War (807 to 808 AE)

Reyes's second campaign, which cost him more than any other of his conventional wars. Talgrave fought back in earnest. The Battle of the Tolgen Fords (807) bought him the open country, and Talgrave's government retreated into its capital for the winter siege of Vantor. The Talgrave Armistice ended the war in 808. *See also: Battle of the Tolgen Fords, Siege of Vantor, Talgrave Armistice, First Marshal's Empire, Chapter 8.*

Talona Crisis (1286 to 1290 AE)

The USN's post-war crisis after the Second Aridexian War. A decade of economic collapse, a discredited and disarmed military and a public backlash against returning soldiers set the stage. The industrial coastal city of Coastville broke away and declared itself the Confederate States of Talona, backed quietly by Christonian funding and advisors, and much of the USN's senate and administration began defecting to it. Operation Black-Snake failed to decapitate it. The crisis ended in an uneasy settlement: Talona was reabsorbed as an autonomous province and was never retaken by force. The USN survived, drained, politically paranoid, and convinced that it could never again be caught militarily unprepared, a conviction that set the stage for the Uranium Crisis. The Office of Watch and the Black-Snake Corps were created in its aftermath, and the USN flag acquired the Eye. During the crisis (DSY 12, 1288 AE) the first crewed Lira landing took place. *See also: Confederate States of Talona, Operation Black-Snake, Office of Watch, Black-Snake Corps, Uranium Crisis, Chapter 13.*

Terrorist Campaign (AE 1363 to 1365)

Phase III of the Fourth Aridexian War. Proxy conflict changed nothing about the underlying arithmetic, and the fight moved into its ugliest register. Direct attacks hit launch infrastructure, DS-HP administrative sites and spaceport-adjacent civilian population centres, on both sides of the divide. They came from excluded-nation cells trying to make the Accord too costly to sustain, and from radicalised cells inside the four signatory nations, unwilling to live with what their governments had become. DS-HP's Aridexia-side administrative headquarters was bombed twice in this window, and neither attack was conclusively attributed. By 1363 the strain on the signatories was already visible. Enforcing the Accord meant keeping a rocket-denial force credible on every continent, an occupation-scale commitment none had budgeted for, and the domestic terrorism was already fraying central authority. *See also: Proxy War, Open War, Threshold Accord, DS-HP, Chapter 22.*

Third Aridexian War (17 January 1300 AE)

The single night on which the USN, by 1300 AE a crippled, paranoid dictatorship that had rebuilt a modern military in secret, launched a coordinated first strike. Eleven long-range bomber squadrons targeted major cities across Christonia, Luluke, the All-Finian Empire and Anestria, along with the allied garrison at Port Dionysis in Luluke. Within roughly three hours, nuclear detonations struck Port Dionysis, Christona, Apokka, Sulsbury, New Geneva and Freeport: six warheads, the entire smuggled Vaurek stockpile, spent in one night with nothing in reserve. The Christonian government and the reconstituted Luluke government collapsed, and the All-Finian Empire was dealt a mortal blow.

The retaliation was immediate. The All-Finian Empire's last leadership authorised two nuclear strikes on USN soil, the whole of its smaller stockpile, before the Empire dissolved at 6:30 AM. Anestria, hours later, spent no warheads. Its strategic bombers destroyed every remaining major city on the USN mainland and in the Pelruvian Islands over the following day with conventional ordnance, to preserve the one meaningful deterrent left on the continent. By that evening Anestrian marines had taken the USN capital and executed the last of its officials. As a state, the USN ceased to exist that day. Eight warheads in total were used, with yields from low-single-digit kilotons to low megatons. It was a catastrophe on the scale of anything in real human history, but nowhere near the thousands-strong arsenals that could have rendered the planet uninhabitable. The same geological scarcity that forced the USN to smuggle ore is the reason the war stayed a historic atrocity instead of an extinction event.

The aftermath: the All-Finian Empire disbanded into city-states, and Anestria fractured into five successors. The USN mainland and Pelruvian Islands were left devastated and largely depopulated. Solenne was founded in the wreckage. Kesarova lost its metropole in an afternoon and has been unstable ever since. PUSDR's revolution began, and Kargopol and UARRO formed. The Third Aridexian War is also called GAW3. *See also: Uranium Crisis, Vaurek Concession, Fall of the USN Capital, Dissolution of the All-Finian Empire, Destruction of Port Dionysis,*

Anestrian Strategic Bomber Force, Founding of Solenne, Chapter 14.

Thirty-Day War (October to November 1250 AE)

The First Aridexian War, also remembered as the War of Christonian Liberation, fought from October to November 1250 AE. After the Renner Bombing the Syndicate, the Republic of Anestria, Luluke and the All-Finian Empire jointly declared war on Christonia. It ended quickly, given the overwhelming disparity in combined manpower, and it was the first large-scale use of tanks, aircraft carriers and field artillery in Aridexian history. The Syndicate-led coalition fielded AVMS rifles, AG-40s and early AR-22s, with licence-built or imported AR-22s in coalition hands. Christonia's infantry carried Syndicate-financed AVMS imports, worn and mismatched and overwhelmingly outnumbered. In the settlement the victorious Syndicate absorbed the defeated Christonian Empire and the small island nation of Mesaland into a single reconstruction union, the United Syndicate Nations. A young Christonian conscript named Nikolai Nichozh saw his first combat in it. Tianhai seceded peacefully in its aftermath. The war is also called GAW1.

	Syndicate	Anestria	Luluke	All-Finian	Christonia
Casualties	1,442	611	993	302	4,025
Economic loss	-16.3%	-13.5%	-35.2%	-10.9%	-84.2%

See also: Renner Bombing, United Syndicate Nations, Peaceful Secession of Tianhai, Chapter 11.

Threshold Accord (late AE 1359)

The agreement by which Solenne, the joint Northland-Southland government, Chicano States and Anestria bound themselves to prevent any other nation from spending Aridexia's last margin on a launch programme DS-HP's own math said could not succeed. These were four powers with the industrial capacity to act on DS-HP's numbers, and three of the four had been bribed, exhausted or annexed their way through the Turncoat War. On paper it was resource management. In practice, from the moment any other nation's rocket left its pad, it was an act of war against the rocket and whoever was inside it. The signatories enforced it with total ruthlessness from the start, with covert sabotage of rival launch complexes and the outright shooting down of manned rockets that reached the air. No signatory publicly admitted the second part. The doctrine had started under Malakor Vane in Project Turncoat. DS-HP recommended restraint, but the decision was not DS-HP's. The Accord began the Fourth Aridexian War. Its signatories were the first four governments the war cost, in 1365. The last coherent transmissions describing its enforcement reached Typhon about 1365. *See also: Fourth Aridexian War, Diplomatic Resource War, DS-HP, Project Turncoat, Chapter 22.*

Treaty of the 200-Year War (0 AE)

The settlement that ended the Luluke-Christonian War and opened the Classical Age, and the event from which the Aridexian Era counts. A broken Christonian Empire agreed to pay reparations, to cede southern territory including the richest reaches of the Solvane floodplain, to accept a capped military, and to allow free movement for Luluke citizens into Christonian lands, though not the reverse. Luluke's ruling family, drawn from its largest founding city-state, formalised into a monarchy. The free-movement clause was the arrangement the Christonian Empire revoked after the Carina-11 Famine. *See also: Luluke-Christonian War, Carina-11 Famine, Chapter 2.*

Turncoat War (AE 1354 to 1358)

Solenne's resource war, started by its president Malakor Vane and separate from the Fourth Aridexian War. Solenne's navy took the Korut Islands. In Numaria, three fronts opened against the VAPIK coalition (PUSDR, Vessek, Safemoon, the Yeshuren Union, Nam Minh) and Chicano States together: a naval assault directly into PUSDR, a second front out of Bavaria and a third out of the newly annexed Korut Islands, with an invading coalition of Solenne, the Pechorian Federation, Xue Lin, Skotia, Northland-Southland and Christonia. These were the largest battles Aridexia had yet produced, and they were fought on a continent no conqueror had ever held. PUSDR's arsenal was purpose-built, Vessek's mountain core had broken every invader, and the Chicano Revolution of 1357 threw a new Chicano onto VAPIK's side. By 1358 the land war had stalled into an unresolved stalemate, ended by nothing but exhaustion. Malakor left for Typhon mid-stalemate, with no treaty, surrender or declaration, having proved to himself what he could make happen and gained a permanent claim on the Korut Islands. Uniforms were the mature plateau kit. The war left Solenne bled down and three bribed allies exhausted, without anyone having fixed what DS-HP's arithmetic meant for the rest of the planet. Cassius Altyr, PUSDR's head of state, was twenty-five when the war began and took the field later. *See also: Project Turncoat, Annexation of the Korut Islands, Chicano Revolution of 1357, VAPIK, Fourth Aridexian War, Chapter 20.*

Typhon Astrobiology Programme

The research programme headquartered at the Hearthlands Research Station, set up to answer whether Typhon's biochemistry is close enough to Aridexia's that cross-contamination in either direction is a planetary-protection risk. Every organism sampled uses left-handed amino acids and a DNA-equivalent nucleic acid, which could mean shared deep chemistry, convergence, or (the Programme's stated null hypothesis) only limited sample size. It documents four biomes: vent-margin mats, littoral scrub, open-water plankton analogues in the Meridian Sea and arthropod-analogue grazers. It has confirmed no motile complex organism larger than the grazers. Its planetary-protection mandate took precedence over any resource survey near a biome. Its senior staff lodged formal objection to the colonisation of 1341, and its field staff were afterwards folded into the colonial administration, keeping every settlement on a slow, negotiated leash around the four biomes. Its objections carried weight because a decade of Velt probe data showed what colonisation would disturb. *See also: Hearthlands Research Station, Long Emptying, Velt-class Survey Probe, DS-HP, Chapters 21, 33.*

Typhon Colonisation (AE 1341 to 1371)

The settlement of Typhon, Osprey's habitable moon, also called the Osprey Exodus. The first wave of several thousand settlers reached the Hearthlands in AE 1341 on Asmedeus II-class ships. They found a moon that had clearly been worked before: the Hearthlands' surface ore was thinner and patchier than orbital surveys predicted. For nineteen years the colony built ordinary infrastructure under environmental pressure, with gentle but constant volcanism and tidal flexing that kept the ground unstable. It stayed unified, everyone simply Ardekai, people from a dozen Aridexian nations, because nothing back home was working to break it apart. That changed when Malakor Vane's Project Turncoat began to redirect resources to Solenne alone, and the colony fractured into Ardekai and Ospyran (1360 to 1366). The Ardekai-Ospyran War (1366 to 1371) followed, and the Farside Excavation of 1371 found the skull. News of Aridexia's collapse reached the colony slowly and incompletely: the last coherent transmissions about the Threshold Accord date to about 1365, after which the signal thinned out. Malakor himself reached Typhon about 1358. *See also: Long Emptying, Fracture of the Typhon Colony, Ardekai-Ospyran War, Farside Excavation, Typhon Corridor Fleet, Chapters 21, 23.*

Typhon Corridor Fleet

The four named vehicle families that carry everything DS-HP flies to Typhon, built around the cheapest interplanetary corridor it operates: the Aridexia-Osprey Hohmann transfer, roughly 3,400 m/s total burn, with the two worlds at 1.000 and 1.100 AU, near-circular and 1.32 degrees apart. The Koedul-class Heavy Transport and the Asmedeus II-class Crew Transport were designed and built by Solenne's own aerospace programme and flown under DS-HP's umbrella. The Innus-class Relay and the Velt-class Survey Probe complete the four. Typhon's aerocapture-friendly descent profile shaped them. *See also: Koedul-class Heavy Transport, Asmedeus II-class Crew Transport, Innus-class Relay, Velt-class Survey Probe, Chapter 21.*

U

UARRO Exclusive Economic Sector (EES)

A voluntary trade framework open to UARRO members and approved outside partners, carrying no defence obligations of its own. It is useful for the kind of arrangement the Pechorian Federation or the nominally Kargopol-aligned Xue Lin might quietly maintain without implying anything political. It does for ammunition and spare parts what UARRO was never chartered to do for ideology. *See also: UARRO, UARRO Foundational Charter, Chapter 17.*

UARRO Foundational Charter (ratified about 1304 AE)

The binding charter by which UARRO's members converted a resource pact into a mutual-defence alliance, roughly a year before Fenwick. Three Founding Members hold permanent, unrevokable veto power: Solenne, Anestria and Bavaria. Founding status cannot be diluted by amendment, and if a Founding Member is conquered or dissolved its veto is merely suspended, held jointly by the other two, until restored. Three other nations signed on as full members at ratification: the Pechorian Federation, the Safemoon Republic and Northland. Christonia, Korveil and Hardluckia joined later, so that UARRO had nine members by Fenwick. Korveil holds the seat on behalf of AFN interests generally, being the largest and most industrially capable of the five successor states, and Finhaven, Halvern, Tavelin and Skerrow stay outside.

Article III, Mutual Defence, is explicitly "the most important section of this charter". An attack on any member, whether military incursion, declared war, blockade, or even coordinated economic sabotage or intelligence action, is an attack on all, and every member must declare a response commitment promptly or be in breach. Members are obligated to defend and never to attack: a member fighting an offensive war of its own choosing does not drag the others in unless the opponent strikes back at a UARRO member directly. Intelligence sharing runs through Solenne's agency, VEIL, and no member may run intelligence operations against another member's government or military. Strategic resources (semiconductors, uranium, rare earths, advanced weapons systems) get preferential pricing among members, a best-effort obligation. Members jointly coordinate their space operations through DS-HP, with Solenne as lead coordinating representative. *See also: UARRO, VEIL, DS-HP, Operation Fenwick, UARRO Exclusive Economic Sector, Chapter 17.*

UARRO (United Aridexian Respective Resource Organization) (about 1301 AE onward)

A trade group of nations, each of which brought a different resource niche, founded in the immediate post-GAW3 recovery (about 1301 AE) by Solenne and the states nearest it, with no military dimension at all. PUSDR conquered Eisenreich and encircled Safemoon, and the situation escalated toward Operation Fenwick. UARRO grew strong enough, and the threat became real enough, that its members ratified the UARRO Foundational Charter, converting it into a binding mutual-defence alliance. That is the UARRO that fought the Fenwick-era conflict. After the crisis passed it stood back down to a trade organisation, and Solenne founded the Pan-Savoran Union for security. Its Exclusive Economic Sector (EES) is open to members and approved outside partners, and members increasingly standardise calibres and magazine interfaces without ever fielding one rifle. Bavaria is a founding member, and Christonia, Korveil and Hardluckia joined after 1304. UARRO fractured for good in Phase I of the Fourth Aridexian War. *See also: UARRO Foundational Charter, UARRO Exclusive Economic Sector, Kargopol, Pan-Savoran Union, VEIL, Chapter 17.*

Unification of Northland (AE 1300 to 1303)

Nikolai Nichozh's founding of Northland. The Third Aridexian War destroyed Christona and the Christonian government with nominal authority over his garrison district. The 75-year-old three-war veteran, with no chain of command left, turned his command outward on the four clan-holdings Christonia had spent a hundred years failing to absorb. These were the Verrenkai, the largest, whose territory his district sat inside, the Kholvag, the easternmost, the Drenmoor, a southern holding that claimed ground beyond Northland's later border, and the Oyun-Tash, an interior highland clan. The Verrenkai and Kholvag came in peacefully, recognising a fellow frontier population and a living legend. The Drenmoor took convincing, and Nichozh's columns burned two border settlements rather than negotiate through a winter. The Oyun-Tash did not come in at all. Cornered after a punishing siege, their fighting-age population was executed outright, a decision later remembered only as "the hard winter of unification". In a final, catastrophic battle in February 1303, the worst single day of bloodletting the region had produced, thousands died in a single glacial valley. Nichozh, 78, was at his front line and was maimed enough to lose the use of one eye. The last organised resistance broke. The four holdings became one nation, "Northland founded, AE 1303". Nichozh's father, refusing the new order, fled to a holdout faction and died in a night-long confrontation with his son. Nichozh died in 1328 aged 103. A few years later Northland's lower third split away as Southland by mutual decision, and the two governments operate closely together. Nichozh is venerated as something close to a living god. *See also: Iron Union, Northland State Relief Corps, Verrenkai, Kholvag, Drenmoor and Oyun-Tash, Chapter 10.*

United Syndicate Nations (USN) (1250 to 1300 AE)

The reconstruction union created in the settlement of the Thirty-Day War, in which the victorious Syndicate absorbed the defeated Christonian Empire and the small island nation of Mesaland. It was the closest thing Aridexia had yet seen to a true superstate. It inherited the Syndicate's Communist Power Alliance and its black-and-crimson colours. Its flag in 1250 was an eight-wedge field of crimson and black with an ouroboros at the centre, and in 1290 it added the Eye of the Office of Watch. Christonia regained independence at the end of the Second Aridexian War in 1276 and Mesaland was absorbed for good. The USN survived as a Syndicate-heartland dictatorship, endured the Talona Crisis, and rebuilt a modern military in secret behind a covert nuclear programme. It ceased to exist as a state on 17 January 1300 AE. Its regular army was dressed to be forgotten: charcoal-olive field jacket, matte-black belt and boots, a red-on-black chevron, and from about 1270 a stamped steel pin instead of cloth insignia. *See also: Thirty-Day War, Second Aridexian War, Talona Crisis, Third Aridexian War, Black-Snake Corps, Chapter 11.*

Uranium Crisis (1299 to 1300 AE)

The USN's covert nuclear weapons programme, remembered historically as the Uranium Crisis, undetected by its neighbours until too late to prevent. A regime humiliated twice in a generation concluded in secret that the only way never to be humiliated a third time was to strike first. The programme depended on the Vaurek Concession's off-the-books ore smuggling, which gave it enough warheads for a first strike but not a campaign. Aridexia's chronic fissile scarcity meant that even a ruthless and well-resourced state could build no more. Farren Vane, a high-ranking USN general, had inside visibility into it years before the war. The crisis coincided with the perihelion of Comet Vairon (DSY 23, AE 1299), one year before the Third Aridexian War. *See also: Vaurek Concession, Third Aridexian War, Year of Two Tails, Chapter 14.*

V

VAPIK

The coalition anchored by PUSDR that fought the Turncoat War against Solenne's coalition: PUSDR, Vessek, Safemoon, the Yeshuren Union and Nam Minh, joined in the war's final year by the revolutionary Chicano States. It competed with Solenne for off-world programmes, absorbed Malakor Vane's war crimes and sabotage without being crushed, and had its crewed launches shot down by Solenne in the year of Solenne's first crewed Typhon missions. It fought on PUSDR's own purpose-built arsenal. *See also: Turncoat War, Project Turncoat, Kargopol, Chicano Revolution of 1357, Chapter 20.*

Vaurek Concession (to 1300 AE and after)

A leasehold mining operation held on paper by a USN-chartered trading company, in remote southern Numarian ground that Chicano States had just been forced out of. In practice the Concession was the supply line behind the 1299 to 1300 Uranium Crisis: ore extracted far outside the USN's inspectable territory, refined off the books and shipped home labelled as something else. No inspection regime existed to catch it, which is why the USN routed its bomb programme through someone else's recently vacated backyard. When the Third Aridexian War ended the USN, the Concession's ownership became legally void overnight. Solenne, the USN's democratic successor, inherited no clear claim, and its status is unresolved. *See also: Uranium Crisis, Third Aridexian War, Syndicate-Chartered Trading Companies, Chapter 14.*

VEIL

Solenne's intelligence agency, which serves as UARRO's coordination hub for intelligence sharing under the Foundational Charter. No member may run intelligence operations against another member's government or military. *See also: UARRO Foundational Charter, Department-Y, Chapter 17.*

Velemiran Independence (1268 AE)

The declaration of independence by Velemira, Anestria's colonial holding in southern Skarnovia. The Second Aridexian War pulled Anestria's naval and administrative attention into the Pelruvian campaign, and Velemira's colonial government found itself with no metropole capable of enforcing anything for over a decade. It declared independence almost as an afterthought, and nobody in Anestria was in a position to object. Velemira inherited Anestria's republican instincts and is Skarnovia's most stable state. *See also: Skarnovian Scramble, Pelruvian Campaign, Second Aridexian War, Chapter 7.*

Velis-1 (Solenne survey probe)

The simplest functional probe Solenne could build, launched on Koedul-1. It had no propulsion or active guidance, and carried a spin-stabilised aluminium-honeycomb bus with two fixed solar panels and a low-gain S-band antenna, a photometer, a fluxgate magnetometer and a low-resolution monochrome camera. It was built to confirm orbital mechanics and validate the Koedul-1 launch pipeline, and had a design life of four to six months. It and Koedul-1 are the beginning of Solenne's Space Age chapter. *See also: Koedul-1, Asmedeus-1, Chapter 13.*

Velt-class Survey Probe

The smallest and first vehicle of the Typhon Corridor Fleet, flown for over a decade before any settler left Aridexia. Every biome map, landing-site survey and early dataset behind the Typhon Astrobiology Programme's findings came from a Velt probe. The whole pre-colonisation survey era ran on this one uncrewed design. *See also: Typhon Corridor Fleet, Typhon Astrobiology Programme, Chapter 21.*

Verrenkai, Kholvag, Drenmoor and Oyun-Tash (clan-holdings of the north of Candrasia)

The four clan-holdings unified into Northland. The Verrenkai were the largest, and their territory contained Nichozh's garrison district. The Kholvag, easternmost, were absorbed with little resistance. The Drenmoor were a southern holding whose claimed ground reached far past where Northland's border was later drawn. The Oyun-Tash, an interior highland clan, were the hardest to bring in, and their fighting-age population was executed after a siege. *See also: Unification of Northland, Chapter 10.*

Vessek Resistance (to the end of the record)

The standing resistance of Vessek, the original highland people of Numaria's mountainous core. Nobody ever formally conquered them. They were out-populated and out-capitalised, and pushed into ever-smaller pockets of the mountains their name still attaches to. Whoever held the rest of the continent, first Eisenreich and later PUSDR, treated their resistance as a domestic security problem and not a political one, which is the framing that keeps a conflict unresolved for centuries. Vessek has no arms plant of its own and fights with captured Eisenreich IR-11s and crude, hand-built single-shot hunting rifles. Its strength is its terrain and its refusal to quit. It broke Reyes's empire, held out in the Reclamation War, and held its mountain core against Solenne's coalition in the Turncoat War, and no invader in the record has conquered it. *See also: Long Campaign, Reclamation War, Turncoat War, Safemoon-Vessek Mutual-Defence Understanding, Chapters 8, 19.*

Vinear Coast War (December 1301 to February 1302 AE)

The first major postwar conflict, fought between the Constitutional Anestrian Republic and the Kingdom of Antares over the resource-rich, loosely governed Vinear Coast, contested by scattered warlords and small city-states since the war. A dispute over the port city of Bredezen, illegally annexed by Antares and valued for its salvageable pre-war naval infrastructure, escalated into open war. The Siege of Bredezen and the Battle of Ornwellburg, a two-month standoff that Antares broke only with the arrival of its first tank divisions, set the tone for a fragile, contested peace along the successor states' new borders. It was the first time two of the Anestrian successors fought each other, and both sides fought in the old Republic's tan, distinguishable by the colour of the armband. The shared AR-7 tooling meant there was no weapons-compatibility problem. *See also: Anestrian Coprosperity Sphere, Siege of Bredezen, Battle of Ornwellburg, Chapter 15.*

Vivemus-1 (AE 1261)

Anestria's satellite launched in 1261 AE, the first orbital satellite in the system, followed by the first crewed capsule flight in 1265. *See also: First Crewed Capsule Flight, DS-HP, Chapter 13.*

W

Watchkeeper Network

A network at the L1 point that gives 25 to 40 minutes of warning for solar energetic particle events, the standard go/no-go threshold for crewed transit windows. *See also: DS-HP, Chapter 33.*

Water-Courts (310 to 641 AE)

The office of the Ferrosian Empire's governors that owned the sluices and metered every channel. The Waterkeepers ran them, water rights were law, and a governor who held the Water-Court held his oasis. The governor's water-staff, with an iron ring at its head, was the symbol of the Court. After 641 AE they became the Oasis Courts. *See also: Ferrosian Empire, Oasis Courts, Collectors, Chapter 6.*

Y

Year of Two Tails (DSY 23, AE 1299)

The popular name for the perihelion passage of Comet Vairon, which delivered a visible coma at 0.8 AU, the most recent major long-period comet at the time of the dossier and a permanent fixture in lore. It fell in the year of the Uranium Crisis, one year before the Third Aridexian War. *See also: Uranium Crisis, Chapter 14.*

Yedinstvo Treaty (in the years before the occupation)

The treaty by which the Republic of Altyr and the Socialist Republic of Kargopol joined as the Peoples' Union of Socialist Democratic Republics. Kargopol proposed it because Eisenreich was expanding west at a terrifying speed, and both states had been forcibly removed from their homelands by the same power. One of its key terms was that any republic unhappy in the Union could hold a statewide referendum and leave peacefully. Dimikrova carried the signed text into exile. The Union's emblem shows it, as the gear and sickle form a circle round the hammer. The record names no referendum held under it, and Taran and Kinzel joined the Union under it later.

See also: Peoples' Union of Socialist Democratic Republics, Republic of Altyr, Socialist Republic of Kargopol, Chapter 15.

Z

Zhokrova Tank Plant

The state-run plant of PUSDR at which the Opytnyy tank competition was run, producing the JH-1 family. *See also: Opytnyy Tank Competition, People's Revolutionary Army, PUSDR State Arms Industry, Chapter 28.*

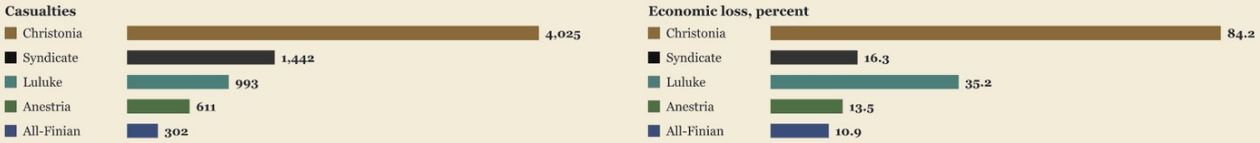
THE FIVE WARS: A LEDGER

GAW1, GAW2, GAW3, the Turncoat War and GAW4, set side by side, with the smaller wars named below



War	Who fought whom	The scarcity behind it	Fought with	What it cost	How it ended
GAW1 **The Thirty-Day War, or the War of Christonian Liberation** *October to November 1250*	The Syndicate, Anestria, Luluke and the All-Finian Empire against Christonia.	A century of Syndicate credit had bought Christonia's industry. The Renner bomb of late 1249 supplied the pretext.	The first large-scale use of tanks, aircraft carriers and field artillery in Aridexian history.	Casualties: Christonia 4,025, Syndicate 1,442, Luluke 993, Anestria 611, All-Finian 302. Christonia loses 84.2 percent of its economy.	The USN absorbs Christonia and Mesaland.
GAW2 **The Second Aridexian War** *1264 to 1276*	The CPA (the USN, Bavaria and PUSDR's exile) against HAFDAP (Anestria, Luluke, the All-Finian Empire).	Petroleum. The USN's coal base was ageing and Anestria's reserves ran behind demand. The USN moved on the Pelruvian offshore field.	Multiple fronts, the Pelruvian campaign chief among them.	Twelve years of war across multiple fronts. No casualty figures are given.	Christonia free, Mesaland gone, the USN crippled but standing, DSY 0.
GAW3 **The Third Aridexian War** *17 January 1300*	The USN against Christonia, Luluke, the All-Finian Empire and Anestria. The Empire and Anestria answer.	Fissile ore. A covert programme fed by the Vaurek Concession could build only enough warheads for one first strike.	Eleven bomber squadrons. Six warheads on the targets, two in reply from the Empire, none from Anestria, whose bombers used conventional ordnance.	Eight warheads in all, losses that dwarfed everything before it. Six targets: Port Dionysis, Christona, Apokka, Sulsbury, New Geneva, Freeport. No casualty figure is given.	The USN ends that evening. The Empire dissolves at 6:30 AM. Solenne is founded.
Turncoat **The Turncoat War** *1354 to 1358*	Solenne, Pechoria, Xue Lin, Skotia, Northland-Southland and Christonia against PUSDR, Vessek, Safemoon, the Yeshuren Union and Nam Minh. Chicano States turns to VAPIK in 1357.	The resources for an off-world effort. Malakor Vane bribed clients to sabotage every rival Typhon programme and built the only real one.	Naval superiority for Solenne, a stalled land war on Numaria, and shoot-downs of crewed launches.	Chicano States bankrupt and overthrown. Solenne bled by five years of real blood. The largest battles Aridexia had produced.	Solenne takes the Korut Islands. Stalemate. Malakor leaves for Typhon with no treaty.
GAW4 **The Fourth Aridexian War** *1359 to 1371*	The four Threshold Accord signatories against the nations the Accord excluded, then everyone against everyone.	One off-world effort was all the propellant, alloys and fissile material could feed. DS-HP recommended restraint and four nations chose enforcement.	Almost entirely conventional arms, for six years of open war, after six of diplomacy, proxy fighting and terror.	Every government on the map. The signatories fall first, in 1365, and the last, Hardluckia and the Schwalbenheimers, in 1371.	No armistice and no treaty. The fighting stops from exhaustion.

THE THIRTY-DAY WAR IN NUMBERS



SMALLER WARS THE RECORD ALSO NAMES

- The Talona Crisis, 1286 to 1290, a breakaway and a failed raid.
- The Vinear Coast War, December 1301 to February 1302, CAR against Antares.
- Operation Fenwick, 1305, a covert interdiction.
- The Reclamation War, 1318 to 1320, Chicano States against Vessek, Safemoon and Nam Minh.
- The Ardekai-Ospyran War on Typhon, 1366 to 1371, costing more lives in proportion than any named Aridexian war.

Five wars in 121 years, each fought over something Aridexia did not have enough of, and the last one without a winner.

Plate: Five wars in 121 years, each fought over something Aridexia did not have enough of, and the last one without a winner.

33
Places and Features

The gazetteer: continents, seas, ranges, cities, plates, deposits, worlds and moons, with the physical figures the record keeps.

A

Aevum

A 480-kilometre, Tycho-like impact basin on Aurelia, the mining moon of Keplanus. It is deep enough to expose the moon's mantle directly, and the mantle there is rich in platinum-group metals, which differentiation concentrated in its upper layers. The Outer System Mining Concord works the basin.

See also: Aurelia, Keplanus, Appendix A.

Aldrek Keep

The seat of House Aldrek, one of the twelve fiefs of the early Syndicate. It was a border fortress that held the northern pass, and the house's colour was crimson with a tower as its gold charge. Its lord held the northern gate of the Syndicate lands under a bond renewed by the Table.

See also: The Seat, Falkreth Gate, Savorus, Chapter 4.

Anestrian Craton

The oldest and most tectonically quiet piece of ground on Aridexia, one of the planet's seven plates. It carries the whole of Pan-Anestria. A civilization built on ground that never moves has less reason to change than one built on ground that does, and the craton is part of the reason Kharzun's political identity has gone unbroken for a couple of thousand years. The Kryodysseian Plate is rifting slowly away from its southern coast.

See also: Pan-Anestria, Kharzun, Kryodysseian Plate, Chapter 6.

Anquilla

The second planet of the Aridexian Planetary System by distance from Solis (0.600 AU, a year of 210.0 days, eccentricity 0.024). Its mass is 4.300 x 10^24 kg and its radius 5,734 km, giving a surface gravity of 8.729 m/s squared, an escape velocity of 10.005 km/s and a mean density of 5,445 kg per cubic metre. It is locked in a 3:2 spin-orbit resonance with Solis, as Mercury is, so its sidereal day is 30.1 days and its solar day 63.0 days. Its axial tilt is 0.9 degrees. The surface pressure is 32 kPa, the air is 88 percent nitrogen, 9 percent carbon dioxide and 1.4 percent sulphur dioxide, and the planet has no natural satellites of its own, only three Trojan asteroids. Its magnetic field is a weak dipole, 6 percent of Aridexia's.

Its defining feature is a quartz-rich crust. Continental-scale plateaus of optical-grade silicate, formed in a long-lost wet era under extreme hydrothermal conditions, lie exposed across 38 percent of the surface, and the largest is the Hesperin Plateau. This makes Anquilla the system's most strategically important non-metallic resource, since photonics, semiconductor and laser-grade work depends on quartz of that purity. The quartz blocks ultraviolet-C and most X-rays, its heat capacity softens the temperature swing near the terminator, and piezoelectric sensors built into the bedrock give planet-wide seismic monitoring without buried hardware. Extraction is dangerous. Large-scale harvesting sets off piezoelectric discharges called crystal storms that can damage electronics within 30 km. Day-side temperatures peak at +147 degrees C and the night side falls to -110 degrees C, but along the terminator, a band roughly 280 km wide on either side of dawn and dusk, the temperature sits between +8 and +25 degrees C for hours to days at a time. Settlements chase the dawn westward at about 17 km/h. Sulphur dioxide corrodes standard alloys, so hardware uses ceramic-composite or gold-plated coatings. The delta-v from low Aridexian orbit is 6,800 m/s by Hohmann transfer or 8,200 m/s by a three-month direct route.

Anquilla is one of the worlds on which DS-HP colonies stand in the long peace. Lira's chemical fingerprint suggests it was a captured proto-Anquillan body, which links the two worlds in deep time.

See also: Hesperin Plateau, Vesperin, Crepuscula, Aurelain, Anquilla Trojans, Lira, Appendix A.

Anquilla Trojans

Three asteroids share Anquilla's orbit: Skotos at L4, Aphos at L5, and the recently catalogued Lethe on a horseshoe orbit that starts at L4. All three are dark C-type bodies carrying water-ice signatures, and they are treated as strategic propellant caches. Skotos and Aphos are stable on timescales of billions of years. Lethe's horseshoe will dissipate within 8 million years.

See also: Skotos, Aphos, Lethe, Anquilla.

Aphos

An asteroid of 11 km diameter at Anquilla's L5 point, a dark C-type body with water-ice signatures and a strategic propellant cache. Its orbit is stable on timescales of billions of years.

See also: Anquilla Trojans, Skotos.

Apokka

One of the six cities struck by nuclear weapons in the first three hours of the Third Aridexian War, on 17 January 1300 AE. The record does not say which nation's territory it lay in. The six strikes collapsed the Christonian government and the reconstituted Luluke government and dealt a mortal blow to the All-Finian Empire.

See also: Port Dionysis, Christona, Sulsbury, New Geneva, Freeport, Chapter 14.

Aridexia

The homeworld, third planet from Solis, orbiting at 1.000 AU. Its year is 365.25 days, its orbit nearly circular (eccentricity 0.017), and its sidereal day 23 hours 56 minutes 4 seconds. The mass is 5.970 x 10^24 kg and the radius 6,371 km, which gives a surface gravity of 9.817 m/s squared, an escape velocity of 11.184 km/s and a mean density of 5,511 kg per cubic metre. The axial tilt is 23.5 degrees, held steady to within one degree over billions of years by the moon Lira. The planet has a Bond albedo of 0.306 and a mean surface temperature of +15 degrees C.

The atmosphere is 78.08 percent nitrogen, 20.95 percent oxygen, 0.93 percent argon and 0.041 percent carbon dioxide, with a surface pressure of 101.325 kPa and a scale height of 8.5 km. The troposphere reaches 12 km at the equator and 8 km at the poles. For practical purposes the atmosphere ends at 140 km, though 100 km is the line used for licensing astronauts. Oceans cover 71.0 percent of the surface, with a mean depth of 3,682 m and an average salinity of 34.7 PSU. Three thermohaline branches carry heat around the globe: the North Aridexian Drift, the Southern Circumpolar Stream and the Equatorial Counterflow. The crust is divided into seven major plates and fourteen minor ones, 35 km thick under the continents and 7 km under the oceans. About 50 volcanoes are active, with one eruption of VEI 5 or more per century on average. Tropical cyclones number 80 to 120 named storms a year, two or three of them Category 4 or stronger. Solar storms produce geomagnetic induced currents above 2,000 nT per minute once in every eleven-year cycle, and two near-Aridexian objects larger than a kilometre are tracked, with nominal impact probability. The biosphere has been continuous for about 3.8 billion years and holds an estimated 8.7 million eukaryotic species, 1.6 million of them described.

The political history of this book happens almost entirely on the world's landmasses: Savorus, Candrasia, Skarnovia, Numaria, Drozdov, Pan-Anestria, the Korut archipelago and the two polar continents. The planet's bulk density is high, but most of its iron sits in the core. Rich, shallow, minable ore bodies are thin and scattered, and that scarcity lies under almost every war on the record. The record's last word on the planet is that by AE 1371 it is no longer anyone's home in

any sense that matters going forward.

See also: Lira, Aridexian Trench, Eastern Rift, Savorus, Typhon, Prologue, Chapter 1, Chapter 24, Appendix A.

Aridexia-Lira L1

The Lagrange point between Aridexia and Lira, 61,500 km from Lira. It is the standard site for refuelling stations in the Lira return profile, which costs 3,260 m/s from low Aridexian orbit to Lira injection, 870 m/s for Lira capture, 2,400 m/s for descent and ascent, and 1,050 m/s for the return.

See also: Lira, Aridexia, Aridexia-Solis L1 propellant depot.

Aridexian Trench

The deepest point of Aridexia's oceans, in the Eastern Hemisphere, with a deepest sounding of 11,034 m. On the whole system it is second to the Maren Deep on Osprey, which reaches 12,880 m.

See also: Aridexia, Maren Deep.

Aridexia-Solis L1 propellant depot

The depot to which the Orjust Pipeline delivers refined metals, about 140 tonnes a year, from the pipeline's operation beginning in DSY 18 (AE 1294). It sits at the Lagrange point on the sunward side of Aridexia. The L1 Watchkeeper network gives 25 to 40 minutes of warning of solar particle events.

See also: Orjust, Watchkeeper network (glossary), Aridexia.

Ashfields

The agricultural hinterland of Safemoon, the farmland around its capital Moonhaven. In the years before the Second Aridexian War, Chicano States burned the fields and fouled the wells on purpose. Its high command called this scorched-earth operation the Ashfields Campaign, and it was meant to starve a cornered population rather than storm Moonhaven street by street. It worked in the narrow sense that Safemoon never made a last stand. It is the ugliest single act on Numaria's long list. The Gran Chicania GC-7 rifle armed the Chicano troops, and the SPA-41 Howler is thought to have fired on the same farmland.

See also: Moonhaven, Safemoon (Chapter 30), Gran Chicania, Chapter 8.

Ashkeel, Mount

The tallest point on Osprey, 6,140 m, in the Corvane Highlands. Its slopes are the only part of Osprey's landmass that reliably stays above the worst of the storm surge.

See also: Corvane Highlands, Osprey, Appendix A.

Ashvale

A valley cluster in the highland core of Vessek where, during the First Marshal's occupation, the Chicano punitive columns burned villages and carried out reprisal executions in the years after 809 AE.

See also: Vessek, Kessel Pass, Kelvath Hollow, Chapter 8.

Ashwick Bay

The anchorage where, in 806 AE, Chicano's fleet forced the harbour at dawn and caught Ashwick's ships moored and largely unmanned. The battle of Ashwick Bay ended Ashwick's navy in a single morning and left the coast open to the army that took Calmouth within three weeks.

See also: Calmouth, Chapter 8.

Astera

One of the three catalogued dwarf planets of the Inner Belt, the Pallas-analogue. It is 510 km in diameter, carbonaceous and irregular in shape.

See also: Inner Belt, Threnos, Mnemosyne.

Astraea Vent Field

The hydrothermal field on Keplum, in the subsurface ocean Thalassa, above which thermal anomalies are stable on timescales of decades. That stability is one of three lines of evidence for chemosynthetic ecosystems at the vents, the others being plume spectroscopy and sulphur isotope ratios. It is the strongest astrobiological target in the system and has not been confirmed.

See also: Keplum, Thalassa.

Aurelain

One of the three mobile mag-rail cities of Anquilla, each massing 4 to 8 megatonnes and traversing the Hesperin Plateau on continuous east-west tracks to chase the dawn at the terminator.

See also: Vesperin, Crepuscula, Hesperin Plateau, Anquilla.

Aurelia

The mining moon of Keplanus, the third of its major moons, with a radius of 1,200 km. It orbits at 3,420,000 km (53.7 Keplanus radii) with a period of 41.4 days and an eccentricity of 0.078. Its mass is 5.8 x 10^22 kg, its surface gravity 2.69 m/s squared, its escape velocity 2.54 km/s and its surface temperature -172 degrees C. The body is differentiated, with an iron core taking 35 percent of its radius.

Aurelia sits outside the most intense of Keplanus's radiation belts, which makes it the system's principal industrial moon. Platinum-group metals concentrate in its upper mantle, and the Aevum basin exposes them directly. It is the seat of the Outer System Mining Concord, a chartered economic body distinct from any inner-system government, and the staging base for the standard architecture for reaching Keplanus and Glocius. Mining here has been a continuous logistics chain since DSY 31 (AE 1307).

See also: Aevum, Keplanus, Glocius, Outer System Mining Concord (Chapter 32), Appendix A.

B

Borean Lowlands

An ancient impact basin, filled by basaltic flows, dominates the northern hemisphere of Orjust. The south of the planet is heavily cratered highland.

See also: Orjust, Mons Velhar.

Brasmere Quay

The seat of House Brasmere, one of the twelve fiefs of the early Syndicate, responsible for the harbour, the fishing fleet and coastal trade. The house colour was sea-green and its gold charge a ship.

See also: Aldrek Keep, Savorus, Chapter 4.

Bredezen

A port city on the Vinear Coast, strategically valuable for its salvageable pre-war naval infrastructure. Antares annexed it illegally after the Third Aridexian War, and the dispute over it between the Constitutional Anestrian Republic and the Kingdom of Antares escalated into the Vinear Coast War of December 1301 to February 1302 AE. The war's central actions were the Siege of Bredezen and the Battle of Ornwellburg.

See also: Vinear Coast, Ornwellburg, Pan-Anestria, Chapter 15.

C

Calmouth

The capital of Ashwick. It fell to Chicano States in 806 AE within three weeks of the Battle of Ashwick Bay, less as a siege than as a formality. The war that bears Ashwick's name was the shortest of Salvador Reyes's seven and the only one that went entirely as he planned it.

See also: Ashwick Bay, Vantor, Chapter 8.

Candrasia

A small continent, and one of the two landmasses of the Savoran Plate. It is the ancestral homeland of Christonia, which named it, and the one continent on the map named for a nation rather than the other way round. It lies directly across a short strait from Savorus. The Syndicate's chartered trading companies moved in during the 700s and 800s AE, and over the following centuries Christonia came to answer to Syndicate boardrooms in everything but name. In the Thirty-Day War of 1250 AE Christonia was the defeated side, and in the Third Aridexian War its capital, Christona, was one of the six cities struck.

Its modern shape is a crowded, post-imperial patchwork of four polities: Christonia, Einsenia, Northland and Southland. Einsenia is linked by origin to Numaria's Eisenreich and is the continent's dominant modern power. Northland occupies the northernmost tip, a former garrison district that Nikolai Nichozh unified from four clan-holdings between 1300 and 1303 AE, and Southland split off from it as its lower third a few years later. The Pallow, a solitary nocturnal native primate-analogue, lives in Candrasia's temperate woodlands. Candrasia's Savoran Plate is quiet inside and active on its eastern edge, and its northern coast looks out on the cold sea that the Heliodysseian Plate is slowly widening.

See also: Savorus, Christona, Northland, Southland, Savoran Plate, Chapter 5, Chapter 10, Chapter 25.

Central Continent

The landmass of the Classical Age, drained by the Solvane. Luluke occupied its south, and the early Christonian Empire lay to the north, with the river between them. The record does not say which of the modern continents this was.

See also: Solvane, Luluke (Chapter 30), Chapter 2.

Charun

An unusually sharp-edged impact basin on Erebos, the companion of Nyxara, covering nearly a quarter of the leading hemisphere. It is old enough to be heavily degraded by sublimation, yet sharp enough at the rim that it postdates the pair's tidal lock rather than predating it.

See also: Erebos, Nyxara-Erebos.

Christona

The capital of the Christonian Empire and later of independent Christonia. It was among the six cities nuclear-struck in the opening three hours of the Third Aridexian War on 17 January 1300 AE. Its destruction collapsed the Christonian government and left Nikolai Nichozh's frontier garrison district without a chain of command. The country was long since rebuilt.

See also: Candrasia, Apokka, Port Dionysis, Chapter 14, Chapter 10.

Classical disk

The cold, low-eccentricity inner part of the Outer Belt, between 14 and 22 AU. Its largest catalogued body is Vykres, 1,100 km across.

See also: Outer Belt, Vykres.

Coastville

The industrial coastal city of the USN that broke away in 1286 AE and declared itself the Confederate States of Talona, backed by Christonian funding and military advisors. Much of the USN's senate and administration defected to it for its higher standard of living. A USN special-forces raid, Operation Black-Snake, destroyed Talona's only warship and its main tank depot but did not break it. The crisis ended in 1290 with Talona reabsorbed as an autonomous province.

See also: Operation Black-Snake (Chapter 32), Talona Crisis (Chapter 32), Chapter 13.

Comet Halvenn

A Halley-type comet with a period of 76 years and a perihelion at 0.6 AU. Its return is the most anticipated near-term sky event in the outreach of DS-HP, since everyone knows when it is coming.

See also: Comet Ostrey, Comet Vairon, Oort cloud.

Comet Ostrey

A comet like those of the Jupiter family, locked in a 2:1 resonance with Keplanus, with a perihelion just inside Orjust's orbit every 5.9 years. It is too faint to see unaided, but the Orjust Pipeline's space-weather instruments track it as a standing calibration source.

See also: Comet Halvenn, Comet Vairon, Keplanus, Orjust.

Comet Vairon

The most recent major perihelion passage in the record, in DSY 23 (AE 1299), the year before the Third Aridexian War. It showed a visible coma at 0.8 AU and is remembered as the Year of Two Tails.

See also: Comet Halvenn, Oort cloud.

Corvane Deeps

The seat of House Corvane, the ore and deep-mine fief of the early Syndicate. Its colour was orange and its gold charge crossed picks. It shares a name with the Corvane Highlands of Osprey only by coincidence of sound.

See also: Brasmere Quay, Savorus, Chapter 4.

Corvane Highlands

A smaller, higher-latitude continental fragment of Osprey, holding the planet's tallest point, Mount Ashkeel at 6,140 m. Its slopes are the only stretch of Osprey's landmass that reliably sits above the worst of the storm surge.

See also: Ashkeel, Mount, Tarrow, Pellastri, Osprey.

Corvath Crossing

The site of a one-sided engagement in 809 AE in which a covering force of Corvath was routed with minimal Chicano losses. It was less a contest than a demonstration, and Corvath's government sued for terms within days.

See also: Chapter 8.

Corvenna

The capital of the Syndicate on Savorus, and later of the United Syndicate Nations. Its financial district was the target of the Renner Faction's 1249 AE bombing, which killed a handful of clerks and damaged one building. It is also the home of AVMS's Corvenna works, where every Syndicate and USN AR-22 was made. Its suburbs grew over the pre-Syndicate coastal villages whose people once worshipped the sky god Asmedeus.

See also: Savorus, AVMS (glossary), Asmedeus (glossary), Chapter 5, Chapter 11.

Crater Demeryn

A 78 km crater on Lira with a complex central peak. It hosts the Far-Side Radio Observatory.

See also: Lira, Mare Concordis, Promontory Vesh, Sinus Achlys.

Crepuscula

One of the three mobile mag-rail cities of Anquilla, each massing 4 to 8 megatonnes and crossing the Hesperin Plateau on continuous east-west tracks to follow the terminator.

See also: Vesperin, Aurelain, Hesperin Plateau, Anquilla.

D

Dorrenheim Heights

The ground of the Battle of Dorrenheim Heights in 806 AE, in the low-elevation approaches to Vessek, where a disciplined Chicano line broke a larger but poorly organised Vessek levy in open country. That battle and the smaller ones after it let Salvador Reyes claim roughly 80 percent of Vessek's remaining territory by 811 AE. They also marked the limit of what conventional victories there could do.

See also: Vessek, Kessel Pass, Chapter 8.

Dravensk

The landlocked highland interior of Skarnovia. Ostrenia, Velemira and Kesarova, the three colonial holdings, each judged it not worth the cost of pacifying over two thousand years, and the peoples already living there used that judgement to stay armed, mobile and politically unified against outside claims. Dravensk is poor and surrounded by three states that each still carry a colonial-era paper claim to slices of it, which makes it the most reliable flashpoint on the continent whenever a neighbour wants a distraction. It fights with a patchwork of captured Ostrenian, Velemiran and Kesarovan weapons. It lost its central government in 1367.

See also: Skarnovia, Ostrenia, Velemira, Kesarova, Chapter 7.

Drozdov

A landmass east of Savorus across a short strait, and with Numaria the second half of the Numarian Plate. It is named for Drozdov, the captain of the first prospecting expedition to chart it during the mining rush. Nobody remembers anything else about him. Drozdov rides the plate's old, quiet trailing shield, stable and predictable and easy to mine, and it has no internal rival.

For most of deep prehistory and the Classical Age its temperate southern coast held the Northern Tureshan Kingdom, a single royal line that never fought a war worth naming. It ended by emigration, not conquest. Generation after generation left westward for the trade networks of Savorus and Candrasia, and by about 950 AE the last true Tureshan settlements were too thin to support a court. Prospectors from Luluke, the Syndicate and later the USN arrived from about 1000 AE chasing copper, then rare earths, then uranium-bearing strikes. What grew from the rush is Bavaria, one of the few nations old enough to have existed before the Third Aridexian War and still a first-tier power after it. Drozdov is quiet where Numaria is not.

See also: Numaria, Numarian Plate, Bavaria (Chapter 30), Litharic Church (glossary), Chapter 8, Chapter 25.

Dunmar Mill

The seat of House Dunmar, one of the twelve fiefs of the early Syndicate, concerned with grain, mills and the central valley. Its colour was slate blue and its gold charge a wheel.

See also: The Seat, Halvane Vale, Chapter 4.

E

Eastern Rift

A spreading rift in Aridexia's crust that is moving at 4.2 cm a year. In about 30 million years it will partition the eastern continental block.

See also: Aridexia, Aridexian Trench.

Equatorial Counterflow

One of the three thermohaline conveyor branches that drive global heat transport in Aridexia's oceans, with the North Aridexian Drift and the Southern Circumpolar Stream.

See also: North Aridexian Drift, Southern Circumpolar Stream, Aridexia.

Erebos

The smaller component of the dwarf-planet binary Nyxara-Erebos, with a radius of 690 km, a mass of 1.3 x 10^21 kg and a mean density of 1,720 kg per cubic metre. Its surface temperature is -228 degrees C and it is made of water ice, with no confirmed differentiated core. It shows one sharp-edged impact basin, Charun.

See also: Nyxara, Nyxara-Erebos, Charun.

Esselt Court

The seat of House Esselt, which held the Ledger Court and so the law of the early Syndicate. Its colour was violet and its gold charge scales. Its seal could void another house's bonds.

See also: Garnoth Forges, The Seat, Ledger Court (glossary), Chapter 4.

Exodus Point

The postwar name of Exodus, one of the three original coastal settlements of Chicano States (with Gran Chicania and Univar) that grew from a small colony. Chicano reclaimed the cluster after the Third Aridexian War and renamed the three to mark the new era.

See also: Gran Chicania, Navarro, Verdad, Chapter 8.

F

Falkreth Gate

The seat of House Falkreth, one of the twelve early Syndicate fiefs, which ran customs at the mountain gates. Its colour was silver-white and its gold charge a key.

See also: Aldrek Keep, Chapter 4.

Farside Anomaly

A shallow, wide depression on Farside Reach, 4.1 km deep and 38 km across, in otherwise undisturbed old crust. Its depth-to-diameter ratio is unusually low for any confirmed impact structure on Typhon. It has no ejecta blanket, no radial fracture pattern and no candidate impactor of the required size in any tracked debris population, and standard impact dating places its formation as geologically recent relative to the terrain around it. It remained open-catalogued and unclassified in the survey record.

After the skull was found nearby in 1371, the joint team read it as the scar of whatever ended the first Typhon civilization about 50,000 years before the Third Aridexian War. That reading is offered as the strongest interpretation of the evidence and is not settled science.

See also: Farside Reach, Farside excavation site, Chapter 24.

Farside excavation site

A flooded cave system on the margin between Hearthlands and Farside Reach, found in 1371 AE by a joint Ardekai and Ospyran research team looking for ore. It has cave calcite throughout and dull copper outcrops visible from the entrance. In an air pocket deep inside the flooded system, construction crews found a skull anatomically consistent with modern human beings and unmistakably older than any Ardekai population, dated to about 50,000 years before the Third Aridexian War. That discovery showed that humanity evolved on Typhon and reached Aridexia as a near-extinct founder population.

Within a year it was the most visited place on Typhon, by settlers who called themselves Ardekai and settlers who called themselves Ospyran alike. It was the first ground on the whole moon that both sides kept returning to on purpose. The site lies within survey range of the Farside Anomaly.

See also: Farside Reach, Farside Anomaly, Hearthlands, Ardekai (glossary), Chapter 23, Chapter 24.

Far-Side Radio Observatory

The radio observatory in Crater Demeryn, on the far side of Lira.

See also: Crater Demeryn, Lira.

Farside Reach

The antipodal landmass of Typhon, opposite the sub-Osprey point, cooler and geologically quieter than the Hearthlands and outside the tidal-flexing maximum. Its longer volcanic quiescence has let deeper, older strata weather to the surface, which makes it the preferred place to study Typhon's early geologic history. The Farside Anomaly lies on it, and the excavation site on its margin with the Hearthlands.

See also: Typhon, Hearthlands, Girdle Isles, Farside Anomaly, Farside excavation site.

Ferris

The single moon of Glocius, with a radius of 100 km, a semi-major axis of 32,400 km, a period of 0.61 days, a mass of 1.4 x 10^19 kg and a surface gravity of 0.094 m/s squared. It is made of pure metal and may have formed together with Glocius during the disruption of the parent body. Its strategic role is as the mass-driver staging point. An orbital launch from Ferris is essentially free, and mass drivers there deliver pre-refined ore onto interplanetary trajectories at 1.5 to 2.0 km/s exit velocity for about 0.04 J/kg launch cost.

See also: Glocius, Glocian Express (glossary), Appendix A.

Finhaven

One of the five city-states of the former All-Finian Empire in the Korut chain, named for and built directly on the Empire's ancient capital. It is militarily and economically the weakest of the five, yet every history book points to it when it says "the AFN". That symbolic legitimacy is something Korveil resents and has never been strong enough to take. Solenne's navy took Finhaven in the Turncoat War.

See also: Korveil, Halvern, Tavelin, Skerrow, Korut, Chapter 18, Chapter 20.

Fortaleza

One of Chicano States' expansion-era cities. It still stands, under another flag now, and has never been reclaimed.

See also: Valentia, Prospera, Union, Properio, Fortero.

Fortero

One of Chicano States' expansion-era cities, still standing under another flag and never reclaimed.

See also: Fortaleza, Properio.

Freeport

One of the six cities struck by nuclear weapons in the first hours of the Third Aridexian War. The record does not say where it lay.

See also: Apokka, Port Dionysis, Christona, Sulsbury, New Geneva, Chapter 14.

G

Garnoth Forges

The seat of House Garnoth, which made the steel, armour and arms of the early Syndicate. Its colour was rust and its gold charge an anvil. House Garnoth supplied mountain steel for mail, plate and the Lords-Principal's harness.

See also: Esselt Court, Chapter 4.

Girdle Isles

A broken chain of smaller landmasses ringing Typhon at the boundary between its nearside and farside climate regimes. The shallow surface ocean, the Meridian Sea, is widest here, and most of the moon's mat-forming algae biomass is concentrated in it. The coasts carry the littoral scrub biome.

See also: Typhon, Meridian Sea, Hearthlands, Farside Reach.

Glaucus

The larger of Osprey's two minor moons, a captured carbonaceous body with a radius of 84 km and a semi-major axis of 215,000 km. It is airless and shows resurfacing on its leading hemisphere, probably cryovolcanic, venting briny subsurface pockets rather than silicate lava. It also has confirmed water-ice deposits at its poles, comparable in concentration to Lira's Promontory Vesh. It carries no planetary-protection restriction and is open to unrestricted survey and eventual extraction.

See also: Selache, Typhon, Osprey, Promontory Vesh.

Glocian Veil

The aurora of Glocius, intense and visible from orbit, extending to plus or minus 60 degrees of latitude during Solis storms. Keplanus's long magnetotail also illuminates Glocius's polar regions regularly.

See also: Glocius, Keplanus.

Glocius

The outermost planet of the system, at 9.450 AU, with a year of 29,200 days, an eccentricity of 0.089 and an inclination of 6.70 degrees. Its mass is 1.6657 x 10^25 kg and its radius 8,282 km, giving the highest surface gravity of any terrestrial world in the system, 16.208 m/s squared, with an escape velocity of 16.385 km/s. The mean density is 7,000 kg per cubic metre and the sidereal day 58 hours 22 minutes. The tilt is 5.4 degrees. The atmosphere is thin at 0.4 kPa and 78 percent sulphur dioxide, with 18 percent carbon dioxide and 4 percent nitrogen. The surface runs from +42 degrees C by day to -164 degrees C by night. Its magnetic field is strong, 0.6 times Aridexia's, from an active liquid-iron dynamo.

Glocius is the system's anomaly: a body of metallic density at a distance where ice giants are expected. The accepted explanation is that it is the stripped core of a former gas giant, exposed 3.7 billion years ago by a glancing collision with a body of Mars's mass that ejected most of its mantle and atmosphere. It is 70 percent iron-nickel by mass, with a thin silicate-sulphide crust holding exposed ore found nowhere else in the system. The resources are bulk iron-nickel in the Sidero Plain, platinum-group metals at 4 to 8 ppm in the regolith and over 2,000 ppm in three impact-melt deposits, copper, zinc, cobalt and gold sulphides, and tellurium and rare earths at 100 to 400 times Aridexian crustal abundance. The hazards are corrosive sulphur dioxide (equipment lasts under two years without ceramic shielding), a surface dose of 8 mSv a day in quiet periods, and a day-night swing of over 200 K that forces magnetic-rail systems onto phase-change heat sinks. The synodic period with Aridexia is 415 days, so cargo windows are predictable but rare. The delta-v from Aridexia is 11,400 m/s on a 1,640-day Hohmann transfer, usually staged through Aurelia.

See also: Ferris, Sidero Plain, Glocian Veil, Glocian Express (glossary), Appendix A.

Gran Chicania

The original settlement of Chicano States, one of the three coastal settlements (with Exodus and Univar) from which the nation grew. After the Third Aridexian War Chicano reclaimed this cluster and renamed it Nueva Chicania. It gave its name to the Gran Chicania GC-7 rifle.

See also: Exodus Point, Navarro, Verdad, Chapter 8.

H

Halia

The larger of Keplum's two moons, with a radius of 162 km, a semi-major axis of 412,000 km and a period of 16.8 days. It is a mixture of ice and rock, tidally locked, with resurfaced regions on its trailing hemisphere.

See also: Lemnos, Keplum.

Halvane Vale

The seat of House Halvane, one of the twelve fiefs of the early Syndicate, responsible for farmland and stock. Its colour was forest green and its gold charge a sheaf.

See also: Dunmar Mill, Chapter 4.

Halvern

The second-largest of the five city-states of the former All-Finian Empire, mercantile and mostly uninterested in the rivalry between Korveil and Finhaven while its shipping lanes stay open. Solenne's navy took it in the Turncoat War.

See also: Korveil, Finhaven, Tavelin, Skerrow, Korut, Chapter 18.

Hearthlands

Typhon's largest continuous landmass, centred near the sub-Osprey point. It is the warmest and most volcanically active region of the moon, lying over the strongest tidal flexing. All four of Typhon's biomes are present within a few hundred kilometres of each other, which makes it the most sampled region. The Hearthlands Research Station stands here. The sulphide and base-metal deposits are thinner and patchier than orbital surveys predicted, because they had been worked in a very distant past. The first colonisation wave of several thousand settlers landed here in AE 1341.

See also: Typhon, Hearthlands Research Station, Farside Reach, Girdle Isles, Chapter 21, Chapter 23.

Hearthlands Research Station

The semi-permanent headquarters of the Typhon Astrobiology Programme, on the Hearthlands.

See also: Hearthlands, Typhon Astrobiology Programme (glossary).

Heliodysseia

The north-polar continent, colder than habitable but not impossible the way Kryodysseia is. It was named by the northern ship of the Long Survey, whose crew spent weeks under a sun that would not set, from *helios* (sun) and the suffix for a long voyage told afterward. Its milder coastal fringes support a small, permanent population, the Ilvennaq, scattered hardy maritime and hunting communities with no unified state. They sit on strategic shipping lanes and resource potential, and outside powers keep treating their homeland as unclaimed.

From roughly 0 to 600 AE the same fringes held Helian, a populous confederation of coastal city-settlements that traded fish, whale-oil and worked ivory. Its end was cooling. Across roughly 550 to 850 AE a multi-century cold trend pushed the ice line south each generation, and the settlements grew smaller, more mobile and more scattered until nothing remained to call a confederation. The Ilvennaq are Helian's direct descendants.

See also: Kryodysseia, Heliodysseian Plate, Long Survey (glossary), Ilvennaq (glossary), Chapter 9, Chapter 25.

Heliodysseian Plate

The northern polar plate, old and stable and slowly rifting away from the Candrasian coast of the Savoran Plate. The rift widens the cold sea at the north of the map, the sea that Northland looks out on.

See also: Kryodysseian Plate, Savoran Plate, Heliodysseia.

Helios Trojans

The denser L4 leading camp of Keplanus's Trojans.

See also: Hesperian Trojans, Keplanus.

Hesper Plateau

The principal rare-earth province of Orjust, in its volcanic provinces.

See also: Orjust, Hesperin Plateau.

Hesperian Trojans

The L5 trailing camp of Keplanus's Trojans, holding three dwarf planets including the 480 km Telos.

See also: Helios Trojans, Telos, Keplanus.

Hesperin Plateau

The largest of Anquilla's quartz plateaus, spanning 1,400 by 880 km of nearly pure alpha-quartz with grains up to 12 cm. The mobile cities Vesperin, Crepuscula and Aurelain cross it.

See also: Anquilla, Vesperin, Crepuscula, Aurelain.

Hydra

The second of Keplanus's major moons, with a radius of 1,800 km, a semi-major axis of 1,890,000 km (29.7 Keplanus radii), a period of 16.9 days and a forced eccentricity of 0.0211. Its mass is 9.4 x 10^22 kg, its gravity 1.93 m/s squared, its escape velocity 2.64 km/s and its surface temperature -198 degrees C. Its surface is water ice with organic tholins and sulphur compounds. It is the system's most spectacular moon. At least 70 active vents lose 280 kg per second, throwing water vapour, organics and silicate nanograins to altitudes of 350 km and more, within easy reach of flyby sampling. The plumes contain amino-acid precursors and aliphatic hydrocarbons up to C20. The Tigris Stripes, four parallel cryovolcanic ridges spanning 130 km, are called the eighth wonder of the system. A plume sampler from Aurelia needs about 1,400 m/s of delta-v and carries a low contamination risk. Hydra is in a 7:3 resonance with Titanis.

See also: Titanis, Aurelia, Keplanus, Appendix A.

I

Ilmar Span

The seat of House Ilmar, one of the twelve fiefs of the early Syndicate, which held rivers, bridges and the toll roads. Its colour was teal and its gold charge a bridge.

See also: Jurak Tower, Chapter 4.

Indigo Oval

A long-lived anticyclone in the atmosphere of Keplanus, at 32 degrees south, over 200 years old, measuring 14,000 by 9,000 km, with peak winds of 480 km/h.

See also: Keplanus, Polar Hexagon.

Indra

An outer moon of Keplanus, a captured, retrograde C-type body with a radius of 146 km, a semi-major axis of 5,840,000 km and a period of 94.7 days. Its obliquity is chaotic and its orbital lifetime is bounded at about 800 million years.

See also: Vespera, Keplanus.

Inner Belt

The main asteroid belt, between 2.1 and 3.6 AU. It holds an estimated 1.4 million bodies larger than a kilometre, with a total mass about 4 percent of Aridexia's. The inner part is S-type and the outer part C-type, and there is a notable population of metallic M-type asteroids near 2.8 AU. Three dwarf planets are catalogued in it: Threnos, Mnemosyne and Astera.

See also: Threnos, Mnemosyne, Astera, Keplanus Trojans, Appendix A.

J

Jurak Tower

The seat of House Jurak, one of the twelve fiefs of the early Syndicate, which ran the beacon-and-bell alarm network that warned the interior within an hour of an enemy appearing at any gate. Its colour was plum and its gold charge a bell.

See also: Aldrek Keep, Chapter 4.

K

Kaldrun

The capital of Luluke. The Kaldrun Pattern rifle is named for it, in the way a design is named for wherever it is made.

See also: Luluke (Chapter 30), Central Continent, Chapter 26.

Kelvath Hollow

The ambush site in the Vessek highlands where in 812 AE the First Marshal, Salvador Reyes, was killed with most of his escort while leading a punitive column. He is remembered for the line he is reported to have spoken as he lay dying, "Every nation on this continent bent. Only the mountains never did," which has worn down to *the mountains never bent*. His empire collapsed within months.

See also: Vessek, Kessel Pass, Chapter 8.

Keplanus

The gas giant of the system, at 5.200 AU, with a year of 11,870 days, an eccentricity of 0.058 and an inclination of 1.04 degrees. Its mass is 1.5204 x 10^27 kg and its radius 63,710 km. The surface gravity at the 1-bar level is 25.000 m/s squared, the escape velocity 56.440 km/s and the mean density 1,404 kg per cubic metre. The sidereal day is 11 hours 4 minutes, with an extreme oblateness of 0.072, and the tilt is 3.8 degrees. The sphere of influence reaches 78,400,000 km. The atmosphere is 86 percent hydrogen and 13.4 percent helium, with 0.4 percent methane and 0.15 percent ammonia, and the cloud tops are at -148 degrees C. It is slightly smaller than a Jovian giant and substantially less massive, but more dynamic in its upper atmosphere. Three cloud decks lie at 0.5 bar (ammonia ice), 1.5 bar (ammonium hydrosulphide) and 4 to 6 bar (water).

Notable features are the Indigo Oval, the north Polar Hexagon at a mean latitude of 78 degrees, and equatorial superrotation, with eastward jets at 460 km/h and westward at 280 km/h in narrow shearing bands. The magnetic moment is 1.6 x 10^27 A m squared, 24 times Aridexia's, and the magnetopause stands off 85 Keplanus radii sunward and 1,100 radii tailward, so the tail, the longest in the system, reaches past Glocius's orbit in anti-solar configurations. The radiation belts are hostile. The inner belt peaks at 7 radii with electron fluxes above 10^9 per square centimetre per second per steradian at MeV energies, and crewed visits to the inner moons need either under 8 hours total exposure inside 12 radii or active shielding massing over 180 tonnes. A faint ring system has 12 main bands and a total mass of 4 x 10^16 kg.

Nine moons are named, three major (Titanis, Hydra, Aurelia) and six minor (Mira, Sostrate, Pyx, Krenos, Indra, Vespera), and more than 200 captured irregular asteroids orbit retrograde beyond 12 million km. Two Trojan camps hold about 9,000 catalogued bodies over 5 km. The Aridexia to Keplanus Hohmann transfer takes 1,030 days and costs 6,300 m/s at departure plus 4,200 m/s at capture, or 1,800 m/s with aerocapture in the upper atmosphere. The standard architecture stages from Aurelia, which sits outside the worst radiation. Keplanus also drives a secular cycle of 1.4 million years in Anquilla's eccentricity.

See also: Titanis, Hydra, Aurelia, Keplanus Trojans, Indigo Oval, Polar Hexagon, Glocius, Appendix A.

Keplanus Trojans

Two stable Trojan camps at Keplanus's L4 and L5 points, holding about 9,000 catalogued bodies larger than 5 km. The L4 leading camp, the Helios Trojans, is denser. The L5 trailing camp, the Hesperian Trojans, holds three dwarf planets including the 480 km Telos.

See also: Helios Trojans, Hesperian Trojans, Telos, Keplanus.

Keplum

The fifth planet by distance, 1.600 AU from Solis, with a period of 980.4 days and an eccentricity of 0.061. Its mass is 5.850 x 10^24 kg and its radius 11,460 km, giving a gravity of 2.973 m/s squared and an escape velocity of 8.255 km/s. The mean density, 928 kg per cubic metre, is the lowest of any terrestrial world in the system. The sidereal day is 47 hours 6 minutes, the tilt 3.2 degrees, the surface temperature -142 degrees C on average and -178 degrees C at the poles, and the atmosphere a tenuous nitrogen-methane exosphere at 0.012 kPa. Keplum has no internal dynamo of its own, only an induced magnetic field.

Its structure explains the density. On top lies a shell of water ice, 10 to 20 km thick (13.4 on average), fractured into chaos terrain and ridge belts with brine pockets. Under it lies a global liquid ocean 60 to 100 km deep at 25 to 80 MPa, salinity about 56 PSU, named Thalassa. Below that is a high-pressure ice mantle with ices VI and VII transitioning at 250 and 800 km, and at the centre a hydrated, serpentinised silicate core about 3,200 km in radius. Hydrothermal venting at the base of the ocean is taken to be the energy source for ecosystems. Evidence for chemosynthetic life comes from plume spectroscopy (methane at 3.2 ppm, molecular hydrogen at 0.8 percent, complex organics to 720 Da), non-equilibrium sulphur isotopes in surface deposits consistent with biotic fractionation, and thermal anomalies at the Astraea Vent Field that are stable over decades. The working view is that chemolithoautotrophic organisms live at vent sites and that motile multicellular forms are possible in the upper ocean, but none of it has been confirmed.

The flagship programme is the Keplum Cryobot Campaign. Keplum has two moons, Lemnos and Halia.

See also: Thalassa, Astraea Vent Field, Lemnos, Halia, Keplum Cryobot Campaign (glossary), Appendix A.

Kesarova

The Syndicate's holding on Skarnovia, later the USN's after the merger of 1250 AE, the oldest of the three colonial claims and by 1300 the most thoroughly integrated into its metropole's economy. That integration made its loss total. When the Third Aridexian War ended the USN in a single day, Kesarova had no metropole, no transition government and no plan, and over a thousand years of dependency were severed in an afternoon. Its modern instability, with chronic weak governments and an economy still shaped by infrastructure built to ship ore to a country that no longer exists, traces to that day. It lost its central government in 1367.

See also: Skarnovia, Ostrenia, Velemira, Dravensk, Chapter 7.

Kessane Quarry

The seat of House Kessane, one of the twelve fiefs of the early Syndicate, which supplied stone, masons and the fortress works. Its colour was ice-blue and its gold charge a hammer.

See also: Lorrow Watch, Chapter 4.

Kessel Pass

A mountain defile in Vessek where, in 809 AE, an entire Chicano regiment was drawn in and destroyed to the last man. Both sides remember it as the moment everyone understood that the war in the highlands had stopped being a conventional one.

See also: Kelvath Hollow, Dorrenheim Heights, Vessek, Chapter 8.

Kharzun

The unconquered interior of Pan-Anestria: a loose alliance of desert clans occupying the driest, least arable ground of the continent. Anestria's founding myth leaves out that the continent was not empty when the three kingdoms arrived around 0 to 3 AE. The coastal states never found Kharzun worth the logistical cost of conquering, and by the time later governments had the reach to try, Kharzun had a couple of thousand years of unified political identity behind it. It sits inside Anestrian territory on every map and has never been conquered. The Anestrian Craton under it is the oldest quiet ground on the planet.

Its interior is shared with two smaller powers, Hardluckia and the Schwalbenheimers, for the same reason: nothing in that desert was ever worth taking by force. They coexist without a drawn border. Hardluckia later joined UARRO and the Schwalbenheimers aligned with Kargopol. Kharzun has no standard arms, and its clans carry whatever Anestrian, Hardluckian and Schwalbenheimer surplus they can trade for. Its two companions were the last two governments on the map, falling in 1371.

See also: Pan-Anestria, Anestrian Craton, Hardluckia, Schwalbenheimers (Chapter 30), Chapter 9.

Korut

The island archipelago settled by the All-Finian Empire, in the strait between Savorus and Numaria. The name comes from the founders' language, a compound meaning roughly "the scattered shore", chosen because the surveying captain could see it was an archipelago before landing on any island. Its geology is unusually active. It is a fast-spinning young volcanic island-arc microplate, the Korut Arc, thrown up where the Savoran and Numarian plates grind together.

The islands had once held the Phaeshan Federation, a loose union of trading city-states. Around -40 AE a chain-wide series of eruptions and tsunamis struck most of the Federation's coastal city-states within a handful of years. What happened to its people, whether death, scattering or a mixture of both, cannot be recovered from the evidence. When the All-Finian ships arrived four decades later the cities were ruins and the harbours reshaped, and there was nobody left to ask.

After the empire dissolved at 6:30 AM on 17 January 1300 AE, the chain fractured into five independent city-states that were never reconsolidated: Korveil, Finhaven, Halvern, Tavelin and Skerrow. Solenne annexed four of them in the Turncoat War, and Tavelin outlasted the others until 1368. The Ashtail, a gregarious native primate-analogue, survives on several of the chain's smaller, less-developed islands, having been lost from the main islands to habitat loss.

See also: Korut Arc, Korveil, Finhaven, Halvern, Tavelin, Skerrow, Savorus, Chapter 5, Chapter 20, Chapter 25.

Korut Arc

A small, fast-rotating volcanic island-arc microplate with no continental crust of its own, thrown up where the Savoran and Numarian Plates grind against each other across the strait. It is the geological reason the All-Finian settlers found a chain of large islands and not one landmass, and it is one of the five plates.

See also: Korut, Savoran Plate, Numarian Plate.

Korveil

The largest and most industrially capable of the five city-states of the former All-Finian Empire. It holds the Korut seat in UARRO on behalf of AFN interests. It has no claim to the old imperial seat, which stands inside its much smaller neighbour Finhaven. Solenne's navy took it in the Turncoat War.

See also: Finhaven, Halvern, Tavelin, Skerrow, Korut, UARRO (glossary).

Krenos

A minor moon of Keplanus, 54 km in radius, with a semi-major axis of 678,000 km and a period of 3.40 days. It is heavily cratered and shepherds a resonance gap.

See also: Mira, Sostrate, Keplanus.

Kryodysseia

The south-polar continent, about 90 percent ice. It was named by the southern ship of the Long Survey, whose crew spent weeks in the dark of the southern winter, in cold sharp enough to crack hull fittings, from *kryos* (cold) and the suffix for a long voyage. It has no permanent population and, realistically, never will at anything like present technology. A scatter of research and mineral-survey stations stands there, claimed on paper by whichever great powers can afford one. The first of those stations were three built under one charter by the Southern Survey of about 1120 AE, the largest joint scientific effort Numaria's neighbours ever mounted and one of the last times they shared anything. Chicano States, then the strongest naval power on that coast, led it and paid most of it. The All-Finian Empire supplied the icebreaking hulls and Arvansk supplied the surveyors and mountain men. Each partner built one station: Estación Horizonte Blanco for Chicano States, New Dawn Station for the Empire and Stantsiya Yuzhnaya Zvezda for Arvansk. Each was a few huts, a radio mast and a fuel store on the northern edge of the ice, and all three drew on one shared supply depot. The charter that bound them, hunting rifles and signal flares only, no weapons and no warships inside the line of the stations, is the gentleman's agreement that still stands. After the interwar years nobody resupplied them reliably, and by 1300 they were claimed on paper and mostly empty. The claims overlap and are unresolved, and they sit under a gentleman's-agreement norm against militarisation that nobody has had a reason to test.

See also: Heliodysseia, Kryodysseian Plate, Long Survey (glossary), Chapter 9, Chapter 25.

Kryodysseian Plate

The southern polar plate, old and stable and slowly rifting away from the southern coast of the Anestrian Craton, widening the cold sea at the south of the map.

See also: Heliodysseian Plate, Anestrian Craton, Kryodysseia.

L

Lemnos

The inner moon of Keplum, a heavily cratered, dark captured asteroid with a radius of 94 km, a semi-major axis of 78,000 km and a period of 1.42 days.

See also: Halia, Keplum.

Lethe

A small Anquillan Trojan, 4 km across, recently catalogued, on a horseshoe orbit that starts at L4. The horseshoe will dissipate within 8 million years. It is a dark C-type body with water-ice signatures.

See also: Skotos, Aphos, Anquilla Trojans.

Lira

The moon of Aridexia, a captured proto-Anquillan body whose chemical fingerprint differs from Aridexia's mantle. It is denser and more iron-rich than a giant-impact moon would be, which supports the capture hypothesis. It orbits at 412,000 km with a period of 29.84 days (synodic 31.2), an eccentricity of 0.058 and an inclination of 5.18 degrees. The radius is 1,820 km (0.286 of Aridexia's), the mass 8.4 x 10^22 kg, the surface gravity 1.69 m/s squared and the escape velocity 2.48 km/s. It is tidally locked, its albedo is 0.18, and its sphere of influence is 82,400 km. The surface is 60 percent anorthositic highland and 40 percent dark, iron-titanium-enriched maria. These are brecciated megaregolith from a bombardment 3.9 billion years old, and they are not basaltic flood plains.

Lira has no atmosphere, only an exosphere under 10^-14 atmospheres of sodium, potassium, helium-4, argon-40 and traces of neon and hydrogen. Noon surface temperature is about 380 K and night about 100 K. The unshielded radiation is about 380 mSv a year from galactic cosmic rays, with solar particle events adding 1 to 5 Sv over hours. The maria run measurably hotter on a counter because of uranium and thorium minerals, a difference noticed in dose logs. Installations are built partly or fully under regolith. Lira steadies Aridexia's axial tilt to within one degree over billions of years, and without it excursions of 0 to 60 degrees would be possible. The Lira Pact in lore protects it from large-scale strip mining for that reason.

Named features include the Mare Concordis, Promontory Vesh, Crater Demeryn and Sinus Achlys. Water ice at Promontory Vesh is about 12 percent by weight. The system dossier dates the first crewed landing to DSY 12 (AE 1288), during the Talona Crisis, while the Safemoon account has Sanctuary I of AE 1307 as the first time Aridexians left their planet. Its commander Ilsa Marrenkov's first recorded words on the surface were "Solid ground, and none of it ours to lose". The refuelling stations sit at the Aridexia-Lira L1. Lira is one of the worlds with a DS-HP colony.

See also: Aridexia-Lira L1, Mare Concordis, Promontory Vesh, Crater Demeryn, Sinus Achlys, Sanctuary Program (glossary), Chapter 13, Appendix A.

Lorrow Watch

The seat of House Lorrow, one of the twelve fiefs of the early Syndicate, home of the surveyors, wayfinders and mapmakers. Its colour was olive and its gold charge a lantern. Vakkar Koedul's survey crews grew from this tradition, which is why a rail-and-canal engineer with no title and no company can be called a Lorrow man in everything but name.

See also: Kessane Quarry, Koedul (Chapter 31), Chapter 4.

M

Mare Concordis

The largest visible mare on Lira, and the site given in the system dossier for the first crewed landing (DSY 12).

See also: Lira, Crater Demeryn, Sinus Achlys.

Maren Deep

The deepest known point in the system, 12,880 m, on the floor of Osprey's ocean, deeper than the Aridexian Trench. The ocean floor there is denser and more tectonically active than Aridexia's. Active spreading centres on the flanking ridges are the leading explanation for Osprey's ocean chemistry running measurably higher in dissolved trace metals than Aridexia's.

See also: Osprey, Aridexian Trench.

Meridian Sea

The shallow surface ocean of Typhon, 32 percent of the moon's surface at a mean depth of 110 m, widest in the Girdle Isles. It holds the open-water plankton analogues, the least characterised of Typhon's four biomes and the Astrobiology Programme's current first priority for a dedicated sampling mission. It stratifies seasonally but never freezes equatorward of 60 degrees of latitude, and its water is abundant enough to supply any future in-situ resource programme.

See also: Typhon, Girdle Isles, Typhon Astrobiology Programme (glossary).

Mesaland

A small island nation off Candrasia's coast, close enough to Christonia to trade with it constantly and far enough away never to be asked to join it. It had no army worth the name when the Thirty-Day War came, and it was folded into the United Syndicate Nations in 1250 AE as a detail nobody argued about. In 1276, when Christonia regained its independence, Mesaland alone was not given it back. Its territory and population were absorbed permanently into what was left of the USN, and it ceased to exist as a distinct nation.

See also: Candrasia, Christonia (Chapter 30), Chapter 5, Chapter 12.

Mira

The innermost named moon of Keplanus, 82 km in radius, with a semi-major axis of 238,000 km and a period of 0.71 days. It is the inner shepherd of the ring system.

See also: Sostrate, Krenos, Keplanus.

Mnemosyne

The Ceres-analogue dwarf planet of the Inner Belt: 940 km in diameter, rich in water ice, with a possible subsurface brine.

See also: Threnos, Astera, Inner Belt.

Mons Velhar

The largest of Orjust's three large shield volcanoes, rising 19.4 km above the datum and spanning 580 km at its base.

See also: Orjust, Borean Lowlands.

Moonhaven

The capital of the Safemoon Republic and the last ground of its territory after Chicano's squeeze. In 1319 the Chicano advance drove Safemoon back to it. Defences built for holding that kind of last-ditch position stopped the advance, and the siege stalled. Safemoon named its space agency, the Moonhaven Spaceflight Authority (AE 1303), after the city, and Sanctuary I, with Ilsa Marrenkov and Dorian Vask aboard, reached Lira in AE 1307. The Moonhaven MH-4 rifle bears its name.

See also: Ashfields, Safemoon (Chapter 30), Sanctuary Program (glossary), Chapter 13, Chapter 19.

N

Navarro

The postwar name of Univar, one of the three original coastal settlements of Chicano States. Chicano reclaimed the cluster after the Third Aridexian War.

See also: Exodus Point, Gran Chicania, Verdad.

New Geneva

One of the six cities struck by nuclear weapons in the first hours of the Third Aridexian War. The record does not say where it lay.

See also: Apokka, Port Dionysis, Christona, Sulsbury, Freeport, Chapter 14.

North Aridexian Drift

One of the three thermohaline conveyor branches that carry heat around the globe, with the Southern Circumpolar Stream and the Equatorial Counterflow.

See also: Equatorial Counterflow, Southern Circumpolar Stream, Aridexia.

Northland

The northern tip of Candrasia, and the state that fills it. It was always older than its modern importance suggests: a tiny, cold, easily overlooked holdout that Christonia never bothered to incorporate formally, held as a neglected frontier garrison district. It was never one people, only a scatter of small, mutually hostile clan-holdings under a distant flag. These were the Verrenkai, the largest, whose land the garrison district sat inside, the Kholvag, easternmost, the Drenmoor, in the south, whose claims ran well beyond the later border, and the Oyun-Tash, the interior highland clan. Nikolai Nichozh unified them by force between 1300 and 1303 AE. The campaign ended with the destruction of the Oyun-Tash's fighting-age population and the battle in a glacial valley in February 1303 where Nichozh lost the use of an eye.

The state he built abolished slavery by decree, ran a relief corps and a mutualist, civic-nationalist welfare system, and fought and contained an ethnic supremacist faction called the Iron Union in a cordoned-off enclave. A few years after its expansion its lower third split away as Southland by mutual decision. Northland signed the Threshold Accord and its government fell in 1365. The IAD-4 Goshawk, RVO-1 Lammergeier and UMFI belong to its air arm, and the IADM-6 to the joint Northland-Southland force.

See also: Candrasia, Southland, Nichozh (Chapter 31), Iron Union (Chapter 32), Chapter 10, Chapter 22.

Nueva Chicania

The postwar name of Gran Chicania, one of the three original coastal settlements of Chicano States.

See also: Gran Chicania, Exodus Point, Navarro, Verdad.

Numaria

Aridexia's warring continent, and the larger half of the Numarian Plate. The name comes from an old trade term meaning "counted ground", coined by the earliest mining surveys because it was one of the few landmasses worth a careful mineral count before anyone settled it. It rides the plate's active leading edge, still colliding with the Savoran Plate across the Korut strait, with serious mountain-building and volcanism. That geology is the source of the copper, rare-earth and uranium strikes that have funded every war on it. It should almost always be starting a war or in the middle of one.

Its history is a succession of attempts at unity. The Litharic Church reached its northern reaches in the 500s AE from Drozdov, and in about 560 AE the Karavynic Empire unified nearly the whole landmass under one crown. It was never at peace. It was at war with itself in an organised, centralised form, and it fell apart in three stages after the Litharic Schism of 610 AE: the outer provinces seceded in 630 AE and the core broke in 655. In 795 AE Chicano States seized a quarter of Vessek, and in 805 General Salvador Reyes became First Marshal and conquered nearly the entire continent in seven years, only to be killed in 812 and see it all fall at once. Later came Eisenreich, which conquered PUSDR's homeland, and PUSDR's revolution in the chaos of the Third Aridexian War, which conquered Eisenreich in its turn by 1305. Safemoon, Chicano States, Nam Minh, the Yeshuren Union and Vessek complete the picture, and the Vaurek Concession stood on its southern ground.

Operation Fenwick (1305), the Reclamation War (1318 to 1320), and the land war of the Turncoat War (1354 to 1358) were fought here, and the Turncoat War's land fighting stalled as every earlier attempt at conquest had. In 1366 the collapse of Numaria and Drozdov came together in the Last War.

See also: Drozdov, Numarian Plate, Vessek, Moonhaven, Chapter 8, Chapter 19, Chapter 25.

Numarian Plate

The plate that carries both Drozdov and Numaria. Drozdov rides its old, quiet trailing shield, stable and easy to mine. Numaria rides the active leading edge, colliding with the Savoran Plate across the Korut strait. The Korut Arc was thrown up where the two plates grind together.

See also: Drozdov, Numaria, Savoran Plate, Korut Arc.

Nyxara

The primary of the outer binary Nyxara-Erebos, with a radius of 1,380 km, a mass of 1.02 x 10^22 kg and a mean density of 1,850 kg per cubic metre. Its surface is -228 degrees C, nitrogen, methane and water ice over a rocky core. Patchy frost migration suggests a thin seasonal atmosphere near perihelion, which in a 314-year orbit comes once in several human generations.

See also: Erebos, Nyxara-Erebos.

Nyxara-Erebos

A binary dwarf planet in the scattered disk, the most distant confirmed body in the system and the largest and only binary of the three known scattered-disk dwarf planets. The pair orbit Solis at 46.2 AU with a period of 314 years, an eccentricity of 0.248 and an inclination of 17.1 degrees, and they orbit each other at a separation of 19,400 km with a mutual period of 6.39 days. They are tidally locked to each other, a double-synchronous pair. At the dossier's epoch, DSY 0 (AE 1276), the pair was close to aphelion, the coldest and most volatile-locked point in its year. Its inclination keeps it clear of resonant interaction with Glocius, and its orbit is stable on billion-year scales. No mission, crewed or robotic, has ever been sent there, and the dossier lists it as headroom for a future generation.

See also: Nyxara, Erebos, Charun, Outer Belt, Appendix A.

O

Oort cloud

The source of the system's long-period comets, at 8,000 to 60,000 AU from Solis. An average of 2.3 new long-period comets a year cross 5 AU.

See also: Comet Vairon, Comet Halvenn, Comet Ostrey.

Orjust

The innermost planet, at 0.380 AU, with a year of 84.6 days, an eccentricity of 0.142 and an inclination of 4.90 degrees. Its mass is 8.361 x 10^23 kg and its radius 3,380 km, giving a gravity of 4.885 m/s squared, an escape velocity of 5.746 km/s and a mean density of 5,169 kg per cubic metre. The sidereal day is 26 hours 18 minutes and the tilt 18.7 degrees. The atmosphere is 94 percent carbon dioxide at 5.0 kPa, and the surface runs from -80 degrees C at night to +12 degrees C at the equator by day. It has no moons and no dynamo, only a remanent crustal field.

Orjust is the one world where low delta-v, accessible surface chemistry and no risk to a biosphere make large-scale autonomous mining viable. Transit windows from Aridexia open every 116 days. The resources are regolith for oxygen, iron and polar-cap water at 5 to 8 percent by weight, rare-earth concentrates on the Hesper Plateau, and helium-3 at 12 to 18 ppb as a co-product. The planet is geologically dead but was vigorous 3 to 3.5 billion years ago. The northern Borean Lowlands are an ancient impact basin filled with basalt, the south is heavily cratered, and three large shield volcanoes include the largest, Mons Velhar. The residual cap is water ice, and the surface water inventory of about 4 x 10^15 kg could support industry for centuries. Hazards are global dust storms in southern summer (opacity above 5 for weeks, cutting solar power 80 percent), electrostatic regolith that damages seals and optics within 90 sols, and a temperature swing of about 90 K per sol that limits unhardened equipment to 5 to 8 years. The standard lander delivers 3.0 t to the surface and lifts 1.2 t with local methalox. The Orjust Pipeline has run

since DSY 18 (AE 1294), delivering about 140 tonnes a year of refined metals to the Aridexia-Solis L1 depot. The delta-v from Aridexia's surface is about 14,200 m/s, and about 4,100 m/s back to low Aridexian orbit with local propellant.

See also: Borean Lowlands, Mons Velhar, Hesper Plateau, Orjust Pipeline (glossary), Aridexia-Solis L1 propellant depot, Appendix A.

Ornwellburg

The site of the Battle of Ornwellburg in the Vinear Coast War of December 1301 to February 1302 AE, a two-month standoff that Antares broke only with the arrival of its first tank divisions.

See also: Bredezen, Vinear Coast, Chapter 15.

Osprey

The fourth planet, 1.100 AU from Solis, a stormworld. Its year is 425.0 days, its eccentricity 0.044 and its inclination 1.32 degrees. The mass is 8.060 x 10^24 kg and the radius 7,645 km, with a gravity of 9.204 m/s squared, an escape velocity of 11.863 km/s and a mean density of 4,306 kg per cubic metre. The sidereal day is 31 hours 12 minutes and the tilt 11.4 degrees. The air is dense, 147 kPa (1.45 atmospheres) at a scale height of 9.8 km, 71 percent nitrogen, 23 percent oxygen, 0.8 percent argon and 3 to 5 percent water vapour. The mean temperature is +22 degrees C at the equator and +4 degrees C at the poles. Oceans cover 70.4 percent of the surface at a mean depth of 4,200 m, and an active dynamo gives a magnetic moment of 1.4 x 10^23 A m squared. It has three moons: Typhon, and the minor Glaucus and Selache.

The weather is structural. Osprey receives about 83 percent of Aridexia's insolation yet runs warmer because the atmosphere is 45 percent denser, so heat capacity is enormous and the equatorial waters, charged in summer, release it in storm complexes that can last weeks. Rotation produces wide Hadley cells reaching 38 degrees of latitude, and the jet stream peaks at 110 m/s at 12 km, year-round. The annual count is about 340 tropical depressions, 180 named storms, 75 of Category 1 to 3, 22 of Category 4 or 5, and one to three hypercanes above 300 km/h with eye pressure below 870 hPa. Two convective seasons overlap. The Long Boil, about 190 local days around the equatorial summer solstice, produces about 70 percent of the hypercanes, and the shorter Coreward Swing of about 60 days comes when the planet is nearest Solis. About 175 days of calm separate them, and nothing is scheduled for either season if it can be avoided. Storm surge reaches 14 m, chloride aerosols reach 600 km inland, and surface installations need to be mobile or submarine.

The exposed 29.6 percent of the surface is three continental fragments: Tarrow, the Corvane Highlands and Pellastri. The deepest point in the system, the Maren Deep, lies in its ocean. The Aridexia to Osprey transfer is the cheapest interplanetary corridor DS-HP flies, about 3,400 m/s, and the two planets are in a near 11:14 resonance that causes a 350-year libration in Osprey's longitude of perihelion. The sphere of influence reaches 1,180,000 km. The Typhon colony of the Osprey Exodus orbits it.

See also: Typhon, Glaucus, Selache, Tarrow, Corvane Highlands, Pellastri, Maren Deep, Prologue, Chapter 21, Appendix A.

Ostrenia

The Christonian colonial administration on Skarnovia, the largest of the three holdings, built around the continent's coal and iron belt. Christonia ran it as a resource colony in the most literal sense, with extraction infrastructure first and everything else after. The postwar government kept the extraction economy and the colonial habits. Ostrenia therefore reads as a technocratic, faintly authoritarian state that still exports raw ore to the country that used to own it, and resents doing so. It lost its central government in 1367.

See also: Skarnovia, Velemira, Kesarova, Dravensk, Chapter 7.

Outer Belt

A Kuiper-belt analogue from 14 AU outward to 78 AU, grading into the scattered disk. Its parts are the Classical disk (14 to 22 AU, with Vykres, 1,100 km, as the largest body), resonant populations in the 2:3 and 1:2 resonances with Glocius that hold about 400 bodies over 100 km, and the scattered disk (22 to 78 AU) of high-eccentricity bodies with perihelia typically inside Glocius's orbit. Three dwarf planets are known in the scattered disk, the largest and only binary being Nyxara-Erebos.

See also: Classical disk, Vykres, Nyxara-Erebos, Oort cloud, Appendix A.

P

Pan-Anestria

The desert continent of oases, carried by the Anestrian Craton. Its name is the plainest on the map, "all of Anestria's", added once it was clear the Republic's reach covered nearly the entire landmass, with Kharzun's desert interior the one honest exception. The diaspora group that sailed south settled it around 0 to 3 AE in three kingdoms (Antares, Imperium and Anestria proper). Imperium's oases sat over the richest iron-bearing sands, and by about 310 AE its smiths had conquered the other two and formed the Ferrosian Empire. The empire held until a popular uprising, the Ferrosian Rebellion (630 to 641), replaced it with the Republic of Anestria.

After the Third Aridexian War the Republic split into five successor states: the restored Kingdom of Antares, the Federated States of Imperium, New Virgen, the Antilla-Vegan Union and the Constitutional Anestrian Republic. The continent's temperament scales with latitude. The south behaves like Savorus, large, stable and few, with CAR and Antares holding big blocks, and the polities get smaller, more numerous and more conflict-prone going north. Hardluckia and the Schwalbenheimers share the desert interior with Kharzun and were the last governments on the map in 1371. The Vinear Coast, Bredezen and Ornwellburg lie on its shore.

See also: Anestrian Craton, Kharzun, Vinear Coast, Bredezen, Chapter 6, Chapter 15.

Pechorian coast

The long, cold coastal strip along the northern edge of Savorus, above the Syndicate's own territory. The Pechorian Federation's founders chose it in 3 AE because it was not worth fighting over, and the string of bigger neighbours with bigger fights elsewhere proved them right. The Federation has built fisheries and modest shipping, has never been conquered and was never absorbed.

See also: Savorus, Pechorian Federation (Chapter 30), Chapter 5.

Pellastri

The smallest of Osprey's three continental fragments, an isolated mid-latitude island-continent. Its shelter from the equatorial storm belt makes it the most-cited candidate site in DS-HP planning for any permanent installation on Osprey's surface rather than on Typhon.

See also: Osprey, Tarrow, Corvane Highlands.

Pelruvian Archipelago

A scattered island chain with no strategic value beyond what lay under it: an offshore petroleum field that the USN's ageing coal-based industry needed. The USN annexed it in 1264 AE, weakly defended and distant from any rival's home ground, and that act set off the Second Aridexian War, in which the Pelruvian campaign was the chief front. At the end of the Third Aridexian War, Anestrian bombers destroyed every remaining major city on the Pelruvian Islands as well as the USN mainland, and the islands were left devastated and largely depopulated. They have been Solenne's territory without interruption since. Like the old USN mainland, they have taken more than a century to climb back toward pre-war levels.

See also: Savorus, Solenne mainland, Chapter 12, Chapter 14, Chapter 15.

Polar Hexagon

A six-sided jet structure around Keplanus's north pole, at a mean latitude of 78 degrees.

See also: Keplanus, Indigo Oval.

Port Dionysis

A port of Luluke where an allied garrison was stationed, and the first named target of the 17 January 1300 strike. The garrison, caught in barracks dress at two in the morning, was destroyed by a nuclear strike in the war's first three hours.

See also: Apokka, Christona, Sulsbury, New Geneva, Freeport, Chapter 14.

Promontory Vesh

A 7 km basalt cliff on Lira with permanent shadow at its foot, which holds confirmed water ice at about 12 percent by weight.

See also: Lira, Glaucus, Mare Concordis.

Properio

One of Chicano States' expansion-era cities, still standing under another flag and never reclaimed.

See also: Fortaleza, Fortero, Prospera.

Prospera

One of Chicano States' expansion-era cities, still standing under another flag and never reclaimed.

See also: Fortaleza, Union, Valentia.

Prynn

A mountain fortress and the nation around it, besieged in the Chicano war of 810 to 811 AE. Reyes's direct assault in the autumn of 810 was thrown back, so he blockaded it through the winter. It held for the better part of a year until hunger forced its surrender. It was the hardest of his seven campaigns, because the model that worked elsewhere, a fast, personally led strike, did not apply.

See also: Vessek, Chapter 8.

Pyx

A minor moon of Keplanus, 97 km in radius, which shares Sostrate's orbit (415,000 km, period 1.62 days) as its companion at L4.

See also: Sostrate, Keplanus.

S

Savoran Plate

The plate that carries Savorus and Candrasia together, which is the geological reason the two have been treated as one physical landmass. Its interior is quiet. Its eastern edge, facing the strait toward the Numarian Plate, is not. The Skarnovian Plate converges slowly on its northern edge, and the Heliodysseian Plate rifts away from the Candrasian coast.

See also: Savorus, Candrasia, Numarian Plate, Korut Arc, Skarnovian Plate.

Savorus

A temperate, mountainous continent in the west, the landfall of the largest group of the Luluke diaspora in 3 AE and the home of the Syndicate, the United Syndicate Nations and Solenne. It is named for the rich, fertile soil that early Luluke and Syndicate cartographers found along its coasts, from an old Luluke word for "flavorful, sustaining ground". The same soil let the Syndicate and a diminished Luluke settle it together without starving each other out.

It is the reserved continent of the map, older and more settled than Numaria, with fewer and larger nations: Solenne, a small Luluke enclave, Tianhai (renamed Xue Lin) and the Pechorian Federation along its cold northern strip. Under the Syndicate it passed through a fief period, then Vakkar Koedul's freight network, then the industrial economy that reached across the strait to Candrasia. Savorus and Candrasia sit together on the Savoran Plate. Its heartland held the USN's dictatorship, which fell in a day in 1300 AE, and the democracy built on its ash became Solenne.

See also: Candrasia, Savoran Plate, Corvenna, Pechorian coast, Solenne mainland, The Seat, Chapter 4, Chapter 5, Chapter 25.

Seat, The

The hall in the central valley where the Table of the twelve Lords-Principal met in the Syndicate's fief period. It had twelve chairs and one empty thirteenth, kept for "the Syndicate itself".

See also: Table (glossary), Aldrek Keep, Dunmar Mill, Chapter 4.

Selache

The smaller of Osprey's two minor moons, a captured carbonaceous body with a radius of 51 km and a semi-major axis of 612,000 km, airless, older-surfaced than Glaucus and showing no resurfacing. Its value is orbital. In a 3:7 resonance with Typhon, it is a stable, low-maintenance relay and propellant-cache site, and the Innus-class relay constellation is stationed there as well as in Osprey orbit. It carries no planetary-protection restriction.

See also: Glaucus, Typhon, Innus-class Relay (glossary), Osprey.

Sidero Plain

An area of exposed iron-nickel on Glocius, 1,200 by 800 km, the principal site for bulk mining.

See also: Glocius, Ferris.

Sinus Achlys

A small mare on the leading hemisphere of Lira, the preferred orbital insertion target because of its gentle slopes.

See also: Lira, Mare Concordis.

Skarnovia

A continent sitting off Savorus, named for skarn, the mineral-streaked rock its first colonial surveyors found along the northern coast, an obvious sign to any period geologist that the ground was worth fighting over. The Skarnovian Plate converges slowly on the Savoran Plate along its northern edge, which is the contact-metamorphism process that made the skarn and the coal and iron wealth.

It was claimed at the same time as everywhere else: early, by sail, badly, and without asking the people already there. The Syndicate was closest and had a formal claim by about 20 AE, and Anestria and Christonia arrived within two centuries. By about 210 AE three claims had hardened into borders drawn along whatever river or ridge each side's surveyors reached first. They became Ostrenia (Christonian), Velemira (Anestrian) and Kesarova (Syndicate, later USN), and a fourth, Dravensk, was never conquered by any of them. Skotia, an old island nation, lies off the coast. The result is a four-way, two-thousand-year-old colonial grudge match that simmers constantly and rarely boils over, because none of the four states can beat the other three combined. Its states lost their governments in 1367.

See also: Ostrenia, Velemira, Kesarova, Dravensk, Skotia, Skarnovian Plate, Chapter 7, Chapter 25.

Skarnovian Plate

A plate slowly converging with the Savoran Plate along its own northern edge, contact-metamorphism country that explains the skarn for which the continent is named and the coal and iron wealth that drew the three colonizers.

See also: Skarnovia, Savoran Plate.

Skerrow

The smallest by far of the five Korut city-states, barely a functioning government, named for an old sailor's word for a bare, isolated rock of an island. Solenne's navy took it in the Turncoat War.

See also: Korveil, Finhaven, Halvern, Tavelin, Korut.

Skotia

An old seafaring island nation off Skarnovia's coast, island-based like the All-Finian Empire but entirely separate from it. It was founded early, in the same general era as the Syndicate, and was never part of anyone's colonial scramble, a small constant on a continent defined by conquest and grudges. It has domestic small-arms production in the Skotharbor Pattern rifle. Skotia took part in the invading coalition of the Turncoat War and fell in 1368.

See also: Skarnovia, Skotharbor Pattern (glossary), Chapter 9.

Skotos

An asteroid of 18 km diameter at Anquilla's L4 point, a dark C-type body with water-ice signatures and a strategic propellant cache. Its orbit is stable on billion-year timescales.

See also: Anquilla Trojans, Aphos, Lethe.

Solenne mainland

The old heartland of the Syndicate and the USN on Savorus, devastated and largely depopulated in 1300 AE and without its dictatorship for the first time in over a thousand years. Solenne was founded here in the vacuum, and the mainland has been Solenne's own territory without a break since the day the war ended. Population, rebuilt infrastructure and economic activity took over a century to climb back toward pre-war levels, and large stretches are still thinner and poorer than the rest of the nation. It is the largest underdeveloped stretch on the map, though it is not unclaimed. Solenne's government fell here in 1365, with Malakor Vane already on Typhon.

See also: Savorus, Pelruvian Archipelago, Corvenna, Chapter 15, Chapter 16.

Solis

The star of the system: a chromospherically active G2V, young and active for its type. Its mass is 1.03 solar (2.05 x 10^30 kg), its radius 1.01 solar (704,000 km), its luminosity 1.12 solar and its effective temperature 5,820 K. The surface gravity is 276 m/s squared. It rotates in 24.2 days at the equator and 31.4 at the pole, has a 9.7-year magnetic cycle, a mean surface field of 0.55 gauss (twice the Sun's), a wind of 400 to 750 km/s and, at solar maximum, 0.7 to 1.3 X-class flares a month. The composition is hydrogen 0.71, helium 0.276 and heavier elements 0.014, and its age is about 4.6 billion years. The habitable zone is 0.95 to 1.50 AU conservatively and 0.78 to 1.78 AU optimistically. Its heliopause lies about 142 AU sunward and 88 AU tailward, and the current sheet (the Rajan Sheet) tilts up to 78 degrees at maximum and drives aurorae on every magnetised body, Glocius included.

Solis is not catastrophically active, but any spacefaring civilization has to engineer around it constantly. Quiet conditions occupy about 60 percent of the cycle and active periods about 30 percent (with EVA restrictions inside 1.5 AU). Storms of 8 to 15 X-class flares a year at peak bring EVA halts and radio blackouts, and a superflare of about 10^7 pfu comes about once in 200 years and would cause system-wide induced-current events. Crewed craft beyond Aridexia's magnetosphere need a polyethylene-water shelter rated to 10^5 pfu or an active magnetic deflector, and the L1 Watchkeeper network gives 25 to 40 minutes of warning. Solis is expected to quiet to near-solar activity over the next half to one billion years, and in about 3 billion years its luminosity will rise 12 percent, pushing the conservative habitable zone to 1.05 to 1.65 AU and demanding intervention at Aridexia. In about 5 billion years it leaves the main sequence. Solenne is named for it.

See also: Aridexia, Rajan Sheet (glossary), Watchkeeper network (glossary), Prologue, Appendix A.

Solvane

The one river system draining the interior highlands of the Central Continent into the sea on either side, and the border between Luluke and the early Christonian Empire. Every acre of farmland able to grow luminonion reliably lay in its floodplain, so it was the only water source either civilization had. Over the roughly two centuries of the ancient war, the continent's interior went through a multi-generational drying trend that left the Solvane's flow measurably lower than in the two centuries before. Nobody then noticed a trend measured in tree rings. They noticed that harvests were worse than their parents' and that the people on the other bank had the water. The Treaty of the 200-Year War at Year 0 gave Luluke the Solvane's richest floodplain reaches. The drying eased not long afterward on its own geological schedule.

See also: Central Continent, Luminonion (glossary), Chapter 2.

Sostrate

A minor moon of Keplanus, 115 km in radius, an ice-rock body at 415,000 km with a period of 1.62 days, co-orbital with Pyx.

See also: Pyx, Keplanus.

Southern Circumpolar Stream

One of the three thermohaline conveyor branches that carry heat around Aridexia's oceans.

See also: North Aridexian Drift, Equatorial Counterflow.

Southland

The lower third of Candrasia's northern state, which split from Northland a few years after Nichozh's expansion, by mutual decision of both governments and without a war. The two have worked closely together since, as the joint Northland-Southland government, and signed the Threshold Accord jointly.

See also: Northland, Candrasia, Chapter 10.

Sulsbury

One of the six cities struck by nuclear weapons on 17 January 1300 AE. The record does not say where it lay.

See also: Apokka, Port Dionysis, Christona, New Geneva, Freeport, Chapter 14.

T

Talona

The Confederate States of Talona, the name taken by the industrial city of Coastville when it broke away from the USN in 1286 AE. It was reabsorbed as an autonomous province in 1290.

See also: Coastville, Chapter 13.

Tarrow

The largest of Osprey's three continental fragments, straddling the equator, low-relief and heavily weathered. Its interior lowlands flood nearly every year in the Long Boil and are effectively unusable for permanent surface infrastructure without engineered flood control.

See also: Corvane Highlands, Pellastri, Osprey.

Tavelin

One of the five Korut city-states, small, aligning with whichever of its two larger neighbours offers better trade terms that year. It was the only Korut island Solenne left uncommitted in the Turncoat War, and it outlasted its neighbours by a full decade before falling in 1368.

See also: Korveil, Finhaven, Halvern, Skerrow, Korut.

Telos

A 480 km dwarf planet in the Hesperian Trojans at Keplanus's L5 point.

See also: Hesperian Trojans, Keplanus Trojans.

Thalassa

The global subsurface ocean of Keplum, 60 to 100 km deep. The name belongs to the ocean and not to the world: "visiting Thalassa" means descending through the ice shell to the water.

See also: Keplum, Astraea Vent Field.

Threnos

The Vesta-analogue dwarf planet of the Inner Belt: 532 km across, with a differentiated basaltic surface.

See also: Mnemosyne, Astera, Inner Belt.

Tianhai

A small, dense, well-educated enclave of Savorus that broke away from the USN peacefully in about 1252 AE and never rejoined. It held no strategic resources and no army worth suppressing. Its population was concentrated in science, engineering and administration, and the USN, overextended after swallowing Christonia and Mesaland, judged it better to keep a wealthy neighbour than a resentful subject. After the Second Aridexian War it befriended PUSDR's resistance and, after PUSDR's revolution, joined Kargopol on paper while barring Kargopol forces from its soil. When Solenne founded the Pan-Savoran Union it joined that instead and changed its name to Xue Lin. Its population and territory are continuous, though its political identity is not. It fell in 1369.

See also: Savorus, Pan-Savoran Union (glossary), Chapter 9, Chapter 17.

Tigris Stripes

Four parallel cryovolcanic ridges spanning 130 km on Hydra, the canonical eighth wonder of the system.

See also: Hydra.

Titanis

The largest of Keplanus's moons, radius 2,500 km, at 1,070,000 km (16.8 Keplanus radii), with a period of 7.2 days and a forced eccentricity of 0.0094. Its mass is 1.92 x 10^23 kg, gravity 2.05 m/s squared, escape velocity 3.20 km/s and surface temperature -183 degrees C. The atmosphere is thin nitrogen and methane at 0.5 kPa, a subsurface ocean about 80 km deep lies under a 25 km ice shell, and tidal heating is 5.6 x 10^18 J a year. It is Keplum's outer-system equivalent, an astrobiology target with active hydrothermal venting, under the same planetary-protection regime, and a 12-year cryobot mission baseline. The thicker shell makes access harder, but the surface is more stable for long-term installations than Hydra's, and its magnetic environment is partly shielded. In about five billion years, when Solis leaves the main sequence, Titanis and Typhon may gain transient habitability.

See also: Hydra, Keplanus, Keplum, Appendix A.

Tolgen Fords

The river line in Talgrave where, in 807 AE, Salvador Reyes forced his army across under sustained fire in the bloodiest day of any of his non-Vessek wars. He won it only because he personally led the third and final crossing after two attempts broke.

See also: Vantor, Chapter 8.

Typhon

The habitable moon of Osprey, the second-most studied body in the system after Aridexia and the most likely site of human secondary settlement. It orbits at 388,000 km with a period of 12.4 days, an eccentricity of 0.012 and an inclination of 0.81 degrees to Osprey's equator. The radius is 1,100 km, the mass 1.94 x 10^23 kg, the gravity 1.07 m/s squared and the escape velocity 1.54 km/s. It is tidally locked. The surface pressure is 51 kPa (about half an atmosphere) of 80 percent nitrogen, 18 percent oxygen and 1.1 percent carbon dioxide, with variable water vapour, and the mean temperature is +15 degrees C. A day-night cycle takes the full 12.4 days. Osprey's magnetotail shields it for about 30 percent of each orbit.

It is habitable because of three things. Tidal flexing from Osprey delivers 2.5 x 10^18 J a year of internal heat, roughly four times the radiogenic budget of Aridexia at one-fifth the volume. Gentle, persistent volcanism maintains a half-bar atmosphere because Osprey's magnetic envelope suppresses non-thermal escape. And a shallow ocean buffers surface temperatures. The surface ocean covers 32 percent at a mean depth of 110 m. The climate zones run as concentric bands around the sub-Osprey point and not by latitude. Three named landmasses and one ocean basin structure the map: the Hearthlands, Farside Reach, the Girdle Isles and the Meridian Sea. Native life is documented in four biomes (vent-margin mats, littoral scrub, open-water plankton analogues and arthropod-analogue grazers), all using left-handed amino acids and a DNA-equivalent. No motile complex organism larger than the grazers has been confirmed. The Typhon Astrobiology Programme, headquartered at the Hearthlands Research Station, works on whether the biochemistry is close enough to Aridexia's to be a planetary-protection risk. The surface crust holds water and, around the Hearthlands, sulphide and base-metal ores, but the programme's mandate takes precedence over any ground-disturbing survey near a biome. Surveys were flown by Velt-class probes for over a decade before any settler left. Descent favours aerocapture, with peak heating at 2.1 km/s, and the ascent costs 1,860 m/s to a 100 km circular orbit, so a single methalox stage can do the round trip with cargo.

Typhon is also where humanity began. A civilization evolved here about 50,000 years before the Third Aridexian War and its few survivors reached Aridexia, and the Farside skull found in 1371 proved it. DS-HP overrode the programme's objections and landed the first wave in AE 1341. The colony fractured into Ardekai and Ospyran camps in 1360 to 1366 and fought a war to 1371. Malakor Vane left Aridexia for Typhon in 1358, at the end of the Turncoat War, and was already there when the Last War ended. The colony stayed unaware for years that Aridexia's war had ended, and that no more ships were coming.

See also: Osprey, Hearthlands, Farside Reach, Girdle Isles, Meridian Sea, Farside excavation site, Farside Anomaly, Glaucus, Selache, Typhon Corridor Fleet (glossary), Chapter 21, Chapter 23, Chapter 24, Appendix A.

U

Union

One of Chicano States' expansion-era cities, still standing under another flag and never reclaimed.

See also: Fortaleza, Prospera, Valentia.

Univar

One of the three original coastal settlements of Chicano States, renamed Navarro after the Third Aridexian War.

See also: Navarro, Gran Chicania, Exodus Point.

V

Valentia

One of Chicano States' expansion-era cities, still standing under another flag and never reclaimed.

See also: Fortaleza, Union, Prospera.

Vantor

The fortified capital of Talgrave, which held through the winter of 807 to 808 AE against Reyes's siege, with the cold doing nearly as much harm to the besiegers as the besieged. The garrison surrendered in early 808, malnourished and out of powder, and the Talgrave Armistice ended the war on those terms.

See also: Tolgen Fords, Calmouth, Chapter 8.

Vaurek Concession

A leasehold mining operation in the remote southern ground of Numaria that Chicano States had just been forced out of, held on paper by a company chartered by the USN. In practice it was the supply line behind the 1299 to 1300 Uranium Crisis. Ore was extracted far outside the USN's own inspectable territory, refined off the books and shipped home labelled as something else, with no inspection regime yet in place to catch it. When the Third Aridexian War ended the USN, the Concession's ownership became void overnight, a company chartered by a state that no longer existed on a lease nobody was left to enforce or revoke. Solenne inherited no clear claim, and its status is unresolved.

See also: Numaria, Uranium Crisis (Chapter 32), Chapter 14.

Velemira

The Anestrian colonial holding on Skarnovia, founded with surplus ROA M4 rifles from the metropole. Its independence did not change that, since new domestic arms production always cost more than it could justify. It lost its central government in 1367.

See also: Skarnovia, Ostrenia, Kesarova, Dravensk, Chapter 7.

Verdad

The one new postwar foundation of Chicano States, after it reclaimed a small slice of its old southern coastal territory following the Third Aridexian War.

See also: Exodus Point, Gran Chicania, Navarro.

Vespera

The outermost named moon of Keplanus, 33 km in radius, at 8,920,000 km with a period of 182 days. It is a captured body with chaotic obliquity, and its orbital lifetime is bounded at about 800 million years.

See also: Indra, Keplanus.

Vesperin

One of the three mobile mag-rail cities of Anquilla, each massing 4 to 8 megatonnes, crossing the Hesperin Plateau on continuous east-west tracks to follow the habitable terminator.

See also: Crepuscula, Aurelain, Hesperin Plateau, Anquilla.

Vessek

The mountainous core of Numaria and the homeland of the people who named it, the original inhabitants. Nobody ever formally conquered them. They were out-populated and out-capitalised and pushed into ever smaller pockets of the mountains. Whoever held the rest of the continent, Eisenreich and then PUSDR, treated their resistance as a domestic security problem, which is the framing that keeps a conflict unresolved for centuries. Chicano States took a quarter of Vessek in 795 AE, and Salvador Reyes claimed about 80 percent by 811, but never the highland core, and he died in the Vessek ambush at Kelvath Hollow in 812. In the Reclamation War of 1318 to 1320 Chicano got onto Vessek's mainland fringe for the first time and gained permanent ground there. In the Turncoat War the mountain core again broke every invader. The Vessek fighters have no factory of their own, fight with captured Eisenreich IR-11 rifles and improvised hunting arms, and wear no uniform. Vessek belongs to the VAPIK coalition and fell in 1366.

See also: Dorrenheim Heights, Kessel Pass, Kelvath Hollow, Ashvale, Numaria, Chapter 8, Chapter 19, Chapter 20.

Vinear Coast

A resource-rich, loosely governed coast of Pan-Anestria, contested since the Third Aridexian War by scattered warlords and small city-states. The Constitutional Anestrian Republic and the Kingdom of Antares fought over it in the Vinear Coast War of December 1301 to February 1302 AE, which centred on Bredezen.

See also: Bredezen, Ornwellburg, Pan-Anestria, Chapter 15.

Vykres

The largest catalogued body of the Classical disk, 1,100 km in diameter.

See also: Classical disk, Outer Belt.

Z

Zhokrova Tank Plant

The state-run plant at which PUSDR's flagship tank programme was decided, in a competition among three prototypes, the Opytnyy 3, 5 and 7. The army chose the OT-3, which entered service as the JH-1 "Zatychka".

See also: JH-1 (glossary), PUSDR (Chapter 30), Chapter 28.

34 Glossary

Terms, acronyms, technologies, ranks and concepts, in one list.

3

3:2 spin-orbit resonance. The lock in which Anquilla turns three times for every two of its orbits, as Mercury does. It gives Anquilla a sidereal day of 30.1 days, a solar day of 63.0 days and the migrating habitable terminator. It has held for about three billion years. See Anquilla in Chapter 33.

5

5.6mm Solennese. The lighter high-velocity cartridge of the SR-30, chosen to differ deliberately from the AR-22's 6.8mm Syndicate round. Members of the PSU increasingly standardised on it. See Chapter 26.

6

6.8mm Syndicate. The intermediate cartridge of the AR-22, roll-marked "CAL 6.8 SYND". Every coalition partner of the Thirty-Day War had to match it. See Chapter 26.

8

8x8 IFV (SCV-67bv8). Solenne's eight-wheeled infantry fighting vehicle and the predecessor of the SCV-67 Blowback. About 410 were built from 1331 to 1348, and it was superseded in front-line service from 1349. See Chapter 28.

A

Accord. See Threshold Accord.

ACS-1 Bastion Combat System. Safemoon's full soft-armour combat suit, not a vehicle. It is a light tan-khaki fabric shell with ventilation panel seams and modular hard-plate pockets across the chest, built for Safemoon's climate. See Chapter 28.

ADDS-12 "Skyfang". Chicano States' mobile air-defence system, a tracked chassis carrying eight long surface-to-air missile canisters at a steep angle with a folding search radar behind them. Twenty-two were hand-assembled between 1344 and 1356. See Chapter 28.

AE. The Aridexian Era, the calendar in which all dates in this book are given. Year 0 is the treaty that ended the ancient Luluke-Christonian war and opened the Classical Age. Earlier dates are written with a minus sign, and everything before that is deep prehistory. A year is one orbit of Aridexia, 365.25 days. See DSY and Appendix B.

Aegis Fang. Bavaria's self-propelled air-defence vehicle: twin large-bore autocannons high on a slim turret, with a phased-array radar panel at the rear. See Chapter 28.

AF-50. The Kingdom of Antares' twin-engine multirole fighter, bort 503. Thirty-six were built (three prototypes and 33 series aircraft, 1338 to 1352), and it was stealth-shaped only where that was cheap. See Chapter 28 and Chapter 36.

AG-01. The first semi-automatic rifle in Aridexian history, fielded by Irwin's (later AVMS) in the closing years of the ancient war. It had a long dark-walnut stock, a dull-green brass receiver, an integral bayonet lug and a boxy eight-round magazine loaded from the top. It is the ancestor of nearly every infantry weapon on Savorus and Candrasia. See Chapter 2 and Chapter 26.

AG-14. AVMS's refined bolt-action descendant of the AG-01, the standard infantry arm from 0 to 500 AE. A blued steel rifle with a straight walnut stock and a five-round magazine, it was exported wherever Syndicate trade reached. See Chapter 26.

AG-40 "Light Repeater". AVMS's lever-action tube-magazine repeater of 500 to 900 AE, which armed the Syndicate's expansion into Skarnovia and its economic push into Christonia. See Chapter 26.

AGM-11 "Inferno". An air-launched area-effect missile that splits open above its target to scatter incendiary submunitions. It armed the N-14 Asmedeus in Operation Fenwick. See Chapter 19.

AH-9. Bavaria's attack helicopter, about 240 built from 1333 to 1352. See Chapter 28.

AHM-1 (Asmedeus Habitat Module). Solenne's colonisation habitat, flown as a single Asmedeus-1's cargo: 185 cubic metres at 70 kPa and 30 percent oxygen, with 21 hot-bunked berths for 42 crew (36 colonists and six technical, medical and command staff), a galley, two hygiene units, a two-bed medical bay and a workshop. Life support is open-loop, and polyethylene-water shielding doubles as a storm shelter. It is the hardware behind the several thousand settlers who reached the Hearthlands in AE 1341. See Chapter 21.

Airborne Landing Force. PUSDR's People's Revolutionary Airborne Landing Force, for which the AS-15 and the BH-10 were designed. See Chapter 28.

AK-3 "Klin". PUSDR's swept-wing air-superiority fighter, designed by Antiko Kloinsha before the Chicano conquest of Numaria. It never failed on its merits and is still in service, held back only by small numbers. See Chapter 28.

AK-9 "Trailblazer". PUSDR's strategic airlifter, a long high-winged aircraft able to drop up to four BH-10s into combat. The AK-9RF "Ringer" is its aerial refuelling version and the AK-9EK "Flattop" its airborne warning and control conversion. See Chapter 28.

Altyr. The Republic of Altyr, the small agrarian founding republic of PUSDR, whose emblem is the sickle. See Chapter 30.

AMS Adara. Anestria's largest aircraft carrier, a straightforward angled-deck design in sand-grey paint with a tall conventional island. Its crew wore sand-grey naval kit. See Chapter 28.

AP-3. Bavaria's plain, mass-exportable infantry fighting vehicle with a small autocannon turret. See Chapter 28.

AR-22 "Vanguard". The Syndicate's first select-fire assault rifle, adopted between 1000 and 1250 AE and carried by the whole coalition of the Thirty-Day War. It was made at AVMS's Corvenna works and fires the 6.8mm Syndicate cartridge, roll-marked "CAL 6.8 SYND". It is 1.14 m long and about 4.0 kg empty, with a long-stroke piston above the barrel, a walnut handguard, a black polymer grip and stock, and a three-position selector marked S, 1 and A. The AR-22A, adopted after the Second War, added a top rail and all-polymer furniture, and stayed in use for decades, including in PUSDR's smuggled carbines. See Chapter 26.

AR-7 (ROA AR-7). Anestria's select-fire assault rifle of the 1200s AE, fielded in the same decade as its first nuclear test. It has sand-tan polymer furniture, a straight-line stock and a triangular handguard section. All five successor states kept building on it from shared tooling, differing only in finish: tan for the Constitutional Anestrian Republic, faded olive, grey, olive-drab or bare metal for the others. See Chapter 26.

Ardekai. The old formal word for "human". Every person in this book is Ardekai, though the word becomes a chosen identity only on Typhon, where one faction keeps it as the name of the old continuity with Aridexia while the other makes a new name, Ospyran. See Chapter 23.

Arquebus. The matchlock shoulder arm of the Syndicate's hired companies from about 320 AE, which ended the Table's own Bannermen's reign as the best soldiers in the Syndicate. See Chapter 4.

Arrival theories. The minority, fringe position in the Aridexian Descendant Problem, from roughly 950 AE to the present, that the Ardekai arrived on Aridexia already formed. For generations "arrival theorist" was an insult in academic life. Chapter 24 shows the theory was

closer to the truth than its mockers knew. See Descendant Problem.

arthropod-analogue grazers. The most terrestrial-familiar of Typhon's native life by body plan: small, jointed, multi-legged motile organisms found wherever littoral scrub grows thick. They are the animals in every landing-party photograph, and no larger motile organism has been confirmed on the moon. See Typhon in Chapter 33.

Article III. The mutual-defence clause of the UARRO Foundational Charter, called in the Charter "the most important section of this charter". An attack on any member, including blockade or coordinated economic sabotage or intelligence action, is an attack on all, and every member must declare a response within one turn or be in breach. See UARRO and Chapter 17.

AS-15. PUSDR's 9mm submachine gun for the Airborne Landing Force, scaled from the PAS-12 action, with a 30-round magazine, a folding wire stock and semi or full automatic fire. See Chapter 26.

AS-17. PUSDR's 7.62mm assault rifle with a 32-round curved magazine, designed by Antiko Khoshlikova to replace the People's IR-11M and the smuggled AR-22 carbines. Its simple action with generous clearances sheds sand and dirt, and prototypes already served in the Great Revolution. Its cartridge family became Kargopol's ammunition standard. See Chapter 26.

Ashfields Campaign. Chicano States' scorched-earth operation against Safemoon's farm hinterland before the Second Aridexian War. See Ashfields in Chapter 33.

Ashtail. A gregarious native primate-analogue of Korut's forested islands, extinct on the main islands but surviving on smaller ones, and the only native primate known to use a consistent alarm-call vocabulary. Genetics ruled it out as an Ardekai ancestor decades before the modern era. See Chapter 1.

ASK-10. PUSDR's 12.7mm semi-automatic anti-materiel rifle with a six-round magazine, a large muzzle brake and a folding bipod, sharing the BMS-10P explosive round with the ASM-19. See Chapter 26.

ASM-18. PUSDR's 7.62mm light machine gun, an enlarged AS-17 with a heavy barrel, a folding bipod and a 38-round box magazine. See Chapter 26.

ASM-19. PUSDR's belt-fed 12.7mm heavy machine gun, built from the ASM-18. It is fielded mostly on vehicle pintles and by specialised infantry. See Chapter 26.

Asmedeus. The old sky god of the pre-Syndicate coastal villages that later became Corvenna's suburbs. The secular Syndicate never worshipped him but never stopped naming things after him, a habit Solenne inherited. The name is carried by the N-14 "Asmedeus" fighter, the Asmedeus-1 booster, the Asmedeus II crew transport and the AHM-1 habitat. See Chapter 28.

Asmedeus II-class Crew Transport. The only vehicle of the Typhon Corridor Fleet rated to carry settlers rather than cargo, with a larger life-support loop, a radiation-hardened crew module and enough berths to make sustained population transfer practical. Fifty-two hulls were

built from 1338 to 1359, about 24 flew in the first wave, and about 2,880 settlers were carried. See Typhon Corridor Fleet and Chapter 21.

Asmedeus-1. Solenne's heavy-lift booster, the successor of Koedul-1: a three-stage kerosene and liquid-oxygen vehicle with a five-engine first stage, a twin-engine vacuum second stage and a single-engine third, with up to six solid strap-ons. It lifts 95 to 115 tonnes to low orbit and 22 to 28 tonnes of colonisation mass towards Typhon. About 312 launches flew between 1337 and 1359. See Chapter 21 and Chapter 28.

ASP-20. PUSDR's 93mm semi-automatic rocket-propelled grenade launcher, rushed into service in the Great Revolution to answer Eisenreich armour. Its BM-HEAT-1 tandem warhead defeats composite and reactive armour alike. See Chapter 26.

AV-5 (Arvangrad AV-5). The Yeshuren Union's older, wood-stocked rifle, in service since before the First War under the name Arvansk and largely unchanged since. See Chapter 26.

AVMS. Armored Vehicle Manufacturing System, the armaments firm founded as Irwin's during the ancient war. It fielded the first practical internal-combustion engine, the first rechargeable battery and the AG-01, and built the first armoured fighting vehicle, the brass-chassis AV-1, which gave Luluke its decisive edge. It armed the Syndicate, the USN and, under Solennese ownership in the same Savoran plants, Solenne, which is why the SR-30's design changed and the factory did not. See Chapter 2 and Chapter 26.

B

B-4/2. The Constitutional Anestrian Republic's main battle tank, with about 340 built between 1331 and 1352. It would need a crosswind of about 1,000 km/h to overturn. See Chapter 28.

Bannerman. A mounted knight of the Syndicate's fief period, who held a sub-fief (a holding) from a Lord-Principal on a bond of service and raised a lance of men under his house pennant. He wore a mail hauberk under a black tabard with the house colour in a diagonal half. See Chapter 4.

Bavenhurst BR-5. Bavaria's plain domestic rifle: dark blued steel, a straight unadorned stock, no bayonet lug and no selector. It has needed only minor updates over centuries, because a nation that never fought for its territory never had to iterate. See Chapter 26.

BBG-01 Kaelis. Solenne's guided-missile dreadnought, with a broad pyramidal stealth superstructure over a heavily armoured hull, two forward guns under angled houses and a large vertical-launch missile deck amidships. Two were built. It carries an old internal designation, RoLS "Kaelis". See Chapter 28.

BH-10 "Volnyk". PUSDR's airdroppable infantry fighting vehicle, built for the Airborne Landing Force, with a 100mm low-pressure rifled gun, a coaxial 35mm autocannon and amphibious capability of 7 mph. The RH-10 version replaces the gun with a reconnaissance suite

and a datalink to JH-2 batteries. About 540 BH-10 and 110 RH-10 were built from 1326 to 1352. See Chapter 28.

BKK-22 "Grom". PUSDR's heavy tactical bomber. See Chapter 28.

BKK-32 "Groza". PUSDR's long-range bomber. See Chapter 28.

BL-1. Bavaria's conventional, affordable and exportable main battle tank with a single 120mm gun. About 380 were built between 1329 and 1351. See Chapter 28.

Black-Snake Corps. The USN's praetorian formation, raised after the Talona Crisis of 1290 from the survivors and instructors of Operation Black-Snake, and named for it. It guarded the capital and leadership and escorted the Office of Watch. Its bone-white dress uniform with crimson trim, graphite leather and silver fittings was the regime's one act of vanity. Its motto is CONTINUITY, its unofficial one WATCH AND ENDURE, and it was among the first formations destroyed in 1300. Solenne made display of its insignia a criminal offence. See Chapter 27.

Black-Snake, Operation. The failed but partly successful USN special-forces raid on Talona of 1286 to 1290, which destroyed Talona's only warship and main tank depot without killing its leadership. See Chapter 13.

BM-HEAT-1. The tandem-warhead round of the ASP-20, effective against composite and reactive armour. See Chapter 26.

BMS-10P. An explosive 12.7mm round developed from the ASM-19 platform that works in both the ASM-19 and the ASK-10. See Chapter 26.

bond. The signed and sealed obligation on which every link of the Syndicate's fief period depended. A Lord-Principal held a fief from the Table by a bond, a Bannerman a holding from him by another, and a Freeholder a lease from the Bannerman by a third. Nobody held anything by blood alone. See Chapter 4.

Bondfolk. In the Syndicate's fief period, people bound by debt rather than by birth, who could buy their way out at any time at the price entered in their bond. A bondman's children were free. They wore undyed wool and leather with the bond number sewn at the breast. See Chapter 4.

Bone, the. The full-dress uniform of the USN's Black-Snake Corps: a long bone-wool frock tunic closing off-centre on a diagonal line of silver buttons, a crimson half-cape on one shoulder, a knotted crimson sash, graphite trousers and ankle boots, and a low kepi. See Black-Snake Corps and Chapter 27.

bort numbers. The numbers painted on an aircraft's nose or fin to identify the individual airframe. Examples in the record include bort 503 on the AF-50, bort 417 with a "PF" fin code on the Pechorian PSB-4 Ostrog, bort "27" on a CKK-10M of the 3rd Guards Highland Assault Regiment, and bort 07 on the display DKK-1B Flapjack-D. See Chapter 28.

BR-5. See Bavenhurst BR-5.

BT-2 and BT-3 "Strix". Bavaria's twin-engine fighter with a large chin radar and heavy hardpoints, and its stealthier, sharply faceted successor with an internal weapons bay and no external stores. See Chapter 28.

C

Carina-11. The toxin that viriditas pesticide produced in luminonion crops from about 3 AE. It was food-borne, deadly and highly contagious through the food supply, and it caused the famine, disease and exodus that ended Luluke's early prosperity and led to the founding of the four nations of the diaspora. See Chapter 3.

CCAS-1351 "Odin". Safemoon's massive heavy-lift cargo jet, with ten engines on the original variant and a ramp large enough to drive a tank up. The Odin A variant is a smaller tilt-rotor VTOL transport for company-sized rapid response. See Chapter 28.

Chair. In the Syndicate's fief period, the one Lord-Principal chosen each year by the Table from among its members to preside and speak for the Syndicate to outsiders. The Chair holds no extra vote and cannot be chosen twice in three years. It is the ancestor of the Syndicate's later chairmanship. See Table and Chapter 4.

Charter. See UARRO Foundational Charter.

charter-houses. The twelve trading companies into which the Syndicate's twelve fiefs were converted by about 340 AE, with the same names, colours and charges. The Table became a board and the Chair a chairman. See Chapter 4.

Chezkiv, Nikolai. The bearded, ushanka-wearing socialist activist who turned the Socialist Republic of Kargopol to socialism before the occupation. See Chapter 31.

Chimera. See F/A-8 Chimera.

Christonian. The written language that began with Christian Palazzolo's early laws and was unified by the printing press in about 880 AE. Palazzolo is still venerated by the Christonian people, and their calendar marks his memory every 15 June. See Chapter 2.

CKK-10 "Poing". PUSDR's primary strike aircraft: about 90 captured IR-40s, about 1,050 CKK-10 built from 1303 to 1319, 620 rebuilt to M standard in 1324 to 1327 and about 130 new-build Ms in 1356 to 1357. The CKK-10M Poing-D, bort "27", served with the 3rd Guards Highland Assault Regiment. See Chapter 28.

CNS Veilpiercer. Solenne's submersible carrier, a low black hull that surfaces only when needed, with a flush sensor mast and a covered flight deck that opens for STOVL launch. See Chapter 28.

Collectors. In the Ferrosian Empire, the tax-scribes and keepers of the grain tithe. The Republic made them salaried and audited. See Chapter 6.

Conjunctioner. A member of Christonia's council, which sat with the elected president. Elin Renner broke from the council in the 1190s AE. See Chapter 5.

Continuity. The motto of the USN's Black-Snake Corps, worn as a silver cuff title on the right sleeve of dress uniform. See Black-Snake Corps and Chapter 29.

Convergence Hypothesis. The mainstream explanation of the Aridexian Descendant Problem from about 900 to 1100 AE and still the textbook model. It holds that human-like intelligence is such a strong evolutionary attractor that it can arise from entirely different ancestors. It never explained why no transitional fossils exist. See Descendant Problem.

Coprosperity Sphere (Anestrian). The name given to the former Anestrian territory of ten administrative districts, which asserted independence after the Third Aridexian War. Five successor states emerged from it. See Chapter 15.

Coreward Swing. The shorter, sharper of Osprey's two convective seasons, of about 60 days, when its slightly eccentric orbit brings it nearest Solis and equatorial sea-surface temperatures rise fastest. See Long Boil and Osprey in Chapter 33.

Council of Oases. The elected body of the Republic of Anestria, with one delegate per oasis, that replaced the Ferrosian governors in 641 AE. It chooses the President-in-Council. See Chapter 6.

CPA. The Communist Power Alliance, the Syndicate-era ideological bloc inherited by the USN. It predated HAFDAP by decades, counted Bavaria as a member from its founding, and also included the resistance that became PUSDR. It faced HAFDAP in the Second Aridexian War. See Chapter 12.

Cryobot. A thermal probe heated by a radioisotope generator that melts down through an ice shell, paying out a fibre-optic tether. The Keplum campaign plans one to descend at 1 to 3 metres an hour through the ice. See Keplum Cryobot Campaign.

CS-1. Chicano States' main battle tank, with about 170 built between 1336 and 1352. See Chapter 28.

CS-MC helmet. Chicano States' modular combat helmet of the 1310s: rust-brown steel and polymer, with side rails, a radio headset moulded into the liner, a rear neck protector and a front mount for the NV-9. See Chapter 27.

CS-MLRS-26 "Sickle". Chicano States' rocket launcher. Four launchers existed, with about 140 missiles supplied, paid for by Malakor Vane's Turncoat bribe money. When the 1357 revolution stopped the money the weapon became useless. See Chapter 28.

Cuff title. A band worn on the sleeve cuff naming a unit. The Black-Snake Corps' reads CONTINUITY in silver on graphite, above the crimson cuff. See Chapter 27.

Cultivators. The farmers on leased water in the Ferrosian Empire, below the three great offices. See Chapter 6.

D

DE-41 "Meerkat". Anestria's airborne early-warning aircraft, with a rotating disc radome on twin struts, built to extend its carrier groups' eyes beyond the horizon. See Chapter 28.

delta-v. The total change of velocity a spacecraft must be able to produce for a mission, and the measure in which the system's distances are most easily compared. The Aridexia to Osprey transfer, for example, costs about 3,400 m/s, the cheapest corridor DS-HP flies. See Appendix A.

Department of Defensive Logistics. One of the major departments of Solenne's government, headed by a leader the Jakaar appoints without any requirement of confirmation or public justification. See Jakaar and Chapter 16.

Department of Trial. The department of Solenne's government that tries cases, headed by an appointee of the Jakaar. Its head was the man Farren Vane shot dead in AE 1342, a murder that never became public because the Department's own surviving leadership answered to Farren's network. See Chapter 16.

Department-Y. Solenne's secret department, never publicly acknowledged and known internally only by that letter. Its stated mandate is maintaining Solenne's technological edge. Its real function is comprehensive surveillance of the civilian population, with files on political sympathies reported privately to the sitting Jakaar, and, under Farren Vane, research into early-childhood cognitive development using the Vane children and abducted homeless and impoverished children as subjects. See Chapter 16.

Descendant Problem. The Aridexian Descendant Problem: the unresolved question of what the Ardekai descended from. Aridexia's fossil record is dense and continuous for every branch of life, including four native primate-analogue lineages, yet modern Ardekai appear fully modern with no transitional fossil, and every genetic comparison finds no meaningful shared ancestry with any native primate. It has been known by that name in every Aridexian scientific institution since about 900 AE and was the object of the Renner Prize. Chapter 24 gives the answer found in 1371. See Chapter 1.

"Descended from nothing." An Aridexian idiom for anyone or anything that seems to have appeared from nowhere, borrowed from the Descendant Problem's popular framing. See Chapter 1.

DET-3C White Lightning. Solenne's tank in its Variant C form, 214 built or converted by 1340. Variant A (about 52 built from 1322 to 1326, 41 later converted to the DET-3C) and Variant B (paper design only) belong to the same programme. See Chapter 28.

Dimikrov Katinka Krasny Design Bureau. The state-run PUSDR design bureau that developed the DKK-1 off the PR-5's airframe and gave the DKK series its initials. See DKK-1.

DKK-1 "Flapjack". PUSDR's main multirole fighter, a refined development of the PR-5 airframe with an AESA radar and modern missiles, balancing quality and quantity. About 1,100

were built from 1309 to 1338. Its variants are the DKK-1E1 "Flapjack-B" export (about 160, fielded across Kargopol except Tianhai), the DKK-1MDMU "Flapjack-C" naval version (about 96), the DKK-1B "Flapjack-D" air-show demonstrator in knights-themed camouflage (12, bort 07) and the DKK-1M "Flapjack-E" modernisation (about 450 rebuilt). See Chapter 28.

DKK-5 "Flashfire". PUSDR's dedicated high-speed interceptor, a Mach 3-plus aircraft built around a large radar. The DKK-5E1 "Flashfire-B" export goes only to Nam Minh and the Yeshuren Union, and the DKK-5R "Flashfire-C" strips the radar for a reconnaissance operator's station. See Chapter 28.

DKK-7 "Frenzy". PUSDR's primary stealth fighter. The DKK-7MDMU "Frenzy-B" is its carrier variant for Kargopol-standard decks. See Chapter 28.

DKK-80 "Grendel". PUSDR's only helicopter design, a multirole attack and transport airframe. The DKK-80MDMU "Grendel-B" is adapted for carrier and anti-submarine work. About 430 were built between 1321 and 1352, including 56 naval aircraft. See Chapter 28.

DLT-1. Nam Minh's light tank destroyer, with a very low, flat hull barely taller than a man, a long thin gun with a multi-slot muzzle brake, and welded steel in matte green. It was cheap enough to mass-produce and low enough to hide in a treeline. See Chapter 28.

Drywell DW-3. Hardluckia's basic lever-action desert rifle, with sand-toned furniture and a dust cover over the ejection port. See Chapter 26.

DS-HP. Deep Space Human Preservation, founded in 1265 AE as a nominally Syndicate-subsidised body but built as an independent international scientific consortium, whose mandate is to locate, evaluate and eventually settle habitable worlds in the system. Its insulation from any national government is why it survived the Third Aridexian War. After 1300 it became an existential insurance policy for the species. Its resource accounting of AE 1359 concluded that Aridexia could keep one off-world effort alive, not two, and it recommended restraint, but four nations chose enforcement. Also written D.S-H.P. in some records. See Chapter 13 and Chapter 22.

DSY. Deep-Space Year, the internal calendar of DS-HP, defined by DSY = AE minus 1276. DSY 0 is therefore AE 1276, the year the Second Aridexian War ended. DSY 12 is AE 1288 (first crewed Lira landing), DSY 23 is AE 1299 (Comet Vairon and the Uranium Crisis) and DSY 31 is AE 1307 (Aurelia mining established). See Appendix B.

E

EES (Exclusive Economic Sector). The voluntary UARRO trade framework open to members and approved outside partners, with no defence obligations. It lets members, and partners such as the Pechorian Federation or Xue Lin, standardise calibers and magazine interfaces and trade without implying any political alignment. See Chapter 17.

ERA. Explosive reactive armour, fitted to PUSDR's tanks as Zimmer-1 and, in a redesigned turret, Zimmer-2. See Zimmer-1 and Chapter 28.

Exosphere. The tenuous outermost atmosphere of a small body, where molecules follow ballistic paths without colliding. Lira's is of sodium, potassium, helium-4, argon-40, neon and hydrogen at under 10^-14 atmospheres. See Lira in Chapter 33.

Eye, the. The element added to the centre of the USN flag's ouroboros ring in 1290 AE after the Talona Crisis: a plain almond with an iris and pupil, in black on the crimson. It stood for the Office of Watch, and it changed the snake's meaning of "the state is a closed loop" into "the loop has something at its centre that sees everything inside it". The Eye is silver on the Black-Snake Corps' uniform and is banned in Solenne. See Chapter 29.

F

F-A-25. Solenne's advanced prototype aircraft, about 22 built between 1350 and 1357, statically unstable in pitch by about 12 percent. See Chapter 28.

FA-6. The Finhaven Arms Co. rifle of the All-Finian Empire, a naval-doctrine arm in a corrosion-resistant grey-green finish, with a shortened barrel and stock. The Korut city-states kept using existing stocks after the Empire fell. See Chapter 26.

FA-7 Artillery-13. Bavaria's heavy self-propelled artillery piece, an enormous open-topped turret on a low hull with a separate radar and missile mount. Its bore and nuclear-capable ammunition make it Bavaria's most closely guarded design. See Chapter 28.

F/A-8 Chimera. Solenne's high-end multirole fighter, with an unusual three-engine layout of two turbofans and a centreline scramjet for high-speed dashes up to Mach 4.5, forward-swept composite wings and a dark charcoal finish. About 210 were built from 1332 to 1356, and the aircraft is stable in pitch only barely, with a static margin of 0.3 percent. See Chapter 28.

Factors. In the Syndicate's fief period, merchant agents who bought, sold and carried bonds for a house. The Syndicate-chartered trading companies of later centuries descend from them. See Chapter 4.

Ferrengrad Arms. The Eisenreich arms house that made the IR-11, whose factories PUSDR captured intact. See IR-11 "Ironhand".

Ferrosian sabre. The curved sabre of the Imperium Ironclad, which became the kingdom's signature export. See Chapter 6.

ferrous sand. The iron-bearing sands under Imperium's oases, the richest on the desert continent. By about 220 AE Imperium's smiths made tools and weapons a full step ahead of Antares or Anestria proper, and the iron paid for the conquest that formed the Ferrosian Empire by 310 AE. See Chapter 6.

fief. In the Syndicate, a district that was leased and never granted. A Lord-Principal held it by a signed bond sealed in wax, renewable and revocable, and subdivided it by further bonds. There were twelve, each with a fixed role, and no fief could feed, arm or defend itself alone. See Chapter 4.

First Marshal. The title taken by General Salvador Reyes of Chicano States when he was acclaimed to power in 805 AE, for the seven years of conquest that followed. See Chapter 8.

fission reactor. Anestria's first, built in the mid-1100s AE from a single uranium strike. Fissile ore is rare on Aridexia, with a handful of known deposits worldwide, so no nuclear programme could grow beyond a handful of warheads. See Chapter 5 and Chapter 14.

Freeholder. In the Syndicate's fief period, a free person holding a lease from a Bannerman or Reeve and owing a crossbow levy. The levy wore undyed linen gambesons and a house-coloured sash and carried the stonebow. See Chapter 4.

FTS-100 "Swiftline". Safemoon's coastal troop carrier, a low planing hull on hydrofoil struts with an open troop deck, built for speed on its own narrow coastal waters. See Chapter 28.

G

G2V. The spectral class of Solis, a yellow main-sequence star, chromospherically active and young for its class. See Solis in Chapter 33.

GA-7 Anvil. A Solennese aircraft, about 160 of which were built between 1333 and 1350. See Chapter 28.

GAW. The abbreviation for the four numbered Aridexian Wars: GAW1 (the First Aridexian War, or Thirty-Day War, October to November 1250 AE), GAW2 (1264 to 1276), GAW3 (17 January 1300) and GAW4 (1359 to 1371). The Turncoat War (1354 to 1358) is separate from GAW4. The Reclamation War (1318 to 1320) and Operation Fenwick (1305) are regional conflicts. See Chapters 11, 12, 14 and 22.

GC-1 "Andrew" Gunnery Car. A Northland-Southland vehicle, about 260 built between 1334 and 1349. See Chapter 28.

GC-7. The Gran Chicania GC-7, Chicano States' simple, mass-producible semi-automatic rifle with crude stamped furniture and rough welds. It armed the Ashfields Campaign. See Chapter 26.

Glocian Express. A cycler that runs a 14-year orbital loop between Aridexia and Glocius, providing continuous low-delta-v logistics for non-urgent cargo. See Glocius in Chapter 33.

Governor, Imperial. In the Ferrosian Empire, the ruler of an oasis under the Iron Throne. By the 600s the governors had become a hereditary aristocracy, and the Governor-Lord dressed for it in a long black robe with three rust-red brocade bands, a gold collar, an iron circlet and a

water-staff. See Chapter 6.

Great Revolution. PUSDR's revolutionary civil war against Eisenreich, which began in the chaos of the Third Aridexian War and ended with the conquest of Eisenreich by 1305. In its course Taran and Kinzel joined the Union as its third and fourth republics. Prototype AS-17 rifles and the ASP-20 launcher saw service in it. See Chapter 15.

green armband and green tab. The oasis colour of the Ferrosian Rebellion's militia in 630 to 641 AE, the first insignia of the Republic of Anestria, and later the green collar tab on which Anestrian rank is worn. See Chapter 6.

Grendel. See DKK-80 "Grendel".

H

HAFDAP. The Historic Alliance For Democracy And Prosperity, formed in 1262 AE by Anestria, Luluke and the All-Finian Empire after support for Christonia lapsed. The name was deliberately broad so that a monarchy, a republic and an old mercantile state could all sign it. It fought the CPA in the Second Aridexian War. See Chapter 12.

hired companies. In the Syndicate's fief period, paid soldiers on term contracts, which appear in the 200s AE because a levy cannot be kept in the field through a campaign. They are the ancestor of the Syndicate's habit of buying force rather than raising it. See Chapter 4.

Hohmann transfer. The most economical two-burn transfer between orbits, used throughout the dossier to compare the cost of reaching each world. See Appendix A.

house flags. The coloured pennants flown at the hoist of the Syndicate flag by each of the twelve houses, the only non-black, non-gold colours legally allowed on Syndicate property. See Chapter 29.

hypercane. An Osprey storm with winds above 300 km/h, a sea-surface temperature above 32 degrees C and an eye pressure under 870 hPa. One to three form each year, about 70 percent of them in the Long Boil. See Chapter 33.

I

IAD-4 "Goshawk". Northland's light multirole fighter, a simple single-engine jet with straight wings, chosen for cheap maintenance and fast sortie generation. See Chapter 28.

IADM-6 Northland. A Northland-Southland aircraft, about 40 built between 1349 and 1356, descended from PUSDR's DKK-1 and obtained quietly by way of Xue Lin. It is stable or neutral in pitch. See Chapter 28.

Ilvennaq. The people of Heliodysseia's milder coasts: scattered hardy maritime and hunting communities without a unified state, the direct descendants of the confederation of Helian. See

Heliodysseia in Chapter 33.

Imperial Governor. See Governor, Imperial.

Innus-class Relay. The small communications-relay satellites of the Typhon Corridor Fleet, launched on expendable boosters and stationed in Osprey orbit and at Selache. An Innus relay does not stop working when it breaks. The Aridexian transmissions to it thinned and stopped because nobody was left on Aridexia to transmit. See Chapter 21 and Chapter 23.

INS "Devourer". Solenne's superdreadnought, with four railgun turrets down the centreline instead of a flight deck, and a squat armoured citadel bristling with vertical-launch hatches. See Chapter 28.

INS-2 "Tal-Mac". Solenne's aviation cruiser, a three-hulled trimaran with outrigger pontoons and a flat helicopter deck, built for amphibious assault and fleet air defence. See Chapter 28.

IR-10, IR-11M and IR-15 (People's). PUSDR's immediate postwar weapons, built from captured Ferrengrad Arms tooling: the People's IR-10 semi-automatic rifle, the People's IR-11M (the IR-11 with red furniture accents) and the People's IR-15 9mm sidearm. See IR-11 "Ironhand".

IR-11 "Ironhand". Eisenreich's Ferrengrad Arms infantry rifle, deliberately over-built, heavy and crude, with weld seams, a blocky wooden stock and an oversized trigger guard for gloves. PUSDR's resistance fought with captured examples, Vessek still does, and PUSDR kept building it as the IR-11M after capturing the factories. See Chapter 26.

Iron Throne. The seat of the Ferrosian Empire at the Imperium capital. See Chapter 6.

Iron Union. The armed ethno-supremacist faction organised by Nikolai Nichozh's younger half-brother, who rejected the Northland state, in a cordoned-off enclave built on forced labour and the caste ideology Northland had abolished. Northland defeated it by force, with mass detentions and summary executions, on an order from Nichozh not to take the garrison alive. See Chapter 10.

Ironclad. The soldier of Imperium's army, in a lamellar iron cuirass with a rust sash, a conical helm with a mail veil, a round iron-bossed shield and the Ferrosian sabre. See Chapter 6.

Ironguard. The Ferrosian Empire's garrisons and heavy infantry, in a black lamellar coat, closed iron helm, rust-red sash and a tower shield. Black and rust are the Empire's colours, and no Anestrian uniform since has been black. See Chapter 6.

ISRU. In-situ resource utilisation: making propellant, water and building material from a world's own surface. See Orjust and Typhon in Chapter 33.

J

Jakaar. The title of Solenne's head of state, elected to an eight-year term. After two ordinary terms a Jakaar may keep running, but only by winning at least 60 percent in each later election, a check that works only if elections are free, and Solenne's are not. A Jakaar may also appoint one politician of their choice directly into the final election, bypassing the regional and statewide stages. Solenne's first Jakaar was Farren Vane (1300 to 1308). See Chapter 16.

JH-1 "Zatychka". PUSDR's flagship tank, chosen from three prototypes (Opytnyy 3, 5 and 7) at the Zhokrova plant. The army took the OT-3 for its low-visibility hull and 125mm smoothbore gun, cheaper to mass-produce than the better-protected OT-5. It had an opposed-piston two-stroke engine, a troublesome transmission and a Krashlikova AT-5 carousel autoloader that occasionally detonated rounds. The JH-1A "Ostanovka" added a gas turbine, the AT-7 autoloader, Zimmer-1 ERA and the Strata APS. The JH-1AZ "Stena" has a new turret with Zimmer-2 ERA, a bustle autoloader, the Kyshka APS, a faster gun and finally a reliable transmission. About 1,900 JH-1AZ were built between 1331 and 1357, and about 4,600 vehicles of the whole family. The JH-1AZ-B was a limited run of about 150 (1352 to 1357). See Chapter 28.

JH-2 "Mita/OST". PUSDR's self-propelled artillery on the JH-1AZ hull, with a 152mm rifled gun of 78 km range, extra reverse gears for hit-and-run, and the Strata APS. See Chapter 28.

JHT-3 "Razrushitel". The tank-support infantry fighting vehicle on the JH-1AZ hull, with a crewless turret, the engine moved forward for dismounts, two 35mm autocannons and four 125mm missile launchers. See Chapter 28.

Justiciar. In the Syndicate's fief period, a judge supplied by House Esselt, who sat in benches of three at the Ledger Court. See Ledger Court and Chapter 4.

K

Kaldrun Pattern. Luluke's simple, rugged bolt-action rifle, named for its capital, in front-line service into the 1200s AE. It has an ornately carved dark wood stock and worn brass bands. See Chapter 26.

Kargopol. Two things share the name. One is the Socialist Republic of Kargopol, an industrial founding republic of PUSDR whose city is the Union's natural capital. The other is the anti-Solenne bloc formed about a year after the Third Aridexian War around PUSDR, hardening the old USN-era proxy relationship into an alliance. Its members build their rifles around PUSDR's AS-17 7.62mm cartridge family. See Chapter 17.

Kármán line. The altitude at which space is taken to begin, 100 km on Aridexia, canonical for licensing astronauts, though the atmosphere effectively ends at about 140 km. See Aridexia in Chapter 33.

Kinzel. The Federal Province of Kinzel, an Eisenreich province that revolted, lasted one month and joined PUSDR as its fourth republic. See Chapter 30.

Koedul-1. Solenne's first space hardware, a plain riveted steel single-stage-to-orbit vehicle with a solid booster-assist stage and a kerosene and liquid-oxygen sustainer, launched from a concrete pad. Its reliability target was 65 to 70 percent and it lifted 180 to 220 kg. It carried the Velis-1 probe. See Chapter 13.

Koedul-class Heavy Transport. The workhorse of the Typhon Corridor Fleet, named for Vakkar Koedul. It was an interplanetary cruise stage plus a stage that aerocaptures into Typhon orbit and lands, carrying habitat modules, plant and raw material. Every physical structure on Typhon before local manufacturing arrived on a Koedul. See Chapter 21.

Krashlikova autoloaders. The AT-5 carousel and AT-7 autoloader of the JH-1 family, from the design-bureau lineage of Antiko Khoshlikova's small-arms work. See JH-1 "Zatychka".

Kyshka. The active protection system of the JH-1AZ Stena. See Strata.

L

LAM-0A "Surfer". Bavaria's naval light attack jet, a stubby, folding-wing carrier aircraft with a wide delta planform and twin non-afterburning engines, built for cheap coastal strike sorties. See Chapter 28.

LAO. Low Aridexian Orbit, the reference orbit at 200 km, which needs about 9,400 m/s of delta-v from sea level. All mission budgets in the system are quoted from it. See Appendix A.

Ledger Court. The law of the Syndicate's fief period, held by House Esselt. The Justiciars judged in benches of three, and the Notaries and Tallymen kept every bond, tally and seal in a registry that outlasted any lord. Punishment was mostly debt: a fine, a bond of labour or the loss of a lease. Death sentences were rare and needed the whole Table. See Chapter 4.

Light Vessel IV. A light corvette built at PUSDR's yards for Nam Minh: 14 built between 1339 and 1352, 12 for Nam Minh and two for PUSDR trials. See Chapter 28.

Lira Pact. The agreement in the lore that protects Lira from large-scale strip mining, because the moon stabilises Aridexia's axial tilt. See Lira in Chapter 33.

Litharic Church. The Tureshan state religion formalised about 400 AE, a faith built on continuity and inheritance rather than conquest or revelation. It emigrated with the Tureshans, reached northern Numaria in the 500s, and its doctrine of rightful unbroken inheritance justified the Karavynic Empire. A dispute over whether continuity could pass through a conquered people, or only through blood, split its Numarian clergy by 610 AE. See Chapter 8.

Litharic Schism. The split of 610 AE in the Numarian priesthood over whether rightful continuity could pass through a conquered people at all, which broke the legitimacy of the

Karavynic throne and led to the empire's collapse in 630 and 655 AE. See Chapter 8.

littoral scrub. One of Typhon's four biomes: the woody ground-cover shrubs found across the Girdle Isles' coasts, the nearest thing on Typhon to a terrestrial plant community. See Typhon in Chapter 33.

Long Boil. The longer of Osprey's two convective seasons, of roughly 190 local days centred on the equatorial summer solstice, responsible for about 70 percent of the year's hypercanes. Nothing on Osprey's surface schedules construction, resupply or a landing window in either season if it can be avoided. See Coreward Swing.

Long Survey. The paired expedition funded jointly by the Syndicate and Anestria about a century after the diaspora, in which two ships left port on the same day to chart the planet's poles before either nation could claim one. The northern ship reached Heliodysseia in high summer, under a sun that never set, and the southern ship reached Kryodysseia in winter, in total darkness. See Chapter 25.

Lord-Principal. The holder of one of the Syndicate's twelve fiefs and a member of the Table, one vote each. He held his fief by a signed bond and wore full harness of mountain steel with more gold edging than anyone else. See Table and Chapter 4.

LR/MA. Safemoon's lighter tracked rocket and missile launcher, with a 12-cell modular rack of mixed tubes. See Chapter 28.

LSA 3109. Safemoon's super-heavy artillery, a four-barrelled howitzer carriage and the widest gun platform on the continent, built for the siege warfare Safemoon never wants to face again. See Chapter 28.

luminonion. The staple root vegetable of Luluke, central to its diet and religious life. Every acre that could reliably grow it lay in the Solvane's floodplain. Viriditas poisoned it with Carina-11. See Chapter 2.

M

M-3 "Sentinel". The Syndicate's tripod-mounted air-cooled machine gun of 500 to 900 AE, with a finned jacketed barrel and canvas belt feed. See Chapter 26.

mag-rail cities. The mobile cities of Anquilla, Vesperin, Crepuscula and Aurelain, each massing 4 to 8 megatonnes, that cross the Hesperin Plateau on continuous east-west tracks to chase the dawn at the terminator. See Anquilla in Chapter 33.

Marshals. In the Syndicate's fief period, the commanders of its three arms of force: the Bannermen, the Pass-Wardens and the hired companies. See Chapter 4.

MBT-90 "Crimson Titan". Chicano States' heavy main battle tank, with an oversized, angular hull and turret, one huge gun with a heavy double-baffle muzzle brake and a deep red-brown

livery. See Chapter 28.

MH-4. Safemoon's Moonhaven MH-4, a modest defensively-doctrined rifle with a heavy barrel profile and a standard bipod. See Chapter 26.

MiguelTek. The company that led Anestria's industrial boom of the 800s to 900s AE, through steam, oil and a uranium find. See Chapter 5.

Minh Chau MC-2. Nam Minh's modern angular olive-green assault rifle, adopted after the Second Aridexian War and built around Kargopol-standard ammunition. See Chapter 26.

MK-113 "Khazar". The Pechorian Federation's light attack and trainer aircraft, with a tandem two-seat cockpit, straight stubby wings with many hardpoints, and a plain unstealthy airframe. See Chapter 28.

MK-299. The Pechorian Federation's multirole fighter, a faceted low-observable airframe with recessed weapons bays. It is the Federation's premier deterrent aircraft, disproportionately advanced for a nation its size. See Chapter 28.

MK-72M1XT. Solenne's main battle tank, about 410 built between 1338 and 1356, with a low flat unmanned turret and stacked composite and reactive armour. See Chapter 28.

Moonhaven Spaceflight Authority (MSA). Safemoon's space agency, founded in AE 1303 and named for its capital, with the mandate to put a Safemoon crew on Lira and bring them home before anyone else. It built on DS-HP's launch sites, tracking stations and staff, and supplied the crewed hardware, the money and an obsessive redundancy. See Sanctuary Program.

MSSB-1. PUSDR's strategic stealth bomber flying wing. Seven were built (two prototypes and five production), each costing about as much as fifty DKK-1s, a status symbol aimed at Solenne. It is statically unstable in pitch by about 20 percent of chord. See Chapter 28.

mutualism. The political tradition of Nichozh's Northland: a mutualist, civic-nationalist welfare state with a state relief corps, and slavery abolished by decree on the day he took power. See Chapter 10.

N

N-14 "Asmedeus". Solenne's compact single-seat multirole fighter, built cheap and reliable for border patrol, with boxy intakes and a grey-and-blue low-visibility finish. It flew in Operation Fenwick carrying the AGM-11 Inferno. See Chapter 19 and Chapter 28.

N-15 "Flex". Solenne's deliberately plain mid-generation fighter, an affordable bridge between the N-14 and the newer high-end jets. See Chapter 28.

NBC. Nuclear, biological and chemical protective overgarments. Anestria's marines were the first to be issued them in numbers on the planet, in olive-grey, on the day of the Third Aridexian War. See Chapter 27.

Notary. In the Syndicate's fief period, a keeper of bonds, tallies and seals. With the Tallymen, the Notaries kept the registry that outlasted any lord. See Ledger Court.

NV-9. The binocular night-vision optic of Chicano States, worn on a flip-up bracket on the CS-MC helmet and issued to about one soldier in four. See Chapter 27.

O

Oasis Courts. The courts of the Republic of Anestria, with elected judges, that replaced the Ferrosian Water-Courts. See Chapter 6.

Oasis Guard. The Republic of Anestria's citizen militia, one regiment per oasis with officers elected by their regiment for three-year terms, replacing the Ironguard in 641 AE. Every citizen serves. Its kit was plain, cheap and local, and its pride was that it never tried to be the Ironguard. See Chapter 6 and Chapter 27.

oasis-lords. In the three Anestrian kingdoms, the council members who held a well, a farm district or a stretch of road on the king's behalf and raised troops from it. A lord's wealth was measured in water rights, and a king could not move a lord without moving his wells. See Chapter 6.

Oathblade. The arming sword of the Syndicate's fief period, sworn on at every bond signing, with the house seal on the pommel. See Chapter 4.

Odin. See CCAS-1351 "Odin".

Office of Watch. The USN's security service, created after the Talona Crisis. The Eye on the flag stands for it, and the Black-Snake Corps escorted it. See the Eye and Chapter 29.

OMBT-1. The main battle tank of the Federated States of Imperium, about 230 built between 1335 and 1352. Its crews wear grey overalls. See Chapter 28.

open-water plankton analogues. The least characterised of Typhon's four biomes, a diffuse, poorly sampled layer in the Meridian Sea, and the Astrobiology Programme's top priority for a dedicated sampling mission. The programme has not ruled out that it holds something larger. See Typhon in Chapter 33.

Opytnyy 3, 5 and 7. The three PUSDR tank prototypes, "OT-3, OT-5 and OT-7", that competed for adoption at the Zhokrova plant. The OT-5 had the best protection, the OT-7 split the difference and the army chose the OT-3. See JH-1 "Zatychka".

Orjust Pipeline. The mining and refining chain from Orjust to the Aridexia-Solis L1 depot, in operation since DSY 18 (AE 1294), delivering about 140 tonnes a year of refined metals. See Orjust in Chapter 33.

Ospyran. The identity made on Typhon in the 1360s, named for the world itself, by the faction that took Aridexia's history as an argument against repeating any of it. The Ardekai identity kept

the old name. See Chapter 23.

ouroboros. The black snake swallowing its own tail at the centre of the USN flag of 1250 AE, its body broken by a dashed line to mark the seam where the Syndicate, Christonia and Mesaland were joined. The 1250 settlement itself spelled out its meaning: a union with no outside, whose end is its beginning. The snake was removed from Solenne's flag but its ring was not. See the Eye and Chapter 29.

Outer System Mining Concord. The chartered economic body seated on Aurelia, distinct from any inner-system government. See Aurelia in Chapter 33.

P

Pallow. A solitary, nocturnal primate-analogue of Candrasia's temperate woodlands, with the most clearly continuous fossil record of the four lineages. It is the control case against which the other three are measured. See Chapter 1.

PAS-12. PUSDR's 9mm semi-automatic pistol with an eight-round magazine, designed by Antiko Khoshlikova to survive the tropical belt with conscript maintenance. Its action is the basis for the AS-15 and the later family. See Chapter 26.

Pass-spear. The winged spear of the Pass-Wardens, used from behind a round shield in the gates. See Chapter 4.

Pass-Warden. In the Syndicate's fief period, the mountain militia who held the gates and passes, raised from the high valleys and paid in kind. Their painted shield bore three gold peaks, which became the Syndicate's seal. The title was revived as a rank in the USN's Black-Snake Corps. See Chapter 4 and Chapter 29.

People's IR-11M. See IR-11 "Ironhand".

People's Revolutionary Army. PUSDR's army, which chose the OT-3 as the JH-1 and for which the PAS-12 and AS-17 were designed. See Chapter 28.

pfu. Particle flux units, the measure of the energetic particles of a solar storm. A superflare reaches about 10^7 pfu and an X-class storm about 10^5. See Solis in Chapter 33.

Phantom Seas. See SCS-98 "Phantom Seas".

PK-2. The Pechorian Federation's short, cold-weather bolt-action carbine, which has needed no upgrade in a thousand years of never being attacked. See Chapter 26.

PK-4. The Syndicate's submachine gun of 900 to 1000 AE, with a stamped receiver with spot welds, a curved stick magazine and a perforated cooling shroud. See Chapter 26.

PK-P1 "Parrot Lord". An Anestrian aircraft, 78 of which were built between 1295 and 1300. Its pilots wore synthetic flight suits with the roundel on the shoulder at the Third Aridexian War. The Constitutional Anestrian Republic holds the survivors. See Chapter 28.

planetary protection. The principle that a world with native life must not be contaminated by visitors, or contaminate them in turn. It is why Typhon was observed and not settled until DS-HP overrode it in 1341, why Keplum and Titanis are under the strictest regime, and why the Typhon Astrobiology Programme's mandate outranks any resource survey near a biome. See Chapter 21.

Poing. See CKK-10 "Poing".

PR-5 "Krashny". PUSDR's multirole fighter designed by Polshinka Ratikova before the Chicano conquest of Numaria. It failed in service for want of supporting equipment, and the airframe was sound enough to lead to the DKK-1. See Chapter 28.

President-in-Council. The head of the Republic of Anestria, chosen by the Council of Oases and answerable to it. See Chapter 6.

Project Turncoat. Malakor Vane's programme during his presidency. PSU funding (Solenne, the Pechorian Federation and Xue Lin) was poured into building the most advanced space-travel programme on Aridexia, restricted to Solenne's aerospace companies, while Northland-Southland, Chicano States and the Anestrian successors were bribed with promises of Typhon land to sabotage every rival agency. It led to the Turncoat War of 1354 to 1358. See Chapter 20.

PSB-4 "Ostrog". The Pechorian Federation's strategic bomber, seven built, funded and engined by Solenne through the PSU. Its bort is 417 with the fin code "PF". See Chapter 28.

PSU. Two unrelated things share the abbreviation. The Pan-Savoran Union is the security-focused alliance Solenne founded once UARRO stepped back down. The Pechorian Federation and Xue Lin joined it, and its members standardised on Solenne's SR-30 and 5.6mm cartridge. PSU is also the practical salinity unit in which ocean salt is measured, as in Aridexia's average of 34.7 PSU and Keplum's estimated 56 PSU. See Chapter 17.

PUSDR. The Peoples' Union of Socialist Democratic Republics, a union of four republics (Altyr, Kargopol, Taran and Kinzel) and never a single country, whose first two founding states Eisenreich conquered and occupied. Its revolutionary civil war, in the chaos of the Third Aridexian War, reconquered Eisenreich by 1305. It anchored Kargopol and later the VAPIK coalition. See Chapter 30.

R

Rajan Sheet. The tilted current sheet of Solis's heliosphere, named for the cartographer who first mapped it. It tilts to 78 degrees at solar maximum and drives aurorae on every magnetised body in the system. See Solis in Chapter 33.

red armband. The single common marker of PUSDR's resistance under Eisenreich's occupation, which became the colour PUSDR was founded around, then a red helmet band, and

later a Kargopol marker. Chicano's post-revolutionary troops adopted a plain red cloth band as well. See Chapter 27.

Reeve. In the Syndicate's fief period, the official who ran a district for his Lord-Principal and collected the rents. See Chapter 4.

Renner Faction. The nationalist movement of Christonian economic self-determination led by the Conjunctioner Elin Renner from the 1190s AE, observing correctly that Christonia's president answered to Syndicate creditors before Christonian voters. A militant cell's failed bombing of the Syndicate capital's financial district in late 1249 gave the Syndicate its pretext for war. See Chapter 5 and Chapter 11.

Renner Prize. The prize awarded roughly once a decade to the paleogenetic work judged to have advanced the Descendant Problem furthest, named for the Renner family generations later by an unrelated descendant who funded it. It has been awarded eleven times, and no recipient has claimed an outright solution. See Chapter 1.

RH-10. See BH-10 "Volnyk".

ROA M4 "Sentinel Standard". The Republic of Anestria's semi-automatic service rifle of 900 to 1000 AE, in pale sand-toned wood with tan-parkerized metal and a wide ejection port and dust cover. Velemira's colonists were issued surplus examples. See Chapter 26.

RoLS "Kaelis". See BBG-01 Kaelis.

roundel. The Republic of Anestria's emblem from 641 AE: a sand-coloured disc with a date palm and a gold sun, ringed in red, iron-grey and green. It is worn on the left shoulder, and on aircraft and vehicles. See Chapter 29.

RS-1 Stealth Attack Drone. Bavaria's flying-wing unmanned strike aircraft with no vertical tail and an internal weapons bay. See Chapter 28.

RVO-1 "Lammergeier". Northland's strategic reconnaissance aircraft, large, slow and high-winged, bristling with sensor blisters and carrying no weapons. See Chapter 28.

S

Sanctuary Program. Safemoon's lunar programme, begun by the Moonhaven Spaceflight Authority in AE 1303, built on a philosophy of doubled and tripled systems and rehearsed abort modes. Two uncrewed precursor flights (AE 1304 and 1305) tested the full profile. Sanctuary I, in AE 1307, carried commander Ilsa Marrenkov and pilot Dorian Vask to Lira's surface and back. Marrenkov's recorded first words there were "Solid ground, and none of it ours to lose". See Chapter 13.

Sand Riders. The camel scouts and raiders of the Ferrosian Empire, in light cotton robes over a mail vest with a face-covering head-wrap. They were the one Imperial soldier who dressed like a

desert fighter. See Chapter 6.

SCS-98 "Phantom Seas". Solenne's nuclear-powered stealth supercarrier, the Syndicate Navy's old flagship concept modernised, with a low faceted island, angled deck edges and radar-absorbent dark grey paint. See Chapter 28.

SCV-67 "Blowback". Solenne's tall eight-wheeled heavy fire-support vehicle with a mid-sized autocannon turret and a retractable twin missile launcher, built to sit between an infantry fighting vehicle and a tank. See Chapter 28.

Seal-Mace. The gilt staff of the Table, topped with the three-peaks seal, carried before the Chair. It is still carried into the board room of the charter-houses. See Chapter 4.

SEP. Solar energetic particle events, the radiation storms of Solis's flares. Shelters must be rated for 10^5 pfu, and the Watchkeeper network warns of them. See Solis in Chapter 33.

SG-16 "Veyra". Skotia's aircraft, about 120 built between 1328 and 1346. See Chapter 28.

SH-9. The Schwalbenheim SH-9, a rifle rebuilt around Kargopol-standard ammunition, in which older desert-pattern furniture visibly sits on a newer barrel and action. See Chapter 26.

sixth-generation plateau. The level at which military technology stopped improving around 1320 AE, at about mid-6th-generation. Capability was not lacking: the resource dilemma could no longer be ignored, and investment shifted into space programmes and conservation. The Turncoat War and the Fourth Aridexian War were both fought with plateau hardware, with no leap past it. See the touchstone table and Chapter 18.

skarn. The mineral-streaked contact-metamorphic rock for which Skarnovia is named, formed where plates converge. See Skarnovia in Chapter 33.

Skarrin. A small, fast, intensely social ground-dwelling primate-analogue of Pan-Anestria's drier interior, living in troops of 40 to 200 with a complex vocal repertoire. Its stick-probing for insects was misread as evidence of shared ancestry with the Ardekai around 1000 AE. See Chapter 1.

Skotharbor Pattern. Skotia's maritime lever-action and bolt hybrid with brass fittings turned green and a rope-wrapped foregrip, the one Skarnovian small arm that is domestically produced. See Chapter 26.

SOI. Sphere of influence, the region in which a body's gravity dominates its neighbour's, computed by the patched-conics approximation. Aridexia's is 925,000 km and Keplanus's 78,400,000 km. See Appendix A.

solar yellow. Solenne's national colour, worn nowhere in the USN's drab palette and chosen on purpose to reach for light. In the Turncoat War it trimmed the shoulders and helmet band of Solenne's grey-tan plate carriers, and it ran out of dye in 1365. See Chapter 27.

SPA-41 "Howler". Chicano States' self-propelled artillery, with a long automatic howitzer barrel on a boxy tracked chassis with a large ammunition-handling housing at the rear. It is the gun thought to have fired on Safemoon's farmland in the Ashfields Campaign. See Chapter 28.

Special Origin. The family of pre-900 AE explanations of the Descendant Problem in which the Ardekai were a separate creation, favoured or placed rather than evolved. Several major religious traditions reached it independently. See Descendant Problem.

SPH-155. Solenne's self-propelled howitzer, about 150 built between 1336 and 1354. See Chapter 28.

SR-30. Solenne's service rifle, adopted in 1303 during Farren Vane's term, with series production from 1304, built by AVMS in the same plants as the AR-22. It is grey-tan where the AR-22 was black, with a translucent smoke-amber magazine, an integral carrying handle with a low-power optic and a folding stock, and it fires the 5.6mm Solennese cartridge. It is 1.07 m long and about 3.4 kg empty. Its grey-tan finish was a political statement and shows against dark terrain. The PSU standardised on it. See Chapter 26.

SR-9. The Syndicate's Garand-style semi-automatic rifle of 900 to 1000 AE, with a wood stock, a visible gas cylinder and a prominent bayonet lug. See Chapter 26.

stonebow. The steel-prod crossbow of the Syndicate's freeholder levy, spanned by a windlass, with a range of about 280 metres and a bolt every 20 seconds. See Chapter 4.

Storm Engine. The structural reason for Osprey's violent weather. The planet gets 83 percent of Aridexia's insolation but runs warmer because its atmosphere is 45 percent denser, so its heat capacity is enormous and the sea releases summer's heat in storms lasting weeks. See Osprey in Chapter 33.

Strata. PUSDR's active protection system, fitted from the JH-1A and kept on the JH-2 and JHT-3. The JH-1AZ uses the Kyshka system instead. See Chapter 28.

striped posts. The boundary posts between the Syndicate's fiefs, painted with gold and black chevrons to be seen in snow, fog and dusk. They are the origin of the gold-and-black hoist band on the Syndicate flag, the stripes on its warehouse doors and the hazard-striping that still marks Syndicate property. See Chapter 29.

Sunbow. The composite recurve bow of the Kingdom of Antares' light archers and riders. See Chapter 6.

superflare. A solar event of about 10^7 pfu expected about once in 200 years, causing system-wide induced-current events and likely satellite losses. See Solis in Chapter 33.

T

Table. The council of the twelve Lords-Principal of the Syndicate's fief period, one vote each, which made war and peace, set the levy and amended the weights and measures. It met at the Seat in a hall with twelve chairs and one empty thirteenth kept for "the Syndicate itself". The Table became the board of the charter-houses. See Chair and Chapter 4.

Tally-bill. The billhook polearm of the fief period. Notches along the shaft counted the men mustered under it, one per head, so that the shaft was the muster roll. See Chapter 4.

Tallyman. In the Syndicate's fief period, a clerk of the Ledger Court who kept the bonds, in a long black robe with a white collar band, a flat black cap with a gold tassel, a ledger and a house seal on a gold chain. Tallymen carried no weapon, wore more gold than any warrior below a Lord, and were the most feared people in any room. See Chapter 4.

Taran. The Taran Kingdom, a breakaway from Eisenreich that lasted a few years before joining PUSDR as its third republic. See Chapter 30.

TB-18. Bavaria's multiple rocket launcher, with 18 tubes in two rows of different sizes on a wheeled chassis. See Chapter 28.

TC-1. The Tiancheng TC-1, Xue Lin's small-batch precision rifle, smooth and minimalist, made for a small, well-educated population with little wish to use it. See Chapter 26.

TH-1. Bavaria's unmanned tank destroyer, a low crewless hull with a missile rack in place of a turret. See Chapter 28.

Threshold Accord. The agreement signed in late AE 1359 by Solenne, the joint Northland-Southland government, Chicano States and Anestria to prevent any other nation from spending Aridexia's last resource margin on a launch programme that DS-HP's own figures said could not succeed. In practice it meant covert sabotage of rival launch complexes and the shooting down of manned rockets in flight, which no signatory ever admitted. It led directly to the Fourth Aridexian War. See Chapter 22.

Thunder-pipe. A hand bombard of the Syndicate from about 290 AE: slow, inaccurate and frightening at a gate. See Chapter 4.

TK-10. PUSDR's legacy medium tank, an older low-profile hull with a thin long-barrelled gun and a rounded turret, kept in secondary and export service. See Chapter 28.

touchstone table. The table in the calendar reference that maps AE ranges to the rough technology of familiar historical eras: late Iron Age and early gunpowder before 0, Age of Sail to early Industrial from 0 to 500, Industrial to early 20th century from 500 to 900, mid-20th century from 900 to 1250, Cold-War tension from 1250 to 1300, post-nuclear collapse from 1300 to 1302, fast rearmament from 1302 to 1320, and the plateau thereafter. Aridexia goes from the Classical Age to nuclear weapons in about 1,300 years, faster than any real calendar, and the

table calibrates tone and leaves the dates alone. See Appendix B.

TRC-101 "Arquem". A Solenne transport aircraft that carried reinforcements in Operation Fenwick. See Chapter 19.

TRC-201 "Serbius". A Solenne transport aircraft, about 40 USN-built and about 190 Solenne-built, 1304 to 1350. It flew in Operation Fenwick. See Chapter 19.

tricolour (Anestrian). Red for Antares, iron-grey for Imperium and green for Anestria proper, set on sand. It has been on every Anestrian emblem since 641 AE and is in every flag the five successor states fly. See Chapter 29.

Trojan. An asteroid that shares a planet's orbit at its L4 or L5 point. Anquilla has three and Keplanus about 9,000 catalogued ones. See Chapter 33.

Turncoat War. See Project Turncoat.

TV-24 "Tempest". Solenne's six-wheeled infantry suppression vehicle, an 11.8-tonne, three-man armoured car with a six-barrel 20mm Gatling gun (3,500 rounds a minute, 1,800 carried) and twin TOW launchers on each side. It was deliberately under-armoured, fast at 122 km/h with a 760 km range, and fought in groups of four to eight. The TV-24B "Tempest Sustainment" is the static fire-support version, 13.6 tonnes, with 5,200 rounds ready and eight missiles, at 96 km/h and 620 km range. About 1,450 TV-24A (1303 to 1341) and 360 TV-24B (1306 to 1341) were built. See Chapter 19 and Chapter 28.

Typhon Astrobiology Programme. The institute headquartered at the Hearthlands Research Station that studies Typhon's native life, to determine whether its biochemistry is close enough to Aridexia's to be a cross-contamination risk. Every organism sampled uses left-handed amino acids and a DNA-equivalent. Its planetary-protection mandate said no to a large-scale landing, and its senior staff put their dissent on the record when DS-HP overrode it in 1341. See Chapter 21.

Typhon Corridor Fleet. The four vehicle families that fly the Aridexia to Typhon corridor: the Koedul-class Heavy Transport, the Asmedeus II-class Crew Transport, the Innus-class Relay and the Velt-class Survey Probe. Solenne's aerospace programme designed and built the two crewed and cargo classes. See Chapter 21.

U

UARRO. The United Aridexian Respective Resource Organization, begun around 1301 AE as a trade group among Solenne and its neighbours, each bringing a different resource niche. After PUSDR's conquest of Eisenreich, its members ratified a Foundational Charter around 1304 AE as a binding mutual-defence alliance. Solenne, Anestria and Bavaria hold permanent veto as Founding Members. The Pechorian Federation, the Safemoon Republic and Northland signed at ratification, and Christonia, Korveil and Hardluckia joined later, making nine members by Fenwick. Intelligence sharing runs through VEIL, and space operations through DS-HP. After the Fenwick crisis it reverted to a trade body, and it fractured for good in Phase I of the Last War. See Chapter 17.

UARRO Foundational Charter. The binding document ratified about 1304 AE that converted UARRO into a mutual-defence alliance. A Founding Member whose state is conquered or dissolved has its veto suspended, held jointly by the other two, and not lost. Members are obliged to defend and never to attack, and no member may spy on another's government or military. Strategic resources (semiconductors, uranium, rare earths and advanced weapons) get preferential pricing. See Article III and Chapter 17.

UMFI. Northland's experimental, never fully fielded unmanned interceptor, a slim tailless delta without a cockpit canopy. See Chapter 28.

Unbonded. In the Syndicate's fief period, travellers and newly arrived refugees without protection or obligations, who had a short time to find a bond or leave. See Chapter 4.

Uranium Crisis. See Chapter 14.

USN. The United Syndicate Nations, formed in 1250 AE when the victorious Syndicate absorbed Christonia and Mesaland into a single reconstruction union. It lost Christonia in 1276, kept its name and government through the Talona Crisis, and was destroyed by its own first strike on 17 January 1300 AE. See Chapter 11 and Chapter 14.

V

V-1201 "Titanmover". Safemoon's ultra-heavy breakthrough vehicle, with a huge boxy hull and twin cannon barrels in an oversized turret. Four were built (three as the A, one later rebuilt as the B), each costing 185 million, about twenty JH-1AZs apiece, paid for from UARRO resource-sector money. A Titanmover Railgun Carrier also exists, one built. It is the heaviest and most expensive vehicle on the map. See Chapter 28.

VAPIK. The coalition built around PUSDR, comprising PUSDR, Vessek, Safemoon, the Yeshuren Union and Nam Minh, that competed against Solenne's space programme in the Turncoat War. The record does not expand the initials. Chicano States' revolutionary government switched to its side in 1357. See Chapter 20.

VBA-478 Wraith. Solenne's V/STOL strike fighter, stubby and thick-bodied, with twin lift-jet intakes behind the cockpit and a main afterburning engine, built for carrier decks too short for catapults. About 88 were built between 1335 and 1353. See Chapter 28.

VEIL. Solenne's intelligence agency, the coordination hub for UARRO's shared intelligence. See Chapter 17.

Velis-1. The simplest functional probe Solenne could build: a spin-stabilised bus with two fixed solar panels, a photometer, a magnetometer and a low-resolution camera, designed for four to six months of life, to validate the Koedul-1 launch. See Chapter 13.

Velmoth. The largest native primate-analogue, a heavy slow canopy-dweller of Savorus's warmer forest belts. It is the most human-shaped of the four lineages, and so often cited as an Ardekai relative, a claim every genetic study has rejected. See Chapter 1.

Velt-class Survey Probe. The smallest and first of the Typhon Corridor Fleet, flown for over a decade before any settler left. Every biome map and landing-site survey of the Astrobiology Programme came from a Velt probe. See Chapter 21.

vent-margin mats. Typhon's most productive biome by biomass: thick, colony-forming algal mats fringing the shallow geothermal outflows of the Hearthlands. See Typhon in Chapter 33.

viriditas. The agricultural pesticide developed in the 3 AE period that turned out to poison luminonion with Carina-11. See Chapter 3.

Vivemus-1. The first orbital satellite, launched by Anestria in 1261 AE. See Chapter 13.

VMWP-902 A. Safemoon's quad-cannon fighting vehicle, with four rotary autocannon barrels clustered on a compact turret and an insectoid silhouette. See Chapter 28.

W

Warden. A rank of the USN's Black-Snake Corps, revived from the fief-period Pass-Warden, worn as three broad silver bands on the crimson cuff. See Chapter 27.

Watch and Endure. The Black-Snake Corps' unofficial motto, on a silver-on-graphite plaque under a crimson header. See Black-Snake Corps.

Watchkeeper network. The L1 early-warning network that gives 25 to 40 minutes' notice of solar particle events, the standard go or no-go threshold for crewed transit windows. See Solis in Chapter 33.

Water-Courts. In the Ferrosian Empire, the offices that owned the sluices, metered every channel and made water rights law. A governor who held the Water-Court held his oasis. See Chapter 6.

Waterkeepers. The officers of the Water-Courts. They remained under the Republic, but accountable. See Chapter 6.

White Lightning. See DET-3C White Lightning.

WMA-09 "Bat". Safemoon's heavy interceptor, a large twin-seat fighter with variable-sweep wings and a long slender radome, built to intercept threats far from the coast. See Chapter 28.

X

XF-79 "Phantom Talon". Chicano States' advanced stealth fighter, a needle-nosed airframe with no visible ordnance, in dark charcoal coating. Six were built (two prototypes and four pre-series), and it was the most technologically advanced thing Chicano ever built. See Chapter 28.

Y

Yedinstvo Treaty. The treaty that joined the Republic of Altyr and the Socialist Republic of Kargopol as PUSDR, with the right of any republic to leave by statewide referendum. See Chapter 32.

Z

ZH family. PUSDR's self-propelled air-defence vehicles on the stripped JH-1AZ hull. The ZH-3 "Nebosvod" has quad 25mm autocannons and an AESA radar, the ZH-3M "Nebosvod-M" adds four M4-RGTAMV missiles and a datalink, the ZH-4 "Granit" has two 25mm autocannons and six M7-RGTAMV missiles on a lengthened hull, and the ZH-5 "Kupol" carries four long-range M15-ERGTAMV missiles. See Chapter 28.

Zimmer-1 and Zimmer-2. PUSDR's explosive reactive armour: Zimmer-1 on the JH-1A and Zimmer-2 around the JH-1AZ's redesigned turret. See Chapter 28.

35 Chronology

Every dated event in the record, in order, from the diaspora to the end of the Fourth War.

Before the Calendar

Year	Event	Chapter
c. 50,000 years before GAW3	Humans evolve on Typhon, Osprey's moon, and a civilisation there reaches Aridexia as a tiny, traumatised founder population that must climb back from almost nothing. The Farside Anomaly may mark what ended the first Typhon civilisation.	Chapter 24
Before the calendar	Aridexian life follows an ordinary evolutionary path, from chemosynthetic microbes to land animals, the sources give no firm dates. No fossil links the native primate-analogues to the Ardekai, the gap known as the Aridexian Descendant Problem.	Chapter 1
c. 270 years before Year 0	Luluke, a union of city-states in the south of the Central Continent living on luminonion, and the Christonian state founded by Christian Palazzolo (whose memory is kept each 15 June) begin their two-century war over the Solvane floodplain, a dispute sharpened by a slow drying of the interior.	Chapter 2
Late in the war	Irwin's, later renamed AVMS, fields the first practical internal-combustion engine, the first rechargeable battery and the first semi-automatic rifle (the AG-01), the brass-armoured AV-1 becomes the first armoured fighting vehicle and gives Luluke a decisive edge.	Chapter 2
c. 40 years before Year 0	Eruptions and tsunamis strike the coastal city-states of the Phaeshan Federation on the Korut island chain, the cities are ruins by the time All-Finian sails arrive.	Chapter 3

0 to 99 AE

Year	Event	Chapter
0	Treaty of the 200-Year War ends the Luluke-Christonian war: reparations, ceded southern territory, a capped Christonian army and free movement for Luluke citizens. Luluke becomes a monarchy. Year 0 of the Aridexian Era.	Chapter 2
0-600	Helian, a confederation of coastal city-settlements on the north polar fringe, trades fish, whale-oil and ivory, its descendants are the Ilvennaq.	Chapter 9
0-500	The AG-14, a refined bolt-action descendant of the AG-01, is AVMS's standard infantry rifle of the Age of Sail era, exported wherever Syndicate trade reached.	Chapter 26
c. 3	The pesticide viriditas poisons the luminonion crop with Carina-11, famine, disease and mass exodus follow, and Christonia revokes the free movement of Luluke refugees.	Chapter 3
c. 3	The diaspora founds the Syndicate (Savorus), the All-Finian Empire (the Korut islands), Anestria (three founding kingdoms: Antares, Imperium and Anestria proper) and the Pechorian Federation, founded the same year as the Syndicate and never conquered since.	Chapter 3
c. 3 onward	The Syndicate flag, black and gold, bears a seal of twelve beads for the twelve founding fiefs (later charter-houses) around three peaks over water.	Chapter 29
3-340	The Syndicate's fief period: twelve fiefs held by contract bonds under a Table of twelve Lords-Principal, a rotating Chair and a Ledger Court.	Chapter 4
c. 3-310	Antares, Imperium and Anestria-proper exist as three kingdoms, each with a king and oasis-lords, fielding sunbow archers, the Imperium Ironclad and the Anestria farmer's levy.	Chapter 6
c. 20	The Syndicate makes a formal claim to the Skarnovian coast, the oldest of the three Scramble claims (later Kesarova).	Chapter 7
c. 20-210	The Skarnovian Scramble: Anestria and Christonia follow the Syndicate onto Skarnovia within two centuries, and by about 210 the three claims have hardened into fixed borders.	Chapter 7
By c. 40	The Syndicate's fief system is formed.	Chapter 4

100 to 199 AE

Year	Event	Chapter
c. 100	The Long Survey, jointly funded by the Syndicate and Anestria, charts both poles: the northern crew names Heliodysseia (midsummer sun that never sets), the southern crew names Kryodysseia (midwinter dark).	Chapter 25
100s-200s	Hired companies appear in the 200s as the Table's answer to the limits of the levy, the fief system matures.	Chapter 4

200 to 299 AE

Year	Event	Chapter
c. 220	Imperium's smiths, working the richest iron sands, pull a technological step ahead of Antares and Anestria proper and begin a slow conquest.	Chapter 6
c. 290	The thunder-pipe, a hand bombard, enters Syndicate use.	Chapter 4

300 to 399 AE

Year	Event	Chapter
c. 310	The desert continent is unified for the first time as the Ferrosian Empire.	Chapter 6
310 to 641	The Ferrosian Empire rules the desert continent under an Iron Throne, with Water-Courts, the Ironguard and the Collectors.	Chapter 6
c. 320	The arquebus enters Syndicate use with the hired companies.	Chapter 4
c. 340	The fief system gives way as Koedul's freight network proves worth more than land rent, the twelve fiefs are converted into twelve charter-houses by about 400.	Chapter 4
c. 360 to 412	Life of Vakkar Koedul, builder of the Syndicate's rail and canal network, later honoured by Solenne's heavy-cargo transport line.	Chapter 5

400 to 499 AE

Year	Event	Chapter
c. 400	The Litharic Church is formalised as the state religion of the Northern Tureshan Kingdom on Drozdov.	Chapter 8
By 400	The Syndicate has industrialised its home continent end to end.	Chapter 5

500 to 599 AE

Year	Event	Chapter
500s	Tureshan traders and missionaries carry the Litharic Church across the strait to northern Numaria.	Chapter 8
500 to 900	AVMS fields the AG-40 "Light Repeater" and the M-3 "Sentinel" tripod machine gun.	Chapter 26
c. 520 to 655	Rise and fall of the Karavynic Empire on Numaria, built on Litharic doctrine.	Chapter 8
535	The date Anestria's own founding myth gives for its unification ("three kingdoms, one short war, one democracy"), the sources date the real founding of the Republic to 641.	Chapter 6
550 to 850	A multi-century cooling trend pushes the ice line south and slowly breaks up Helian, leaving the fragmented Ilvennaq.	Chapter 9
By 560	The Karavynic Empire unifies very nearly all of Numaria under one crown.	Chapter 8

600 to 699 AE

Year	Event	Chapter
610	The Litharic Schism becomes public and irreversible, splitting Numaria's priesthood.	Chapter 8
630	The Karavynic Empire's outer provinces, the southern coast and the western mountain fringe, secede.	Chapter 8
630 to 641	The Ferrosian Rebellion's militia wears mismatched kit and a green armband, which becomes the Republic's first insignia.	Chapter 6
630 to 641	The Ferrosian Rebellion, a popular uprising, overthrows the last Ferrosian emperor.	Chapter 6
641	Founding of the Republic of Anestria, governed by an elected council answerable to each oasis.	Chapter 6
641	The Republic of Anestria forms a Council of Oases and a citizen Oasis Guard, and adopts its roundel (a date palm and gold sun) and a tricolour of red, iron-grey and green.	Chapter 6
655	The Karavynic core gives out and Numaria fragments into small hostile territories, never again united.	Chapter 8

700 to 799 AE

Year	Event	Chapter
700s	The first practical electric motor is developed in Luluke, independently of the war-era combustion work. By 700 the Syndicate, with nothing left to conquer at home, begins to look outward with capital.	Chapter 5
700s-800s	Syndicate-chartered trading companies move into Christonia, trading capital and machinery for concessions and influence.	Chapter 5
c. 795	Chicano States seizes about a quarter of Vessek's mountain territory.	Chapter 8

800 to 899 AE

Year	Event	Chapter
Before 900	Special Origin schools dominate explanations of the Aridexian Descendant Problem, with several religions independently teaching that the Ardekai were a separate creation.	Chapter 1
c. 800 to 1250	The Oasis Guard industrialises, keeping the green sash and roundel but trading robes for tan cotton drill.	Chapter 6
8th to 10th centuries	Anestria's industrial boom under MiguelTek moves from steam to oil and then to a uranium find.	Chapter 6
805	Salvador Reyes is acclaimed First Marshal of Chicano States, the Long Campaign against Vessek begins.	Chapter 8
806	The Ashwick War: the Battle of Ashwick Bay and the Fall of Calmouth within three weeks. Chicano also wins the Battle of Dorrenheim Heights against Vessek.	Chapter 8
807 to 808	The Talgrave War: the Battle of the Tolgen Fords (807), the siege of Vantor over the winter, and the Talgrave Armistice in early 808.	Chapter 8
809	The Corvath War ends after the Battle of the Corvath Crossing. A Chicano regiment is destroyed at the Kessel Pass.	Chapter 8
810 to 811	The Siege of Prynn: an assault fails in autumn 810 and a blockade forces surrender in 811.	Chapter 8
811	Reyes controls nearly all of Numaria except Vessek's highland core, including about 80 percent of Vessek's remaining territory.	Chapter 8
812	Reyes is killed in an ambush at Kelvath Hollow ("Every nation on this continent bent. Only the mountains never did"), his empire collapses within months.	Chapter 8
816	The coalition of former victims occupies Chicano States' home territory.	Chapter 8
Early 820s	Chicano States regains its independence, much smaller.	Chapter 8
c. 880	The printing press unifies Christonian as a written language, and Syndicate-funded presses use it back on the population.	Chapter 5

900 to 999 AE

Year	Event	Chapter
c. 900	A gold, copper and rare-mineral strike gives Luluke's economy a second wind. Anestria, led by the industrial house MiguelTek, is the region's second power after its 8th to 10th century boom.	Chapter 5
900 to 1000	The SR-9 rifle and PK-4 submachine gun enter Syndicate service, Anestria fields the ROA M4 "Sentinel Standard" semi-automatic rifle.	Chapter 26
c. 900 to 1100	The Convergence Hypothesis, born when comparative genetics matures, becomes the mainstream textbook answer to the Descendant Problem for roughly two centuries.	Chapter 1
c. 950	The last true Tureshan settlements thin out and the Northern Tureshan Kingdom ends by emigration.	Chapter 8
c. 950 onward	The fringe Discontinuity or Arrival theories, holding that the Ardekai arrived on Aridexia already formed, begin, "arrival theorist" becomes an academic insult.	Chapter 1
980	Luluke opens its first international trade relationship, a compact with the All-Finian Empire.	Chapter 5

1000 to 1099 AE

Year	Event	Chapter
c. 1000	Bavaria's prospectors reach Drozdov, copper, rare-earth and uranium strikes build Bavaria. Christonia reaches mid-20th-century industrialisation, most of it answering to Syndicate boardrooms.	Chapter 8
1000 to 1250	The AR-22 "Vanguard", the Syndicate's first select-fire assault rifle (6.8mm Syndicate, made at AVMS's Corvenna works), is adopted well before GAW1 and later carried by the whole coalition. Eisenreich's IR-11 "Ironhand" rifle enters service from the 1000s.	Chapter 26
c. 1000	For a few decades, Skarrin stick-tool use is treated as evidence of shared cognitive ancestry with the Ardekai before being rejected.	Chapter 1

1100 to 1199 AE

Year	Event	Chapter
Mid-1100s	Anestria builds the system's first experimental fission reactor from a uranium find.	Chapter 6
about 1120	The Southern Survey: Chicano States, the All-Finian Empire and Arvansk build three stations on the edge of Kryodysseia's ice under one charter that bars weapons and warships, the origin of the south pole's gentleman's agreement.	Chapter 9
1190s	Elin Renner breaks from the Conjunctioner council and founds the Renner Faction.	Chapter 5

1200 to 1249 AE

Year	Event	Chapter
Early 1200s	Anestria conducts the system's first nuclear weapons test, as insurance against the Syndicate.	Chapter 6
1200s	Anestria fields the ROA AR-7 assault rifle in the same decade as its first nuclear test. Luluke's Kaldrun Pattern rifle remains in service into the 1200s.	Chapter 26
1225	Birth of Nikolai Nichozh on the Candrasian frontier, son of a Christonian garrison general and a conscripted labourer.	Chapter 10
1240s	The Renner Faction's militant offshoots conclude persuasion has failed.	Chapter 5
Late 1249	A Renner Faction cell bombs the Syndicate capital's financial district, killing a handful of clerks, the Syndicate takes it as a pretext.	Chapter 5

1250 to 1259 AE

Year	Event	Chapter
October to November 1250	Thirty-Day War (GAW1, the War of Christonian Liberation): the Syndicate, Anestria, Luluke and the All-Finian Empire defeat Christonia, first large-scale use of tanks, aircraft carriers and field artillery. Casualties: Syndicate 1,442, Anestria 611, Luluke 993, All-Finian 302, Christonia 4,025.	Chapter 11
1250	The Syndicate absorbs Christonia and Mesaland into the United Syndicate Nations (USN).	Chapter 11
1250	Nichozh, aged 25, survives the Thirty-Day War as a conscript, the USN folds Christonia's frontier garrisons into its order of battle.	Chapter 10
October to November 1250	Uniforms of the Thirty-Day War: Syndicate olive-drab wool, Anestrian khaki drill, Luluke grey-green greatcoats, All-Finian blue-grey with anchor-and-island badge, Christonian khaki and steel pot.	Chapter 27
1250	The United Syndicate Nations adopts a black-and-crimson flag of eight wedges bearing the ouroboros, gold is dropped because the union was financed on the Syndicate's credit.	Chapter 29
October to November 1250	Anestrian infantry in the Thirty-Day War wear tan-khaki cotton drill with canvas gaiters and a roundel at the left shoulder.	Chapter 27
c. 1252	Tianhai, a small, highly educated enclave, breaks away peacefully from the USN and is let go.	Chapter 9
1250s	Nichozh's night flanking manoeuvre through terrain thought impassable earns him promotion, he is a captain before 30.	Chapter 10
c. 1258	First flight of the Chicano States CS-XF-79 Phantom Talon in the pre-GAW2 dominant era, only six are ever built and the programme dies as GAW2 consumes the budget.	Chapter 28

1260 to 1269 AE

Year	Event	Chapter
1260	Support for Christonia's recovery lapses, Anestria first, citing its energy crisis.	Chapter 12
1261	Anestria launches Vivemus-1, the system's first orbital satellite.	Chapter 13
1262	Anestria, Luluke and the All-Finian Empire form HAFDAP, the Historic Alliance For Democracy And Prosperity.	Chapter 12
1262	Farren Vane is born, he rises to be a high-ranking USN general by his late thirties and learns of the Uranium Crisis programme from inside.	Chapter 16
By 1264	The Republic of Altyr and the Socialist Republic of Kargopol, joined in the years before the occupation by the Yedinstvo Treaty (with the right of any republic to leave by statewide referendum), have been conquered and annexed by Eisenreich. The occupation lasts generations.	Chapter 15
1264	The USN moves to annex the Pelruvian Archipelago, starting the Second Aridexian War (GAW2) between the Communist Power Alliance and HAFDAP.	Chapter 12
1264 to 1276	Nichozh holds the frontier command through GAW2, his mountain-pass and relief-of-garrison actions are later taught in Northland's academies.	Chapter 10
1264 to 1276	Anestria's first true desert uniform, in sand-tan synthetic blend, is introduced in GAW2, with the first synthetic air-crew suits.	Chapter 27
1265	Anestria flies the first crewed capsule, Deep Space Human Preservation (DS-HP) is founded.	Chapter 13
1268	Velemira declares independence from Anestria.	Chapter 7

1270 to 1279 AE

Year	Event	Chapter
By 1270	DS-HP operates launch sites, assembly facilities and tracking stations on several continents.	Chapter 13
1264 to 1276 (by 1270)	GAW2 uniforms change inside the war: wool and leather give way to cotton-synthetic blends and field jackets by 1270, the USN's insignia becomes a stamped steel pin, Anestria fields the first true desert uniform, the AFN an amphibious waterproof jacket, and PUSDR's resistance the red armband.	Chapter 27
1276	GAW2 ends: Christonia regains full independence, Mesaland ceases to exist, the USN survives crippled on Savorus. DSY 0 is set at this year.	Chapter 12
After 1276	Tianhai builds a friendship with PUSDR's resistance and government-in-exile, Nam Minh is founded on southern Numaria, Arvansk renames itself the Yeshuren Union after GAW2.	Chapter 9
After 1276	The AR-22A is introduced from lessons of GAW2, Nam Minh adopts the Minh Chau MC-2 after GAW2.	Chapter 26
1276 (DSY 0)	DSY 0, the epoch of the Deep Space Year calendar used in the planetary dossier, falls on AE 1276, Aridexia is at perihelion.	Chapter 13

1280 to 1289 AE

Year	Event	Chapter
1286 to 1290	Talona Crisis: Coastville breaks away as the Confederate States of Talona, Operation Black-Snake fails to kill its leadership but destroys its only warship and main tank depot, Talona is reabsorbed as an autonomous province.	Chapter 13
1288	First crewed Lira landing (DSY 12), during the Talona Crisis.	Chapter 13
1288 (DSY 12)	The first crewed landing on Lira is made at Mare Concordis.	Chapter 13

1290 to 1299 AE

Year	Event	Chapter
1290	After the Talona Crisis the USN adds an Eye to the ring of its flag, for the Office of Watch, its new security service. This is the version the world knows.	Chapter 29
1290	The USN forms the Black-Snake Corps from the survivors and instructors of Operation Black-Snake, as its praetorian formation in bone, crimson, graphite and silver, with the motto CONTINUITY.	Chapter 27
1291	First flight of the Anestrian PK-P1 Parrot Lord fleet-defence fighter, the USN also designs the TRC-201 Serbius transport this year.	Chapter 28
1292	First flight of Eisenreich's IR-40 Ironback, the airframe later flown by PUSDR as the CKK-10 Poing.	Chapter 28
1294 (DSY 18)	The Orjust Pipeline begins operating, delivering about 140 tonnes a year of refined metals to the Aridexia-Solis L1 propellant depot.	Chapter 13
1295 to 1300	The Parrot Lord (PK-P1), 78 built, is produced for Anestria.	Chapter 28
1295	The PK-P1 Parrot Lord enters Anestrian service, 78 are built to 1300 and 41 survive GAW3.	Chapter 28
1299	Comet Vairon passes perihelion (DSY 23), the Uranium Crisis, the USN's covert nuclear programme fed by the Vaurek Concession, is one year from its end.	Chapter 14
1299 (DSY 23)	Comet Vairon passes perihelion, the "Year of Two Tails", with visible coma at 0.8 AU, in the year before the Third Aridexian War.	Chapter 13
Before 1300	Farren Vane goes into hiding and erases every record of his USN service.	Chapter 16

1300 to 1309 AE

Year	Event	Chapter
17 January 1300	Third Aridexian War (GAW3): eleven USN bomber squadrons strike, six warheads hit Port Dionysis, Christona, Apokka, Sulsbury, New Geneva and Freeport. The All-Finian Empire answers with two strikes and dissolves at 6:30 AM, Anestria destroys the USN mainland with conventional bombers, the USN ceases to exist that evening.	Chapter 14
1300	PUSDR's population rises in revolutionary civil war amid the chaos of GAW3.	Chapter 8
1300 to 1302	The All-Finian Empire is disbanded into independent city-states, Anestria fractures into five successor states, Solenne is founded as a democracy on the USN's ground, named for Solis, with yellow as its colour.	Chapter 15
1300	At 75, with Christona destroyed and no chain of command left, Nichozh turns his command against the clan-holdings of Candrasia's north: the Verrenkai, Kholvag, Drenmoor and Oyun-Tash.	Chapter 10
17 January 1300	GAW3 uniforms: USN bomber crews wear charcoal flight suits with no unit patches, Anestrian marines take the USN capital in ceramic armour and the first NBC overgarments.	Chapter 27
1300 to 1308	Farren Vane serves a single term as Solenne's first Jakaar.	Chapter 16
Revolution against Eisenreich	PUSDR fields prototype AS-17 rifles and the ASP-20 launcher in the Great Revolution, it captures Ferrengrad Arms' factories and builds the People's IR-11M, IR-15 and IR-10.	Chapter 26
After 1300	GAW3 confirms that a species with one homeworld is one bad century from having none, DS-HP's warnings go unchallenged.	Chapter 21
1300	Farren Vane designs the Jakaar system, runs in Solenne's first election and wins, he serves a single eight-year term as first Jakaar (1300 to 1308) and then passes the office to loyal successors through the appointed-finalist mechanism.	Chapter 16
1300	The USN flag, Eye and ring are banned in Solenne in its founding year, and display of the Black-Snake Corps's insignia becomes a crime. The Corps is among the first formations the collapse destroys. The Black-Snake Corps field order of 1300 is worn with the AR-22 carbine.	Chapter 29
1300	Solenne adopts its blue, gold and cream flag: a sixteen-ray sun around a star in a laurel ring, with five seals on the cream hoist band, and a Jakaar's standard with a double gold border.	Chapter 29
17 January 1300	Anestrian marines take the USN capital in ceramic-plated armour and the first NBC overgarments issued in numbers, the Republic is struck and fractures.	Chapter 27
1300 to 1305	PUSDR wins its revolutionary civil war, the Great Revolution, and conquers Eisenreich outright, capturing the Ferrengrad Arms factories and the airframe hall intact.	Chapter 15
1300 to 1305	In Eisenreich's civil war PUSDR gains two more republics. The Taran Kingdom, a breakaway that lasted a few years, and the Federal Province of Kinzel, which lasted one month, both join, so that four republics stand in the Union. The record gives no dates.	Chapter 15

Year	Event	Chapter
After 1305	PUSDR adopts its third flag after the occupation ended, with uneven gold rays from the emblem.	Chapter 29
December 1301 to February 1302	Vinear Coast War between the Constitutional Anestrian Republic (CAR) and the Kingdom of Antares, siege of Bredezen and Battle of Ornwellburg.	Chapter 15
c. 1301	UARRO (the United Aridexian Respective Resource Organization) is founded as a trade group among Solenne and its neighbours, Kargopol forms around PUSDR, PUSDR becomes patron of the Yeshuren Union.	Chapter 17
1301	The TV-24 Tempest is designed as Solenne's first indigenous vehicle.	Chapter 28
1302 to 1359	The five Anestrian successors (CAR, Antares, Imperium, New Virgen, the Antilla-Vegan Union) field the shared AR-7 with their own flags and patches.	Chapter 6
1303	Safemoon founds the Moonhaven Spaceflight Authority and the Sanctuary Program.	Chapter 13
February 1303	The last Oyun-Tash resistance is broken in a glacial valley, the worst single day of bloodshed the region had known, Nichozh, 78, loses the use of one eye. Northland is founded as one nation. His father is killed in a night confrontation.	Chapter 10
1303	The Solenne SR-30 (5.6mm Solennese, built by AVMS) is formally adopted, with series production from 1304.	Chapter 26
1303	The TV-24A Tempest enters Solenne service (the TV-24B follows in 1306 and production runs to 1341), PUSDR brings the captured IR-40 into service as the CKK-10 Poing in March.	Chapter 28
1304 to 1305	Two uncrewed Sanctuary precursor flights are flown and recovered.	Chapter 13
c. 1304	The UARRO Foundational Charter is ratified: Solenne, Anestria and Bavaria hold permanent veto, Pechoria, Safemoon and Northland join as full members, with a mutual-defence clause.	Chapter 17
1304	Solenne restarts production of the TRC-201 Serbius transport on the USN's tooling, only about 30 airframes exist at Operation Fenwick in 1305.	Chapter 28
1305	Operation Fenwick: PUSDR, having absorbed Eisenreich, moves on Safemoon, Solenne runs a covert interdiction using TV-24A Tempest armour, N-14 Asmedeus strike aircraft with AGM-11 Inferno missiles and TRC-201 Serbius / TRC-101 Arquem transports. The name Eisenreich is off the map by this year.	Chapter 19
Later in Nichozh's rule	The Iron Union, an ethno-supremacist enclave led by his half-brother, is militarily defeated on his order to take no garrison alive. By the time of Fenwick UARRO has nine members (Christonia, Korveil and Hardluckia join later).	Chapter 10
1306	First flight of the PUSDR DKK-1 Flapjack, the JH-1 tank line begins at the Zhokrova Tank Plant from the OT-3 competition winner.	Chapter 28
1307	Sanctuary I carries Ilsa Marrenkov and Dorian Vask to Lira and back ("Solid ground, and none of it ours to lose"), the outer-system economy and Aurelia mining are mature (DSY 31).	Chapter 13
1307 (DSY 31)	Aurelia mining on Keplanus's moon system is established and the outer-system economy is mature.	Chapter 13

Year	Event	Chapter
1309	The DKK-1 Flapjack enters PUSDR service.	Chapter 28

1310 to 1319 AE

Year	Event	Chapter
A few years after the expansion	Northland's lower third splits away as Southland by mutual decision.	Chapter 10
1316	The CKK-10E1 Poing-B begins export to Nam Minh (about 36), exports to the Yeshuren Union (about 30) begin in 1320.	Chapter 28
1318 to 1320	Reclamation War: Chicano States attacks Vessek, Safemoon enters and is driven back to Moonhaven (siege stalls), Nam Minh declares war in 1319 with PUSDR backing, a ceasefire in 1320 leaves Chicano gains on Vessek's mainland fringe.	Chapter 19
1318 to 1320	Reclamation War uniforms: Chicano rust-brown kit, Vessek mountain clothing, Safemoon charcoal-blue fatigues, Nam Minh olive-green, with Kargopol AS-17 pouches and the first red armband bands as a Kargopol marker.	Chapter 27
1319	First flight of the PUSDR DKK-80 Grendel helicopter.	Chapter 28

1320 to 1329 AE

Year	Event	Chapter
1321	The DKK-80 Grendel enters PUSDR service. Safemoon designs its V-1201 Titanmover superheavy tank after the siege of Moonhaven.	Chapter 28
1322	The DET-3A White Lightning directed-energy tank enters Solenne production, after a six-vehicle trials troop fought in the Reclamation War.	Chapter 28
1324 to 1327	620 CKK-10 aircraft are rebuilt to M standard.	Chapter 28
1325	First flight of the Skotian SG-16 Veyra.	Chapter 28
1326	The BH-10 Volnyk enters PUSDR service with the Airborne Landing Force, Solenne's DET-3C White Lightning is introduced, Safemoon begins building four Titanmover hulls (to 1334).	Chapter 28
1328	Nikolai Nichozh dies of natural causes at 103.	Chapter 10
1328	The SG-16 Veyra enters Skotian service as a light fighter, and is reassigned to training from about 1338.	Chapter 28
1329	Vaussen Vane, Farren and Lensi's first child, is born when Farren is 67. Cassius Altyr, later head of state of PUSDR, is also born this year.	Chapter 16
1329	First flights of the Bavarian AH-9 attack helicopter and the Solenne F/A-8 Chimera, the Bavarian BL-1 tank enters service.	Chapter 28

1330 to 1339 AE

Year	Event	Chapter
Over a decade before 1341	Uncrewed Velt-class survey probes map Typhon's biomes and landing sites before any settler leaves Aridexia.	Chapter 21
1331	The JH-1AZ Stena tank, the Solenne 8x8 IFV (SCV-67bv8) and the CAR's B-4/2 tank enter service, first hover of Solenne's VTOL Strike Jet 478 Wraith.	Chapter 28
1332	The F/A-8 Chimera enters Solenne service.	Chapter 28
1333	The AH-9 enters Bavarian service and the Solenne GA-7 Anvil enters service.	Chapter 28
1334	Twins Marcus and Lilian Vane are born.	Chapter 16
1334	The Northland-Southland GC-1 Andrew gunnery car enters service.	Chapter 28
1335	The Imperium OMBT-1 tank and the Solenne VTOL 478 Wraith enter service.	Chapter 28
1336	The Chicano States CS-1 tank and the Solenne SPH-155 self-propelled howitzer enter service.	Chapter 28
1337	Malakor Vane is born when Farren is 75.	Chapter 16
1337	First launch of the Solenne / DS-HP Asmedeus-1 heavy-lift booster.	Chapter 21
1338 to 1341	DS-HP overrides the Typhon Astrobiology Programme's planetary-protection mandate, over recorded internal dissent.	Chapter 21
1338	First flight of the Antares AF-50 and of the Asmedeus II crew transport, the Solenne MK-72M1XT tank enters service, the DKK-1M modernisation begins (to 1350).	Chapter 28
1339	The Light Vessel IV corvette enters Nam Minh service, one Titanmover is lost to a drivetrain fire.	Chapter 28

1340 to 1349 AE

Year	Event	Chapter
1340	Vaussen Vane, tested at 11, scores 172, Farren orders Department-Y to escalate the intelligence protocol and abduct more children.	Chapter 16
1341	Several thousand settlers reach Typhon's Hearthlands in Asmedeus Habitat Modules lifted by Asmedeus-1.	Chapter 21
1341	The first settlers reach Typhon on Asmedeus II-class crew transports, Koedul-class heavy transports carry every early structure on the moon.	Chapter 21
1341	The first colonisation wave, several thousand settlers, reaches Typhon's Hearthlands and finds a moon that has clearly been mined before.	Chapter 21
1341 to 1360	Nineteen years of hard but hopeful building at Hearthlands, among tidal-flexing volcanic ground and under the Astrobiology Programme's leash, with the colonists still all simply Ardekai.	Chapter 21
1342	Farren Vane discovers Lensi's affair with the head of the Department of Trial and shoots him dead, a killing that never becomes public.	Chapter 16
1344	The AF-50 enters Antares service, first production of the Chicano States CS-AADS-12 Skyfang.	Chapter 28
1345	Marcus and Lilian Vane, tested at 11, score 201 and 208.	Chapter 16
1346	One Titanmover is rebuilt as Variant B.	Chapter 28
1347 to 1351	The two prototypes of the PUSDR MSSB-1 strategic stealth bomber are built.	Chapter 28
c. 1348	Malakor Vane, tested at 11 after a final unrestrained protocol, scores 260, an Aridexian record, at the cost of bipolar disorder, ADHD and psychosis.	Chapter 16
1348	First flight of the Pechorian PSB-4 Ostrog bomber, deliveries run 1350 to 1356.	Chapter 28
1349	First flight of the Northland IADM-6, the SCV-67 replaces the 8x8 IFV in front-line Solenne service, the lead ship of the Kaelis class and the Titanmover railgun carrier conversion appear.	Chapter 28

1350 to 1359 AE

Year	Event	Chapter
1350	First flight of the Solenne F-A-25, limited deliveries begin in 1352.	Chapter 28
1352	The JH-1AZ-B tank is first fielded by PUSDR.	Chapter 28
1353 to 1358	Chicano States takes Solenne president Malakor Vane's bribes, by 1357 the government is bankrupt and overthrown by a revolution led by a Reyes descendant, which joins VAPIK in the final year of the Turncoat War.	Chapter 20
1353	Malakor Vane becomes president of Solenne and Project Turncoat begins redirecting resources toward making Solenne the power that decides the colony's future.	Chapter 20
1353	Malakor Vane, aged 16, is appointed into the final election and wins the Jakaar's office, beating his brothers Vaussen and Marcus. Early in the presidency he rejects Department-Y's sympathy medication for good.	Chapter 20
1353	Production MSSB-1 bombers begin (five to 1357), the Titanmover railgun carrier is scrapped for parts.	Chapter 28
1354 to 1358	The Turncoat War: Solenne's president Malakor Vane bribes Northland-Southland, Chicano States and the Anestrian successors to sabotage rival Typhon programmes while Solenne builds the only real one, Solenne's navy takes the Korut Islands, the war's one permanent territorial result, and Numaria stalls into stalemate. Malakor leaves for Typhon mid-stalemate.	Chapter 20
1354	Cassius Altyr is 25 when the Turncoat War begins. Solenne's navy takes the Korut Islands (Halvern, Korveil, Finhaven, then Skerrow), leaving only Tavelin uncommitted, Malakor commits PSU funds to Project Turncoat and bribes Northland-Southland, Chicano States and the Anestrian successors.	Chapter 20
c. 1354	Solenne begins military operations inside its bribed client states to shoot down crewed VAPIK launches, the doctrine the Threshold Accord later adopts.	Chapter 20
1354	Second Kaelis-class ship launched, the third is cancelled in 1356 for want of rationed materials.	Chapter 28
1355 to 1357	Four CS-MLRS-26 Sickle launchers are built for Chicano States with Solenne-supplied missiles, the 1357 revolution ends the money.	Chapter 28
1356	New-build CKK-10M production begins in PUSDR (about 130 to 1357), one MSSB-1 is lost striking Solenne's Korut-based fleet.	Chapter 28
1357	A revolution led by a descendant of Salvador Reyes overthrows Chicano States' bribed government, the new government tears off the old marks and adds a plain red band.	Chapter 20
c. 1357	Isador Reyes, the 29-year-old Chicano States revolutionary leader and a Reyes descendant, fights on the VAPIK side in the war's largest battles.	Chapter 20
1358	The Turncoat War ends.	Chapter 20
1358	Malakor Vane leaves for Typhon mid-stalemate, with no treaty or surrender, ending the Turncoat War for him, the land war on Numaria has stalled.	Chapter 20
1359	DS-HP's accounting shows Aridexia can sustain only one off-world effort. In late 1359 Solenne, Northland-Southland, Chicano States and Anestria sign the Threshold Accord to stop any other launch programme, GAW4 begins. Phase I, the Diplomatic Resource War, runs to 1361 and fractures UARRO for good.	Chapter 22

1360 to 1371 AE

Year	Event	Chapter
1360 to 1366	The Fracture: the colony splits between Ardekai (continuity with Aridexia) and Ospyran (a clean break, named for Osprey).	Chapter 21
1361 to 1363	Phase II of GAW4, the Proxy War: Bavaria and Pechoria arm dissidents in the Anestrian successor states and PUSDR does the same in Chicano's southern territory.	Chapter 22
1361 to 1363	Bavarian and Pechorian-armed separatist militias fight in improvised kit inside the Anestrian successors.	Chapter 22
1363 to 1365	Phase III, the Terrorist Campaign: attacks on launch sites and spaceports, DS-HP's headquarters is bombed twice, authority frays inside the four signatory states from 1363.	Chapter 22
1365	Phase IV, Open War, begins. Solenne, Northland-Southland (capital falls), Chicano States and the Anestrian successors are the first governments the war costs, yellow dye runs out in Solenne's issue and insignia come off first.	Chapter 22
c. 1365	The last coherent transmissions from Aridexia, describing the enforcement of the Threshold Accord, reach Typhon, the signal then thins out over following years.	Chapter 22
1365 to 1368	The Anestrian successor conscript's kit decays, every unit insignia comes off first.	Chapter 22
1366	Numaria and Drozdov go down together: PUSDR, Bavaria, Safemoon and the Pechorian Federation lose their governments. Typhon's own Ardekai-Ospyran War runs 1366 to 1371.	Chapter 22
1366	Land claims around Hearthlands' two richest remaining ore pockets are made twice, by an Ardekai and an Ospyran council.	Chapter 21
1366 to 1371	The Ardekai-Ospyran War on Typhon, costing proportionally more lives than any named Aridexian war and producing no winner.	Chapter 22
1367	Christonia, Einsenia, Ostrenia, Velemira, Kesarova and Dravensk lose functioning central government.	Chapter 22
1368	The All-Finian successor city-states, Luluke, Skotia and Tavelin fall, starved of trade, by 1366 to 1369 insignia vanish and field repairs become universal.	Chapter 22
1369	Nam Minh, the Yeshuren Union and Xue Lin lose their patrons' protection and collapse.	Chapter 22
1371	Hardluckia and the Schwalbenheimers, the last governments on Aridexia, fall, fighting stops from exhaustion with no armistice or treaty, and their desert troops are the last uniformed armies.	Chapter 22
1371	A joint Ardekai-Ospyran survey finds a flooded cave system between Hearthlands and Farside Reach and, in an air pocket, a skull about 50,000 years older than GAW3, it proves humans did not evolve on Aridexia.	Chapter 23
Within a year of the skull	The Farside excavation site becomes the most-visited place on Typhon, for Ardekai and Ospyran settlers alike.	Chapter 24

TIME ON ARIDEXIA

The Aridexian Era, the Deep-Space Year and the other ways the record counts time

THE AE RULER, -270 TO 1371



THE SAME YEARS AS DSY 0 TO 95, THE CALENDAR OF DS-HP

1 DSY 0 = AE 1276
GAW2 ends. The USN survives, crippled. Aridexia is at perihelion.

2 DSY 12 = AE 1288
First crewed landing on Lira, at Mare Concordis, during the Talona Crisis.

3 DSY 18 = AE 1294
The Orjust Pipeline begins operating.

4 DSY 23 = AE 1299
Comet Vairon passes perihelion, the Year of Two Tails. The Uranium Crisis, one year from its end.

5 DSY 24 = AE 1300
17 January: GAW3.

6 DSY 31 = AE 1307
Aurelia mining is established. Sanctuary I flies.

7 DSY 65 = AE 1341
The first settlers reach Typhon.

8 DSY 83 = AE 1359
The Threshold Accord is signed.

9 DSY 95 = AE 1371
The last war ends.

THE RULES

AE, the Aridexian Era
Year 0 is the Treaty of the 200-Year War, which ended the Luluke-Christonian war and opened the Classical Age. Earlier years carry a minus sign. Before that is deep prehistory, deliberately left vague. Every date in the book is AE unless marked.

DSY, the Deep-Space Year
DS-HP's own calendar. DSY = AE - 1276, so AE = DSY + 1276. DSY 0 is AE 1276. The anchor was chosen so that every DSY date in the planetary dossier converts by simple addition: 12 is 1288, 23 is 1299, 31 is 1307.

The year and the day
One AE year and one DSY year are the same thing, one orbit: 365.25 days, with no dilation or compression. Aridexia's sidereal day is 23 h 56 m 4 s. Lira orbits in 29.84 days, 31.2 between like phases.

Other ways of counting
Deep time is counted back from GAW3: the skull is about 50,000 years before it. The Christonian calendar keeps Christian Palazzolo's memory every 15 June. The date everyone knows is 17 January 1300, the night of the strike.

AE counts every year from the treaty of Year 0, DSY counts from 1276 for DS-HP, and the two share the same orbit of 365.25 days.

Plate: AE counts every year from the treaty of Year 0, DSY counts from 1276 for DS-HP, and the two share the same orbit of 365.25 days.

36
Datasheets of the Canon Machines

One datasheet for every finished machine in the canon: air, ground, naval and space. Each gives the role, the history, the dimensions, the weights, the performance, the honest limits of the design, and its production and service record. Where a figure is an estimate the sheet says so.

Aircraft

AF-50 Twin-Engine Multirole Fighter

Air · Operator: Kingdom of Antares · finished model and spec sheet





Role

Signature-shaped air-superiority / multirole fighter: beyond-visual-range air combat first, precision strike second.

DIMENSIONS (as modeled)

Length 20.2 m (pitot 21.3 m) Span 13.7 m (13.8 m over tip rails) Height ~4.9 m (fin tips)
Wing: 42 deg LE trapezoid, root chord 6.3 m at the body side (7.8 m extended to the centreline), tip chord 1.7 m, 2 deg anhedral, t/c 4.5 to 3.5 %, gross area 64.6 m2 (integrated from the planform), aspect ratio 2.9, canopy 2.7 m long, 0.67 m above the skin Twin fins canted 25 deg outboard, 2.7 m span, all-moving stabilators 3.1 m span each
Measured from the mesh: fuselage wetted 130 m2 / enclosed volume 51.6 m3, wing wetted 97.4 m2 / volume 6.82 m3

WEIGHT (derived)

Internal fuel ~11,700 kg: fuselage volume 51.6 m3 minus engines (9.0), ducts (2.8), nose/cockpit (3.6), bays (2.1), afterburner bays (4.2) leaves ~30 m3, 45 % usable = 13.5 m3, plus ~1.1 m3 in the wing box
Empty 18,500 kg Clean take-off (full fuel, 4 AAM) 31,000 kg MTOW 37,000 kg

Powertrain

Intake capture (two raked trapezoidal side mouths, measured outline) ~0.68 m2 to ~133 kg/s total airflow 2x low-bypass afterburning turbofans, 0.9 m class: 62 kN dry / 98 kN wet each (124 / 196 kN total) Fixed caret intakes with boundary-layer splitter plates, round convergent nozzles with petal seams T/W 0.81 at clean take-off, ~1.0 at combat weight (50 % fuel)

PERFORMANCE (derived)

```
Max speed Mach 1.8 at altitude (fixed-geometry intakes), 1,350 km/h at sea level, supercruise ~Mach 1.1 dry cl
Wing loading 480 kg/m2 clean take-off, ~400 kg/m2 at combat weight
Take-off run ~450 m afterburner, landing roll ~700 m
Combat radius ~1,100 km (internal fuel, 4 AAM, high altitude)   Ferry ~3,200 km
Sustained turn ~17 deg/s, instantaneous ~24 deg/s (5,000 m)   +9 / -3 g   Ceiling 16,500 m
```

Crew

1 pilot under a two-piece bubble canopy (swept aft bow, rear hinge), zero-zero seat

ARMAMENT (as modeled)

2x long-range AAM on underwing pylons (x = +/-3.4 m), 2x short-range IR AAM on the wingtip rails Internal cannon port on the starboard upper fuselage, further hardpoints and internal bays unmodelled

Protection

Signature shaping (chined nose, canted fins, aligned edges) rather than armour, self-sealing tanks

Sensors

Nose radar behind a small dielectric tip, IRST ball ahead of the windscreen, dorsal/ventral antenna blades, RWR and chaff/flare (not modelled)

MOVING PARTS (hinged objects)

Flaperons (78 % chord hinge, posed 5 deg), rudders on both canted fins, all-moving stabilators (pivot at 40 % root chord, posed -3 deg), canopy on its rear hinge, nose/main gear with doors

Honest Limits

Fixed intakes cap it well short of Mach 2, the stores in the image are external, so the stealth shaping only pays off clean, big fuel fraction means a heavy airframe and long take-off at MTOW.

Source

Production And Service

```
Operator:        Kingdom of Antares
Tier:            Limited production
Programme:       First flight 1338, service entry 1344.
Built:           36 (3 prototypes + 33 series, 1338 to 1352)
In service:      about 29 flying
Unit cost:       about 38M (notional common unit, comparable only within this list)
Industry:        Antares State Aircraft Works, on tooling and engines inherited from the old Anestrian (ROA)
                   industrial base.
Can they afford it? Marginal, and the design shows it. Antares could not afford a true stealth fighter, so the
                   is stealth-shaped only where it is cheap to be: the shaping stops paying off the moment sto
                   on the external pylons, and fixed intakes keep it well short of Mach 2. Two squadrons was t
                   its budget and its rationed avionics chips would carry.
Fate:            Flew border patrols through the Turncoat War, lost with the rest of the Antares air force whe
                   government fell in 1365.
```

AH-9 Attack Helicopter

Air · Operator: Bavaria · finished model and spec sheet





Dimensions

Fuselage length 17.2 m (incl. tail) Rotor diameter 17.2 m (5 blades) Height 5.2 m (to radar dome)
Stub-wing span 6.5 m Tandem stepped cockpit (gunner front, pilot rear)

Weights

Empty 8,900 kg Normal take-off 11,200 kg Max 12,600 kg

Powerplant & Drivetrain

2x turboshaft engines, 1,800 kW (2,400 shp) each, with IR-suppressing downturned exhausts
Main gearbox rated 3,000 kW, 5-blade composite main rotor, 4-blade tail rotor (right side)
Main-rotor torque at the mast ~ 120,000 Nm (at 240 rpm)

Performance

Max speed 300 km/h Cruise 265 km/h Climb 13 m/s Hover ceiling OGE 3,600 m Service ceiling 5,700 m
Combat radius 200 km Ferry range 1,100 km Load factor +3.0 / -0.5 g

Crew

2 (gunner/weapons operator front, pilot rear), armoured tub resistant to 23 mm

Armament

30 mm chin cannon on a traversing turret (+/-110 deg, +13/-40 deg elevation), 250 rds
2x 19-shot 80 mm rocket pods (inner pylons)
8x laser/radar-guided ATGMs (4 per outer pylon), ~8 km, tandem HEAT
Wingtip countermeasure pods (chaff/flare)

Sensors

Mast-mounted millimetre-wave fire-control radar (fires ATGMs from behind cover)
Nose sensor ball: FLIR, TV, laser designator/rangefinder, helmet-slaved chin gun

Honest Limits

Heavy for its power: vertical climb at max weight in hot/high conditions is marginal. The long tail boom and tailwheel strut are vulnerable on rough landing zones.

Production And Service

```
Operator:        Bavaria
Tier:            Series production
Programme:       First flight 1329, service entry 1333.
Built:           about 240 (1333 to 1352)
In service:      about 205
Unit cost:       about 11M (notional common unit, comparable only within this list)
Industry:        Bavenhurst Aerospace, Drozdov.
Can they afford it? Easily. A plain, armoured attack helicopter with no exotic parts is exactly what Bavaria's
                   mining economy can build in quantity, and it matches the nation's habit of buying a solid d
                   once and keeping it (Section XXIV, the BR-5 rifle).
Fate:            Flew in Bavaria's defence of its own territory, collapsed with the Bavarian state in 1366.
```

CKK-10M Poing-D

Air · Operator: PUSDR · designation named in the Consolidated Political History





Nation: PUSDR (People's Revolutionary Air Force, attack regiments, Airborne Landing Force assault squadrons) Bureau: Chernova Katinka Krasny (CKK) Design Bureau, Katinka Krasny works, sister house to Dimikrov's DKK fighter bureau In service: CKK-10 March 1303 AE, M standard 1324 to 1327 rebuild, new-build M line 1356 AE onward Modelled airframe: bort "27", a 1357 new-build CKK-10M of the 3rd Guards Highland Assault Regiment ("3 GV.SHAP")

Role

Low-level anti-armour and anti-SPAAG strike, armed reconnaissance and landing-zone suppression from forward dirt strips. Built to fly a pop-up gun/rocket/ATGM pass through radar-laid 25 mm and MANPADS fire and come home. the Consolidated Political History names the CKK-10 "Poing" as PUSDR's primary strike aircraft, this sheet is its physical description.

Why A 4Th-Generation Aircraft Still Flies In Ae 1357

The airframe predates PUSDR. Eisenreich wrote the requirement in 1284 for an attacker to police the occupied highlands under gun and short-SAM fire, Ferrengrad Arms flew it in 1292 as the IR-40 "Ironback" and had built about ninety when the 1300 revolution captured the airframe hall, jigs and drawings intact. The new CKK bureau re-designated it CKK-10 "Poing" and PUSDR built ~1,050 more (1303 to 1319), rebuilding 620 to M standard in 1324 to 1327. It survives to GAW4 for three reasons: it never failed on its merits, when Solenne landed in 1354 the DKK-7 stealth fleet could not absorb six years of attrition, so the Ferrengrad line reopened in 1356 building new Ms from steel, titanium and aluminium at eleven a month for a fifth of a Frenzy's cost in rationed semiconductors, and export (CKK-10E1 "Poing-B" to Nam Minh 1316 and the Yeshuren Union 1320). Its technology is honestly 1975 to 1995 equivalent: hydro-mechanical controls with digital stability augmentation, dry turbofans, HUD plus two CRT displays, no radar.

DIMENSIONS (as modelled)

```
Length 15.6 m (16.2 m over the pitot boom)   Wingspan 14.5 m over the tip rails   Height 4.15 m (fin tips)
Wing area 44.0 m2   LE sweep 35 deg   Aspect ratio 4.8   Taper 0.35   Dihedral 3 deg   Incidence +1.5 deg, -2
Tailplane span 6.2 m (all-moving, 5 deg anhedral)   Fins 2.2 m tall, canted 22 deg outboard   Track 3.8 m   Wh
```

Weights

Empty 11,200 kg (of which 1,450 kg armour) Internal fuel 4,300 kg Max external load 5,500 kg on 8 stations
Combat take-off (standard anti-armour fit, 3,200 kg stores) 18,600 kg MTOW 21,200 kg Typical combat weight
Wing loading 482 / 423 / 370 kg/m2 (MTOW / combat TO / combat)

Propulsion

2x KTD-52M dry low-bypass turbofans, 52 kN each = 104 kN total, bypass ratio 1.1, 0.92 m fan, no afterburner Kloinsha Turbine Design's big-fan derivative of the AK-3 "Klin" core, one proven core across several types Buried side by side above the wing box, split by a 12 mm titanium keel, shoulder D-intakes, fixed ejector-mixer nozzles half-sunk into the armoured tail deck, canted 4 deg up

Thrust-to-weight: 0.50 at MTOW / 0.57 at combat take-off / 0.65 at combat weight (0.44 hot-and-high at MTOW) APU self-start, gravity over-wing refuelling, 25-minute turnaround with a 4-man crew

Performance

Max speed 1,020 km/h clean at sea level, 920 km/h with the standard load Cruise 800 km/h Loiter 450 km/h
Stall 205 km/h at 14 t (slats and 40 deg double-slotted flaps) Approach 245 km/h
Climb 62 m/s at combat weight Ceiling 12,500 m (operates below 300 m) Load factor +7.5 / -3 g at 16.3 t
AoA hard-limited to 18 deg (16 deg with stores) by the SAS, the shoulder intakes shadow above ~20 deg
Combat radius 370 km lo-lo-lo with 15 min at combat power, 620 km hi-lo-hi, 1 h 40 min loiter at 150 km with t
Ferry range 3,000 km with three tanks
Field lengths incl. rotation allowance: 1,000 m paved at MTOW, 750 m paved at 18.6 t, 580 m packed earth at 16
620 m landing with the drag chute. Operates from gravel, packed earth, highway sections and cratered concrete.
Sortie rate 3/day sustained, 5 surge, planned attrition 0.8 % per sortie against a peer IADS

Crew & Cockpit

1 pilot in a 17-24 mm titanium tub (floor, sides, rear bulkhead, seat back) on a KS-10 zero-zero rocket seat Three-piece flat armoured windscreen (60 mm gold-film laser-attenuating glass) and a rear-hinged bubble canopy with MDC fragilisation cord and jettison thrusters, 13 deg view over the nose, three rear-view mirrors HUD, two 5-inch monochrome CRT MFDs (EO/FLIR left, nav/stores/datalink right) among round gauges, RWR scope on the right glareshield, radar altimeter with a 60 m bug, centre stick, twin throttles and drag-chute handle on the left console, comm/Setka datalink keypad on the right, helmet-mounted sight (M)

The two-seat CKK-10UB "Poing-C" (trainer / forward air control) is flown by flight leads and FACs

ARMAMENT (as modelled: standard anti-armour sortie, 3,200 kg)

AKh-30-2 twin-barrel 30 mm Gast cannon, port-low, 3,000 rds/min, 350 rounds API/HEI (30x165 Khoshlikova round, shared with the BKK-22 tail turret): instant full rate for one-second pop-up bursts at 115 kg installed weight, ~55 mm RHA at 800 m to kills SPAAGs, IFVs, SPGs and soft-skins, does nothing to MBT frontal or APS-covered roof armour Wingtip rails (150 kg): 2x K-4 IR air-to-air missiles (self-defence)
Outboard (400 kg): 2x 20-tube 80 mm rocket pods
Mid (750 kg): 2x twin-rail launchers with 2 "Osa-L" beam-riding tandem-HEAT top-attack ATGMs each (4 total, 12-15 km, fired in pairs 0.35 s apart to beat a 0.4-1.0 s APS reload)
Inboard left (1,000 kg, plumbed): 500 kg anti-armour submunition dispenser
Inboard right (1,000 kg, plumbed): 1,150 L drop tank
Cheek stubs (300 kg): ECM pod (port), targeting pod (starboard, one airframe in four, the rest buddy-lase or take designation from RH-10 "Volnyk" recon vehicles)
Alternative loads: 250/500 kg LGBs, 4x 250 kg on tandem racks, light anti-ship missile inboard, runway-denial dispenser, gun pods, three tanks for ferry. Every store is under 2.0 m off the ground: no crane needed.

Survivability

Flat-iron belly plate: hardened steel over ceramic/aramid, 1.6 m wide from x 1.5 to 9.8 m under pilot, gun, drum, fuel and hydraulics, rated 14.5 mm API at 300 m and 23-30 mm HEI fragments (NOT a direct ZH-3-class 25 mm hit) Shoulder intakes above the wing plane: compressor faces hidden from ground fire, FOD, nosewheel spray and gun gas Two engines separated by a titanium keel, each driving its own hydraulic channel, manual reversion Beaver-tail deck and splayed fins mask the exhaust plume from below and oblique-low, mixer nozzles halve plume temperature Foam-filled self-sealing tanks, free-fall gear extension, belly landing rides on the plate and the exposed tyres Countermeasures: 256 chaff/flare rounds (flank buckets, fin-root buckets, conformal boxes), internal "Tuman-2" deception jammer in the spine fairing, missile-approach warner, RWR, laser-warning heads, towed decoy

Sensors & Avionics

No radar (cheaper, silent to enemy ESM, the target set is seen, not painted)
Fixed nose laser rangefinder/designator with TV, chin FLIR ball (M) with 360 deg / -105 deg field of regard so the laser stays on target during egress, laser spot tracker for ground-team hand-off, radar altimeter, IFF Setka datalink to RH-10 recon vehicles, the ZH-3M track net and other aircraft, HUD, helmet sight (M) Fixed refuelling probe (M) for the AK-9RF "Ringer"

Maintenance & Sortie Generation

2-hour field engine change through the lower hump side doors, knee-height ammunition door with quarter-turn latches, every pylon within a hand cart's reach, stencilled ground-service panels on both flanks
Fatigue: 1300s-built airframes are carry-through-limited after 4,000 h of low-level turbulence, the 1328 deck-cracking grounding left doubler panels behind each nozzle and extra inspection hours

Variants

CKK-10 "Poing" (1303 base), CKK-10E1 "Poing-B" (export: half the belly plate, no decoy), CKK-10UB "Poing-C" (two-seat trainer/FAC), CKK-10M "Poing-D" (1324 to 1327 rebuild and the 1356 new-build standard: KTD-52M engines, two CRTs, digital SAS, Setka, chin FLIR, MAWS, 256 expendables, internal jammer, refuelling probe)

Paint & Markings

Factory dark green-grey uppers, pale grey-blue undersides, neutral-grey belly plate, each dispersed section rollers on its own red-brown earth and dark olive valley blotches. PUSDR cog-and-star emblem low-vis on the fins, full colour on the wings, maroon bort "27" with a yellow outline, regiment mountain triangle under the canopy, maroon yellow-edged diagonal fin band, serial CKK-10M 57-127 on the tail cone, nine bomb silhouettes under the port windscreen.

Honest Limits

Cannot dogfight (18 deg AoA limit, intakes cut the over-the-shoulder view), needs a DKK-1 sweep overhead. Slow and low against any fighter, ZH-5-class SAMs and the White Lightning laser tank own everything above the ridgeline, and inside laser line of sight the only defences are terrain, the gold visor and flying the FLIR picture. Only four ATGMs, and beam-riding needs 12-18 s of steady exposure. The 30 mm is a SPAAG/IFV killer, not a tank killer. Hot-and-high from 1,500 m strips is marginal at MTOW, so highland regiments drop the tank and the radius. No radar and no all-weather stand-off weapon: monsoon rain grounds the laser work, leaving the gun and rockets. Single-pilot night workload in valleys is high. The armour buys fragment and heavy-MG protection, not immunity.

Production And Service

Operator:	PUSDR
Tier:	Series production
Programme:	Eisenreich's IR-40 Ironback (first flight 1292), PUSDR service as CKK-10 from March 1303, M s 1324 to 1327, new-build M line from 1356.
Built:	about 90 IR-40 (Eisenreich, captured) + about 1,050 CKK-10 (1303 to 1319) + about 130 new-bui (1356 to 1357), 620 rebuilt to M standard 1324 to 1327
In service:	about 700 M-standard, early 1357
Unit cost:	about 6M new-build M (a fifth of a DKK-7 Frenzy) (notional common unit, comparable only withi list)
Industry:	Ferrengrad works (Eisenreich's old airframe hall, captured intact in 1300), CKK Design Bureau Katinka Krasny works. Exports: CKK-10E1 Poing-B to Nam Minh (about 36, from 1316) and the Y Union (about 30, from 1320).
Can they afford it?	Yes, by design. It is the one aircraft on this list built to be affordable: steel, titaniu aluminium instead of rationed semiconductors, eleven a month from the reopened Ferrengrad l
Fate:	The workhorse of PUSDR's land war against Solenne's coalition (1354 to 1358), lost with PUSDR

CS-XF-79 Phantom Talon

Air · Operator: Chicano States · designation named in the Consolidated Political History





Designation and name: CS-XF-79 Phantom Talon.
Verified by overlaying the drawings on orthographic renders:

- Top: nose, radome joint, canopy, LERX shoulder, cranked leading edge, wingtips, stabilisers, fins and nozzles all sit on the drawn lines.
- Side (the side sketch turned out to be drawn at the same 0.063 m/px scale as the plan): nose profile, spine height, canopy, belly line, duct line, stabiliser, fin and main wheel all sit on the drawn lines.
- Front: the sketch is not to scale (its wings are about 45 % too wide for its height), so it was matched by perceived shape: slim round fuselage, round nacelles, body sloping into thin wing roots, upright fins beside the canopy, anhedral, gear stance, pylons. The body is built from rounded, blended shapes only (no flat plates). (which were the canted fins) are no longer filled, everything else still sits on the plan lines. like a real low-observable fighter: a sharp chine down the nose, intakes merged into the body, and nothing left sticking out of the skin.
- v5: the original framed canopy is back, and only the windscreen's nose end fairs down into the nose. The nose now has a modelled centreline crest (real geometry with a hard edge), and the body was widened to match the front sketch: the ducts and nacelles splay outward and a broad belly sweeps from the nacelles to the wing roots.
- v6: the fins are 13 % shorter (same edge sweeps) and cant about 4 deg inward, tips leaning toward the centreline.
- v7 (game-ready pass): the rear body is fully modelled. It no longer ends in a flat wall: each nacelle shrinks into a round shroud around its nozzle, the outer tail shelf thins to a sharp trailing edge, fin-root spines rise out of the nacelles, and the tail cone closes the gap between the engines. The intake mouths roughly doubled in area (0.23 to 0.45 m2 each), the ducts' outer flanks sweep smoothly into the belly (no vertical walls or creases), and compressor faces sit at the end of the ducts. The engine and performance figures were redone for the bigger intakes, the AeroLab balance and lift results still apply because the outer shape barely changed.
- v8 (refinement pass): the engine humps are lower (top about 0.2 m down), broader and ramp in over twice the length, and a saddle fill between them and the spine makes the whole aft upper body one smooth deck instead of two tubes beside a ridge, the spine itself steps down aft so it flows into that deck. The rear no longer ends on a flat cap: a short boat-tail after the last body station slides every skin point onto the nearest nozzle shroud or the tail cone. The belly bays are wider (0.43 to 0.60 m) and deeper, and each AAM is seated from the measured door line so the

whole missile, fins included, sits above the closed doors. Body cross-sections are denser (46 points per side). Outer dimensions are unchanged.

- v9: the boat-tail is no longer capped. Its edge tucks just inside the nozzle shrouds and the tail cone, so there is no flat rear face and the nozzles show their own burner liners and turbine cones. The nose crest is softened (same plan and profile) and no longer a hard edge, the chines stay crisp. The canopy sill gained coaming rails with a rubber seal and fastener rows, locking hooks, yellow canopy-release markings, a hinge/actuator fairing behind the canopy and three rear-view mirrors on the windscreen bow.

Role

Long-range stealth air-superiority and escort fighter with secondary strike. It fights clean, with its missiles in the two belly bays (one each side of the keel), and only hangs stores on eight underwing pylons when stealth sides." The pylons are modeled but hidden by default (clean configuration).

DIMENSIONS (measured from the built model)

```
Length 21.2 m (pitot tip to fin tips)   Wingspan 16.05 m   Height 5.6 m (fin tips, gear down)
Widest body section (with LERX) 5.4 m, the underside sweeps in one broad bowl from the nacelles out to that ed
Wing: reference area 62 m2 (trapezoid carried through the body), aspect ratio 4.2, exposed wing 25.1 m2.
  Total lifting planform (body + LERX 69.1 m2 + exposed wing) 94 m2: this is a lifting-body design
Leading edge cranked: about 67 deg on the LERX blend, 34 deg outboard, 3.5 deg anhedral, raked tips
Horizontal stabilisers 15.9 m2 (both, all-moving, set low on the nacelle sides), tail volume about 0.3
Twin fins over the engines just outboard of the canopy, canted about 4 deg inward, 2.2 m tall above their
  roots, 6.6 m2 each in side view (with the dorsal fillet and rudder), vertical tail volume about 0.077
Canopy 4.2 m long including the faired windscreen point, 1.1 m wide, 0.40 m above the spine
Main gear track 2.64 m   Wheelbase 8.2 m (nose gear under the intakes)
Enclosed volume: body 78 m3 (after the bays, wells, intake ducts and cockpit are cut out), wings 3.4 m3
```

WEIGHTS (estimated from the airframe's size, skin area and volume)

Empty 17,300 kg (about 400 m2 of wetted skin at stealth-airframe weight per square metre)
Internal fuel 11,000 kg (13.8 m3, about 18 % of the enclosed body volume: the wide body holds a lot) Combat weight 23,700 kg (half fuel, two internal long-range AAMs, full gun)
Max take-off 31,000 kg (full fuel, internal pair plus eight external AAMs)
Wing loading at combat weight 382 kg/m2 on the reference wing, 252 kg/m2 on the whole lifting planform

Powerplant

2x afterburning low-bypass turbofans, about 85 kg/s of air each: about 62 kN dry / 100 kN with reheat (200 kN total), about 1,250 kg and 0.95 m diameter each. That is the biggest engine the nacelles (about 1.3 m wide x 1.1 m deep) can house, and the 0.45 m2 intake mouths can feed it. The intakes are cut straight into the body under the LERX shoulders (no separate cowls or splitter plates), with sharp raked lips. The ducts curve back and outward to the engines, so only part of each compressor face can be seen from straight ahead. They run into engine nacelles that are part of the body skin, and the nacelles shrink at the tail into round shrouds around the convergent-divergent nozzles, with a tail cone between them. The intakes are fixed (no moving ramps), which is fine up to about Mach 1.6 and costs thrust above it. Thrust-to-weight: 0.86 at combat weight, 0.66 at max take-off.

PERFORMANCE (hand calculation on the measured geometry, balance and lift from an AeroLab run)

```
Max speed: about Mach 1.75 (1,860 km/h) at 11,000 m in full reheat, limited by the fixed intakes and the wide
  body's supersonic drag, about Mach 1.1 (1,350 km/h) at sea level.
No supercruise: on dry thrust it just fails to push through the transonic drag rise (dry max about Mach 0.98).
Cruise Mach 0.85 at 11,000 m, lift-to-drag about 10 (zero-lift drag area about 1.3 m2, CD0 about 0.021)
Ferry range about 4,300 km on internal fuel. Combat radius about 1,400 km (high-altitude out and back,
  5 min of reheat combat, 10 % reserve), the big fuel load is its best feature
Ceiling about 17,000 m   Climb about 150 m/s (30,000 ft/min) at sea level in reheat
Turning: very strong instantaneous turn, decent sustained turn. The lifting body reaches about 21 deg/s at its
  9 g corner speed (about 860 km/h at 5,000 m) and sustains about 5.5 g (about 12 deg/s) at Mach 0.8 / 5,000 m
  It is a first-shot, hit-and-extend fighter that can still turn when it has to.
Stall about 220 km/h at combat weight, approach about 265 km/h at landing weight
Take-off roll about 450 m at combat weight, 750 m at max take-off   Load factor +9 / -3 g (structure)
Pitch: relaxed. With the estimated centre of gravity (60 % of length from the nose), the neutral point sits
  about 0.8 m ahead of the CG (about -11 % static margin), so it cannot fly without its fly-by-wire.
Yaw: the fins give a vertical tail volume of 0.077, normal for a fighter. AeroLab's fast estimator reads a
  slight yaw instability (Cn-beta -0.0004/deg, it reads every fighter tested this way, the F/A-8 at
  -0.0009), so yaw is treated as marginal and fly-by-wire-augmented at high angles of attack
```

Crew

1, on an ejection seat under a long, low, framed bubble canopy (windscreen bow and sills, hinged at the rear). Ahead of the bow, the windscreen narrows to a point and fairs down into the nose the same way the black anti-glare panel does, edged by a thin black seal.

Armament

Internal: 2 belly bays (left and right of the keel, about 4 m long), 1 long-range air-to-air missile in each, dropped clear by the bay rack.
External: 8 pylons (4 per wing, at 0.41-0.74 of the half-span, matching the front-view sketch). As modeled: 4 medium-range AAMs inboard and 4 short-range AAMs outboard (white bodies, yellow warhead bands). Alternatives: guided bombs, anti-radiation missiles, drop tanks.
Gun: 30 mm cannon in the starboard LERX root (designer addition), firing through a flush port behind a door, with soot behind it.

Protection / Survivability

Low-observable. A sharp chine runs from the nose tip back along both sides of the forward fuselage and into the LERX edges, and a centreline crest runs along the top of the nose to the windscreen, so the nose is faceted rather than round. The intakes are raked and the compressor faces sit deep in curved ducts,
weapons ride internally, and sensors, antennas, lights and dispensers are flush with the skin (no blades or bumps).
Measured radar signature (AeroLab, X band, bare shape with no radar-absorbent coating, clean, gear up):

- frontal +-30 deg: median about 0.12 m2 (-9.2 dBsm). This is reduced-signature, not true stealth.
- nose-on +-5 deg: median about 5.6 m2. The big intake mouths and the partly visible compressor faces dominate this (bare metal fan blades are strong reflectors), which is the price of feeding real engines.
- beam (side-on): median about 1.5 m2, with large spikes exactly broadside off the body sides and the near-upright fins.
- rear +-30 deg: median about 0.27 m2, with spikes off the nozzles and tail cone.

The radar-absorbent skin assumed in lore (with absorbent duct linings) would take perhaps 10 dB off these figures, which puts the frontal sector around 0.01 m2 and nose-on around 0.5 m2. That is very good for its era, but well short of a purpose-built modern stealth fighter, from the side and rear it is easy to see.
Flush chaff/flare doors under the aft nacelles, radar-warning receivers in the fin-root fairing tips, a self-protection jammer, and twin engines in separate nacelles.

Sensors

Large AESA radar behind the chined nose radome, a faceted electro-optical targeting window (EOTS) flush under the chin in place of an IRST ball, flush datalink and comms antenna panels, datalink.

Markings

Dark matte air-superiority grey with a darker / lighter disruptive grey pattern and lighter counter-shaded undersides, matte black anti-glare panel ahead of the windscreen, dark grey radome. Weathered: edge wear and chips, panel lines and rivets, rain streaks, AO grime, soot behind the gun and nozzles, fluid weeps under the engines. Red stars with white borders on the upper and lower wings and on both fins, red "21" outlined in white on the intake sides, red ejection-seat triangles, NO STEP stencils.

Modeled Detail / Animation

- Body: one-piece blended skin made of rounded shapes only: a lens-section centre body that thins to the LERX and wing-root edges, round fuselage and spine, round nacelle humps, round duct/nacelle lobes, round keel and the ventral bay fairing, all joined with large fillets. The nose underside runs straight back, then dips behind the intakes (side sketch).
- Nose: a sharp chine (upper and lower surfaces meet at an edge) from the nose tip back to the LERX, and a modelled centreline crest on top from the radome tip to the windscreen point (both are hard edges in the mesh), blending to a round fuselage behind the cockpit. The spine behind the cockpit flows into the dorsal ridge between the engines.
- Belly: the ducts splay outward behind the intakes, and a broad belly fairing sweeps from the nacelle sides out to the wing roots, giving the wide, shallow front profile of the sketch.
- Intakes: large raked mouths (0.45 m2 each) cut into the body with sharp lips, curved dark ducts whose inner walls fair into the keel, and a compressor face (casing, 22 blades, spinner) at the end of each duct.
- Rear body: each nacelle shrinks into a round shroud around its nozzle, the outer tail shelf (which carries the stabilisers) thins to a sharp trailing edge, fin-root spines rise out of the nacelles and run on as tapering fairings past the nozzles, tipped with RWR lenses, a tail cone fills the gap between the engines. Nozzles have outer petal seams, a sooted liner and a turbine cone, the skin is closed all round (no open or flat-capped ends).
- Moving surfaces: flaperons and leading-edge flaps (hinged on their true hinge lines), all-moving stabilisers, rudders, fin dorsal fillets.
- Cockpit: seat, stick, panel with displays, HUD.
- Gear: main gear under the nacelles with doors, nose gear with taxi light and twin doors.
- Weapons and kit: two belly weapon bays (in the ventral fairing) with doors and missiles, tapered pylons with the non-stealth load), a thin pitot, flush static ports, flush EOTS window, flush antenna panels, flattened anti-collision beacons, flush wingtip nav lights and dark covert formation strips.
- Gear doors: the nose-gear doors stay closed on the ground and only open while the gear cycles.
- Panel outlines: dorsal airbrake, gun-bay and avionics doors, and fuel caps.
- Timeline (markers): parked to lift (demo) to gear up to bay doors open to missiles drop to control-surface sweep to gear down to canopy opens.

Honest Limits

- Thrust-to-weight stays under 1 (0.86 at combat weight): the nacelles cannot take a bigger engine, so it accelerates and climbs well but cannot match a purpose-built air-superiority fighter in a sustained turn.
- Fixed intakes with no moving ramps cap top speed at about Mach 1.75, no supercruise.
- Straight-on it is not stealthy: the large mouths and the line of sight to part of each compressor face give a strong nose-on radar return. A true S-duct or radar blockers would fix it, at a cost in weight and pressure loss.

- Wide and draggy through Mach 1: the broad lifting body that gives it fuel, lift and a low wing loading also gives it a large frontal area and poor area ruling.
- The fins follow the front sketch (close beside the canopy, only slightly canted inward) rather than the Close-set, inward-leaning and fairly short, they can be blanked by the body at very high angles of attack. The 4 deg cant does little for side-on radar return.
- Ground handling: the main gear track is narrow (2.64 m) for a CG 2.6 m above the ground, giving a turnover angle of about 71 deg against the usual 63 deg limit, so it is tippy in crosswinds and fast taxi turns. The main wheels sit about 2.6 m behind the estimated CG, so the nose wheel carries about a third of the weight and rotation on take-off needs a lot of stabiliser.
- Stealth only holds in the clean configuration: open bays, hung pylons, or a radiating radar give it away, and the canopy coatings and edge treatments need constant upkeep that Chicano's maintenance struggled to provide.
- The framed canopy (kept by choice) adds edges a frameless one would not, so the frontal signature is higher than a purpose-built stealth canopy.
- Belly bays hold only one long-range missile each. A full air-to-air load means external carriage, and with it a big radar return and a top speed under Mach 1.
- Estimates, not test data: weights come from size and volume, the CG assumes evenly spread mass, and drag is a hand calculation (AeroLab's fast estimator reads drag about 1.5-2x high on every fighter in the set).

Production And Service

```
Operator:        Chicano States
Tier:            Prototype / token run
Programme:       First flight about 1258, in Chicano's pre-GAW2 dominant era, four pre-series airframes follow
                   before the wars closed the programme.
Built:           6 (2 prototypes + 4 pre-series)
In service:      none flying by 1357, the survivors are stored or in museums
Unit cost:       about 90M on paper, real cost far higher, because Chicano's procurement was among the most co
                   the map (notional common unit, comparable only within this list)
Industry:        Gran Chicania aircraft works, at the height of Chicano's industrial and semiconductor access.
Can they afford it? Only then. This is the XF-79 Phantom Talon, 'the single most technologically advanced thin
                   Chicano ever built' (the Consolidated Political History). It could be built only in the dom
                   still had the money, the chip supply and the engineers, the diminished postwar state could
                   field anything like it again, which is why it never went past prototypes and a handful of p
                   series airframes. Hand-built, expensive, and never a fleet aircraft.
Fate:            Grounded as GAW2 consumed the budget and the engineers, never replaced. The surviving airfram
                   the proof, in the Consolidated Political History's words, that Chicano's dominance was neve
```

DKK-1 Flapjack and DKK-1B Flapjack-D (Knights)

Air · Operator: PUSDR · designation named in the Consolidated Political History





Sources: the Consolidated Political History (canon), the service record the earlier campaign unit database (dkk1_flapjack, dkk1_mdmu_flapjack_b), AeroLab + OpenFOAM runs on the DKK-1B Knights model (Aero Test Results/DKK-1B Knights), and the high-detail rebuild (2026-10-03). Where these disagree it is called out under OBJECTIONS, the Consolidated Political History wins on names and history.

Role

PUSDR's workhorse multirole fighter: air superiority first, plus strike, SEAD, anti-ship and close air support. A high-end 4.5-generation design built to be fielded in numbers, AESA radar, modern missiles and thrust-vectoring agility at a fraction of the cost of a true fifth-generation stealth aircraft. Above it sits the DKK-5 "Flashfire" Mach 3+ interceptor, alongside it the CKK-10 "Poing" attack aircraft, which cannot dogfight and relies on a DKK-1 sweep overhead.

Lore

```
Lineage (the Consolidated Political History): PR-5 "Krashny" (Polshinka Ratikova, pre-Chicano Conquest of Numa
for lack of supporting equipment) to AK-3 "Klin" (Antiko Kloinsha, swept-wing air superiority, still in servic
small numbers) to DKK-1 "Flapjack", developed directly off the PR-5's airframe with a far more refined design.
Builder: the state-run Dimikrov Katinka Krasny (DKK) Design Bureau at the Katinka Krasny works, the same works
as the sister Chernova (CKK) attack/bomber bureau.
Family (the Consolidated Political History names):
  DKK-1       "Flapjack", baseline land-based fighter
  DKK-1E1     "Flapjack-B", export model, fielded across Kargopol except Tianhai (same standardization logic
                            that keeps the AS-17 out of Tianhai's arsenal)
  DKK-1MDMU   "Flapjack-C", naval variant for Kargopol-standard carrier decks
  DKK-1B      "Flapjack-D", air-show demonstrator, often seen in a knights-themed display camouflage
  DKK-1M      "Flapjack-E", modernized: better radar, engines and weapons fit, keeping the type relevant decad
                            after introduction
In the service record it is a tier-5 PUSDR air unit (research 5,200 RP, ~$98M, 14 steel, 6 copper, 2 rubber, 2
```

Layout

Long ogival radome with pitot boom and IRST ball ahead of a two-piece canopy (windscreen + one-piece canopy). Wide lifting body: chines from the cockpit run into big LERXes and blend into the wing roots. All-moving canards behind the cockpit, cropped-delta wing with inboard flaperons and outboard ailerons, twin widely spaced, slightly canted fins with rudders. Twin engines in a broad belly box fed by rectangular intakes under the LERXes, white ducts with visible fan faces, axisymmetric petal nozzles (3D thrust vectoring per the service record) either side of a tail sting that houses the brake parachute.

DIMENSIONS (as modelled, from the game model)

```
Length 25.2 m (26.5 m incl. pitot)   Span 13.6 m (13.83 m over the wingtip rails, 13.9 m with smoke pods)
Height 5.25 m gear down (3.98 m airframe alone)   Wing area ~70 m2 gross (31.4 m2 exposed per side)
Root chord 8.8 m   Tip chord 1.2 m   Canard 4.65 m2 per side   Fin 6.7 m2 each
Planform (top) area 113 m2   Wetted area ~1,060 m2   Frontal area 13.3 m2
Main-gear track 2.9 m   Wheelbase 10.9 m
```

Weights

Take-off weight 22.7 t (the service record, AeroLab test mass 22.0 t) Empty ~15.5 t and max ~30 t are estimates Centre of gravity (AeroLab, uniform fill) 15.8 m from the nose = 62.5 % of length

Powerplant

2x afterburning turbofans with 3D thrust-vectoring nozzles. Thrust not given anywhere in canon, to reach the the service record Mach 2.1 / Mach 1.1 supercruise figures at 22.7 t it needs roughly 2x 125-135 kN with reheat (thrust/weight ~1.1-1.2), estimate.

PERFORMANCE (the service record unless marked)

```
Max speed Mach 2.1 (2,570 km/h at altitude)   Supercruise Mach 1.1 (1,358 km/h)
Combat radius ~900 km   Operational range 2,330 km   Load factor 9 g
Service ceiling ~18,000 m (estimate)
Aerodynamics (AeroLab estimator + OpenFOAM, 5.7M cells, Mach 0.76, 3,000 m, alpha 4 deg):
  CFD at alpha 4: CL 0.118, CD 0.0242, L/D 4.9, pitching moment Cm +0.013 (nose-up)
  Level flight at 900 km/h / 3,000 m needs CL 0.067 at ~3 deg alpha
  Lift-curve slope 0.048 /deg, CLmax ~1.28 at 25 deg alpha, best L/D near 12 deg alpha
  Static margin -10 % MAC (neutral point ahead of the CG): statically UNSTABLE in pitch to relaxed stability,
  flown through fly-by-wire with canards + thrust vectoring, exactly what a canard 4.5-gen agility fighter is
  meant to be
  Ground: static stability factor 1.59, minimum tip-over angle 47 deg (forward)
```

Crew

1 pilot (the DKK-1MDMU naval variant seats 2 in the service record), zero-zero ejection seat

ARMAMENT (the service record)

1x 25 mm MAAC autocannon, 350 rounds (right LERX root, modelled muzzle + blast panel)
10 external hardpoints + 2 internal side bays:
AAMs: M4-S, M6-S (short range), M4-R, M7-R (radar-guided)
ARM-12 anti-radiation missiles (SEAD), ASM-11 anti-ship missiles, GAM5 guided bombs, MRL-2 rockets Effective weapon reach ~260 km (long-range AAM)

SENSORS & AVIONICS (the service record)

9K-1 AESA nose radar with side AESA arrays and L-band wing arrays, IRST, helmet-mounted cueing, digital fire control, HUD, 360-deg RWR, tracks 25 targets, engages 7 simultaneously, full thermal/IRST night capability

SURVIVABILITY (the service record)

MAWS, DIRCM, DRFM jammer, smart flares (dispensers under the rear fuselage), self-sealing tanks, aerial refuelling probe, landing parachute, quoted clean RCS ~0.9 m2, no armour

OBJECTIONS (conflicts and realism problems found while building)

- Variant names: the service record lists the naval jet as "DKK-1 MDMU Flapjack-B", the Consolidated Political History has DKK-1E1 "Flapjack-B" (export) and DKK-1MDMU "Flapjack-C" (naval). the Consolidated Political History is canon, the the service record entry should be renamed.
- Cannon calibre: the service record says 25 mm MAAC, the first version of this sheet said 30 mm. Corrected to 25 mm.
- Mach 2.1 with fixed rectangular intakes: the game model's intakes have no variable ramps or bleed doors. Real Mach 2+ fighters need variable intake geometry to manage the shock system, either the DKK-1 has hidden variable ramps or its true top speed is nearer Mach 1.8. Suggest: the DKK-1M "Flapjack-E" (or the baseline retroactively) gets variable ramps.
- RCS 0.9 m2 vs. the airframe: straight ducts with fan faces in direct line of sight, round nozzles, canards, big canted-but-not-aligned fins and 10 external pylons make 0.9 m2 optimistic for a non-stealth jet. Plausible only clean, from the front, with radar blockers in the ducts and RAM on the intake lips, none of which is modelled. Typical 4th-gen values are 3-15 m2.
- Internal side bays: the service record gives 2 internal bays but the game model shows no bay doors, the bays would sit in the LERX/body sides between the intakes and the wing roots. Not modelled.
- Refuelling probe and landing parachute are in the service record but not on the game model, the probe would be retractable (stowed, invisible), the tail sting is treated as the chute housing.
- Size: 25.2 m long is bigger than most real multirole fighters (Su-27 21.9 m, F-15 19.4 m) while 22.7 t is a normal-take-off weight, a long, light airframe. Fine for a "cheap but capable" brief, but the empty weight would have to be low (~15.5 t) for these numbers to close.
- Directional stability: the AeroLab estimator flags the airframe as unstable in yaw. This is a low-fidelity estimate (the CFD case was run at zero sideslip, so it is untested), but twin fins this far forward of the nozzles on a 25 m body is thin, FBW yaw augmentation is assumed.
- Display-team name: the Consolidated Political History only says "knights-themed display camouflage", the KNIGHTS titles and bort 07 (from the game model's own stencil) are modelling choices, not stated canon.

Honest Limits

Shape is re-lofted from the game model, not designed from scratch: dimensions and planforms match the game model. Canopy glazing is a shader region of the body skin, the canopy cannot open.
Paint, panel lines, insignia and weathering are procedural (object/world space), they do NOT survive FBX export - Gear, control surfaces and canards are separate objects but not rigged, no retraction animation, nozzles do not vector.
Cockpit is simplified (blocked-out instruments, emissive MFD placeholders), no pilot figure, no weapons, internal bays or refuelling probe modelled (display fit / centreline tank only).
Thrust, empty/max weight and ceiling are estimates, speeds, range, avionics and weapons are the service record's, aero coefficients are AeroLab/OpenFOAM results on the game model at one flight condition (alpha 4, Mach 0.76).

Interior And Capabilities: Two Standards

The DKK-1 family flies in two cockpit-and-avionics standards that look alike from outside. The standard service DKK-1 (and the DKK-1E1 export) is the 1309 baseline. The DKK-1B "Flapjack-D" is the later, more capable standard, and it is flown by the Knights, PUSDR's elite squadron, whose leader's aircraft carry the red-and-yellow scheme. It is not only a display jet: the Consolidated Political History calls it an air-show demonstrator because the Knights show PUSDR's newest standard to the public, but in war its twelve aircraft lead strike and intercept packages. The airframe is the same on both. The 3D models share one cockpit block-out, the differences below are in the kit, not the paint.

A. DKK-1 (STANDARD SERVICE AIRCRAFT)
Cockpit (as modelled): single seat on a K-36-style zero-zero ejection seat with a five-point harness. Turquoise cockpit finish. A stepped cluster of three colour MFDs below the glareshield with a small up-front control display above them, a single-combiner HUD. Left console: throttle with the radar and weapons controls on the grip, engine and fuel switches, flap and gear levers. Right console: communications, navigation and countermeasures panels. Centre stick and rudder pedals. Switch rows are physical and labelled, there are no touch screens.
Behind the cockpit: avionics bay (radar processor, dual digital fly-by-wire computers with one analogue backup), oxygen generator, ejection sequencer, and the forward fuselage tank. It is reached through a dorsal access panel, a ground crew can swap a radar processor in under an hour.
Capabilities (the service record values, unchanged): Mach 2.1, supercruise Mach 1.1, 9 g, combat radius ~900 km, 9K-1 AESA with side and L-band arrays, tracks 25 targets and engages 7, IRST, helmet-mounted cueing, MAWS, DIRCM, DRFM jammer. Clean RCS quoted at about 0.9 m2, with the realism caveats under OBJECTIONS. Fixed intakes. Radio links are voice plus a four-aircraft data link. Typical load is 4 AAMs and 2 ARM/ASM or guided bombs. How the pilot fights it: heads-down on three screens, heads-up on the HUD, a manual, switch-driven jet with a computer that flies it, not one that thinks for the pilot. A good pilot extracts a great deal from it,

an average pilot is outclassed by anything newer.

B. DKK-1B "FLAPJACK-D" (KNIGHTS, SQUADRON LEAD)
Cockpit: same seat, same canopy, same footprint, but the instrument panel is replaced with a single wide-area display across the cockpit (the three MFD windows become one touch-capable surface that splits into three or goes full-width as a map), a wide-angle holographic HUD instead of the single combiner, and a small backup MFD kept below it. The switch rows are cut by roughly half, most functions move to the throttle and stick grips. Same turquoise finish, with a warm lighting scheme at night. The helmet has a visor display that shows radar tracks and weapon cueing in any direction the pilot looks.
Behind the cockpit: avionics bay with quadruple-redundant all-digital fly-by-wire, automatic ground-collision and recovery routines, a second processor stack running sensor fusion, and a datalink terminal rack. Capabilities beyond the standard aircraft (project estimates, the service record does not model the 1B separately):

- Engines: upgraded 3D-vectoring turbofans, about 140 kN each with reheat (+8 to 10 %), giving Mach 2.3 and a noticeably better climb and sustained turn.
- Intakes: variable ramps and bleed doors behind the same rectangular lips. This is the fix for OBJECTION 3 and is why the 1B can reach Mach 2.3 where the baseline struggles to hold 2.1 honestly.
- Radar and RCS: newer AESA nose array with fusion across the side and wing arrays, tracks 40 and engages 10, radar blockers in the intake ducts and RAM on the lips cut clean frontal RCS from about 0.9 m2 to roughly 0.3 m2 (the fix for OBJECTION 4, still not stealth).
- Sensors: longer-range, higher-resolution IRST, passive-detection receivers, a towed decoy.
- Datalink and command: the lead-aircraft suite. The 1B links up to eight aircraft into one fused picture and hands targets to the flight automatically. A standard DKK-1 pilot can fly in the 1B's net but cannot lead it.
- Weapons: same pylons and bays, cleared for the newest long-range AAM and for guiding shots from another aircraft's sensors, effective reach ~320 km (baseline ~260 km).
- Weight: about 600 kg heavier at the same take-off limit, so slightly less fuel with the same load, combat radius ~850 km. How the pilot fights it: heads-up and hands-on. The computer does the sorting and the pilot makes decisions. A squadron lead mostly directs the flight and fires after the net has chosen the target.

C. SIDE BY SIDE

Item	DKK-1	DKK-1B Flapjack-D (Knights)
Cockpit display	3 colour MFDs + small up-front display	1 wide-area display + backup MFD
HUD	single combiner	wide-angle holographic + helmet visor
Controls	switch-driven	hands-on-throttle-and-stick
Flight computers	dual digital + analogue backup	quad digital, auto-recovery
Engines (reheat, each)	~125-135 kN	~140 kN
Top speed	Mach 2.1 (fixed intakes)	Mach 2.3 (variable ramps)
Targets tracked/engaged	25 / 7	40 / 10
Clean RCS (front)	~0.9 m2 (optimistic)	~0.3 m2
Weapon reach	~260 km	~320 km
Datalink	4-aircraft voice and data	8-aircraft fused net, lead suite
Built	~1,100 (+ export and naval)	12
Cost (notional)	~18M	~45M (hand-finished, extra avionics)

The DKK-1M "Flapjack-E" rebuild (about 450 aircraft, 1338 to 1350) closes part of the gap: it gets the better engines and weapons fit of the Consolidated Political History, but not the wide-area cockpit, the variable ram

Production And Service

Operator:	PUSDR
Tier:	Series production
Programme:	PR-5 Krashny lineage, DKK-1 first flight 1306, service 1309, DKK-1M modernization 1338 to 135
Built:	about 1,100 DKK-1 (1309 to 1338) + about 160 DKK-1E1 exports + about 96 DKK-1MDMU naval + abo rebuilt to DKK-1M + 12 DKK-1B display aircraft
In service:	about 900 early 1357 (mixed standards)
Unit cost:	about 18M (notional common unit, comparable only within this list)
Industry:	Dimikrov Katinka Krasny Design Bureau, Katinka Krasny works. Exports to Kargopol members (not / Xue Lin).
Can they afford it?	Yes. This is PUSDR's backbone fighter, deliberately a 4.5-generation design built to be fi in numbers at a fraction of a stealth fighter's cost. The twelve DKK-1B Flapjack-D display (the 'Knights' team) are the only expensive ones: hand-finished, paint-heavy, built for par
Fate:	Bore the air war against Solenne's PSU coalition, consumed by attrition in the Turncoat War a

DKK-80 Grendel

Air · Operator: PUSDR · designation named in the Consolidated Political History





Role

PUSDR's only helicopter design, deliberately multirole: attack helicopter AND troop transport in one airframe (the Consolidated Political History: one programme instead of two). It flies an infantry section into the fight, puts it down, and stays over it as its fire support, rockets, anti-tank missiles and a chin cannon. Carrier / anti-submarine variant: DKK-80MDMU "Grendel-B" (not modelled).

Layout

Stepped tandem cockpits under flat armoured glass: weapons operator in front, pilot raised behind. Behind them a deep, box-sided troop cabin with a sliding door each side, two firing-port windows each side and a flat keel plate. Two turboshafts on the cabin roof with box dust filters over the intakes and IR-suppressing exhausts turned out and down. 12-deg anhedral stub wings, swept fin with the tail rotor on its left, tailplanes low on the boom, retractable tricycle gear (twin nose wheels).

Dimensions

```
Fuselage length 20.5 m (incl. tail)   Rotor diameter 17.8 m (5 blades)   Height 5.0 m (rotor head)
Stub-wing span 7.0 m   Cabin 3.6 m x 2.0 m x 1.5 m (8 seats)
```

Weights

Empty 8,600 kg Normal take-off (8 troops, full weapons) 11,000 kg Max 12,000 kg

Powerplant

2x turboshafts, 1,650 kW each, dust separators and IR suppressors, 5-blade main rotor, 3-blade tail rotor (left)

Performance

```
Max speed 310 km/h   Cruise 260 km/h   Climb 12 m/s   Hover ceiling OGE 1,900 m (loaded)
Service ceiling 4,500 m   Combat radius 160 km with troops   Load factor +2.5 / -0.5 g
```

Crew & Troops

2 crew (weapons operator front, pilot rear) in an armoured tub, 8 troops in the cabin (sliding doors both sides, firing ports in the windows)

Armament

Twin-barrel 30 mm chin turret (+/-60 deg traverse, +10/-40 deg elevation), 250 rds
2x 20-round 80 mm rocket pods (inner pylons), 2x 4-round 122 mm heavy rocket pods (middle pylons) 8x laser beam-riding ATGMs in launch tubes under the wingtip beams (4 per side), ~6 km, tandem HEAT Chaff / flare dispensers, IR jammer on the boom

Sensors

Nose FLIR / TV / laser rangefinder-designator ball, missile-approach warners on the nose, radar warning

Survivability

Armoured cockpit tub and engine bay against 12.7-23 mm, self-sealing tanks, IR suppressors and jammer, the cabin itself is only lightly protected

Paint & Markings

PUSDR army three-tone on the upper surfaces and sides (olive, earth brown, near-black green), pale grey-blue undersides. Cog-and-star roundel (maroon disc, gold cog, white compass star) on both sides of the boom, maroon bort "41" with a yellow outline behind the pilot and on the fin, serial DKK-80 21-0341 on the boom. Yellow blade tips, red and white tail-rotor tips, NO STEP, RESCUE, EXIT and TAIL ROTOR warning stencils. Finish is hard-used: chipped edges, dust on the lower surfaces, oil runs down the cabin sides, exhaust soot along the boom.

Honest Limits

Heavy and big for an attack helicopter, a large target that can't hide behind a treeline the way a slim gunship can, and sluggish in hard manoeuvring when the cabin is full. As a transport it has to land in the open to unload, exactly when it is most vulnerable: vehicle autocannons and MANPADS inside a few kilometres make an opposed landing very costly. It does neither job as well as a specialist, the price of one programme instead of two.

Production And Service

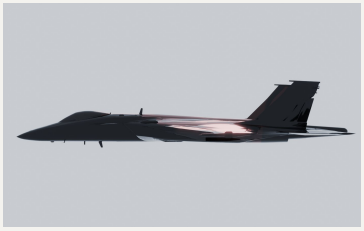
```
Operator:        PUSDR
Tier:            Series production
Programme:       First flight 1319, service entry 1321.
Built:           about 430 (1321 to 1352) including 56 DKK-80MDMU naval/anti-submarine
In service:      about 380
Unit cost:       about 9M (notional common unit, comparable only within this list)
Industry:        Dimikrov Katinka Krasny group, the only helicopter PUSDR ever designed (the Consolidated Poli
Can they afford it? Yes. One programme instead of two (attack and transport in one airframe) was chosen precis
                   because PUSDR could afford one helicopter line, not two.
Fate:            Flew the Airborne Landing Force's assaults, heavy losses to Solenne's air defence in 1354 to
```

F-A-25

Air · Operator: Solenne · finished model and spec sheet







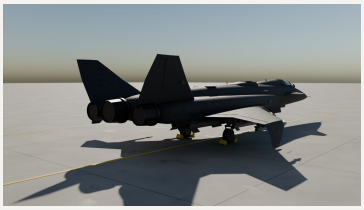
Production And Service

```
Operator:        Solenne
Tier:            Prototype / token run
Programme:       First flight 1350, limited deliveries from 1352. No written spec sheet exists yet, role and e
                   standing are unconfirmed.
Built:           about 22 (1350 to 1357)
In service:      about 19
Unit cost:       about 110M (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace houses, one assembly line.
Can they afford it? Only just, and only Solenne: the most expensive fighter on the list, produced in handfuls
                   the rationed semiconductor supply that feeds the stealth and agility systems could not supp
                   more. It is a statement of capability, not a fleet.
Fate:            Entered service as the Turncoat War ended, none survived GAW4.
```

F/A-8 Chimera

Air · Operator: Solenne · designation named in the Consolidated Political History





Role

Solenne's high-end air-superiority fighter with a full strike capability, fielded once the postwar economy could afford one. Two crew (pilot + weapon systems officer) in tandem. Built for long-range, very high-speed intercept and deep strike: it fights by dashing. Two turbofans do the ordinary flying and the acceleration, and a centreline dual-mode ramjet/scramjet does the dash, covering distance at Mach 4 and above on a fraction of the fuel the turbofans would need.

CONFIGURATION (as modelled from the three-view)

Long slender nose, swept canards beside the cockpit, highly swept strakes blending into a ~53 deg swept wing with a notched (W) trailing edge and drooped wingtip fins, two outboard turbofans in nacelles fed by side intakes and a third, centreline engine fed by a dorsal intake behind the cockpit, twin fins canted 30 deg outboard on the nacelles. The centre engine is the dash engine, a dual-mode ramjet/scramjet (DMRJ). Its dorsal intake is a variable-ramp design with a throat that opens and closes with speed, the structure around it is fuel-cooled.
The lore nozzle is a rectangular expansion nozzle with a
long under-fuselage ramp. It is not modelled yet and needs a pass on the aft belly if the model is ever updated.

DIMENSIONS (as modelled)

```
Length 21.0 m (21.8 m over the pitot)   Wingspan 10.9 m   Height 4.1 m (fin tips)
Wing area ~62 m2 incl. strakes   Canard span ~4.0 m
```

Weights

Empty 18,400 kg Internal fuel 10,500 kg Max external load 7,000 kg Max take-off 36,500 kg
Typical air-superiority take-off weight 30,000 kg
(the dash engine's cooled structure and the heat-resistant skin add about 600 kg over the earlier layout)

Propulsion

2x low-bypass afterburning turbofans, each ~118 kN with reheat / 74 kN dry: 236 kN total with reheat 1x centreline dual-mode ramjet/scramjet (the dash engine), kerosene-fuelled, fuel-cooled: cannot start from standing and cannot work slow: it lights at about Mach 2.5, runs as a ramjet from Mach 2.5 to about Mach 4, and as a supersonic-combustion scramjet above Mach 4, ~70 kN net thrust at Mach 3 (ramjet mode), ~100 kN at Mach 4, peaking at ~120 kN near Mach 4.5 Staging: the turbofans accelerate the aircraft to Mach 2.5 in reheat, the dash engine lights, the turbofans throttle to dry or idle and their intake ramps close down, and the aircraft keeps accelerating on the dash engine alone Thrust-to-weight ~0.8 on the turbofans alone at air-superiority take-off weight, ~1.1 in the dash window, Mach 3 to 4.5 Fuel economy: at Mach 4 the dash engine burns roughly a quarter of the fuel per kilometre that reheated turbofans would burn to hold Mach 2.3, a 600 km dash at Mach 4 costs about 1,700 kg of fuel
Turbofan nozzles: round convergent-divergent (no thrust vectoring)

Performance

```
TOP SPEED: Mach 4.5 (~4,800 km/h) at 20,000 m on the dash engine, carrying the four belly missiles only (wing
  rails empty or stripped), Mach 3.4 (~3,600 km/h) with the full interceptor load, Mach 2.2 (~2,350 km/h) on t
  turbofans alone at 12,000-15,000 m, Mach 1.15 (~1,410 km/h) at sea level. Limited by heat, not thrust:
  the fuel-cooled skin and the nose and canopy soak up heat, so the dash is limited to 4 minutes above Mach 4
  about 12 minutes above Mach 3.5, and the fuel heat sink runs out soon after
Supercruise ~Mach 1.3 on the two turbofans, dry
Intercept profile: brake release to Mach 2.3 at 15,000 m in ~5.5 min, dash engine light-off at Mach 2.5 and ac
  to Mach 4.2 at 20,000 m in a further ~3 min, 1,800 km dash-intercept radius with a Mach 4 dash leg
Service ceiling 20,000 m (dash altitude 18,000-22,000 m with a short zoom above that)   Climb ~260 m/s
Load factor +9 / -3 g below Mach 2, limited to about +3 g above Mach 3 (the turn radius at Mach 4 is more than
Combat radius 1,900 km (air superiority, internal fuel, with dash legs on the scramjet), 1,050 km hi-lo-hi str
(the dash engine is dead weight at low level)
Ferry range 4,900 km with tanks   Take-off run ~640 m, landing ~800 m with brake chute
```

Crew

2 in tandem under a gold-tinted, RAM-coated canopy (radar-absorbent glass coating) of heat-resistant laminated glass, zero-zero ejection seats, glass cockpit with wide-area displays and HUD in the front seat, the cockpit is cooled and the pilots wear pressure suits above 18,000 m

ARMAMENT (as modelled: standard interceptor load, 8 missiles)

Internal 30 mm cannon (right wing root), 200 rounds
4x long-range radar AAM, semi-recessed in tandem pairs under the belly between the nacelles (low drag, and rated for carriage at Mach 4.5):
4.0 m, 380 mm, ~460 kg, active radar + datalink midcourse, ramjet-sustained, 200+ km, Mach 4+, for bombers, AEW&C, tankers and cruise missiles far from home. Launched from a Mach 4 dash they add the carrier's speed and stretch their reach well past the quoted range
2x medium-range radar AAM on the inboard wing pylons: 3.7 m, 180 mm, ~160 kg, active radar, ~100 km, Mach 4 2x short-range IR AAM on the outboard rails: 2.9 m, 127 mm, ~90 kg, imaging-IR, off-boresight, ~20 km, for the merge The wing pylons and rails are not rated for the dash: the pylon and rail missiles are carried on the way out and after the dash, or the dash is flown on the belly missiles alone
Why this load: the Chimera is fast and sensor-heavy but not agile, so it fights at range and by speed: it dashes in, the long-range missiles kill high-value targets before escorts engage, the medium-range pair handles fighters, and the IR pair plus the gun cover anything that survives into visual range
Other fits on the same 10 stations: anti-ship or land-attack cruise missiles (2, belly), anti-radiation missiles, precision bombs (strike role), 2x 2,000 L supersonic drop tanks (inboard pylons, ferry, not for the dash)

Sensors & Avionics

Large AESA radar in the nose, IRST ball ahead of the windscreen (retracts behind a fairing above Mach 3), ventral electro-optical/targeting fairing, 360-degree missile-approach warning, radar-warning receivers, internal jammer, towed decoy (not deployable in the dash), datalink
Dark charcoal-grey radar-absorbent finish

Survivability

Two turbofans and the dash engine: loses a turbofan and flies home on the other, though it cannot reach the speed that lights the dash engine, separated fuel cells with inerting, redundant fly-by-wire, internal ECM + chaff/flares, reduced (not stealth) radar signature: RAM coating, canted fins, shielded intakes

Honest Limits

Big, heavy and thirsty on the turbofans: sortie rates suffer, and the dash engine is complex to build and slow to maintain. The dash engine only works fast: below about Mach 2.5 it is dead weight, so low-speed and low-level flight is worse than a plain twin-engine fighter of the same size.

The dash is limited by heat. Skin, nose and canopy need hours of cooling afterwards, and repeated dashes wear the structure out faster than the airframe hours suggest.

Not a true stealth design: external stores and round turbofan nozzles give it a clear radar and IR signature, and the dash engine's exhaust is bright.

Wide turning circle at low speed and an enormous one at dash speed, it relies on energy, missiles and sensors. Needs long, well-built runways and a large ground crew, not suited to dispersed rough-field operations.

Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       First flight 1329, service entry 1332.
Built:           about 210 (1332 to 1356)
In service:      about 180
Unit cost:       about 84M (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace houses, Corvenna region.
Can they afford it? Comfortably, and only Solenne could: the postwar economy that 'could afford one' (the Cons
                   XXV) is the whole reason the Chimera exists. Even so, the dash engine, its fuel-cooled stru
                   electronics are expensive enough that it never replaced the cheaper fighters, only topped t
Fate:            Solenne's air-superiority fighter through the Turncoat War, grounded by the homeland governme
                   collapse in 1365.
```

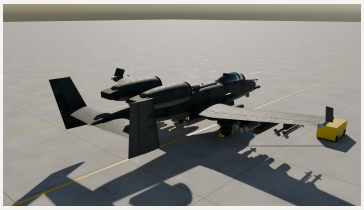
Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       First flight 1329, service entry 1332.
Built:           about 210 (1332 to 1356)
In service:      about 180
Unit cost:       about 84M (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace houses, Corvenna region.
Can they afford it? Comfortably, and only Solenne could: the postwar economy that 'could afford one' (the Cons
                   XXV) is the whole reason the Chimera exists. Even so, the dash engine, its fuel-cooled stru
                   and the electronics are expensive enough that it never replaced the cheaper fighters, only
                   them.
Fate:            Solenne's air-superiority fighter through the Turncoat War, grounded by the homeland governme
                   collapse in 1365.
```

GA-7 Anvil

Air · Operator: Solenne · finished model and spec sheet





Role

Close air support, battlefield interdiction and anti-armour. Built to loiter low over the front, absorb ground fire and keep flying: titanium cockpit tub, redundant controls, engines shielded high on the rear fuselage.

DIMENSIONS (as modeled)

```
Length 16.5 m (17.3 m incl. gun)   Wingspan 17.6 m (straight wing, 7 deg outer dihedral)
Height 4.45 m (fin tips)   Wing area ~47 m2   Tailplane span 6.4 m, twin fins
```

Weights

Empty 11,400 kg Internal fuel 4,900 kg Max external load 7,200 kg on 10 pylons MTOW 22,500 kg

Propulsion

2x high-bypass turbofans (pod-mounted above the rear fuselage), 44 kN each = 88 kN total Bypass ratio ~6 (low IR signature, fuel-efficient loiter), exhausts shielded by the tailplane and fins Thrust-to-weight: 0.40 at MTOW

Performance

```
Max speed 720 km/h clean at sea level, 650 km/h loaded   Cruise 560 km/h   Stall ~200 km/h (landing config)
Climb 30 m/s clean   Ceiling 13,500 m (operates mostly below 3,000 m)
Combat radius 460 km with 2 h loiter at 100 km   Ferry range 3,900 km   Load factor +7.33 / -3 g
Take-off run 1,100 m at MTOW, operates from short, rough forward strips (low-pressure tyres, pod-mounted gear)
```

Crew

1 pilot in a titanium "bathtub" armoured cockpit (resists 23 mm HEI), zero-zero ejection seat

ARMAMENT (as modeled)

7-barrel 30 mm rotary cannon (chin), 1,150 rounds: API/HEI mix, 3,900 rds/min, ~60 mm RHA at 1,000 m to defeats IFVs and APCs from any angle, MBT tops, rears and engine decks
Per wing, inboard to outboard:

- 1x 250 kg laser-guided bomb

- Triple launcher with 3 electro-optical/IR anti-armour missiles (Maverick class, ~15 km, 1,000 mm RHA)
- 19-shot 70 mm rocket pod
- Twin self-defence IR air-to-air missiles

Fuselage stations: targeting pod (right), ECM pod (left)
Blended wingtip winglets (reduced induced drag for long loiter) with nav lights, chaff/flare dispensers in the tail cone

Survivability

Armoured cockpit tub, self-sealing foam-filled tanks, dual hydraulics + manual reversion, engines separated by the fuselage (one hit cannot take out both), gear semi-exposed for belly landings Countermeasures: 480 chaff/flare cartridges, towed decoy, ECM pod

Sensors

Targeting pod (FLIR, TV, laser designator/spot tracker), helmet-mounted cueing, HUD, digital datalink with ground forces, radar/laser warning receivers

Honest Limits

Slow and vulnerable to modern fighters and long-range SAMs, needs air superiority or a SEAD escort. The straight wing limits dash speed, heavy stores cut climb rate on hot days.

Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       Service entry 1333.
Built:           about 160 (1333 to 1350)
In service:      about 140
Unit cost:       about 14M (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace houses.
Can they afford it? Easily. A heavily armoured, low-electronics attack aircraft is cheap by Solenne's standard
                   was built to absorb ground fire without spending much of the economy's chips.
Fate:            Close-support workhorse of the PSU's Turncoat War land campaign.
```

IADM-6 Northland

Air · Operator: Northland-Southland · finished model and spec sheet



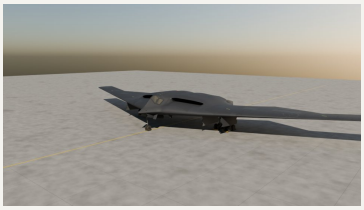
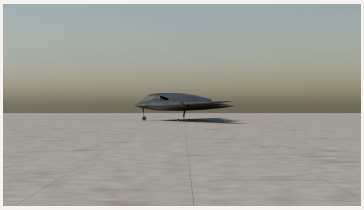
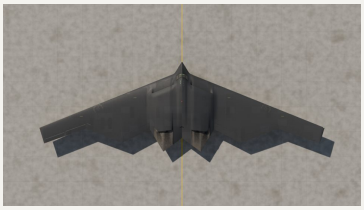


Production And Service

Operator:	Northland-Southland
Tier:	Limited production
Programme:	First flight 1349, derived from the DKK-1 family airframe (the model shares the DKK-1's intak nozzle geometry).
Built:	about 40 (1349 to 1356)
In service:	about 33
Unit cost:	about 22M (notional common unit, comparable only within this list)
Industry:	Northland's own aircraft works, working from a design obtained through a cross-bloc deal neve publicly acknowledged (see the note below).
Can they afford it?	Barely. A welfare-state economy with a small industrial base cannot design a modern fighte scratch, so it bought one: the airframe's lineage is PUSDR's, acquired quietly by way of Xu (PUSDR's friend since the post-GAW2 years, Section XX). Forty was all Northland's budget wo carry.
Fate:	Fought on the PSU side in the Turncoat War, flying an airframe descended from the enemy's. Op

MSSB-1 Strategic Stealth Bomber

Air · Operator: PUSDR · finished model and spec sheet

Maker: a Nam Minh-origin aerospace design bureau that outlived its home country's collapse and now designs and builds for the PUSDR (no date given). The slide figures were treated as targets: the airframe was sized up until it could actually carry them, and the places where it still can't are listed under HONEST LIMITS.

Role

Very long-range penetrating heavy bomber. It carries a heavy internal load (up to 55 t) deep into defended airspace, relying on shape, radar-absorbent skin, emission control and its own countermeasures rather than escorts. It can also fly SAR-radar reconnaissance with an empty bay.

DIMENSIONS (as modeled)

```
Wingspan 85.0 m   Length 26.8 m   Height 7.5 m (top of the cockpit hump, gear down)
Wing area 978 m2   Aspect ratio 7.4   Mean aerodynamic chord 14.5 m   Leading-edge sweep 22 deg
Planform: beaked nose, four-tooth "W" trailing edge with two tail points and a centre notch, raked tips
Weapon bay 12.4 x 4.6 m (saw-tooth ends), 2.3-2.8 m deep   Main gear track 25.6 m   Wheelbase 10.5 m
```

Weights

```
Empty 148,000 kg   Internal fuel 150,000 L (120,000 kg) in wet-wing and centre tanks
Max internal payload 55,000 kg   Max take-off 330,000 kg   Max landing 230,000 kg
```

Propulsion

6x buried medium-bypass turbofans, about 137 kN (14,000 kgf) each = 822 kN total, no afterburner. its own weight (see HONEST LIMITS).
Three engines per side, fed by one wide dorsal slot intake per side through an S-duct (fan faces are not visible from outside). They exhaust through slot nozzles onto ceramic-tiled upper-surface decks ahead of the trailing edge, which hides the hot section from below.
Thrust-to-weight: 0.25 at max take-off.

PERFORMANCE (estimates for this airframe)

```
Cruise Mach 0.74-0.78 at 11,500-13,000 m   Max Mach 0.82   Ceiling 15,000 m
Range unrefuelled: about 13,000 km (8,100 mi) with the full 55 t load, about 16,000 km (9,900 mi) with a
  10 t load, which is the slide's 10,000-mile mission. With tanker support it is limited only by the crew.
Take-off run: about 3,000 m at max weight, about 1,900 m in the slide's "light take-off, refuel straight after
  profile (full bomb load, about 40 % fuel)
Approach speed about 265 km/h   Load factor +2.5 / -1 g   Lift-to-drag about 23 in cruise
```

Crew

2, side by side (pilot and mission commander), under four flush gold-filmed panes: two windscreens and two side panes, framed. Upward ejection seats through jettisonable roof hatches. A rest bunk, galley and toilet sit behind the seats for 30-40 hour missions. Crew entry is through a belly hatch to the left of the nose gear, with a folding ladder.

ARMAMENT (internal, one centreline bay with two outward-hinged doors, no external stores)

Up to 55,000 kg, any of:

- 50 x 1,000 kg bombs (2.9 m class, three tiers)
- 16 x 3,000 kg bombs (3.7 x 1.0 m, as modeled: 12 on the lower racks, 4 above)
- 8 x 6,000 kg bombs (4.5 x 1.1 m class, one tier of 4 x 2)
- 2 x "Tsar-size" free-fall bombs (7.6 x 2.1 m, about 27 t each) side by side on special cradles

Four longitudinal rack beams in the bay roof, with ripple-release sequencing.

Survivability

Signature: the flying-wing planform has every edge aligned to the 22-deg leading edge or the trailing-edge saw-teeth. The whole skin is radar-absorbent material, with taped seams and visible patches of newer coating. All doors have saw-tooth edges, there are no external stores, the engines are buried, with shielded S-duct intakes and upper-surface exhausts, the glazing is gold-filmed.
Countermeasures (from the slide):

- Pyrophoric "cocktail" dispensers (four belly blocks near the DIRCM) firing magnesium flares mixed with pyrophoric liquid-aluminium decoys
- Chaff of aluminium-coated glass fibre from the same dispensers
- DIRCM laser turret under the nose (left of the bay), which points a focused beam into an incoming missile's seeker to blind it

Fuel system (from the slide): compartmentalised baffle tanks, i.e. many small compartments joined by one-way valves so the fuel can't slosh and destabilise the aircraft. Feed tanks next to the engines are filled evenly from the outermost tanks inward by the flight computer. The flight computer also sequences fuel to hold the centre of gravity near Y +1.5 m (just ahead of the wing's neutral point at about +1.2 m). Air-to-air refuelling receptacle in a slipway behind the cockpit, with an upward-opening door and grey guidance stripes.
Systems: quadruplex fly-by-wire, compartmented fuel, redundant hydraulics.

Sensors

AESA radar in the nose beak (dielectric apertures):

- air and surface detection to about 250 km

- SAR mapping from 100 mi (160 km) at 40,000 ft, fine enough to tell a civilian truck from an AA truck
- low probability of intercept, with electronic-warfare modes
- passive / emission-control mode: in deep hostile airspace the transmitter is shut down completely and the radar only listens for enemy emissions

Plus ESM / radar-warning receivers, missile-approach warning feeding the DIRCM, and a satcom datalink.

Markings

Low-visibility PUSDR cog-and-star (dark-grey outline form) on the upper and lower outer wings, serial 02-117 on both nose-gear doors and type stencil MSSB-1 by the crew hatch, all in low-vis grey. Overall dark satin RAM grey. Exhaust decks are grey ceramic tiles, heat-browned and sooted behind the slots.

MODEL-DERIVED DATA (measured from the built mesh)

Span 85.00 m, length 26.81 m, skin top z 7.47 m, belly 2.67 m above the ground
Wing (planform) area 977.7 m2, AR 7.39, MAC 14.46 m, area-weighted quarter-chord at Y +1.18 m
Wetted area 2,237 m2 (wetted / reference 2.29) Enclosed volume 1,237 m3 (after bays and wells) Outer wing box (15-75 % chord, outboard of the engines) 337 m3 = room for 2.2x the 150,000 L fuel load Intake capture area 8.45 m2 total (1.41 m2 per engine = about a 1.34 m fan), exhaust slot area 6.77 m2 Bombs: lower tier 9 cm above the closed doors, 22 cm below the bay roof
Gear: 4 main legs with 4-wheel bogies (1.20 m tyres) + twin nose wheels (1.10 m) = 18 wheels, main axle at Y 0.0 (tip-back angle about 18 deg from a CG at Y +1.5 / z 4.5), nose gear carries about 14 %

1 parked (gear down, gear doors open, crew hatch open) to 40-100 lifts to 60 m to 110-185 gear retracts (main legs swing forward, bogies fold flat, nose leg swings aft, doors close) to 200-230 bay doors open to 240-320 16-bomb ripple release (falls under gravity, pitches nose-down) to 330-360 bay closes to 380-480 elevon pitch and roll sweep, DIRCM slews to 480-520 split drag-rudders open (yaw) to
470-540 refuelling door to 520-595 gear down to 600-670 settles back onto the apron.
Hinged parts use axis-angle rotation about their real hinge lines, hinge axes are stored in each object's "hinge_axis" property.

Honest Limits

- Big and slow: an 85 m flying wing needs a long, wide runway, wide taxiways and an oversized hangar, and it is subsonic only. The 22-deg sweep from the drawing caps cruise near Mach 0.78, slower than a B-2.

- It cannot do everything at once. Full bomb load plus full fuel needs about 3 km of runway in cool air, the slide's 10,000-mile trip works only with a light load or a tanker. Taking off light and topping up straight after take-off is the normal heavy-mission profile, as the slide says.
- Six buried engines sit close together: an uncontained failure can take out its neighbour. Losing two on one side at max weight on take-off is not survivable.
- Pitch stability is relaxed and depends on fly-by-wire and fuel sequencing. A fuel-system or flight-control fault that lets the CG drift aft is dangerous.
- Stealth is directional and fragile: open bay, gear or refuelling doors, a radiating radar, or a firing DIRCM all give it away. The upper-surface exhaust decks still show on IR from above. Damaged or wet RAM needs hours of hangar time.
- Nuclear load: the bay and cradles can take two Tsar-size bombs, but in canon Aridexia spent nearly all its fissile material in GAW3 (the Consolidated Political History), so in most eras the warheads would not exist, the conventional loads are the real ones.
- No gun and no self-defence missiles, it lives or dies by not being found.

Modeled Detail

- Skin: one continuous parametric skin with blended cockpit and intake humps. Wide slot intakes have sharp lips and duct coves, slot exhausts have nozzle splitters, recessed ceramic decks and soot decals.
- Nose: radar beak, gold-filmed four-pane glazing with frames, two seats and an instrument panel behind it.
- Upper surface: refuelling slipway with door and guidance stripes, four auxiliary inlet doors (saw-tooth).
- Weapon bay: saw-tooth bay doors over a bay with roof frames, rack beams and hydraulic runs, 16 x 3,000 kg bombs with fins, lugs and yellow HE bands.
- Gear: four main wells with ribs and doors, a nose well with twin side doors, 4-wheel bogie main gear with trunnions, oleos and torque links, twin-wheel nose gear with taxi/landing lights.
- Belly: crew hatch, DIRCM fairing with azimuth ring and elevation head, four flare/chaff dispenser blocks.
- Control surfaces (per side): three elevons on the trailing-edge saw-teeth and an outboard split drag-rudder (upper and lower halves), cut from the same surface law so the gaps are true hinge slots.
- Lights: wingtip nav lights, top and belly anti-collision beacons, covert formation strips.
- Finish: RAM finish with tape seams, coating patches and flow streaks, low-vis PUSDR roundels and serials.

Production And Service

Operator:	PUSDR
Tier:	Prototype / token run
Programme:	2 prototypes 1347 to 1351, 5 production aircraft 1353 to 1357.
Built:	7 (2 prototypes + 5 production)
In service:	4 operational early 1357
Unit cost:	about 950M each (roughly 50 DKK-1s) (notional common unit, comparable only within this list)
Industry:	A single state aircraft hall at Katinka Krasny, using the Ferrengrad machine shops for the ca through structure.
Can they afford it?	No. This is the clearest case on the list of a nation reaching past its means. One MSSB-1 about fifty DKK-1 fighters and eats the semiconductor allocation of a hundred. PUSDR built because a strategic stealth bomber was a statement aimed at Solenne, not because its budget sustain a fleet of them. It carries conventional stand-off weapons only: GAW3 spent the fis material that would have armed it (the Consolidated Political History).
Fate:	One lost in 1356 striking Solenne's Korut-based fleet, four flying at the end of the Turncoat none after PUSDR fell in 1366.

PK-P1 Parrot Lord

Air · Operator: Anestria (the Constitutional Anestrian Republic holds the survivors) · finished model and spec sheet





Role

Two-seat, twin-engine, variable-geometry fighter: long-range fleet and territory defence with heavy long-range missiles, plus air superiority and a secondary strike role. Pilot in front, radar intercept officer (RIO/WSO) behind. 4th-generation technology: large pulse-Doppler radar, IRST, mixed analogue/digital cockpit, no stealth shaping.

CONFIGURATION (as modelled from the four-view)

Long nose with a light-grey radome, tandem two-seat canopy whose glass ends at a rear bow and blends into a dorsal fairing that flows back into the spine.
Narrow forward fuselage with a thin chine strake, a short, sharp glove shoulder ahead of the wing and a squared glove box carrying the wing pivots. The outer wings slide out of the glove's straight outer edge and sweep from 16 deg (take-off, loiter) to 68 deg (supersonic dash), modelled at 20 deg as drawn. Each wing has a tip pod with nav lights, full-span slats, double-slotted flaps and spoilers.
Big rectangular variable-ramp intakes tucked under the glove shoulder (hidden from above), with splitter plates. Twin engines in separated nacelles with a tunnel between them for missile pallets, beaver tail between the nozzles carrying chaff/flares and the tail warning receiver.
Twin fins canted 30 deg outboard with dark tips, all-moving tailerons with 5 deg anhedral.
Three-tone grey camouflage, dark anti-glare panel, "04" on the nose, "PK-P1" on the fins.

DIMENSIONS (as modelled)

```
Length 19.0 m (19.9 m incl. beaver tail + pitot)   Height 5.2 m (fin tips)
Wingspan 19.9 m at 20 deg (as drawn) / ~20.6 m fully spread (16 deg) / ~11.6 m fully swept (68 deg)
Wing area ~54 m2 incl. glove   Taileron span 8.6 m   Track 4.5 m   Wheelbase 7.3 m
```

Weights

```
Empty 18,900 kg   Internal fuel 7,300 kg   Max external load 6,500 kg   Max take-off 33,700 kg
Fleet-defence take-off weight (8 AAMs) ~30,500 kg   Combat weight (50% fuel, 8 AAMs) ~27,000 kg
```

Propulsion

2x afterburning low-bypass turbofans, 124 kN each with reheat / 76 kN dry = 248 kN total (152 kN dry) Bypass ratio ~0.6, digital engine control, convergent-divergent nozzles
Variable-ramp rectangular intakes with bleed doors for Mach 2+
Thrust-to-weight: 0.83 at fleet-defence take-off weight, 0.94 at combat weight

Performance

```
TOP SPEED: Mach 2.34 (~2,480 km/h) at 12,000 m, wings fully swept, 4 belly missiles
           Mach 1.2 (~1,470 km/h) at sea level
Cruise Mach 0.72 (wings forward, most efficient), loiter 480 km/h at 9,000 m
Service ceiling 16,000 m   Climb rate 230 m/s   Load factor +7.5 / -3 g (wing sweep scheduled automatically)
Combat radius 900 km with 4 long-range AAMs + 2 h combat air patrol at 280 km
Ferry range 3,200 km with 2 external tanks   Air-refuelling probe (retractable, right of the windscreen)
Take-off run ~450 m (wings forward), landing ~800 m, approach 230 km/h, arrestor hook for carrier or field arr
```

Crew & Cockpit

2 in tandem under a single framed canopy: pilot (HUD, 3 displays, stick/throttle) and radar intercept officer (large radar display, tactical plot, weapon management), zero-zero ejection seats, command ejection

ARMAMENT (as modelled: standard fleet-defence load)

Internal 20 mm six-barrel rotary cannon, left forward fuselage, 675 rounds, 4,000/6,000 rds/min 4x long-range radar AAM on belly pallets in the tunnel between the nacelles:
4.0 m, 380 mm, ~460 kg, active radar terminal + datalink midcourse, 200+ km, Mach 4+ for bombers, AEW&C, tankers and cruise missiles far from the fleet
2x medium-range radar AAM on the glove pylons: 3.7 m, 180 mm, ~160 kg, active radar, ~100 km, Mach 4 2x short-range IR AAM on the glove shoulder rails: 2.9 m, 127 mm, ~90 kg, imaging-IR, off-boresight, ~20 km Alternative loads:
Heavy intercept: 6 long-range AAMs (4 belly + 2 glove) + 2 short-range
Strike: 4x 1,000 kg precision bombs on the belly pallets or 2 anti-ship missiles, + 2 medium + 2 short AAMs Ferry: 2x 1,000 L tanks on the nacelle stations

Sensors & Avionics

Large pulse-Doppler radar: track-while-scan of 24 targets, simultaneous engagement of 6, look-down/shoot-down Chin IRST / TV long-range identification sight, datalink to AEW&C aircraft and ships, IFF
Radar and missile-approach warning, internal jammer, chaff/flares in the beaver tail, towed decoy

Survivability

Twin engines in separated nacelles, redundant hydraulics, self-sealing tanks, automatic wing-sweep reversion to a safe landing sweep, two crew to share the workload in a dense air picture

Honest Limits

The swing-wing pivots and boxes are heavy and maintenance-hungry, the airframe is big, heavy and not stealthy. Less agile than lighter single-seat fighters in a close turning fight, it wins with the radar and long-range missiles. Two crew and a complex aircraft need a large, well-trained support organisation and long runways or a carrier. External missile carriage adds drag and radar signature, top speed falls with the glove pylons loaded.

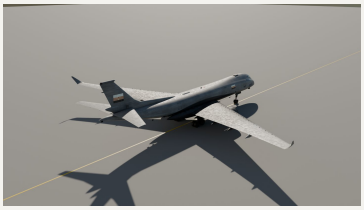
Production And Service

```
Operator:        Anestria (the Constitutional Anestrian Republic holds the survivors)
Tier:            Series production
Programme:       First flight 1291, service entry 1295. A 4th-generation fleet-defence fighter built before GA
Built:           78 (1295 to 1300)
In service:      about 22 with the CAR, early 1357
Unit cost:       about 40M (1295 prices) (notional common unit, comparable only within this list)
Industry:        Anestria's pre-GAW3 carrier-aviation industry (the same shipyards and bureaus as the AMS Adar
Can they afford it? Yes, for pre-GAW3 Anestria, the Syndicate's peer. The line never reopened: GAW3 destroyed
                   specialist tooling and the successor states could not afford a restart, so no more were eve
                   and the survivors were hoarded for parts.
Fate:            41 airframes survived GAW3, the CAR kept 22 in service as fleet defenders until its collapse
```

PSB-4 Ostrog

Air · Operator: Pechorian Federation · finished model and spec sheet





Pechorian Strategic Bomber, 4th type. "Ostrog" = a frontier fort.

Role

Long-range heavy bomber and stand-off missile carrier of the Pechorian Federation. Not a flying-wing stealth aircraft: an airliner-class airframe reshaped for reduced radar return (sharp nose chine, faceted flat belly, stepped flight deck with small flat panes, no external stores) so it lives against area SAMs while still carrying an airliner's fuel and payload. Doctrine is "shoot from outside the umbrella, then leave."

DIMENSIONS (as modeled)

```
Length 52.6 m   Wingspan 58.0 m (32 deg sweep, 5 deg outer dihedral, raked winglets)
Height 14.2 m (fin tip)   Wing area ~330 m2   Tailplane span 19 m (mid-fin mounted)   Fuselage width 5.2 m
```

Weights

Empty 96,000 kg Internal fuel 84,000 kg Max internal payload 27,000 kg MTOW 215,000 kg

Propulsion

2x very-high-bypass turbofans on wing pylons, 330 kN each = 660 kN total
Bypass ratio ~10, inlets and cores serrated/lined to cut frontal RCS and IR, no afterburner
Thrust-to-weight: 0.31 at MTOW

Performance

```
Max speed 940 km/h (Mach 0.88)   Cruise 880 km/h at 12,000 m   Stall ~230 km/h (landing config)
Ceiling 14,500 m   Combat radius 5,600 km unrefuelled with full weapon load   Ferry range 14,000 km
Air-to-air refuelling receptacle (dorsal, aft of the flight deck)   Take-off run 2,900 m at MTOW, long paved
runways only   Load factor +2.5 / -1 g
```

Crew

4: two pilots, offensive systems officer, defensive systems officer, on a raised flight deck above and behind the drooped radome (747 / C-17 style step). Six separate flat panes: two centre windscreens and two angled side panes per side, plus eyebrow windows. Upward ejection seats through jettisonable hatches. Crew door forward left.

ARMAMENT (as modeled)

Two internal weapon bays in the flat belly (forward 11 m, aft 10 m), rotary launchers:

- up to 16x long-range stand-off cruise missiles (1,500 km class), or
- 32x 1,000 kg guided glide bombs, or
- 8x anti-ship missiles + 8x decoy missiles (maritime strike fit)

No guns. No external pylons, everything internal to keep the signature down.

Survivability

Reduced-RCS shaping (chine, flat belly, canted panels, small flat glazing), radar-absorbent coating on leading edges and inlets, low-IR exhausts. Defensive suite: towed decoys, chaff/flare dispensers in the belly, wide-band jammers, radar/laser/missile warning. Foam-filled tanks, dual hydraulics, triplex fly-by-wire.
Four-wheel bogie main gear and twin-wheel nose gear.

Sensors

Low-probability-of-intercept nav/attack radar behind the dielectric radome, chin EO/IR turret (offset starboard), dorsal satcom hump, datalink to stand-off targeting assets (drones, satellites, forward observers).

Markings

Pechorian Federation flag on both sides of the fin and the forward fuselage, bort number 417, "PF" fin code. Two-tone scheme: light grey upper, dark grey lower, cheat line dipping under the flight deck and rising over the wing root.

Honest Limits

"Slightly stealth", not stealth: from the side and rear it has an airliner's radar return. It relies on stand-off range, jamming and escorts, and is dead if caught by fighters. Needs long runways and a big ground crew. Two engines means an engine loss on a heavy take-off is a very bad day.

Modeled Detail

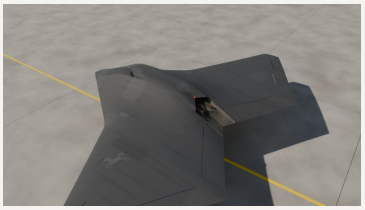
Faired flight deck (747-style) with six flat windscreen panes and wipers, three crew windows per side plus a windowed crew door (fwd left), two emergency exits per side, radome joint ring, ESM cheek fairings on the nose, nose pitots and AoA vanes, refuelling slipway with door lines, top and belly anti-collision beacons, two bomb bays with hinge fairings, three chaff/flare blocks per side, ram inlets, belly blade antennas, slat tracks, flap-track fairings, vortex generators and static wicks on wing, tailplane and fin, fin-tip ESM/tail-warning pod, APU exhaust, nacelle reverser lines and cowl latches, wing-root landing lights.

Production And Service

```
Operator:        Pechorian Federation
Tier:            Prototype / token run
Programme:       First flight 1348, deliveries 1350 to 1356.
Built:           7
In service:      5 flying early 1357
Unit cost:       about 420M (notional common unit, comparable only within this list)
Industry:        Pechora state aircraft works, with Solennese engines and avionics supplied under the PSU.
Can they afford it? No. A small, quiet nation that has 'never been attacked' (the Consolidated Political Histo
                   strategic bomber and no economy to build one. The PSB-4 exists because the PSU wanted a lon
                   arm and Solenne's Project Turncoat money paid for the airframes (the canon record), engines
                   is what that money bought.
Fate:            Flew stand-off missile strikes in the Turncoat War for the PSU, two lost over the Korut front
```

RS-1 Stealth Attack Drone

Air · Operator: Bavaria · designation named in the Consolidated Political History


the Consolidated Political History describes it as "a flying-wing silhouette with no vertical tail, a smooth blended fuselage, dark matte grey can genuinely fly the mission:

- 1,650 km combat radius (out and back) with 1,700 kg of weapons carried internally
- missiles swappable for precision-guided bombs
- about 4M per drone and about 13M for the programme

Every figure below is either measured from the built model or worked out from it, as noted.

Role

Long-range, low-observable unmanned strike aircraft. It flies high and subsonic to a target up to 1,650 km away, opens its bays only for the moment of release, and comes home. It is cheap enough (about a quarter of a fighter) to be risked against defended targets that a crewed aircraft would not be sent against.

DIMENSIONS (measured from the built model)

```
Span 14.6 m   Length 9.9 m   Height 3.15 m (top of the dorsal hump, gear down)
Planform: cranked kite. The leading edge is swept 54 deg inboard and 30.5 deg outboard of the crank (at 2.9 m
semi-span). The trailing edge is a W, and both of its segments run parallel to the outer leading edges, so the
whole outline uses only a few edge directions.
Wing area 70.9 m2   Aspect ratio 3.0   Mean aerodynamic chord 5.7 m (its quarter-chord at Y +0.69 m)
Centre-body depth 1.42 m (18 % of the 8.0 m root chord), thinning to about 10 % at the tips, 2 deg dihedral
outboard and 3.5 deg of washout (reflexed outer panels) for tailless pitch trim
Wetted area 174 m2   Enclosed volume 34.8 m3 (after the bays, wells and ducts are cut out), outer wing box 12.
Weapon bays: 2, side by side, each 4.15 m long x 0.70 m wide x about 0.60 m deep
Main gear track 3.1 m   Wheelbase 4.6 m
```

WEIGHTS (estimated from the airframe's size, skin area and volume)

Empty 6,800 kg (composite airframe, one engine, no crew systems)
Internal fuel 3,800 kg (4.75 m3, in the outer wing box and forward centre-body tanks, under 40 % of the room available)
Weapons 1,700 kg internal (2 x 850 kg)
Max take-off 12,300 kg Wing loading at max take-off 173 kg/m2

Powerplant

1x non-afterburning medium-bypass turbofan, about 48 kN (4,900 kgf), about 66 kg/s of airflow, about 1,000 kg, buried in the centre body.
It breathes through a dorsal caret intake on top of the centre hump (0.33 m2 capture area, measured). The intake lip is swept with the leading edge, and a serpentine duct curves down and back to the engine, so the compressor face cannot be seen from outside.
It exhausts through a flat slot (0.34 m2, measured) onto a ceramic-tiled deck recessed in the trailing-edge notch. Three splitter vanes in the slot block the view of the turbine, and the upper-surface exhaust is shielded from below.
Thrust-to-weight 0.40 at max take-off.

PERFORMANCE (hand calculation on the measured geometry, lift slope and neutral point from an AeroLab run)

```
  Zero-lift drag about 0.011 (174 m2 wetted), best lift-to-drag about 13.5 at a lift coefficient of 0.29
  Cruise Mach 0.75 at 13,500-14,500 m, where the wing is at its best lift coefficient
  Max speed about Mach 0.82 (the thick centre body sets the drag rise)   Ceiling about 15,000 m
  The design mission works with fuel to spare:
, 1,650 km out with 1,700 kg, release, 1,650 km back, plus a 30 min reserve, needs about 3,000 kg of fuel
      (Breguet, specific fuel consumption 0.077 kg/N/h, lift-to-drag 13)
, full tanks stretch the radius to about 1,950 km
  Ferry range about 5,000 km   Endurance about 6.5 h with empty bays (loiter / reconnaissance)
  Take-off roll about 700 m at max take-off (no flaps, rotation limited to about 12 deg)
  Approach about 200 km/h, landing roll about 600 m with the drag rudders open as speed brakes
  Load factor +4.5 / -1.5 g
  Pitch: relaxed. AeroLab puts the neutral point at Y +0.40 m. With the fuel tanks forward and the avionics and
    sensor in the nose, the CG is at Y +0.73 m when full (about 6 % stable) and about +0.32 m when empty (about
    1.4 % unstable). The flight computer flies it through that range, and fuel is burned in a set sequence to ho
    the CG.
  Yaw: no fins, so like every tailless flying wing it is directionally unstable (AeroLab Cn-beta -0.0005/deg). I
    held straight by the split drag rudders at the wingtips under flight-computer control, as on real flying win
```

Avionics / Control

Triplex fly-by-wire flight computer, autonomous navigation, take-off and landing, line-of-sight and satellite datalinks (flush antennas). Weapon release is held for operator consent over the link, if the link is lost, the drone flies home on its own.
Sensors: an electro-optical / infrared targeting sensor behind a faceted gold-filmed window under the nose, a passive radar-warning / ESM receiver with apertures at the wingtips, flush air-data ports.

ARMAMENT (internal only, 1,700 kg)

Two belly bays with saw-tooth-edged clamshell doors (two doors per bay), each with a rack beam and ejector hooks at the standard 0.76 m lug spacing. Per bay, either:

- 1 x 850 kg low-observable stand-off missile (as modeled: 4.0 m, faceted body, chisel nose with seeker window, wing folded under the belly, folded tail fins) swap the load)
- 2 x 450 kg-class guided bombs on a twin rack, or a smaller stand-off weapon

No gun, no self-defence missiles.

Survivability

Signature (measured with AeroLab, X band, clean, gear up, bare shape with no radar-absorbent coating):

- frontal +-30 deg: median about 0.007 m2 (-21.7 dBsm)
- nose-on +-5 deg: median about 0.09 m2
- side-on: median about 0.06 m2, with sharp spikes exactly broadside off the wing edges
- rear +-30 deg: median about 0.9 m2, mostly the exhaust trough

The radar-absorbent skin would take roughly another 10 dB off. Head-on it is a genuinely low-observable aircraft, from behind it is much easier to see.
Other measures:

- every door and panel edge is saw-toothed (bays, gear wells)
- only a few planform edge directions, buried engine with a hidden compressor face and a shielded exhaust
- flush sensors, antennas and lights (covert wingtip nav lights, flattened beacons, dark formation strips)
- flush chaff/flare dispensers under each wing

It survives by not being found. It cannot outrun or out-turn anything that does find it.

Markings

Dark matte radar-absorbent grey (the Consolidated Political History), weathered with tape seams, newer and older coating patches, flow streaks and soot on the exhaust deck.
Low-visibility Bavarian insignia: the rearing horse from the national flag in a grey a shade off the skin, on the upper left and lower right wing. Serial 041 under each wing root and an RS-1 type stencil under the nose, both in low-vis grey.

Cost

within the Canon Vehicles list: a DKK-1 fighter is about 18M, the CS-XF-79 about 90M).
It is that cheap because:

- there is no crew, cockpit, ejection seat or life support,
- it has one engine,
- the skin is a one-piece composite moulding with only a few doors,
- it carries no radar of its own,
- it is built to an attritable service life.

The small programme cost only works if the engine and avionics are adapted from existing types rather than developed new.

Modeled Detail / Animation

- Skin: one continuous parametric surface: an airfoil at every streamwise station plus a blended centre-body hump, with true steps at the intake lip and exhaust slot, whose faces become duct coves.
- Intake: dorsal caret mouth with a sharp lip and a dark duct cove. Exhaust: tiled deck with soot, three splitter vanes, slot cove.
- Control surfaces (per side): inner and outer elevons, and a split drag rudder (upper and lower halves) at the tip. All are cut from the same surface law, so the gaps are true hinge slots.
- Bays: four saw-tooth clamshell doors, bay frames, rack beams, ejector hooks and hydraulic runs, two stand-off missiles, two alternative guided bombs (hidden).
- Gear: single-wheel main legs (0.60 m tyres) with oleo, torque links, fork and brake lines, folding forward 97 deg to stow mid-depth in the wing, single-wheel steerable nose leg (0.56 m) with a taxi light, folding aft. Saw-tooth gear doors.
- Flush EO/IR window, SATCOM radome, antenna panels, air-data ports, wingtip RWR apertures, dispensers, lights.
- Timeline (markers): 1 parked 40-100 lift (demo, to 30 m) 110-165 gear up (doors close by 185) 200-225 bays open 240 / 250 missiles released (gravity drop, nose-down) 330-355 bays close 380-480 elevon pitch and roll sweep 480-520 drag rudder 520-595 gear down 600-670 settles Hinged parts rotate about their real hinge lines (axis stored in each object's "hinge_axis").

Honest Limits

- Subsonic only (about Mach 0.82, no afterburner). Once found it can neither outrun nor out-turn a fighter, and it has no self-defence weapons.
- Single engine: an engine failure means the aircraft is lost.
- A tailless, relaxed-stability flying wing that is unstable in yaw: it depends completely on its flight computer and drag rudders. A flight-control fault cannot be recovered.
- Depends on its datalink. Jamming or loss of the satellite link means no consented weapon release, the drone aborts and flies home.
- Two weapons per sortie. 1,700 kg at 1,650 km uses most of the design margin, hot or high airfields cut the load.
- The 4M price means compromises: an adapted engine, a coating that needs regular repair, and a limited service life.
- From behind and from directly abeam it is far easier to see on radar than from the front, and the upper-surface exhaust is visible to infrared sensors looking down on it.
- Estimates, not test data: weights come from size and volume, the CG comes from an assumed equipment layout, drag is a hand calculation (AeroLab's fast estimator reads drag about 1.5-2x high on every aircraft in the set: 0.057 here).

Production And Service

```
Operator:        Bavaria
Tier:            To be set
Programme:       Dates to be set. Programme cost about 13M (user figure).
Built:           To be set
In service:      To be set
Unit cost:       about 4M each (user figure, roughly a quarter of a DKK-1) (notional common unit, comparable o
                   within this list)
Industry:        To be set.
Can they afford it? Yes, by design: no crew systems, one engine, a one-piece composite skin and an attritable
                   life keep it at about 4M, and the 13M programme only works because the engine and avionics
                   adapted from existing types (see the spec sheet's COST section).
Fate:            To be set.
```

SG-16 Veyra

Air · Operator: Skotia · finished model and spec sheet





Role

Day/night air-to-ground strike and battlefield interdiction with self-defence air-to-air: laser-guided bombs, anti-armour missiles, gun. F-16-era technology: quadruplex analogue fly-by-wire, ground-mapping radar, chin FLIR/laser ball, HUD + two CRT MFDs, inertial nav, chaff/flare, internal jammer.

SERVICE ROLE (canon, revised 2026-10-03)

Ordered and produced from 1328 as Skotia's LIGHT FIGHTER, the cheap single-engine answer to a navy-first air arm that could not afford more. It performed below expectations: range, radar and agility all fell short of the light-fighter specification, and by about 1338 the air force had stopped buying it for the air-superiority job. Rather than scrap a paid-for fleet, Skotia turned most of the survivors into its basic and advanced trainer, and a minority of squadrons kept flying it as a second-line light fighter and maritime patrol / light strike aircraft wherever nothing better was available. The strike avionics and stores capability described below are what the airframe CAN do, not what Skotia mainly used it for.

SIGNATURE (why it looks the way it does)

- SHOULDER INTAKES grown out of the fuselage skin: the canopy bubble, its turtle deck, the dorsal spine and the two intake shoulders are ONE blended surface (offset from the skin with tangent run-outs, no joints). The mouths are scarfed ~20 deg in plan (outboard lip forward), with a rolled lip, a low cheek fairing ahead of the outboard lip, 6 cm boundary-layer diverter slots and ducts curving down to the compressor face. Nothing under the nose or belly ingests gravel on dirt strips, and the whole underside is free for stores and gear.
- Flat, chined "shovel" nose, the chine becomes a 6 cm-thick filleted strake running into the wing leading edge.
- 40-deg trapezoid wing with a dogtooth at 3.9 m, 3 deg anhedral, filleted into the fuselage (0.06-0.25 m radius).
- 42-deg butterfly V-tail (filleted roots) plus two canted ventral strakes, RWR pods on the V-tail tips.

Dimensions, Weights, Propulsion, Performance

Engine (sized from the measured 0.362 m2 intake capture, ~71 kg/s airflow): 1x low-bypass afterburning turbofan, 0.9 m class, 57 kN dry / 90 kN wet, scalloped 16-petal convergent nozzle, 0.88 m exit.
Fixed scarfed intakes would cap it at Mach 1.5, but with 90 kN it is thrust-limited to just supersonic (derived block). Load factor +8 / -3 clean, +5.5 loaded. Max AoA 22 deg (shoulder intakes sit in the spine's wake).

Crew

1 pilot, zero-zero ejection seat under a one-piece bubble canopy (swept aft bow, hinged at the rear)

ARMAMENT (9 stations, as modeled)

30 mm single-barrel revolver cannon in a blister in the starboard strake root, 350 rds (0.32 m3 drum), 1,700 rds/min Wingtip rails (x2, 150 kg): IR short-range AAM
Mid-wing (x2, 1,000 kg): twin-rail anti-armour missile launchers (4 missiles, ~8 km, tandem HEAT, precursor probe) Inboard wing (x2, 2,000 kg, plumbed): 900 kg laser-guided bombs (0.46 m body, seeker + canards, folding tail) Belly (x2, 450 kg, streamlined stub pylons): targeting pod (port), ECM pod (starboard)
Centreline (1,400 kg, plumbed): 1,400 L drop tank
Strike load as modeled ~4,000 kg (weights and take-off figures in the derived block)

Sensors & Avionics

Ground-mapping / terrain-avoidance radar in the flat shovel-nose radome
Chin FLIR + laser ranger/designator ball in a turret fairing under the nose
RWR pods on both V-tail tips, internal jammer + ECM pod, 3 x 3 chaff/flare cells under the tail cone HUD, 2 CRT MFDs with a curved glareshield, inertial nav, radar altimeter, anti-collision beacon in a dorsal teardrop

MOVING / FUNCTIONAL PARTS (each a separate object pivoted on its real hinge)

Flaperons: hinge at 75.5 % chord, x 1.25-3.9 m, +/-25 deg roll, 20 deg droop for take-off (posed 8 deg) Ruddervators: hinge at 70 % chord, +/-25 deg, mixed pitch/yaw (posed 6 deg)
Split airbrakes: curved to the tail-cone skin, hinged at their leading edge, 0-60 deg (posed 25 deg) Canopy: glass + flush frames on SG_CanopyHinge at the aft bow
Nose gear: forward-retracting, twin side doors hanging from the bay edges
Main gear: forward/inboard into belly bays, leg-mounted outer doors ride on the legs, inner doors hang from the bay Chin FLIR ball, gun port, boarding steps, wingtip nav/formation lights, chocks on the ground

Finish

Two-tone disruptive "slate & sand" over light-grey undersides, panel lines and rivets, edge wear, dust, white bort "214" on the nose, low-vis "214" on the V-tail, serial "SG-16 0214", rescue markings

Honest Limits

Only 90 kN wet from a 0.36 m2 intake: loaded take-off runs are long (see derived block) and it is a bomb truck, not a fighter, until the stores are gone. Shoulder intakes blank above ~22 deg AoA / hard sideslip (firm AoA limiter). Single engine over enemy lines, barely supersonic even clean, V-tail mixing gives less low-speed yaw authority than a conventional fin (hence the ventral strakes).

```
MEASURED GEOMETRY
  Bounding box (airframe incl. stores): L 16.22 m  x  W 10.85 m  x  H 4.14 m
  Wetted area (external skin, clean): 182.0 m2   Fuselage + dorsal skin: 87.3 m2
  Fuselage enclosed volume: 19.57 m3   Max fuselage frontal area (incl. dorsal): 3.30 m2
  Wing: gross 34.33 m2 (integrated), exposed 25.65 m2, AR 3.15, MAC 3.68 m at 2.09 m span,
        quarter-chord sweep 33.1 deg, measured wing mesh volume 3.46 m3
  V-tail + strakes: wetted 21.80 m2, projected 7.57 m2 horizontal / 7.42 m2 side
  Control surfaces (both sides, projected): flaperons 4.13 m2 (12.0 % S), ruddervators 3.37 m2, airbrakes 0.95 m
  Canopy glass 12.55 m2   Intake capture (both mouths, measured outline) 0.362 m2
  Stores: frontal area 3.00 m2, lowest store 0.47 m above ground
  Mesh: 35 airframe objects, 152,249 vertices
VOLUME BUDGET to INTERNAL FUEL
  nose / radar / avionics / cockpit fwd      1.83 m3
  engine 0.9 m x 4.3 m                       2.74 m3
  intake ducts                               0.98 m3
  gear bays + gun drum                       0.90 m3
  afterburner section                        2.68 m3
  remaining (tankage zone)                  10.44 m3
  Fuselage fuel (45 % of the tankage zone) 4.70 m3 + wing box 1.10 m3 to 4,637 kg internal
WEIGHT BUILD-UP
  wing (52 kg/m2 gross)                          1,785 kg
  V-tail + strakes (28 kg/m2 exposed)              305 kg
  fuselage structure (24 kg/m2 wetted)           2,096 kg
  engine + accessories (T/W 7.5 dry-equiv)       1,195 kg
  landing gear                                     520 kg
  canopy + seat + cockpit                          330 kg
  avionics, radar, EO, EW                          780 kg
  fuel system, hydraulics, electrics, FBW          900 kg
  gun (empty) + mounts                             150 kg
  paint, sealant, misc                             180 kg
  EMPTY 8,242 kg   pilot + 350 rds 432 kg   strike stores 4,004 kg
  Strike take-off 17,315 kg   clean combat (50 % fuel, 2 AAM) 11,165 kg   landing 9,774 kg
BALANCE & GROUND GEOMETRY
  CG (clean combat) y +0.00 m, z 1.83 m  = 15 % MAC
  Tip-back angle 28 deg (>15 required)   turnover angle 56 deg (<63 required)   nose-wheel load 16 %
  Main track 2.52 m, wheelbase 6.07 m, main tyres 0.76 m, nose tyre 0.56 m, lowest airframe point 0.87 m
AERODYNAMICS (from measured wetted area, Cfe 0.0045, e 0.78)
  CD0 clean 0.0239, with strike stores 0.0501   (L/D)max clean 9.0, loaded 6.2
PERFORMANCE RECOMPUTED FROM THE ABOVE
  T/W: 0.53 wet at strike take-off, 0.82 wet at clean combat weight
  Wing loading: 504 kg/m2 strike take-off, 325 kg/m2 clean combat
  Max speed clean, afterburner: Mach 1.04 at 11,000 m (thrust-limited below the Mach 1.5 intake limit), 1,224 km
  Loaded dash, dry thrust, sea level: 871 km/h (Mach 0.71)
  Climb rate clean, sea level, afterburner: 165 m/s   ceiling (0.5 m/s excess power): 17,000 m
  Turn at 3,000 m, Mach 0.8, clean: sustained 6.2 g / 13.1 deg/s, instantaneous 8.0 g / 17.0 deg/s
  Take-off run at 17,315 kg: 1,120 m afterburner / 2,002 m dry (lift-off 354 km/h)
  Approach 272 km/h, landing roll ~766 m
  Combat radius hi-lo-hi with the strike load (tank kept, 2 x 110 km low legs, 5 min combat, 10 % reserve): ~560
MOVING PARTS FOUND IN THE MODEL
    Flaperon_R       pivot (+2.58, -2.35, +1.83) m  rotation mode AXIS_ANGLE
    Ruddervator_R    pivot (+1.49, -6.38, +3.26) m  rotation mode AXIS_ANGLE
    Airbrake_R       pivot (+0.62, -5.32, +1.84) m  rotation mode XYZ
    CanopyHinge      pivot (+0.00, +2.65, +2.95) m  rotation mode XYZ
    NoseGear         pivot (+0.00, +4.95, +1.30) m  rotation mode XYZ
    MainGear_R       pivot (+0.66, -0.35, +1.24) m  rotation mode XYZ
```

```
NoseDoor_R       pivot (+0.20, +5.05, +1.08) m  rotation mode XYZ
MainDoorInner_R  pivot (+0.27, -0.55, +1.14) m  rotation mode XYZ
```

Source

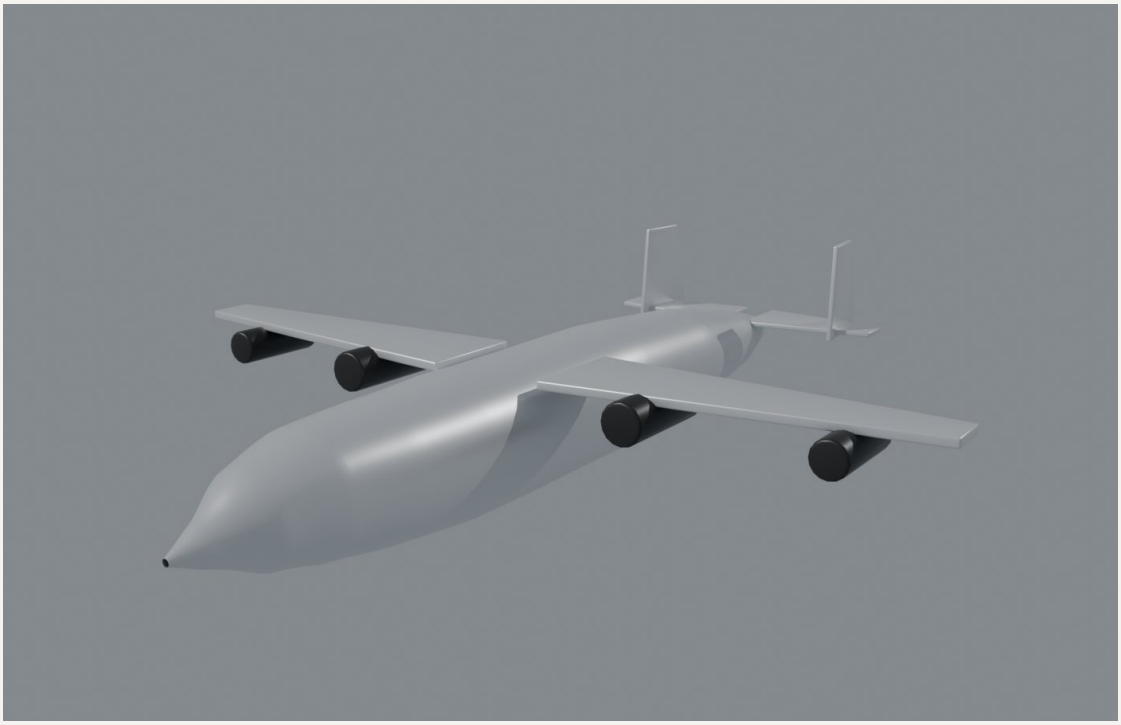
Original design.

Production And Service

```
Operator:        Skotia
Tier:            Series production
Programme:       First flight 1325, entered service in 1328 as a light fighter, but performed below expectatio
                   was reassigned to training from about 1338.
Built:           about 120 (1328 to 1346)
In service:      about 96, most as trainers and a minority still flown as light fighters
Unit cost:       about 12M (notional common unit, comparable only within this list)
Industry:        Skotharbor yards and aircraft works: the one Skarnovian power with real domestic arms product
                   (Section XXIV).
Can they afford it? Yes, comfortably. A single-engine mid-4th-generation aircraft is a cheap, modest build for
                   modest arsenal, which is why Skotia kept it: it never lived up to the light-fighter require
                   (range, agility and radar were all short of the specification), so the air force turned the
                   survivors into its basic and advanced trainer rather than scrap a paid-for fleet. A few squ
                   still fly it as a second-line light fighter and maritime patrol aircraft where nothing bett
                   available.
Fate:            Trained Skotia's pilots through the Turncoat War, with the light-fighter squadrons flying coa
                   maritime patrol for the PSU, Skotia collapsed in 1368.
```

TRC-201 Serbius

Air · Operator: Solenne · designation named in the Consolidated Political History



Role

High-wing, twin-fin STOL transport, 4 high-bypass turbofans.

Dimensions

Length ~14 m Span ~12.5 m Height ~4 m

Weights

Empty 9,500 kg MTOW 17,000 kg Payload 4,500 kg / 30 troops / 18 paratroopers / 12 stretchers

Propulsion

4x small high-bypass turbofans, ~15 kN each (60 kN total)
Thrust-to-weight ~0.36 at MTOW

Performance

```
Cruise 580 km/h   Max 650 km/h   Stall (full flap) ~150 km/h
Take-off run ~450 m, landing ~400 m on unprepared strips
Climb ~12 m/s   Range 1,800 km max fuel / 900 km max payload   Ceiling 10,000 m
```

Defence

Chaff/flare dispensers, missile warning, unarmed

Honest Limits

Turboprops would be more fuel-efficient at this size, turbofans trade short-field performance for speed.

Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       Designed under the USN in 1291, Solenne restarted production in 1304.
Built:           about 40 USN-built + about 190 Solenne-built (1304 to 1350)
In service:      about 165
Unit cost:       about 16M (notional common unit, comparable only within this list)
Industry:        Solenne's transport works, inheriting the USN's tooling.
Can they afford it? Yes. Only about 30 airframes existed when Operation Fenwick flew in 1305 (they were the on
                   survived GAW3 parked at remote fields), which is why Fenwick's reinforcement flights were s
Fate:            The PSU's logistics backbone in the Turncoat War.
```

VTOL Strike Jet 478 (VBA-478 Wraith)

Air · Operator: Solenne · designation named in the Consolidated Political History

Role

Supersonic V/STOL strike fighter.

Dimensions

Length 19.5 m (with pitot) Span 10.0 m Height 5.5 m Wing area ~31 m2

Weights

Empty 11,700 kg MTOW 15,800 kg short take-off / 13,000 kg vertical

Propulsion

Main: 1x afterburning lift/cruise turbofan with 3-bearing swivel nozzle, 108 kN dry / 152 kN reheat Lift: 2x lift jets behind cockpit, 41.7 kN each (VTOL/transition only)
Vertical thrust-to-weight ~1.15 at 13 t

Performance

```
Max speed Mach 1.7 (1,800 km/h) at altitude, 1,250 km/h at sea level
Climb ~250 m/s   0 to 1,000 km/h (level, reheat) ~40 s
Combat radius 250 km (VTO) / 700 km (STO + drop tanks)   Ceiling 15,000 m   +7 g
Hover endurance ~60 s at combat weight
```

Armament

1x 30 mm internal cannon, 4 pylons ~2,600 kg (modeled: 2 drop tanks + 2 bombs), AAMs on outer stations

Honest Limits

Small payload vs conventional jets, hot exhaust erodes decks/runways, vertical landings burn fuel fast.

Production And Service

```
Operator:        Solenne
Tier:            Limited production
Programme:       First hover 1331, service entry 1335 (the V/STOL strike jet named VBA-478 Wraith in the Conso
Built:           about 88 (1335 to 1353)
In service:      about 70
Unit cost:       about 55M (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace houses.
Can they afford it? Yes, but expensively: lift-jet VTOL is a heavy, short-endurance design that only a rich ca
                   navy buys in quantity (hover endurance about 60 seconds). Solenne bought enough for its sho
                   carriers and no more.
Fate:            Operated from Solenne's carriers in the Korut campaign.
```

Ground Vehicles

8x8 IFV (SCV-67bv8, predecessor of the SCV-67 Blowback)

Ground · Operator: Solenne · finished model and spec sheet







Role

Wheeled infantry fighting vehicle / mechanised infantry carrier.

DIMENSIONS (as modeled)

Length 8.1 m hull / 8.7 m incl. gun Width 2.95 m Height 2.72 m roof (4.6 m antennas)
4 axles (spacing 1.50 / 2.05 / 1.50 m), 1.2 m run-flat tyres, ground clearance ~0.50 m

Weight

Combat 31 t (35 t with full appliqué)

Powertrain & Drivetrain

Engine: 12.8 L V8 turbo-diesel, 530 kW (720 hp) @ 2,300 rpm
Torque: 3,000 Nm @ 1,400 rpm
Transmission: 7-fwd / 1-rev automatic with torque converter + retarder
Drive: 8x8 permanent all-wheel drive, locking diffs, front 2 axles steer, central tyre inflation
Suspension: independent double-wishbone, hydropneumatic struts
Power-to-weight: 17 kW/t (23 hp/t)

Performance

```
Top speed road 100 km/h   Off-road 50-60 km/h   Reverse 30 km/h
0-50 km/h: ~11 s   0-32 km/h (20 mph): ~6.5 s
Gradient 60%   Side slope 30%   Vertical step 0.6 m   Trench 2.0 m   Fording 1.5 m
Turning radius ~9 m   Range 800 km (fuel ~560 L)
```

Crew & Capacity

3 crew (driver, commander, gunner) + 8 dismounts via rear ramp/door

Armament

30 mm dual-feed autocannon, 200 rds ready, APFSDS ~115 mm RHA @ 1 km, effective 2-3 km
7.62 mm coax MG (2,000 rds)
Twin ATGM launcher: tandem HEAT, 5 km, ~900 mm RHA behind ERA
8 smoke dischargers

Protection

All-round 14.5 mm AP, frontal 30 mm APFSDS, V-belly ~8-10 kg TNT
Bolted sponson armour, limited vs tandem HEAT and anything MBT-calibre

Sensors

Commander panoramic day/thermal sight (hunter-killer), gunner sight, 3-periscope driver array

Honest Limits

Dies to MBT fire from any angle, wheeled mobility weaker than tracks in deep mud/soft sand.

Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       The SCV-67bv8 'hero' model: the direct predecessor of the SCV-67 Blowback heavy fire-support
                   (the Consolidated Political History). Service entry 1331, unit marking 2-13 in solar yellow
Built:           about 410 (1331 to 1348), superseded by the SCV-67 in front-line service from 1349
In service:      about 260 in reserve and second-line units early 1357
Unit cost:       about 4.6M (notional common unit, comparable only within this list)
Industry:        Solenne's vehicle works, the same line that later builds the SCV-67 on an evolved hull.
Can they afford it? Easily. A wheeled 8x8 is cheap and quick to build, and Solenne's navy-first, expeditionary
                   doctrine wants fast road-mobile armour more than a heavy armoured corps. The SCV-67 Blowbac
                   out of it once Solenne wanted the same layout with a bigger gun and an ATGM launcher.
Fate:            Replaced by the SCV-67 in front-line formations, the survivors served as second-line and garr
                   vehicles through the Turncoat War.
```

B-4/2 Main Battle Tank

Ground · Operator: Constitutional Anestrian Republic (CAR) · finished model and spec sheet





Role

Main battle tank with a faceted low-profile turret and an organic roof weapon station.

DIMENSIONS (as modeled)

Hull 7.7 m (incl. front fender boxes) Length gun forward ~10.2 m Width 3.9 m over side modules Height 2.46 m to turret roof (~2.8 m over the roof station)
7 road wheels/side (0.72 m), rear sprocket, front idler, 3 return rollers, track 0.62 m, clearance ~0.46 m

Weight

Combat 57 t Ground pressure ~0.98 kg/cm2

Powertrain & Drivetrain

Engine: 1,120 kW (1,500 hp) V12 turbo-diesel @ 2,300 rpm
Torque: 5,300 Nm @ 1,500 rpm
Transmission: 6-fwd / 2-rev automatic with hydrostatic steering (neutral steer)
Drive: rear sprocket, tracked Suspension: torsion bars + rotary dampers
Power-to-weight: 19.6 kW/t (26.3 hp/t)

Performance

```
Road 68 km/h   Off-road 45 km/h   Reverse 30 km/h
0-32 km/h: ~7.5 s   0-50 km/h: ~15 s
Gradient 60%   Side slope 40%   Vertical step 0.9 m   Trench 2.8 m   Fording 1.4 m (4 m with snorkel)
Range 450 km (fuel ~1,500 L)
```

Crew

4: driver (hull), commander, gunner, loader/roof-station operator (turret)

Armament

Main: 120-125 mm smoothbore with large bore evacuator and angular muzzle brake APFSDS ~700-750 mm RHA @ 2 km, HEAT-MP and gun-launched ATGM to 5 km, 40 rds (16 in bustle ready rack) Rate ~6-8 rds/min (manual/assisted loading)
Secondary: 6-barrel 20 mm rotary cannon in the roof weapon station (centre-left), 1,500-3,000 rds/min, ~500 rds vs infantry, light armour, helicopters and drones to ~1.5-2 km
Stationary 7.62 mm MG on a fixed forward-facing roof mount (turret right side), ~1,500 rds
4-tube smoke/grenade dischargers (lower-left cheek)

Protection

Swept cheek armour with a recessed mantlet: turret front ~900-1,000 mm KE / 1,200 mm CE Hull front ~650 mm KE, continuous side armour modules ~100-150 mm KE (defeat autocannon and most RPGs) Undercut faceted turret sides reduce the frontal silhouette, the recessed mantlet avoids a shot trap Weak points: roof panels (top-attack), lower hull front between the fender boxes

Sensors

Commander rectangular optic (rear left), cheek-mounted sensor box, roof-station sight, gunner thermal sight, raked sensor/comms mast (rear right), laser warning

Honest Limits

No autoloader: slower rate of fire than autoloaded peers but safer ammunition stowage (bustle blow-out rack). The wide rear overhang is exposed when fighting hull-down on reverse slopes.

Production And Service

```
Operator:        Constitutional Anestrian Republic (CAR)
Tier:            Series production
Programme:       Service entry 1331.
Built:           about 340 (1331 to 1352)
In service:      about 290
Unit cost:       about 7M (notional common unit, comparable only within this list)
Industry:        CAR's state armour works, on ROA tooling (the five successor states share AR-7 tooling, Secti
                   XXIV).
Can they afford it? Yes. CAR kept the old Anestrian armour line running because it claims succession from the
                   Republic, and a tank factory is a cheap way to prove it.
Fate:            The CAR's main battle tank, collapsed in 1365.
```

BH-10 Volnyk Infantry Fighting Vehicle

Ground · Operator: PUSDR · designation named in the Consolidated Political History





Role

Tracked infantry fighting vehicle: front engine, rear troop compartment, heavy direct-fire gun.

DIMENSIONS (as modeled)

```
Hull 6.3 m   Width 3.97 m over the track units (main hull 2.6 m)   Hull roof 1.78 m
Height 2.57 m turret roof (4.1 m antennas)   Muzzle ~0.3 m past the nose at 0 deg traverse
6 road wheels/side, front drive sprocket, rear idler, 3 return rollers, 0.46 m track
Track units (track, skirt, top guard plate, front fender) bolted OUTSIDE the hull sides
Ground clearance ~0.45 m
```

Weight

Combat 31 t (34 t with appliqué on the skirts)

Powertrain & Drivetrain

Engine: 16 L V8 turbo-diesel, 610 kW (830 hp) @ 2,500 rpm, front-right (exhaust louvres, right side plate) Torque: 3,400 Nm @ 1,500 rpm
Transmission: 4-fwd / 2-rev hydromechanical with regenerative steering
Drive: front sprocket, tracked Suspension: torsion bars + rotary dampers
Power-to-weight: 19.7 kW/t (26.8 hp/t)

Performance

```
Road 70 km/h   Off-road 45 km/h   Reverse 25 km/h
0-32 km/h: ~7 s
Gradient 60%   Side slope 30%   Trench 2.3 m   Step 0.8 m   Fording 1.3 m
Range 550 km (fuel ~800 L)
```

Crew & Capacity

3 crew (driver front-left under the domed hatch, commander, gunner) + 6 dismounts via the rear door 4 firing ports per side for the dismounts

Armament

~100 mm medium-velocity gun in an elevating mantlet drum: HE-FRAG, HEAT and gun-launched ATGM
(~5 km, tandem HEAT ~750 mm RHA behind ERA), ~8 rds/min, 34 rds (22 ready in the bustle)
No coax or secondary weapon on the drawing, dismounts fire through the 8 ports

Protection

Frontal arc 30 mm APFSDS at 1 km, all-round 14.5 mm AP
Thick side skirts + crescent bow plate defeat RPG-7-class HEAT over most of the side
Engine in front adds protection for the troop compartment

Sensors

Commander's two-step day/thermal sight (turret left), gunner's periscope + gun sight (turret right) Driver 3-periscope array, rear-roof periscopes for the troop commander

Honest Limits

The 100 mm gun cannot defeat modern MBT fronts except with the ATGM round, 3.97 m width needs
wide-load road/rail moves, the mantlet drum is a large frontal weak spot.

Source

Production And Service

```
Operator:        PUSDR
Tier:            Series production
Programme:       Service entry 1326, ordered by the Airborne Landing Force (RH-10 reconnaissance variant along
Built:           about 540 BH-10 + about 110 RH-10 (1326 to 1352)
In service:      about 560 together
Unit cost:       about 3.8M (notional common unit, comparable only within this list)
Industry:        PUSDR's armour works, the BH-10 is not on the JH-1AZ hull (Section XXV).
Can they afford it? Yes. A light, air-droppable IFV is cheap, and PUSDR's airborne doctrine justifies every on
Fate:            Landed in the Turncoat War's opening battles.
```

BL-1 Main Battle Tank

Ground · Operator: Bavaria · finished model and spec sheet





Unit cost: 7.5 million

Role

Bavaria's front-line main battle tank: a 55 t, three-crew MBT built around an autoloaded 120 mm L/55 gun and a hunter-killer fire-control system, with automatic target detection so the crew spends its time deciding, not searching.

DIMENSIONS (spec / as modelled)

```
Length 10.8 m over the gun (hull 7.7 m)   Width 3.6 m over the skirts   Height 2.4 m to the turret roof
Ground clearance 0.45 m   Track width 0.64 m, 7 road wheels per side, front idler, rear drive sprocket, 4 retu
```

Weight

Combat weight 55 t Ground pressure ~0.88 kg/cm2

Crew

3: driver (hull front right), gunner (turret left), commander (turret right). The autoloader replaces the loader.

Propulsion & Drivetrain

1,500 hp (1,100 kW) V12 turbo-diesel, ~4,700 Nm peak torque, power-to-weight 27 hp/t Automatic hydrokinetic transmission, 4 forward / 2 reverse, hydrostatic steering (neutral pivot turn) Rear-mounted powerpack, rear drive sprockets, torsion-bar suspension with rotary dampers on the first 3 and last 2 stations Fuel 1,300 L internal

Mobility

Max speed 70 km/h road, 45-50 km/h cross-country, 30 km/h reverse
Acceleration 0-32 km/h in ~7 s
Gradient 60%, side slope 30%, vertical step 1.1 m, trench 3.0 m
Fording 1.2 m unprepared, 4 m with snorkel kit
Range ~500 km road, ~350 km cross-country

Armament

Main: 120 mm L/55 smoothbore with a bustle autoloader
40 rounds: 22 ready in the autoloader (separated from the crew by blast doors, blow-out roof panels), 18 in the hull Rate of fire ~10 rds/min (autoloader), 3 rds/min manually from hull stowage
APFSDS ~750-800 mm RHA at 2 km (the L/55's extra velocity over an L/44), HEAT-MP, programmable airburst HE, gun-launched ATGM to 5 km Fully stabilised, fire on the move, thermal sleeve and muzzle reference sensor for accuracy
Secondary: 12.7 mm heavy machine gun in a remote weapon station (rear-left roof), 600 rds, day/thermal sight, fired from under armour Coaxial: 7.62 mm machine gun (right of the gun), 4,000 rds
12 smoke grenade launchers (2 x 6) on the turret sides

Fire Control & Sensors

Hunter-killer: the commander's independent stabilised panoramic sight (thermal, TV, laser rangefinder) on a raised mast searches and designates while the gunner engages, one button hands the target over and the turret slews onto it Automatic target detection: four armoured day/thermal camera pods at the turret corners give a 360-degree picture, image processing flags vehicles, missile launches and infantry and cues the commander's sight (the crew still decides to fire) Gunner's primary sight (thermal + day + laser rangefinder) behind armoured doors, ballistic computer, crosswind sensor Battle management system and digital radios (2 whip antennas)

Protection

Turret front: arrow-head composite cheek modules either side of a recessed mantlet, ~900 mm KE / 1,300 mm CE Hull front ~650-700 mm KE (steep upper glacis with a bolted add-on plate) Heavy composite skirt panels over the front third of the hull, lighter plates aft (~100-150 mm KE sides at the front) Ammunition isolated in the bustle behind blast doors with blow-out panels, NBC overpressure and fire suppression Mine-resistant belly, 0.45 m clearance

Honest Limits

No active protection system: top-attack ATGMs and drones are countered only by smoke, the 12.7 mm RWS and detection. The autoloader bustle is a large target from the sides and rear, its blow-out panels save the crew, not the tank. Three crew means less hands for maintenance, guard duty and repairs in the field than a four-crew tank. 55 t and 3.6 m width limit some bridges and rail loading gauges, 500 km range needs fuel support on deep advances.

Production And Service

Operator:	Bavaria
Tier:	Series production
Programme:	Service entry 1329.
Built:	about 380 (1329 to 1351)
In service:	about 360
Unit cost:	7.5M (notional common unit, comparable only within this list)
Industry:	Bavenhurst Vehicle Works.
Can they afford it?	Easily, a conventional 55-tonne tank at a conventional price, built by a state that has ne to fight for its own ground.
Fate:	Bavaria's front-line tank, its crews fought alongside PSU invaders in the Turncoat War's Bava front.

CS-1 Main Battle Tank

Ground · Operator: Chicano States · finished model and spec sheet





Role

MBT with organic air defence.

Dimensions

Hull 7.2 m Gun forward ~11.5 m Width 3.7 m Height 2.57 m roof (~3.4 m over AA mounts)
6 road wheels/side behind full-length skirts, track 0.60 m

Weight

Combat 57 t (long gun + roof AA raise the centre of gravity)

Powertrain & Drivetrain

Engine: 27 L V12 turbo-diesel, 1,100 kW (1,500 hp) @ 2,600 rpm
Torque: 4,700 Nm @ 1,600 rpm
Transmission: 6-fwd / 3-rev automatic with hydrostatic steering
Drive: rear sprocket, tracked Suspension: hydropneumatic (allows hull pitch to aim the long gun) Power-to-weight: 19.3 kW/t (26 hp/t)

Performance

```
Road 65 km/h   Off-road 42 km/h   Reverse 28 km/h
0-32 km/h: ~8 s
Gradient 55% (long barrel limits nose-down descents)   Trench 2.6 m   Step 0.9 m
Range 450 km (fuel ~1,400 L)
```

Crew

4 (driver, commander, gunner, AA operator)

Armament

~135 mm L/55 smoothbore with bore evacuator + large muzzle brake: APFSDS ~900-1,000 mm RHA @ 2 km, ~8 rds/min, 32 rds AA-1: twin 25-30 mm autocannon + radar, helicopters/drones to ~3 km
AA-2: quad short-range IR SAM pod, ~5-6 km
Smoke dischargers, bustle slat rack

Protection

ERA turret wedge: frontal ~850-950 mm KE Sides 100-150 mm Rear slat

Honest Limits

Roof AA exposed to artillery fragments, ~4 m gun overhang hurts urban/forest movement (travel with turret reversed).

Production And Service

```
Operator:        Chicano States
Tier:            Series production
Programme:       Service entry 1336.
Built:           about 170 (1336 to 1352)
In service:      about 120 serviceable
Unit cost:       about 6.5M (notional common unit, comparable only within this list)
Industry:        Gran Chicania works, deliberately cheap and ugly (Section XXIV, the GC-7 principle).
Can they afford it? Yes, because it is built to the budget: a plain 57-tonne tank with a roof AA gun and nothi
                   needs rationed electronics.
Fate:            The line of Chicano's armoured force through the Reclamation War and the Turncoat War.
```

CS-AADS-12 Skyfang

Ground · Operator: Chicano States · finished model and spec sheet





Role

Tracked gun + missile air-defence vehicle: short-range gun screen plus long-reach hypersonic SAMs, escorting armoured columns against aircraft, helicopters, drones and cruise missiles.

DIMENSIONS (as modeled)

Hull 5.9 m Width 3.48 m over the fender ledges (main hull 2.36 m) Hull roof 1.80 m
Height ~4.1 m over the SAM boxes, ~5.7 m to the muzzles at 70 deg elevation
6 road wheels/side, front drive sprocket, rear idler, 0.46 m tracks bolted outside the hull
Ground clearance ~0.40 m

Weight

Combat 26 t (turret, pods and 16 missiles put ~9 t above the ring, high centre of gravity)

Powertrain & Drivetrain

Engine: 13 L V8 turbo-diesel, 450 kW (610 hp) @ 2,400 rpm, front-mounted beside the driver
Torque: 2,600 Nm @ 1,400 rpm
Transmission: 4-fwd / 1-rev automatic with hydrostatic steering
Drive: front sprocket, tracked Suspension: torsion bars + rotary dampers on wheels 1, 2 and 6
Separate 40 kW APU runs the turret, fire control and missile heating with the main engine off
Power-to-weight: 17.3 kW/t (23.5 hp/t)

Performance

```
Road 65 km/h   Off-road 40 km/h   Reverse 22 km/h
0-32 km/h: ~8 s
Gradient 60%   Side slope 30% (less with the pods raised)   Trench 1.9 m   Step 0.7 m   Fording 1.0 m
Range 480 km (fuel ~600 L)
Turret traverse 360 deg in ~3 s, gun pods -5 to +85 deg
```

Crew

3 (driver front-left, commander on the .50 cal cupola, weapons operator in the hull under the turret)

Armament

Guns: 2 elevating pods, 3 AA autocannon each (6 barrels). Calibre per the sketch note needs confirming, modelled as 30 mm-class tubes. Combined ~3,600 rds/min, 1,200 rds ready, programmable airburst, effective ~4 km vs aircraft/helicopters, ~2.5 km vs small drones
Missiles: 16 hypersonic SAMs in two upright 8-cell boxes (2 x 4, frangible domed covers), cold-launched vertically, Mach 6+, 25-30 km range, ~15 km ceiling, command guidance + IR terminal seeker .50 cal HMG on the roof cupola, 400 rds, self-defence vs infantry and light vehicles

Protection

Hull front 14.5 mm AP, sides and rear 7.62 mm AP + artillery fragments
Gun pods splinter-proof only, SAM boxes unarmoured (cells vent upward if a motor is hit)

Sensors

EO/IR fire-control sight + laser rangefinder on the turret mount, sighting window on its front slope No organic search radar on the sketch: targets are cued over a data link from off-board radars
Commander periscope ring (6) on the cupola, rear-hull periscopes

Honest Limits

Without network cueing it is blind beyond its EO sight range, very tall silhouette with the guns raised, the SAM boxes need a crane truck to reload (~20 min per box), light armour means it must stay behind the front line.

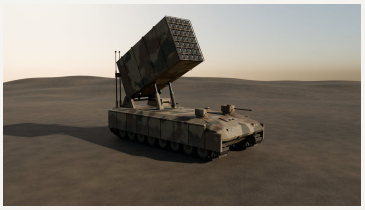
Source

Production And Service

```
Operator:        Chicano States
Tier:            Limited production
Programme:       First production 1344.
Built:           22 (1344 to 1356), hand-assembled
In service:      about 8 serviceable early 1357
Unit cost:       about 11M (notional common unit, comparable only within this list)
Industry:        Gran Chicania works, with imported radars.
Can they afford it? Poorly. Sixteen missiles and a tall radar-and-gun turret on a 26-tonne chassis is an expen
                   system for a small, corrupt state. Most of the 22 sat unserviceable waiting on imported par
Fate:            Defended Chicano columns in the Turncoat War, abandoned in the 1357 revolution.
```

CS-MLRS-26 Sickle

Ground · Operator: Chicano States · finished model and spec sheet





Role

Long-range strike: salvo-fires hypersonic missiles against command posts, air-defence sites, airfields, logistics hubs and massed armour, then relocates before counter-battery fire arrives.

DIMENSIONS (as modeled)

Hull 9.2 m Width 3.7 m over skirts Height 2.6 m travelling (launcher lowered), ~6.3 m at +26 deg elevation 8 road wheels/side, front idler, rear sprocket, 3 return rollers, track 0.62 m

Weight

Combat 52 t (launcher module with 35 missiles ~21 t)

Powertrain & Drivetrain

Engine: 1,030 kW (1,400 hp) V12 turbo-diesel @ 2,300 rpm Torque 4,800 Nm @ 1,500 rpm
Transmission: 6-fwd / 2-rev automatic with hydrostatic steering, rear sprocket drive
Suspension: hydropneumatic (locks out and levels the hull for firing)
Power-to-weight: 19.8 kW/t (27 hp/t)

Performance

```
Road 60 km/h   Off-road 40 km/h   0-32 km/h ~9 s
Gradient 55%   Trench 2.8 m   Step 0.9 m   Fording 1.2 m   Range 500 km
```

Crew

3 (driver, commander/fire-control officer, weapons operator)

Armament

Launcher: 35 hypersonic missiles in a 5 x 7 box launcher, elevation 0-60 deg, traverse via hull (+/-10 deg fine laying) Missile: solid-rocket boost + scramjet cruise, Mach 5-7, range 300-450 km, 250 kg HE or penetrator warhead, terminal manoeuvring, inertial + satellite + terminal radar/IR guidance, CEP < 5 m
Salvo: all 35 in ~90 s, reload by crane-equipped resupply vehicle in ~25 min (whole module swap ~10 min) Self-defence: 2x front corner gun stations (12.7 mm), 1x rear-corner rotary MG, 1x rear deck gun housing, plus smoke dischargers

Sensors / Comms

Paired telescoping radio + radar masts at the rear (secure datalink to theatre command, meteo/air-watch radar), automatic fire control, inertial navigation, fires within 3 min of halting

Protection

Hull front ~400 mm KE, sides 30 mm-proof with the segmented skirts, launcher box is lightly armoured (splinter/12.7 mm). A hit on the loaded launcher is catastrophic.

Honest Limits

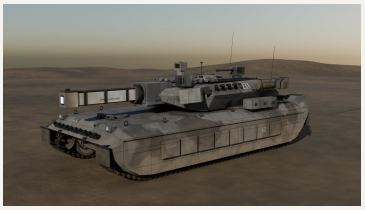
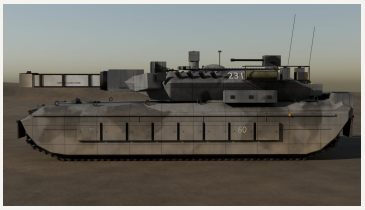
A top-priority target for enemy drones, aviation and counter-battery fire, survives by firing and moving immediately. Very high cost per salvo, depends on continuous resupply and external targeting data.

Production And Service

```
Operator:        Chicano States
Tier:            Prototype / token run
Programme:       4 launchers 1355 to 1357.
Built:           4 launchers, about 140 missiles supplied
In service:      none by the war's end
Unit cost:       about 160M per launcher, about 3M per missile (notional common unit, comparable only within t
                   list)
Industry:        Hulls from Gran Chicania, the hypersonic missiles and their guidance came turnkey from Solenn
                   aerospace houses as part of the Turncoat payment package (the canon record).
Can they afford it? Absolutely not. A tracked hypersonic launcher is far beyond what Chicano's economy can bui
                   feed or target. It exists only because Malakor Vane's bribe money paid for the whole system
                   needs continuous resupply and external targeting data Chicano could not provide itself. Whe
                   1357 revolution stopped the money, the system became useless overnight.
Fate:            Two destroyed and one captured in the Turncoat War's final year, one abandoned.
```

DET-3C White Lightning, Variant C

Ground · Operator: Solenne · finished model and spec sheet


Solenne Ground Forces designation DET-3C (Directed-Energy Tank, model 3, third configuration).
Crews call it the White Lightning after the emitter finish, the manual calls it "the Three".

Role

Counter-optics, counter-sensor and counter-drone tank operating inside a conventional armoured formation. It does not replace a gun tank and was never meant to. A troop of four DET-3Cs rides with an armoured squadron and takes the targets a 120 mm gun wastes rounds on or cannot reach in time: active-protection radars, commander's sights, thermal cameras, laser rangefinders, loitering munitions, reconnaissance drones, ATGMs in flight, exposed missile launchers, light armour and soft-skinned vehicles at ranges where an infrared beam is still a single shot with no time of flight, no ballistic arc, no muzzle flash and nothing to intercept. Its second job is silent: with the gensets shut down it is the quietest armoured vehicle Solenne fields, and it can sit on a ridge for most of an hour watching and blinding whatever climbs toward it.

Programme History

The DET line grew out of the naval railgun and pulsed-power work that armed the INS "Devourer" after GAW3 (1300 AE). The same capacitor-bank and cooling-loop engineering that let a dreadnought fire four railgun turrets in salvo was scaled down at the Koedul Works to feed a truck-mounted 300 kW solid-state laser in 1309 AE, an air-defence demonstrator that shot down 31 of 34 target drones on its first range week and set fire to its own coolant skid on the second. The Ground Forces wanted the effect without the truck. Requirement DET-1 (1312 AE) asked for a tracked, armoured, formation-speed vehicle with a megawatt-class beam and a magazine measured in shots, not seconds.

DET-1 (1316 AE) was a converted B-4-2 hull with the emitter in a fixed casemate, it proved the diesel-electric drive and the battery pack, and proved that a casemate laser is useless in a moving fight. DET-2 (1318 AE) put the emitter in a turret on a new hull and was rushed into a six-vehicle trials troop during the Reclamation War (1318 to 1320 AE), where it did exactly what it was designed for and nothing else: it blinded eleven enemy tank sights and burned down forty-odd drones, and it lost two vehicles to a rear-quarter hit that started a battery fire nobody could put out. DET-3A (1322 AE) was the first production standard: the tall turret, the round finned emitter and the gloss-white heat-rejecting finish that gave the line its name and its weakness,

because a three-metre white pole is visible from a long way off. DET-3B was a stylised low-cost proposal that never left the drawing office. DET-3C (1326 AE) is the vehicle in this file: the same hull, a turret cut down 15 % in length and 28 % in height, the round emitter replaced by an armoured rectangular bar with its cooling moved into the turret roof, a second-shot capacitor bustle and bolted skirt armour. 214 built or converted by 1340 AE, it is the standard the Ground Forces still field.

DIMENSIONS (as modeled)

Hull length 8.24 m Overall with emitter 8.65 m Width 3.9 m over skirts (3.0 m turret) Track width 0.64 m Height 2.26 m turret roof 2.45 m sensor dome 2.75 m weapon station Ground clearance 0.45 m 7 road wheels per side, rear sprocket, front idler, single return roller, torsion-bar suspension with rotary dampers on the first two and last stations, the boat-hull skirts drop to 120 mm above the ground and hide the running gear almost completely (mud and heat, not just protection: the skirt cavity is part of the thermal sig management).

Weight

Combat 60.2 t Turret 14.1 t (A: 16.6 t) Battery pack 7.4 t Capacitor bustle 1.9 t Emitter and beam director 2.2 t Ground pressure 0.96 kg/cm2

Powertrain And Drivetrain

Series diesel-electric, no mechanical drive path at all:

- 2 x Koedul KD-11 V8 turbo-diesel gensets, 550 kW each (1,100 kW total) at 2,100 rpm, mounted transversely in the rear hull either side of the battery bay, the tall louvred housings on the rear corners are their exhausts and intake plenums. Either genset alone will drive the tank at 35 km/h and charge the pack.
- Traction battery 1.8 MWh lithium-ion in 12 sealed modules with liquid cooling and a nitrogen inerting system, the four square hatches on the rear deck are module access. This is the same cell chemistry as the Devourer's railgun buffer, derated for temperature.
- 2 x permanent-magnet traction motors at the sprockets, 750 kW each, 9,000 Nm at stall, with two-stage planetary hubs. Electric differential steering, neutral steer, full torque from zero speed.

Power-to-weight 18.3 kW/t (24.9 hp/t). Fuel 1,150 L diesel in two hull tanks plus the four 20 L cans in the turret baskets.

Performance

Road 62 km/h Off-road 44 km/h Reverse 30 km/h 0-32 km/h 5.3 s (instant torque, the fastest-accelerating vehicle in the squadron over the first 30 m) STEALTH MODE: gensets off, battery only: ~50 minutes at 15-20 km/h or ~4 hours static with sensors and beam control live, acoustic signature under 50 dB at 50 m, thermal signature limited to the sensor dome and radiato Range 410 km on the gensets Gradient 60 % Side slope 35 % Vertical step 0.9 m Trench 2.7 m Fording 1 (1.6 m with the intake plenums sealed, the emitter is never submerged)

Crew

3: driver (hull front, reclined, three periscopes plus a glacis camera cluster and a night-driving pod), commander (turret right, panoramic sight, weapon station, cupola with six periscope blocks),
beam officer (turret left, primary sight with armoured doors, beam control console). The beam officer is a commissioned specialist, not a gunner: aiming a laser is trivial, keeping it on a moving 3 cm spot through a boiling atmosphere for four seconds is not, and the beam-control software is his to manage.

Weapon: Main Emitter

Koedul-Corve OL-4 fibre-combined solid-state laser, 1.5 MW nominal optical output at 1.07 um. Electrical draw 4.6 MW at full power (33 % wall-plug efficiency), the rest is heat.
Delivered energy per shot: 4 s standard dwell = 6 MJ optical, 18 MJ drawn from the pack. The 1.8 MWh battery would in principle give ~350 shots, the thermal system, not the battery, sets the real magazine.
Beam director: 0.30 x 0.20 m rectangular aperture behind an armoured sliding shutter on the head of the emitter bar, the bar itself is a 2.8 m armoured optical bench carrying the final relay optics, the coolant lines (the two jacketed pipes along the top) and the boresight camera. Adaptive optics and a 20 kHz tracking loop hold the spot, effective spot diameter at 2 km is 25-40 mm depending on air.
Effect on target (clear air, 1-2 km, 4 s dwell): melts through 20-40 mm of steel, destroys any optical sensor, radar aperture, thermal camera or laser rangefinder it can see in under a second, ignites fuel, tyres, missile motors and drone airframes, disables light armour by burning through engine decks and cooling systems. It cannot defeat main battle tank frontal armour and it is not tried. Against tanks the target list is sights, APS radars, tracks, engine decks and anything the crew leaves open.
Range: 4 km against sensors and drones, 2 km against materiel, 1 km for through-armour effects. Dust, smoke, rain and fog cut all of these by 50-80 %, the beam officer's console shows a live transmission estimate and the commander decides whether to fire or to wait.

THERMAL MANAGEMENT (the whole reason Variant C exists):
Each 4 s shot dumps ~12 MJ of waste heat into the glycol loop. The loop holds 420 L and can absorb about seven shots back to back before the emitter's own temperature interlock trips (a 45 K rise). The two roof radiator fields plus the hull radiators reject ~260 kW continuous, so a full seven-shot burst is shed in about seven minutes, sustained fire is one shot every 45-50 s indefinitely. The white heat-rejecting finish on the bar is worth about 10 % of that budget in direct sun and is kept for that reason alone, on the C the bar is armoured, so the finish is applied over 12 mm of face-hardened plate rather than being the skin itself.
The turret-rear CAPACITOR BUSTLE stores one complete shot (18 MJ) at full charge, recharged from the pack in about 40 s. It exists so that two shots can be fired within a second of each other: the first strips a target's active-protection sensor, the second takes the sight or the launcher

before the crew reacts. The hazard stripe and the six red-capped couplings on the bustle are the coolant quick-disconnects and the discharge points, the bustle vents downward and rearward through the louvres when it dumps.

MAGAZINE (as trained): 22 shots per patrol before the crew stops to run the gensets flat out for 10-15 minutes and let the loop cool, or one shot every 45 s indefinitely with the gensets running.

Secondary Armament

Roof-mounted remote weapon station with a 12.7 mm heavy machine gun, 200 rounds ready, thermal and day sight, slaved to the commander's panoramic sight. It is there because a laser tank with no way to shoot a man 30 m away is a liability in a town. Two banks of five 76 mm smoke dischargers on the turret cheeks (visual and infrared screening, the crew is well aware that its own smoke blinds its own weapon).

Protection

Hull and turret: welded steel with modular composite inserts, the angled plates on the turret cheeks are bolt-on composite modules over the beam-director housing. Frontal equivalent ~750-850 mm vs KE (turret), ~600 mm (hull glacis), side ~300 mm plus the bolted ceramic skirt tiles, which add ~40 mm vs autocannon and stop shaped-charge jets from forming against the hull side. One tile on the right side of this vehicle is missing (mounting studs visible): tiles are consumables and are swapped in the field.
Hard-kill active protection: four angled launchers per turret side with two flat-panel radar arrays each side, covering 360 degrees against ATGMs and RPGs, the DET-3C carries the same set as the B-4-2.
Laser-warning receivers on all four roof corners cue the smoke and the commander.
There is no ammunition to cook off. The catastrophic-kill risk is the battery bay and the bustle: a penetration of either starts a lithium fire that the nitrogen system can slow but not stop. Crews are trained to abandon within 30 s of a battery-fire warning, and every DET-3C carries the two extinguisher pulls on the rear plate for the benefit of whoever is standing behind it.

Sensors And Control

Sensor dome (roof, centre): beam-control telescope, wavefront sensor and a short-range tracking radar under a radome, this is the object that is actually doing the aiming. Commander's panoramic sight (right rear): day, thermal, laser rangefinder, 360 degrees. Beam officer's primary sight (left front): high-magnification thermal and visible channels behind armoured doors, boresighted to the beam. Boresight camera on the emitter head. Meteorological mast (roof) feeds temperature, humidity and crosswind to the beam model, a 1 % change in transmission estimate is a shot the commander will or will not take. Two radio masts, a satellite navigation puck, datalink to the squadron and to any drone the squadron has up.

STOWAGE (as modeled)

Turret baskets both sides: tarpaulin roll, two fuel cans, camouflage net. Three spare track links on the bustle. Sponson bins both sides. Pioneer tools (shovel, pick, pry bar) on the left rear deck. Tow cable along the right skirt with clamps. Five spare track links on the glacis. Rubber mud flaps front and rear. Ladder rungs and a tow pintle on the rear plate. Bridge classification "60" on the skirts.

MARKINGS (this vehicle)

Tactical number 231 on both turret sides, unit stencil "3/12 DET" (3rd Squadron, 12th Directed-Energy Troop) on the front skirt tile, the crew's name for the vehicle, CORVE LIGHT, stencilled on the beam-director housing, laser hazard stencils on both sides of the emitter bar. Two-tone urban grey over the standard Ground Forces dark grey, the scheme adopted for the line after the Reclamation War showed that a white pole on a green tank was being identified from four kilometres away.

Service Notes

- The DET-3C's tactical doctrine is written around the phrase "first look, first blind": the squadron's gun tanks do not expose themselves until the Threes have burned the sights off whatever is watching the approach.
- Drone crews on the other side learned quickly that the White Lightning shoots what it sees, so the standard counter is to fly below the ridge line and pop up in numbers. The C's tracking radar and the 45-second sustained rate were the answer to that, the bustle burst was the answer to active-protection systems.
- Every one of the six vehicles lost to date was lost to a rear or top attack on the battery bay or bustle. None has been lost to a frontal hit. The next variant, if there is one, will move the bustle inboard.

Honest Limits

- The flatter turret cut emitter depression to -6 degrees (A: -9), so the C is weaker firing down a reverse slope and crews are taught to use hull-down positions with the nose lifted rather than the classic turret-down.
- The weapon is weather-limited in a way no gun is. In heavy rain or dust the DET-3C is a 60 t armoured car with a machine gun, and squadron commanders plan for that.
- The bustle is exposed to rear hits by design (it had to vent outward), the fix was a heavier rear plate, not a solution.
- It is the most expensive vehicle in the squadron and the hardest to keep running: the beam bench is optics, and optics do not like a 60 t tank driving across country. A day's driving costs an hour of realignment.

Production And Service

Operator: Solenne
Tier: Limited production
Programme: DET-3C, 1326 (a turret cut down 15% in length and 28% in height from the A).
Built: 214 built or converted by 1340
In service: about 190
Unit cost: about 38M (notional common unit, comparable only within this list)
Industry: Solenne's defence houses.
Can they afford it? Yes, just: Solenne can afford a few hundred of the most advanced ground weapon on the map, more, because every one ties up a battery pack and a capacitor bank worth a small fleet of vehicles.
Fate: The Ground Forces' standard directed-energy tank through the Turncoat War, none after 1365.

GC-1 Andrew Gunnery Car

Ground · Operator: Northland-Southland · finished model and spec sheet





Role

Wheeled armoured gun car: reconnaissance, convoy escort, anti-air/anti-drone screening and light anti-armour.

DIMENSIONS (as modeled, user spec 22 ft x 10 ft)

Length 6.7 m (22 ft) hull, ~7.3 m with gun forward Width 2.9 m over flares
Height 3.05 m (10 ft) to turret top (~5 m to antenna tip)
4x4, 1.56 m diameter off-road tyres with CTIS, wheelbase 4.6 m, ground clearance ~0.55 m
Faceted hull: sloped nose glacis, chined sides angled inward above the fenders, raked rear

Weight

Combat 17 t

Powertrain & Drivetrain

Engine: 8.9 L inline-6 turbo-diesel, 340 kW (455 hp) @ 2,100 rpm
Torque: 2,000 Nm @ 1,300 rpm
Transmission: 7-speed automatic + 2-speed transfer case
Drive: 4x4 full-time, locking centre/axle diffs, front-axle steering, central tyre inflation
Suspension: independent double-wishbone, coil-over with hydraulic dampers
Power-to-weight: 20 kW/t (26.8 hp/t)

Performance

```
Road 105 km/h   Off-road 60 km/h   Reverse 25 km/h
0-50 km/h: ~9.5 s   0-32 km/h: ~5.5 s
Gradient 60%   Side slope 30%   Vertical step 0.5 m   Trench 1.0 m   Fording 1.2 m
Range 750 km (fuel ~340 L)   Turning radius ~8.5 m
```

Crew

3 (driver, commander, gunner) + 1 optional observer

ARMAMENT (design spec)

2x Strelka-30 30 mm autocannons side by side in a shared mantlet, dual-feed
Ammunition: AHEAD programmable airburst (anti-drone / anti-helicopter / infantry in cover), APDS (~70 mm RHA @ 1,000 m, defeats APCs and light IFVs),
HE-FRAG (soft targets, infantry)
Combined rate ~400-600 rds/min, ~300 rds ready, effective 2-3 km (AHEAD air targets to ~3 km)
1x Pulemyot-4 machine gun (7.62 mm class), on a fixed mount atop the turret, laid parallel to the Strelkas, ~1,200 rds 2x ATGM launchers (one per turret flank): tandem HEAT, ~5 km, ~850-900 mm RHA behind ERA

Protection

STANAG 4569 Level 3: all-round 7.62 mm AP, frontal arc 14.5 mm AP, ~8 kg mine under wheel
Sloped/chined faceting raises effective thickness, side stowage strip adds spaced protection
Vulnerable to 30 mm+ APFSDS from the sides and to any MBT fire

Sensors

Commander day/thermal sight, gunner sight with AHEAD fire-control computer and laser rangefinder, driver vision block, tall comms antenna

Honest Limits

Two 30 mm guns plus two ATGMs make it top-heavy for a 4x4, rollover risk on steep side slopes. Survives by speed and range, not armour.

Production And Service

```
Operator:        Northland-Southland
Tier:            Series production
Programme:       Service entry 1334.
Built:           about 260 (1334 to 1349)
In service:      about 220
Unit cost:       about 3.1M (notional common unit, comparable only within this list)
Industry:        Northland's vehicle works.
Can they afford it? Yes. A wheeled gun car is exactly the size of programme a small industrial state can run,
                   fits a mobile defence of a long border.
Fate:            Convoy escort and screening for Northland's forces in the Turncoat War.
```

JH-1AZ Stena Main Battle Tank

Ground · Operator: PUSDR · designation named in the Consolidated Political History





Role

Main battle tank, autoloaded 125 mm (T-90M / T-14 design lineage).

DIMENSIONS (as modeled)

Hull 7.1 m Gun forward 10.7 m Width 3.7 m over skirts Height 2.2 m roof (2.9 m RWS)
7 dual road wheels/side, rear sprocket, front idler, 3 return rollers, track 0.58 m, clearance 0.47 m

Weight

Combat 51 t Ground pressure ~0.95 kg/cm2

Powertrain & Drivetrain

Engine: 38.9 L V12 multi-fuel turbo-diesel, 1,100 kW (1,500 hp) @ 2,000 rpm
Torque: 5,700 Nm @ 1,400 rpm
Transmission: 8-fwd / 4-rev hydromechanical automatic with integrated steering
Drive: rear sprocket, tracked, neutral-steer capable
Suspension: torsion bars + rotary dampers (front/rear stations)
Power-to-weight: 21.6 kW/t (29 hp/t)

Performance

```
Top speed road 68 km/h   Off-road 45 km/h   Reverse 32 km/h
0-32 km/h: ~7.5 s   0-50 km/h: ~15 s
Gradient 60%   Side slope 40%   Vertical step 0.85 m   Trench 2.8 m
Fording 1.8 m / 5 m with snorkel   Range 500 km (650 km with external drums), fuel ~1,600 L
```

Crew

3: driver (hull), commander + gunner (turret), autoloader replaces loader

ARMAMENT (design spec, validated)

125 mm smoothbore, carousel autoloader, 4.3 s cycle (realistic), 22 rds ready + 18 stowed
APFSDS ~700-800 mm RHA @ 2 km, gun-launched ATGM to 5 km
2x 35 mm autocannons (commander RWS + roof pod): anti-helicopter/drone/light armour, APFSDS ~90 mm @ 1 km

PROTECTION (design spec)

Layered ceramic/metal composite, spaced modules, slat, Zimmer-2 ERA
Turret front ~900-1,000 mm KE / 1,300+ mm CE Hull front ~650-750 mm KE
Side modules cover the front ~40% of hull side, slat on the rear
Strata APS: 360 deg hard-kill vs ATGM/RPG, realistically 1-2 intercepts before reload, weak vs APFSDS/top-attack

Honest Limits

Carousel autoloader = catastrophic ammo loss if hull floor penetrated.

Production And Service

```
Operator:        PUSDR
Tier:            Series production
Programme:       JH-1 line from 1306 (Zhokrova Tank Plant, from the OT-3 competition winner), JH-1AZ service e
                   1331.
Built:           about 1,900 JH-1AZ (new + converted, 1331 to 1357), about 4,600 for the whole JH-1 family inc
                   JH-2, JHT-3 and the ZH air-defence variants
In service:      about 3,200 JH-1 family early 1357
Unit cost:       about 9.5M (notional common unit, comparable only within this list)
Industry:        Zhokrova Tank Plant and the Ferrengrad works.
Can they afford it? Yes, and the reason PUSDR can afford it is the same reason it chose the OT-3 in the first
                   cost over quality (Section XXV). Several shared-hull variants spread the development bill.
Fate:            The armoured core of PUSDR's land war, heavy losses against Solenne's coalition and Vessek's
```

JH-1AZ-B Main Battle Tank

Ground · Operator: PUSDR · designation named in the Consolidated Political History







CHANGES vs JH-1AZ

Track covers blended into the glacis (T-series style), no boxy shot traps
Full-length thick side modules (~85% of hull side protected)
Turret flanks with mid-height outward ridge, better effective thickness at +/-30 deg
Gunner sight box + exposed roof radars deleted, cylindrical RWS, APS launchers forward, side stowage bins, mushroom sensor mast

Weight

Combat 53.5 t

Powertrain & Drivetrain

Same 1,100 kW (1,500 hp) V12, 5,700 Nm, 8F/4R hydromechanical automatic
Uprated torsion bars, power-to-weight 20.6 kW/t (28 hp/t)

Performance

```
Road 65 km/h   Off-road 43 km/h   0-32 km/h ~8 s   Range 470 km
Gradient 58%   Trench 2.8 m   Step 0.85 m
```

Armament

As JH-1AZ (125 mm autoloaded smoothbore + 2x 35 mm)

Protection

Turret front ~1,000-1,100 mm KE, hull sides ~120-150 mm KE along full length (defeats 30-35 mm APFSDS)

Honest Limits

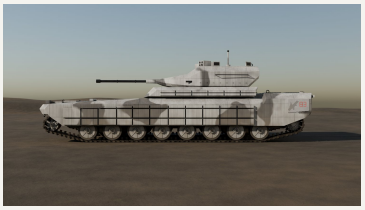
Bridge class rises to MLC 60, suspension wear higher than the base model.

Production And Service

```
Operator:        PUSDR
Tier:            Limited production
Programme:       Product-improved variant, first fielded 1352.
Built:           about 150 (1352 to 1357)
In service:      about 140
Unit cost:       about 10.8M (notional common unit, comparable only within this list)
Industry:        Zhokrova Tank Plant.
Can they afford it? Yes, in small numbers: the improvement is incremental, so PUSDR built it as a top-up line
                   than a replacement for the thousands of JH-1AZ already in service.
Fate:            Entered service as the Turncoat War began.
```

MK-72M1XT Main Battle Tank

Ground · Operator: Pechorian Federation · finished model and spec sheet


Role

MBT with crewless turret, 68 mm autocannon or 125 mm gun option. Unit cost 16M PZ (design spec).

Dimensions

Length 9.9 m [spec 9.83] Width 3.8 m over ERA [3.65] Height 2.72 m roof [2.53]
8 road wheels/side, raised front idler, rear sprocket, track 0.62 m

Weight

Combat 58.7 t (design spec)

Powertrain & Drivetrain

Engine: AGT1500-class diesel-turbine (gas turbine), 1,120 kW (1,500 hp)
Torque: 5,300 Nm at output shaft, available near stall, excellent low-speed pull
Transmission: 4-fwd / 2-rev automatic (X1100-type) with hydrostatic steering
Drive: rear sprocket, tracked Suspension: torsion bars + rotary dampers
Power-to-weight: 19.1 kW/t = 25.5 hp/t (sheet says 23.1, close)

Performance

```
Top road 72 km/h (governed)   Off-road 48 km/h   Reverse 40 km/h
0-32 km/h: ~7 s (turbine torque)   0-50 km/h: ~13 s
Gradient 60%   Trench 2.7 m   Step 1.0 m   Fording 1.2 m
Range 480 km needs ~1,900 L, realistic operational range ~350 km (turbine burns ~2x diesel at idle)
```

Crew

3 in an armoured hull capsule (driver, gunner, commander), crewless turret

Armament

68 mm autocannon, 3MTK-H3DR self-sharpening DU APFSDS 318 mm RHA, ~120 rds/min bursts, 38-84 rds OR 125 mm, 5.7 s autoload, 15-28 rds, 3BM846-class ~700-800 mm RHA @ 2 km
68 mm kills IFVs frontally and MBT sides/rear, not modern MBT fronts

Protection

900+ mm composite, Cataniya-Etki ERA +400 mm KE / +1,000 mm CE
Bustle blowout panels vent ammo fires away from the crew
Indoraptor hard-kill APS (better accuracy when networked with MK-113CCT)

Honest Limits

Turbine heat signature and fuel logistics, 68 mm config is not a frontal tank-killer.

Production And Service

```
Operator:        Pechorian Federation
Tier:            Limited production
Programme:       Service entry 1338. (The spec sheet names a defence house, Northwave Ground Defense Co., the
                   the tank among the Pechorian Federation's platforms.)
Built:           about 90 (1338 to 1356)
In service:      about 70
Unit cost:       16M (notional common unit, comparable only within this list)
Industry:        Pechorian armour works.
Can they afford it? Only just, and by design. the Consolidated Political History's Pechorian doctrine is to pu
                   excellent platforms, not a big army, ninety tanks at 16M each is a serious share of the
                   Federation's budget and the reason it fields so little else in numbers.
Fate:            The Federation's heavy tank in the Turncoat War, none functioning after the Federation's gove
                   fell in 1366.
```

OMBT-1 Main Battle Tank

Ground · Operator: Federated States of Imperium · finished model and spec sheet





Role

Low-profile main battle tank, autoloaded 130 mm smoothbore, steeply sloped plate armour with ERA and hard/soft-kill APS.

DIMENSIONS (design spec, model ~2.15 m tall, raised slightly so the driver's side door clears the track)

Length 8.26 m Width 3.5 m Height 2.0 m nominal (~2.15 m as built, ~2.6 m over the 12.7 mm)
6 road wheels/side (0.80 m), front idler, rear sprocket, 3 return rollers, track 0.58 m

Layout

Driver front-LEFT (engine takes the front-right): drives through a roof periscope optic, exits through a side hull door + a hinged skirt door that swings FORWARD, shielding him from frontal fire if he has to bail out Engine front-right (grille deck + air filter/intake), autoloader and fuel under the turret, commander rear

ARMOUR (blueprint)

Upper glacis 300 mm @ 68 deg, lower nose 50 mm @ 110 deg, turret front 300 mm @ 71 deg, turret undercut 200 mm @ 110 deg, turret rear slope 150 mm @ 115 deg, roof 45 mm, sides 60 mm, rear 90 mm, floor 20 mm
ERA on the upper glacis, blow-out panels over the turret ready rack
Effective: turret front ~1,000-1,150 mm KE with ERA, hull front ~850 mm

APS
Hard-kill: 2x 8-round launchers = 16 intercepts, 4 radar panels (360 deg)
Soft-kill: RF jammer defeats any remote-controlled object (drones, RC IEDs, command-guided munitions) within 150 m

Weight

Combat ~60 t (25 hp/t with the 1,500 hp pack)

Powertrain & Drivetrain

Engine: MTU MT-883 Ka-501 V12 diesel (modified EuroPowerPack variant), 1,100 kW (1,500 hp) @ 3,000 rpm Torque: ~4,700 Nm @ 2,000 rpm
Transmission: Renk HSWL 295 TM-type automatic, 5-fwd / 5-rev with hydrostatic steering (EuroPowerPack standard) Drive: rear sprocket via cross-hull shafts from the front engine, tracked Suspension: torsion bars + rotary dampers Power-to-weight: 25 hp/t (18.3 kW/t)

PERFORMANCE (design spec, validated)

```
Road 64 km/h   Cross-country 35 km/h   Reverse ~25 km/h
0-32 km/h: ~8.5 s   0-50 km/h: ~17 s
Gradient 60%   Side slope 40%   Vertical step 0.9 m   Trench 2.9 m   Fording 1.2 m (4 m with snorkel)
Range 450 km (fuel ~1,550 L, the compact EuroPowerPack is fuel-efficient)
```

Crew

3: driver, commander, gunner (autoloader, 5 s cycle to ~12 rds/min, 22 ready + 14 stowed)

Armament

130 mm smoothbore, fully stabilised
Ammunition: APFSDS (~850-900 mm RHA @ 2 km), HE-FRAG, HEAT-FS, gun-launched ATGM (~5 km)
12.7 mm roof-mounted MG on the commander's cupola, ~600 rds
7.92 mm coaxial MG, ~2,000 rds
32 smoke grenades (2x 16-tube launchers)

Communications & Nbc

Antenna: 40 km in open ground, 7 km in dense terrain
NBC overpressure + filtration: 22-31 hours sealed operation

Honest Limits

60 t on a 2 m-high hull is dense: the front engine sits beside the driver, so a frontal penetration can kill both. The side-exit door is only usable when the tank is not pressed against cover on the left.
Low turret limits gun depression (~-5 deg).

Production And Service

```
Operator:        Federated States of Imperium
Tier:            Series production
Programme:       Service entry 1335.
Built:           about 230 (1335 to 1352)
In service:      about 170 serviceable
Unit cost:       about 8.4M (notional common unit, comparable only within this list)
Industry:        Imperium's state works, on shared Anestrian-successor tooling.
Can they afford it? Yes, narrowly. Imperium is one of Pan-Anestria's smaller, more conflict-prone northern pol
                   and a low-profile 130 mm tank is a cost-conscious way to arm one.
Fate:            Fought Imperium's own frontier conflicts, collapsed in 1365.
```

SPH-155 Self-Propelled Howitzer

Ground · Operator: Solenne · finished model and spec sheet





Role

Truck-mounted 155 mm howitzer for shoot-and-scoot fire support: stops, fires a burst, and leaves before counter-battery fire arrives.

DIMENSIONS (as modeled)

Length 10.8 m travelling (gun forward over the cab), 13.4 m in firing position with the spade down Width 2.55 m Height 3.0 m travelling (cab roof 2.5 m)
8x8: two steered front axles under the cab, two rear axles under the gun, 1.24 m tyres with CTIS

Weight

Combat 34 t

Powertrain & Drivetrain

Engine: 13 L inline-6 turbo-diesel, 340 kW (460 hp) @ 1,900 rpm
Torque: 2,300 Nm @ 1,100 rpm
Transmission: 12-speed automated manual + 2-speed transfer case
Drive: 8x8 full-time, locking differentials, steering on axles 1-2, central tyre inflation
Suspension: leaf/air on the front axles, bogie on the rear pair (locked out when firing)
Power-to-weight: 10 kW/t (13.5 hp/t)

Performance

```
Road 85 km/h   Off-road 50 km/h   0-50 km/h ~22 s
Gradient 50%   Side slope 30%   Fording 1.2 m   Turning radius 11 m
Range 600 km (fuel ~450 L)
```

Crew

5 (commander, driver, gunner, 2 loaders) in the armoured cab and crew module, 3 can operate in emergency

Armament

155 mm L/52 howitzer (8.1 m tube, bore evacuator, slotted muzzle brake), rear turntable mount
Traverse +/-17 deg without moving the truck, elevation 0 to +66 deg (shown at +25)
Range: 40 km standard HE, 50+ km base-bleed, ~70 km rocket-assisted, guided shells to ~55 km
Rate: 6 rds/min burst (semi-automatic rammer), 3 rds/min sustained, MRSI: 4-5 rounds on one target Ammunition: 30 projectiles + charges in the crew/ammunition module
Crew MG (7.62 mm) on the cab roof ring for self-defence

Emplacement

Rear hydraulic spade + mid stabiliser jacks: into action ~60 s, out of action ~40 s
Shoot-and-scoot: 6 rounds fired and moving again in under 2.5 minutes

Protection

Armoured cab and crew module: STANAG 4569 Level 2 (7.62 mm AP, artillery fragments), mine blast pan under the cab Gun crew exposed at the breech during loading, relies on mobility, not armour

Sensors / Fire Control

Inertial navigation + GNSS, automatic gun laying, ballistic computer, muzzle-velocity radar, digital fire-mission link

Honest Limits

Cannot fire directly over the cab arc, limited traverse means the truck must be roughly aligned with the target. Soft-skinned compared with tracked SPGs, vulnerable to drones and counter-battery fire if it lingers.

Production And Service

```
Operator:        Solenne
Tier:            Series production
Programme:       Service entry 1336.
Built:           about 150 (1336 to 1354)
In service:      about 135
Unit cost:       about 5.6M (notional common unit, comparable only within this list)
Industry:        Solenne's vehicle works.
Can they afford it? Yes. A wheeled howitzer is cheap, quick to build, and fits a navy-first state that needs m
                   fire support more than a large armoured corps.
Fate:            Fire support for the PSU's Korut and Numaria fronts.
```

Titanmover Railgun Carrier

Ground · Operator: Safemoon · finished model and spec sheet





Role

Strategic-direct-fire railgun platform on an enlarged (x1.3) V-1201 Titanmover chassis. Destroys fortifications, armour concentrations and ships/targets beyond the horizon of conventional guns.

DIMENSIONS (as modeled)

Hull 18.2 m Length with rails ~21 m Width 6.5 m Height ~8.6 m to top of capacitor cylinders 13 road wheels/side (1.1 m), 0.96 m tracks

Weight

Combat ~380-420 t (scaled hull x2.2 mass + ~90 t railgun, capacitor banks and pulse-power)
Ground pressure ~2.8 kg/cm2, prepared/firm ground only

Powertrain & Drivetrain

Turbine-electric (Titanmover architecture, doubled): 4x gas turbines, ~9,000 kW (12,000 hp) combined Traction: 6x electric motors (3 per sprocket), ~45,000 Nm per sprocket at stall
Active hydraulic suspension with firing jacks (must deploy before firing)
Power-to-weight ~22 kW/t (30 hp/t)

Performance

```
Road 35 km/h   Cross-country 15 km/h   0-20 km/h ~16 s
Gradient 30%   Trench 5.0 m   Step 1.8 m   Range ~250 km (fuel ~16,000 L)
Emplacement / firing-jack deployment: ~4 min
```

Crew

24: command, drivers, fire control, pulse-power engineers, loaders, maintenance, security (side control cabin)

Armament

Main: twin-rail electromagnetic railgun, ~10 m rails
Projectile: ~10 kg tungsten/sabot dart, muzzle velocity ~2,500 m/s (~31 MJ muzzle energy)
Direct fire 5-15 km (any MBT destroyed, ~1,000+ mm RHA equivalent at close range)
Indirect/ballistic up to ~150 km with guided rounds
Rate: 1 round per 30-60 s (capacitor recharge via the three roof capacitor/cooling cylinders)
Rail life: ~300-400 shots before re-railing
Secondary: 40 mm autocannon + 12.7 mm RWS (Titanmover fit)

Protection

Titanmover composite (480 mm front / 350 mm sides, scaled plates), automated ERA, heavy APS with laser intercept, full NBC

Honest Limits

Enormous thermal and electromagnetic signature when firing, must stop and jack down to fire, cannot cross bridges or most roads, requires a full logistics and engineer train. Priority target for artillery and air.

Production And Service

```
Operator:        Safemoon
Tier:            Prototype / token run
Programme:       Single railgun-carrier conversion, 1349. Never entered service.
Built:           1
In service:      0 (scrapped for parts 1353)
Unit cost:       about 240M (notional common unit, comparable only within this list)
Industry:        Moonhaven's own works.
Can they afford it? No, and it proved it. The power draw the railgun needs outran what a V-1201 hull's turbine
                   electric plant can generate and Safemoon's grid could back it, so it was never fielded.
Fate:            Cannibalised in 1353 to keep the V-1201s running.
```

TV-24 Tempest

Ground · Operator: Solenne · designation named in the Consolidated Political History





Role

MRAP-class scout, fire support and counter-drone vehicle.

Dimensions

Length 7.3 m (with spare) Width 2.96 m Height 2.32 m roof (~3.3 m RWS)
1.2 m off-road tyres, V-hull, ground clearance ~0.50 m

Weight

Combat 15 t

Powertrain & Drivetrain

Engine: 6.7 L inline-6 turbo-diesel, 290 kW (390 hp) @ 2,400 rpm
Torque: 1,500 Nm @ 1,400 rpm
Transmission: 6-speed automatic + 2-speed transfer case
Drive: 4x4 full-time, locking front/centre/rear diffs, central tyre inflation
Suspension: independent coil-over double wishbone
Power-to-weight: 19.3 kW/t (26 hp/t)

Performance

```
Road 110 km/h   Off-road 60-70 km/h
0-50 km/h: ~9 s   0-32 km/h: ~5 s
Gradient 60%   Side slope 30%   Step 0.5 m   Fording 1.0 m
Range 700 km (fuel ~300 L)   Air-transportable (C-130 class)
```

Crew

3 (driver, commander, RWS operator) + 2-4 dismounts

Armament

RWS 6-barrel 20 mm rotary cannon (20x102 mm class), 1,500-3,000 rds/min selectable, ~600 rds ready Standard HEI / HEI-T: vs infantry, drones, helicopters, soft and light vehicles, effective ~1,500 m (air targets ~2,000 m) OPTIONAL AP rounds (APDS / tungsten-core): ~35-40 mm RHA @ 500 m, ~25 mm @ 1,000 m
to defeats APCs, light IFVs and MRAPs frontally/side, still no effect on MBT armour (sparks only) Recoil and weight: RWS ~650 kg, vehicle must stop or slow for accurate long bursts Twin ATGM box: tandem HEAT, 4-5 km, ~850 mm RHA behind ERA, needs a 2-missile salvo within ~1 s to beat an MBT APS

Protection

STANAG 4569 Level 2-3 (7.62-12.7 mm AP), 6-8 kg mine protection
Lethal: any 30 mm+ autocannon or MBT fire

Honest Limits

Survives by being unseen: hull-down, shoot-and-scoot.

Production And Service

Operator:	Solenne
Tier:	Series production
Programme:	Designed 1301 as Solenne's first indigenous vehicle, service entry 1303 (the TV-24A used in O Fenwick, 1305).
Built:	about 1,450 TV-24A (1303 to 1341) + about 360 TV-24B (1306 to 1341)
In service:	about 1,500 together
Unit cost:	4.2M (A), 4.9M (B) (notional common unit, comparable only within this list)
Industry:	Solenne's vehicle works.
Can they afford it?	Easily. 'The cheapest way to put overwhelming firepower exactly where it is needed' (spec a light, cheap platform built in the thousands, doctrinally expendable.
Fate:	Fenwick (1305) through the Turncoat War, Solenne's most numerous armoured vehicle.

V-1201 Titanmover

Ground · Operator: Safemoon · finished model and spec sheet





(Model: Superheavy Tank. Stats aligned to the the service record V-1201 entry, EXCEPT the main gun: this build carries ONE cannon, not the twin 200 mm ETC fit.)

Role

Mobile fortress for deliberate breakthroughs and destruction of heavily fortified positions.
Not a conventional MBT. Tier 5. Unit cost 185,000,000 (plus 188 steel, 12 copper, 6 rubber, 24 semiconductors).

DIMENSIONS (as modeled)

Hull 14.0 m (15.2 m with gun) Width 5.0 m Height 4.67 m roof (~7 m antenna)
13 road wheels/side (0.84 m), 0.74 m tracks

Weight

Combat 188 t Ground pressure ~2.3 kg/cm2 (single track per side, soft ground is a real hazard)

Powertrain & Drivetrain

High-density TURBINE-ELECTRIC drive: 2x gas turbines driving generators, ~4,500 kW (6,000 hp) combined Traction: 4x liquid-cooled electric motors (2 per sprocket), ~1,200 kW each, ~20,000 Nm per sprocket pair at stall Steering: electronic differential motor speed (neutral steer possible)
Suspension: active hydraulic suspension stabilizers (hull levelling + gun-platform stabilization)
Power-to-weight: ~24 kW/t (32 hp/t)

Performance

```
Road 80 km/h (the service record spec, realistically governed to ~50 km/h for track and suspension life)
Cross-country 32 km/h   Reverse ~15 km/h
0-32 km/h: ~11 s (instant electric torque offsets the mass)
Gradient 40%   Trench 4.0 m   Step 1.4 m   Fording 2.0 m (no conventional bridge can carry it)
Operational range 420 km (fuel ~9,000 L, turbines are thirsty at idle)
```

Crew

20: command, driving, gunnery, loading, communications, security, plus onboard engineering and maintenance personnel

Armament

Main: 1x short heavy cannon, ~155 mm L/20 (the single barrel on this model)
HE / demolition and HEAT vs bunkers, fortifications and hardened positions, ~500 mm RHA with HEAT Stabilized, with an automated loading assist
Secondary: 1x 40 mm automatic cannon, 1x 12.7 mm remote weapon station (rear deck)

Protection

480 mm frontal composite matrix / 350 mm side composite armour (the service record spec)
Automated ERA, heavy spall liners, armoured ammunition compartments, automated fire suppression Heavy hard-kill APS with laser intercept system
Multispectral smoke deployers
NBC: full

Fire Control & Sensors

Advanced stabilized fire control with automated target tracking, turret radar dish, advanced thermal and low-light optics

Honest Limits

188 t severely restricts bridge access, strategic transport, recovery, fuel efficiency and cross-country mobility. Needs engineers, logistics, infantry and conventional armour in support, production must stay limited.

Production And Service

```
Operator:        Safemoon
Tier:            Prototype / token run
Programme:       Designed 1321 after the Reclamation War siege of Moonhaven taught Safemoon it could not rely
                   thin line of defenders, 4 hulls built 1326 to 1334.
Built:           4 (3 as A, 1 later rebuilt as B)
In service:      3 operational early 1357 (one lost to a drivetrain fire in 1339)
Unit cost:       185M each (plus about 188 t of steel and scarce parts) (notional common unit, comparable only
                   this list)
Industry:        Moonhaven's own works, with UARRO resource-sector money.
Can they afford it? No. A single 188-tonne vehicle costs about twenty JH-1AZs and consumes Safemoon's whole an
                   armour budget. It was built because Safemoon, a nation that spends on walls, decided its ne
                   would move, and UARRO's resource-sector funds covered it. It needs engineers, logistics and
                   infantry around it, and the ground pressure (2.3 kg/cm2) makes soft ground a real hazard. F
                   the ceiling: production 'must stay limited' (spec sheet).
Fate:            Held Moonhaven's outer lines in the Turncoat War, two survive to 1365.
```

V-1201 Titanmover, Variant B

Ground · Operator: Safemoon · finished model and spec sheet





Stats

As the V-1201 Titanmover (Superheavy_Tank.txt): 188 t, 20 crew, turbine-electric drive, 80 / 32 km/h, 420 km range, 480 mm frontal / 350 mm side composite, heavy APS with laser intercept, full NBC, 1x short ~155 mm cannon + 40 mm autocannon + 12.7 mm RWS.

Difference

The turret front slopes back underneath the gun (undercut) instead of rising as a glacis.
+ ~4-6 t lighter turret (184 t combat), smaller roof silhouette

- Shot trap beneath the mantlet deflects rounds into the hull roof, turret front ~15% weaker

Performance: 0-32 km/h ~10.5 s, range ~430 km

Production And Service

```
Operator:        Safemoon
Tier:            Prototype / token run
Programme:       Variant B: undercut turret front, one existing hull rebuilt 1346.
Built:           1 conversion of a V-1201 (counted in the four above)
In service:      1
Unit cost:       about 12M for the conversion (notional common unit, comparable only within this list)
Industry:        Moonhaven's own works.
Can they afford it? See the V-1201: the conversion was cheap by comparison, the hull is not.
Fate:            Served as one of Moonhaven's mobile gun positions.
```

White Lightning, Variant A

Ground · Operator: Solenne · finished model and spec sheet





Role

Abrams-sized DEW tank (design spec), sketch-faithful variant.

Dimensions

Length 9.1 m incl. emitter (hull 8.2 m) Width 3.9 m Height 2.58 m

Weight

Combat 61 t (battery banks ~7 t, capacitors, emitter cooling)

Powertrain & Drivetrain

Series diesel-electric (design spec)
Generators: 2x diesel gensets, 1,100 kW combined, battery ~1.8 MWh Li-ion
Traction: 2x permanent-magnet motors at the sprockets, 750 kW each, ~9,000 Nm each at stall
Drive: tracked, electric differential steering (neutral steer)
Power-to-weight: 18 kW/t (24.6 hp/t)

Performance

```
Road 60 km/h   Off-road 42 km/h
0-32 km/h: ~5.5 s (instant electric torque)
STEALTH MODE (diesels off, user spec): 45 min on battery at 15-20 km/h, range ~12-15 km, very low acoustic/IR
Range ~400 km on generators   Gradient 60%   Trench 2.7 m
```

Weapon

~1.5 MW high-energy laser, 3-6 s dwell per shot, 20 shots per charge (design spec), recharge 10-15 min Burns ~20-40 mm steel at 1-2 km, kills light armour, optics, APS radars, drones, ATGMs in flight Cannot realistically defeat MBT frontal armour, targets sensors, tracks, top armour

Round gloss-white emitter (3.1 m): coolant jacket, 4 octagonal fin rings, coolant lines, lens housing (the fatal flaw: the white finish rejects solar heat but is visible at long range)

Dust/smoke/rain reduce range 50-80%, overheats after ~7 consecutive shots (finned emitter)

Protection

~700-800 mm KE frontal composite, no ammunition to cook off, battery fire is the main catastrophic risk

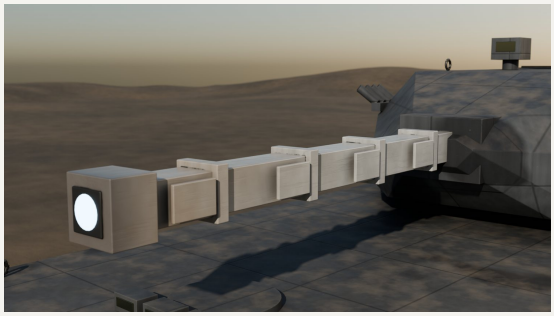
Production And Service

Operator:	Solenne
Tier:	Limited production
Programme:	DET-3A, first production standard 1322 (after a six-vehicle trials troop fought in the Reclam War).
Built:	about 52 (1322 to 1326), 41 later converted to DET-3C
In service:	none remain as A
Unit cost:	about 41M (notional common unit, comparable only within this list)
Industry:	Solenne's defence houses.
Can they afford it?	Yes, in a short run: a directed-energy tank needs batteries, capacitors and rationed elect so Solenne built enough to prove the concept and then fixed the flaws in the C.
Fate:	Converted to C standard.

White Lightning, Variant B

Ground · Operator: Solenne · finished model and spec sheet





Stats

Powertrain and weapon as Variant A (diesel-electric, 1.5 MW laser, stealth battery mode).

Differences

Spindle wedge turret: ~10% better frontal turret protection, more capacitor volume
Collared/finned emitter: ~7-8 consecutive shots before overheat
Weight 63 t: road 58 km/h, 0-32 km/h ~6 s, stealth-mode endurance ~40 min

Production And Service

```
Operator:        Solenne
Tier:            Paper design only
Programme:       DET-3B: a stylised low-cost proposal that never left the drawing office (White Lightning C sp
                   sheet).
Built:           0
In service:      none
Unit cost:       n/a (notional common unit, comparable only within this list)
Industry:        Not built.
Can they afford it? N/A. The model exists as a design study (formerly called 'Storm Lance'), Solenne chose the
                   configuration instead.
Fate:            Never entered service.
```

Naval Vessels

BBG-01 Kaelis Guided-Missile Battleship

Naval · Operator: Solenne · designation named in the Consolidated Political History





Role

Capital surface combatant: heavy naval gunfire support, surface strike and area air defence for a task group, a flagship able to stand in a gun line and a missile screen at the same time.

DIMENSIONS (as modeled)

Length overall 250 m (clipper bow with a notched stem and a forward-jutting forefoot)
Beam 36 m at the deck knuckle (33 m waterline, wide flat transom) Draught 10 m
Freeboard 12.9 m at the bow / 11 m amidships / 8.6 m on the stepped-down quarterdeck
Bridge roof ~25 m, mast top ~45 m above the waterline

Displacement

Standard 52,000 t Full load 61,000 t

Propulsion & Drivetrain

Integrated electric propulsion: 4x 36 MW gas-turbine generators + 4x 8 MW diesel generators = 176 MW 4 shafts, 4x advanced induction motors (35 MW each), 4x five-bladed fixed-pitch propellers, twin rudders Raked stack between the aft tower and the quarterdeck vents both turbine rooms
Power-to-displacement: 2.9 kW/t

Performance

Max speed 31 kn (57 km/h) Cruise 18 kn Range 12,000 nmi at 18 kn Endurance 60 days
Sea state: full gunnery to SS6, survivable SS9
Tactical diameter ~1,100 m at full rudder

Crew

1,450 (95 officers) + flag staff of 60

ARMAMENT (from the sheet)

Main battery: 1x twin 406 mm/L40 turret forward (barbette-mounted, 3 deg ready elevation), 2 rds/min per gun, 38 km with conventional shells, ~120 km with rocket-assisted guided rounds, 600 rounds
Aft battery: 1x twin 127 mm dual-purpose turret on a raised barbette, facing aft, 20 rds/min per gun, 24 km 72 VLS cells: 24 on the forecastle ahead of the main turret, 48 on the midships deckhouse
(mix of long-range SAMs, land-attack cruise missiles and ASROC-type rockets)
16 anti-ship missiles in 4 angled quad box launchers beside the midships deckhouse, ~300 km
6 CIWS: 2 on the forward bridge corners, 2 aft of the stack, 2 on the quarterdeck
Armoured deck box ahead of the main turret (forward-facing optics/laser dazzler)

Sensors

5 octagonal phased-array radar faces: 2 on the bridge flanks, 2 on the aft tower flanks, 1 on its aft face Rotating long-range air-search radar on the main mast platform, navigation and surface radars on the yards Twin gunfire-control directors on the bridge roof (the "cups" on the front view)
ESM/ECM domes at the yard ends, satcom/aft-mast antennas, bow sonar in the forefoot

Protection

Main belt 305 mm steel/composite, armoured deck 150 mm, main turret face 430 mm, barbette 290 mm Faceted tumblehome superstructure and flared hull for reduced radar signature, dazzle panel camouflage

Boats

2 rigid-hull inflatable boats on the aft deck structure

Flags & Markings

Pennant "01" on both bow flares, dazzle-panel naval grey scheme following the plating grid

Honest Limits

No hangar or flight deck on the sheet: relies on escorts for helicopters and ASW.
Only 72 VLS cells for a 61,000 t hull, it trades missile depth for guns and armour.
A very large radar and infrared target despite the faceting, the main guns outrange nothing a modern missile boat carries, so it needs its missile screen to close to gun range.

Source

Production And Service

```
Operator:        Solenne
Tier:            Limited production
Programme:       Lead ship 1349, second ship 1354, third cancelled 1356 when the rationed-materials crunch mad
                   unaffordable. (the Consolidated Political History lists it as the RoLS 'Kaelis' guided-miss
Built:           2
In service:      2
Unit cost:       about 3,800M each (notional common unit, comparable only within this list)
Industry:        Solenne's naval yards.
Can they afford it? Only Solenne. A 250-metre capital ship costs about fifty Chimera fighters and takes years
                   time, even Solenne stopped at two, and cancelled the third as resources tightened.
Fate:            Flew Solenne's flag in the Turncoat War's Korut campaign.
```

CAG-01 Aurelan Guided-Missile Heavy Cruiser

Naval · Operator: Solenne · finished model and spec sheet





Role

Big-gun surface combatant for Solenne's task groups: naval gunfire support and surface action with three gun mounts, area air defence from a raised missile module, and a helicopter for scouting and anti-submarine work. Sized between the Light Vessel IV corvette (83 m) and the Kaelis battleship (250 m), it is the ship Solenne sends when a battleship is too valuable to risk.

DIMENSIONS (as modeled)

Length overall 200.5 m (bulb tip to transom tip), deck 179 m (raked transom to the stem head)
Beam 22.0 m at the hull knuckle (maximum), 20.7 m at the waterline, draught 6.1 m (7.1 m at the bulb) Freeboard 5.4 m at the bow / 10.2 m amidships / 7.5 m on the helideck
Tower roof 24.4 m, radome top 31 m above the waterline

Displacement

Standard 11,800 t Full load 13,500 t

Propulsion & Drivetrain

Integrated electric propulsion: 2x 36 MW gas-turbine generators + 4x 4 MW diesel generators = 88 MW 2 shafts, 2x 34 MW advanced induction motors, 2x five-bladed fixed-pitch propellers, twin spade rudders Uptakes vent through the low louvred stack between the aft mount and the tower (no tall funnel) Power-to-displacement: 6.5 kW/t

Performance

Max speed 30 kn (56 km/h) Cruise 18 kn Range 7,000 nmi at 18 kn Endurance 45 days
Sea state: full gunnery to SS5, flight operations to SS5, survivable SS8
Tactical diameter ~800 m at full rudder

Crew

540 (42 officers) + air detachment of 24

ARMAMENT (from the sketch)

Main battery: 1x twin 203 mm/L55 turret forward of the bridge (16 m faceted gunhouse, 5 deg ready elevation), 4 rds/min per gun, 32 km with conventional shells, ~90 km with rocket-assisted guided rounds, 500 rounds Bow mount: 1x single 127 mm/L54 in a hexagonal stealth gunhouse behind a V breakwater, 20 rds/min, 24 km Aft mount: 1x twin 155 mm/L52 on the hangar roof, facing aft over the helideck, 8 rds/min per gun, 30 km 4x twin 57 mm dual-purpose mounts on the main deck beside the superstructure (2 each side), 220 rds/min per gun 48 VLS cells in the raised module ahead of the bridge (24 twin-cell hatches): long-range SAMs, quad-packed point-defence missiles and anti-submarine rockets
2 C-RAM close-in mounts on braced sponsons off the tower flanks, 4 sextuple decoy launchers on the hangar roof

Aviation

Helideck on the quarterdeck (touchdown circle, 18 m wide) and a hangar for one medium helicopter or two drones, behind the raked roller door in the hangar's aft face

Sensors

Long-range air-search radar inside the ball radome on the tower's mast pedestal
3 octagonal phased-array faces: one on each tower flank, one on the tower's aft face
Gunfire-control electro-optics in the main turret's rangefinder ears, navigation radar and ESM on the tower roof Hull sonar in the bulbous forefoot, towed array streamed from the transom

Protection

Belt 150 mm amidships over the magazines and machinery, armoured deck 75 mm, main turret face 200 mm, barbette 150 mm, splinter plating on the superstructure
Tumblehome hull (wider at the knuckle than at the deck edge) and faceted superstructure for reduced radar return, flush anchor pockets, few deck fittings

Boats

None visible: boats and the towed array are stowed inside the hangar and the transom

Flags & Markings

Pennant "11" on both bow flares, plain Solenne naval grey (the Kaelis paint without its dazzle panels), dark non-skid decks, black boot-topping, red anti-fouling, helideck circle in amber

Honest Limits

The bow is a wave-piercer: the stem rakes aft and the forecastle slopes down to 5.4 m, so the bow mount and the forecastle are wet in any real sea, and the low reserve buoyancy forward limits speed into head seas. Three heavy gun mounts on 13,500 t put a lot of weight high up, stability margins are thin once the ship is damaged. Only 48 VLS cells, and one helicopter: it still needs escorts for deep air defence and sustained anti-submarine work. Tumblehome hulls lose stability quickly at large heel angles, damage control doctrine leans on fast counter-flooding.

Source

The side view is matched by orthographic overlay at 0.1076 m/px (200 m overall), the plan view, sections and front were designed (the sketch shows the side only).

Production And Service

```
Operator:        Solenne
Tier:            Limited production
Programme:       Lead ship 1344, three more 1347 to 1352, a planned fifth was folded into the Kaelis budget. t
                   not name the class yet.
Built:           4
In service:      4
Unit cost:       about 1,400M each (notional common unit, comparable only within this list)
Industry:        Solenne's naval yards (the same slips as the Kaelis pair).
Can they afford it? Only Solenne. Cheaper than a Kaelis by more than half, which is why there are four of them
                   two battleships.
Fate:            Turncoat War: gunfire support on the Korut coast, screening the Kaelis pair.
```

Light Vessel IV Light Corvette

Naval · Operator: Nam Minh (hull built at PUSDR's yards) · finished model and spec sheet





Light Vessel Iv, Light Corvette (Internal Use Only)

Joint project of Nam Minh and PUSDR (the Peoples' Union of Socialist Democratic Republics)

Role

Littoral light corvette: coastal patrol, surface strike, point air defence and escort of small convoys.

DIMENSIONS (as modeled)

Length overall 83 m (raked, flared bow) Beam 12.0 m Draught 3.2 m Freeboard 4.2 m aft / 6.5 m at the bow Mast height ~20 m above the waterline

Displacement

Standard 1,150 t Full load 1,420 t

Propulsion & Drivetrain

CODAD: 4x high-speed diesels, 4x 3,600 kW = 14,400 kW (19,300 hp) total
Two shafts via reduction gearboxes, 2x five-bladed fixed-pitch propellers, single spade rudder
Shaft torque ~310,000 Nm per shaft at 220 rpm
Electrical: 3x 450 kW diesel generators
Power-to-displacement: 10.1 kW/t

Performance

```
Max speed 28 kn (52 km/h)   Cruise 15 kn   0 to 20 kn in ~2.5 min
Range 3,500 nmi at 15 kn   Endurance 14 days   Sea state: full ops to SS5, survivable SS7
Tactical diameter ~450 m at full rudder
```

Crew

68 (9 officers) + 8 embarked special-purpose personnel

ARMAMENT (from the sheet)

2x forward 76 mm dual-purpose guns (superfiring pair), ~85 rds/min each, 16 km surface / 6 km AA 1x aft 57 mm gun (rear of the superstructure), 220 rds/min, anti-air/anti-FAC
Missile silo: 3-cell hatch module aft, each cell 2 anti-ship missiles (6 total), ~180 km,
sea-skimming SAM site: twin-rail short-range SAM launcher forward of the bridge, 16 missiles in the magazine, ~12 km RGASM countermeasures: stern trainable decoy/chaff launcher (anti-ship-missile seduction), 24 rounds

Sensors

Mast-top rotating air/surface search radar (~150 km air, horizon surface), fire-control directors, ESM/ECM antenna arrays on the lattice mast yards, navigation radar, hull-mounted sonar (patrol-grade)

Flags & Markings

Kentucky pine-tree flag and naval ensign on the flagpole, PUSR flag at the stern ensign staff, signal flags dressed on the halyard to the bow, pennant "IV"

Honest Limits

Small hull for this weapon load: top-heavy with the tall bridge and mast, heavy rolling above SS5. Only point air defence, vulnerable to saturation missile attacks without escort.
No helicopter deck, ASW capability is minimal.

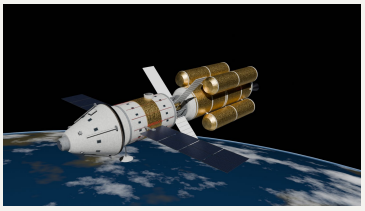
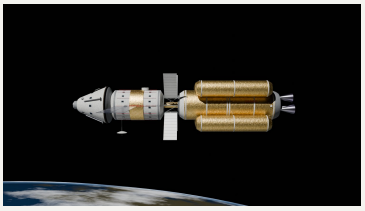
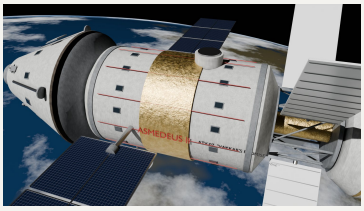
Production And Service

```
Operator:        Nam Minh (hull built at PUSDR's yards)
Tier:            Limited production
Programme:       Service entry 1339. Reassigned from the placeholder nation in the original spec header.
Built:           14 (12 for Nam Minh, 2 for PUSDR trials, 1339 to 1352)
In service:      about 12
Unit cost:       about 85M (notional common unit, comparable only within this list)
Industry:        A joint Nam Minh and PUSDR project: PUSDR yards, Nam Minh crews and coastal doctrine.
Can they afford it? Yes, jointly: a corvette is exactly the size of warship a small coastal nation can afford,
                   PUSDR's yards do the expensive part.
Fate:            Coastal patrol and escort for the Kargopol bloc's small convoys.
```

Space Vehicles

Asmedeus II Crew Transport

Space · Operator: Solenne / D.S-H.P · designation named in the Consolidated Political History

Built by Solenne's aerospace program, flown under the DS-HP mission umbrella. Modelled hull: ATV-07 "Vakkar's Promise".

Role

The only vehicle in the Typhon Corridor Fleet rated to carry settlers rather than cargo, and the reason there is a colony on Typhon at all (APS Stellar Dossier v3). The first colonization wave that reached Typhon's Hearthlands in AE 1341 flew on Asmedeus II-class ships, the class carried the sustained population transfer of the Osprey Exodus (the canon record) until GAW4 closed the corridor.
Named, like the N-14 "Asmedeus" fighter it is a deliberate numbered sequel to, for the old Savoran sky god that neither the Syndicate nor Solenne ever worshipped but never stopped naming things after.

HOW IT FLIES (the Aridexia-Osprey corridor)

Aridexia (1.000 AU) and Osprey (1.100 AU) are near-circular and only 1.32 deg apart: the cheapest real interplanetary corridor in the system, ~3,400 m/s total. Hohmann transfer ~196 days.

- Orbital assembly: each ship is put together in low Aridexia orbit from 6 Asmedeus-1 heavy-lift launches (95-115 t to LEO each): cruise stage core, habitat, entry vehicle, and 3 tanker flights for the strap-on tanks (the fourth tank flies up with the core).
- Trans-Osprey injection on the cruise stage's 3 kerosene/LOX vacuum engines, then a ~196-day coast with the crew in the habitat.
- At Typhon the settlers move into the entry vehicle, which separates, aerocaptures heatshield-first in Typhon's atmosphere (peak heating at ~2.1 km/s entry is benign) and lands on 4 methalox descent engines.
- The habitat and spent stage stay in Typhon orbit: dozens of Asmedeus II habitats docked together became the colony's first orbital way-station.

DIMENSIONS (as modelled)

```
Overall length 59.6 m (engine exits to docking tunnel)   Max diameter 17.2 m over the strap-on tanks
Solar-array span 50 m   Radiator span 18.5 m
Entry vehicle: 10.0 m heatshield diameter, 9.5 m tall
Habitat: 8.0 m diameter x 14 m, three decks
```

Mass

Departure mass in Aridexia orbit ~560 t
Entry vehicle 105 t (incl. 28 t descent propellant and heatshield)
Habitat 62 t (incl. 18 t water in the storm-shelter wall, 190 days of consumables beyond the regenerating loop) Cruise stage dry 58 t, propellant ~335 t (core 175 t + 4 strap-on tanks x 40 t)

Propulsion

Cruise stage: 3x kerosene/LOX vacuum engines (Asmedeus-1 upper-stage heritage), 980 kN total, Isp 345 s Trans-Osprey injection ~3.2 km/s from low orbit, burn time ~16 min
Entry vehicle: 4x methalox descent/landing engines under ports in the heatshield, 480 kN total, Isp 355 s Aerocapture removes almost all of the arrival velocity, ~1.1 km/s of propellant for de-orbit and landing RCS: 16 kerosene/peroxide thrusters on the cruise stage, 16 on the entry vehicle

Crew & Settlers

3 flight crew + 120 settlers per flight
Cruise: 120 berths in the habitat's three decks, a regenerating air/water life-support loop (larger than any earlier DS-HP design) with stored food, the middle ring is a water-wall storm shelter for Solis flares, big enough for everyone aboard for up to 3 days
Entry/landing: all 123 aboard the entry vehicle in acceleration couches for the ~6 hours from separation to touchdown

Power, Thermal, Comms

2 solar wings, 8 panels, ~180 kW at 1 AU
4 deployable radiators on the inter-stage truss
High-gain dish on a boom for the Innus-class relay link (continuous contact across the transfer window)

Protection

Radiation: water-wall storm shelter (~20 g/cm2) plus consumables and tanks packed around the sleeping decks, the open truss keeps the crew away from the propellant stack
Micrometeoroid: whipple shielding under the MLI on the habitat and entry vehicle
Aerocapture: ablative heatshield, single-use, replaced between flights of the entry vehicle (when one is recovered)

Flight Record

First wave AE 1341, the class flew every settler transfer window until the Threshold Accord war (GAW4, AE 1359 to 1371) shut down launch infrastructure on Aridexia. The corridor was never reopened (the canon record).

Honest Limits

Six heavy launches per ship make every flight enormously expensive, and the war economy's propellant crunch (the same DS-HP resource math behind the Threshold Accord) put a hard ceiling on how many could fly. 196 days in a crowded tin can: psychologically brutal, and a single serious life-support failure puts 120 people at risk. The entry vehicle has one shot at aerocapture: an off-nominal entry corridor means a skip-out or a burn-up. No return capability: the Asmedeus II was always a one-way ship for its settlers.

Production And Service

```
Operator:        Solenne / D.S-H.P
Tier:            Series production
Programme:       First flight 1338, first wave reached Typhon 1341.
Built:           52 hulls (1338 to 1359), about 24 in the first wave, about 2,880 settlers
In service:      none, one-way ships
Unit cost:       about 2,100M each (six launches) (notional common unit, comparable only within this list)
Industry:        Solenne's aerospace program, assembled in orbit.
Can they afford it? Only Solenne. A one-way ship that costs six rockets is a purchase only a state with an
                   existential reason makes: the resource math of the Consolidated Political History.
Fate:            The corridor closed in 1359 and was never reopened (the canon record).
```

Asmedeus-1 Heavy-Lift Booster

Space · Operator: Solenne / D.S-H.P · designation named in the Consolidated Political History







Role

Solenne's heavy-lift booster and the launch vehicle underneath the entire Typhon Corridor Fleet (the Consolidated Political History Section XXV, APS Stellar Dossier v3). Built once Solenne's colonization ambitions outgrew the single-stage Koedul-1 probe launcher. It put every Asmedeus II crew transport together in orbit: six Asmedeus-1 launches per ship (core stage, habitat, entry vehicle, three tanker flights), plus the Koedul-class heavy transports' cargo.
The cargo-and-habitat half of the same naming lineage as the Asmedeus II, not a separate program.

DESIGN PHILOSOPHY (canon)

"The biggest simple rocket that reliably works, not the most elegant one": thick-walled riveted tanks and conventional kerosene/LOX propulsion, the same engineering philosophy that shaped Koedul-1 scaled up by two orders of magnitude.

CONFIGURATION (as modelled)

Three stages, all kerosene/LOX, with six solid strap-on boosters (up to six fitted for maximum payload): Stage 1: 5 engines (one centre, four outer in aerodynamic fairings) on a flared thrust skirt
Stage 2: 2 vacuum engines inside a vented interstage
Stage 3 (injection stage): 1 vacuum engine, narrower 8.4 m body under a conical adapter
Payload: 10.6 m hammerhead fairing (holds one Asmedeus II module or a Koedul cargo stage)
White with black roll-pattern quarters, "SOLENNE" and "DS-HP" markings
Detail (as modelled): one continuous blended airframe from thrust skirt to fairing tip with filleted transitions, corrugated dry structure (thrust skirt, intertanks, interstages, strap-on aft skirts), frost on the cryogenic LOX tanks (stage-1 forward tank, stage-2 aft tank) with boil-off vapour venting from the relief valves and spilling from the launch-mount opening, cable raceways, vent/relief valves, stage-2 ullage motors, instrument ring and antennas on stage 3, umbilical carrier plates, strap-ons with field joints, thrust-ball forward fittings, aft attach trusses and separation motors, engine fairings blended into the skirt

DIMENSIONS (as modelled)

```
Height 100 m (base to fairing tip)   Core diameter 10.0 m   Width over strap-ons 17.7 m
Stage 1: 40 m   Stage 2: 22 m   Stage 3: 9 m   Fairing: 22.5 m long, 10.6 m diameter
Strap-on boosters: 3.7 m diameter, 38.4 m long
```

Mass

Lift-off mass ~3,450 t (with 6 strap-ons)
Strap-ons 6 x 190 t Stage 1 ~1,650 t Stage 2 ~470 t Stage 3 ~115 t Fairing + payload up to ~125 t

Propulsion

Strap-ons: 6 solid motors, 3,900 kN each at sea level, burn ~105 s
Stage 1: 5 kerosene/LOX engines, 6,800 kN each at sea level (34,000 kN), Isp 265 s SL / 300 s vac, burn ~155 s Stage 2: 2 kerosene/LOX vacuum engines, 1,450 kN each, Isp 335 s, burn ~330 s
Stage 3: 1 kerosene/LOX vacuum engine, 980 kN, Isp 345 s, restartable (orbit insertion + transfer burns) Lift-off thrust ~57,400 kN (thrust-to-weight ~1.7)

PERFORMANCE (canon figures)

95-115 t to low Aridexia orbit (upper figure with all six strap-ons)
22-28 t of useful colonization mass direct on a Typhon transfer trajectory
Launch from coastal pads with a concrete launch mount over a flame trench and a steel umbilical tower (Koedul-1 heritage)

LAUNCH COMPLEX (as modelled)

Concrete launch mount with a square exhaust opening and ten hold-down arms, flame trench and deflector 115 m red steel umbilical tower: service floors, four swing arms (stage 1, interstage, stage 2, stage 3 umbilicals), crew-access white-room arm at the fairing, hammerhead crane, lightning mast
Propellant farm: LOX and kerosene spheres, water tower for the sound-suppression deluge

Reliability

Mature fleet reliability ~96% (far above Koedul-1's first-series 65-70% target), a launch-escape system is not needed because crews fly up separately in an Asmedeus II entry vehicle launched on its own dedicated flight

Honest Limits

Expendable: every stage is thrown away, so every Asmedeus II costs six complete rockets. Kerosene/LOX and thick tank walls cost payload fraction compared with anything more refined. Propellant, precision alloy and launch capacity were exactly what DS-HP's 1359 resource math showed running out, the Asmedeus-1 cadence was the real bottleneck of the Osprey Exodus, and GAW4 attacks on launch infrastructure ended it.

Production And Service

```
Operator:        Solenne / D.S-H.P
Tier:            Series production
Programme:       First launch 1337, every Asmedeus II needs six launches.
Built:           about 312 launches (1337 to 1359)
In service:      retired when the corridor closed
Unit cost:       about 350M per launch (notional common unit, comparable only within this list)
Industry:        Two heavy-lift pads on remote Solennese ground.
Can they afford it? Only Solenne. Six launches per ship is among the most expensive things the species ever di
                   was affordable only while the postwar economy and its propellant stock could take it, and t
                   Turncoat War's resource crunch ended it.
Fate:            Ended when GAW4 shut down launch infrastructure.
```

PART EIGHT

The People

37 The Leads

Five people carry this record. Salvador Reyes, who made the Chicano line. Nikolai Nichozh, who made a nation out of an insult. Cassius Altyr, who inherited a revolution. Malakor Vane, who started the last war. Isador Reyes, who inherited the First Marshal's name and spent it. Everyone else in this part is supporting cast, and the Division has written them shorter on purpose.

A note on method. The record gives few names before 1250 and fewer lives. Where the Division had the facts it has kept them. Where it had only the shape of a decision, it has drawn the person who most likely made it, and it says so. These portraits are the reading of the record that the Division stands behind today, and they are open to revision whenever a new document turns up.

Salvador Reyes

Chicano States, 765 to 812 AE, general and First Marshal.

The continent remembers Salvador Reyes as the man who conquered it, and the memory is accurate in outline. He was born in 765 in a coastal Chicano town whose name did not survive him, to parents who left no record of themselves. He grew up in a state that lived on the inattention of its neighbours. Chicano States was a mid-sized, ambitious coastal power with a good harbour and no depth, and a boy raised in such a place learns early that survival is a matter of being overlooked at the right moments. He did not forget the lesson. He spent his life trying to build something that would not need to be overlooked.

At thirty, in 795, he was the officer credited with the campaign that took roughly a quarter of Vessek's mountains. The government had meant it as a limited land grab, the kind a regional power makes when a weaker neighbour looks distracted. Reyes took it as proof. Ten years later, in 805, a population that had watched him deliver real territory acclaimed him without coup or bloodshed, and he took the title First Marshal.

He led every campaign himself, at the head of his army, because he could not trust a victory he had not stood in. A general who delegates can be told afterwards that he was lucky, and Reyes had been called lucky by men who meant it kindly. He wanted something finished, and a habit shows it. In every town he took he had the date of annexation written on a card and nailed inside the door of the town hall, and some weeks later he sent a rider back to check that the nails held. He did not read his own reports. He kept a young clerk, Teodoro Ibarra, to read them aloud and to say what the numbers meant, and he listened with his eyes on the window. On the reports themselves, which came back to Ibarra for filing, he drew ships in the margins, always the same three-master with one spar crossed where no spar goes, and in all the years Ibarra filed them he never corrected it.

The same fault ran through the whole of his career and can be followed campaign by campaign. He needed his conquests to last, and he built them so that they could last only as long as he was standing in them. At Ashwick Bay in 806 he caught a navy at anchor, and Calmouth fell within three weeks. At the Tolgen Fords in 807 he took the third crossing himself after two had broken. At Corvath in 809 he accepted a nominal government under his supervision, the only time in seven years he settled for less than annexation, and the only reason anyone offered was that the enemy had made it easy. At Prynn in 810 his assault failed and he sat down to a winter blockade. Each success taught his officers the same thing, which was that the army was him. He appointed no deputy who could command the regiments, no administrator who could govern a conquered king, and no heir to the method. A man who fears being called lucky does not build an office that could succeed without him.

On the evening of the Tolgen Fords he stood at the edge of the crossing and looked at the water, which was still the colour of a slaughterhouse floor below the third landing. The cold had come down off the hills and the wounded were being carried past him on doors. A staff officer said it was the bloodiest day of the war. Reyes said, "It was the third attempt. The first two were what it cost to make the third possible." The officer wrote it down as a boast. Ibarra, who was beside them and twenty-seven that year, thought it was an accounting, and noticed that the First Marshal had drawn his gloves on and then off and then on again, as a man does who has forgotten what he came out to do.

The scene the accounts return to belongs to the summer of 809. The regiment he had sent into the defile of Kessel Pass was destroyed to the last man, and Reyes went up on foot with two staff officers, past the bodies, in a silence broken only by the wind in the scree. The rock walls were close enough to touch with both arms. High on them, where a man standing on the ground could not have climbed, strips of cloth were tied, each in the colours of a different valley. They moved in the draught like something alive. A young officer said the enemy had no capital and no commander. Reyes looked up at the cloth for a long time. He said, "Then who tied these?" Somewhere below them a mule coughed. At the narrowest point he turned back, and the next morning he ordered punitive columns into the Ashvale. He understood the pass. The order went out anyway, because a man who has built his name on never being turned back cannot say that

he has been.

The price of that order was paid by people who appear in no portrait. Villages in the Ashvale cluster were burned. Prisoners were executed in reprisal. The resistance that had no capital to take and no army to meet in the open went on tying cloth to rocks. By 811 he held about eighty percent of Vessek's ground and had learned nothing that would have let him keep it.

Those who served under him left eleven small accounts of the man, and the Division has set them side by side without reconciling them. They disagree about his height, which runs from five foot four to six foot one. A cook named Anunciata Soler says he ate with his hat on and gave the crusts to the mules, each by name. A herder's widow from the Vessek foothills, questioned in 840, remembered only that an officer had once asked her the name of a goat, written it on his cuff and paid twice what the animal was worth. Ibarra's own note says that Reyes sang at the evening fire, loudly, in four keys, and that the men took it as a mark of favour to be asked to join in. None of the eleven writers was in the Ashvale, and none of them mentions the ships.

He had a daughter, Inés, born about 799, whose mother the record does not name. She grew up in a household that was usually empty, since her father was usually somewhere else, and she knew him largely as the sound of a letter being opened. In the autumn of 811 he received one from her at a camp above the Ashvale. She was twelve. Ibarra read it aloud because Reyes asked him to, and it said that she had been given a map of the continent for her lessons and that the part she was supposed to colour in for her father had grown larger than the paper. Reyes asked Ibarra to write back. He dictated three lines, thought about it, and said, "Tell her to leave the mountains white." While Ibarra wrote, a column of smoke stood up from a high valley to the north, black at the base and leaning in the wind. A scout came in an hour later to report that a hold in the high valleys had been fired by its own people. Reyes looked at the smoke and said, "They have finally given us somewhere to fight." He took the invitation, because it was the only kind he was equipped to accept.

He never met the man who had lit it. Orrin Kelvath never claimed to understand him either, and the two names knotted together in the record never exchanged a word. Reyes took the mountains for an obstacle to be crossed. Kelvath had judged that a general who must always be in the front could be led into a valley and left there.

In the spring of 812 he led another column into the highlands and was ambushed at Kelvath Hollow. The escort was cut down in the narrows and the First Marshal was thrown from his saddle. The aide he trusted most was on a rise two hundred paces behind, with the bugle sounding the retreat. What is known of the end comes from that aide alone. Reyes is said to have gone down on one knee beside a boulder, with a hand on the rock, and looked back toward the peaks. He is said to have spoken: "Every nation on this continent bent. Only the mountains never did." Time wore the sentence to the four words most Aridexians know, the mountains never bent. The record has no second witness. Ibarra gave three accounts, in 813, in 816 and in 855, and in the first of them Reyes said nothing that could be heard.

What happened and what is remembered part company at this point. The remembered Reyes is a conqueror who died speaking a line of grudging respect for an enemy. The man who happened was forty-seven, tired, and walking into a place he had been warned about because he could not stop, and the sentence, if it was spoken, was either the truest thing he ever said or the kindest thing his aide ever invented. The empire fell at once. Every conquered nation rose within months, and none of the land was kept. By 816 the coalition had occupied Chicano States itself, the reverse of what he had spent seven years doing to them, and the early 820s saw the country sovereign again, chastened and considerably smaller.

Inés married Ibarra in 824. She was twenty-five and he was forty-four, the man who had left her father on the slope, and nobody wrote down what she knew of that or what she chose to know. The name Reyes did not travel easily through the generations that followed. It lay in the family chiefly as a story told at table, and the story was Ibarra's version. Five and a half centuries on, a descendant would stand in front of a map of that same country, with the history in his blood, and refuse the title for himself.

Ibarra's family bound the reports in 826, four volumes with green spines, and kept them on a shelf above the stove. A granddaughter who showed them to a visitor in 871 said that the numbers were dull and the margins were the best part. Every few pages there is the same three-masted ship with the spar crossed where no spar goes. She had asked Inés once why a man who owned a navy never drew the rigging right, and Inés had said that he never looked at the page while he drew, because he was looking out of the window.

Nikolai Nichozh

Christonian by birth, Northlander by making, 1225 to 1328 AE, founder of Northland and the Founder of its worship.

Nikolai Nichozh answered to an insult for 103 years. A Christonian garrison general, a man who measured his honour by the purity of his line, took old root-words for "worthless" and gave them to the son of a conscripted labourer who had no legal standing to refuse him. When the boy was old enough to march, the general had him rotated into the garrison's conscript regiment, the unit the frontier command treated as expendable. He reckoned that the front would do what a father could not bring himself to do with his own hands. The boy grew to 6'6", with his mother's light brown skin against his father's paler line, and wore his dark hair loose. Anyone on the frontier could see whose son he was, and the general's household made sure that he never forgot it.

The posting was read to him in the autumn of his seventeenth year, in an office where a mantel clock the general had won at cards ran four minutes fast and no one was permitted to correct it. The general did not look up from the roster. He had a clerk's habit of tapping the margin with the back of his pen. "You are transferred to the conscript regiment, effective the first." The boy stood at attention, because that was what the house had taught him, and asked the only question he

was sure was permitted. "Sir, what is the regiment for?" "It is for what it is for." The pen tapped. "You can read, I think. Read me your name from the order." Nikolai looked at the paper. The root-words sat at the head of the line in the clerk's good hand, as they sat on everything he had ever signed. "Nichozh, sir." "And what does it mean?" "It means what you meant it to." The general looked up then, for the first time, and the Division reads what crossed his face as recognition. The boy had given the one answer that could not be punished. He was dismissed, and he did not sleep in that house again.

The war that gave him his first battle began in late 1249, when Lucan Verrett's cell put a bomb under a Syndicate counting-house, killing a handful of clerks. Nichozh was twenty-five when he fought in the war that the bomb produced, and he was one of very few men of his regiment to survive the rout. The newly formed USN folded Christonia's frontier garrisons into its order of battle, and an army short of frontier officers found a conscript with nothing left to lose and a gift for the ground the enemy had written off. A night flanking march through terrain his own commanders called impassable broke an entrenched position without a man lost in the breach, and he was a captain commanding real frontier forces before he was thirty. The Division suspects that the work suited him for a reason beyond talent. To be underestimated by people who had set the terms was the only respect the frontier had ever offered him, and he learned to collect it.

The Tolgrim family told the next story, and the Division has only their word. In the spring of 1258 a captain of thirty-three came to a chapel at a river crossing where a woman was to have her child christened. The chapel was cold stone and tallow smoke, and the priest had the psalter open for the register. He asked for the father's name. The captain looked at the page for so long that the priest asked again. "Write the mother's." "The register requires a father, Captain." "Then give me the pen." He wrote one short line in the margin, small, and blotted it on his sleeve. "That is not for the register. It is for the child, when she can read it." He paid for the candles, which were dear that winter, and was on the road before the water had dried on her forehead. The record names neither the woman nor the girl. The family kept the psalter.

He held the frontier through the Second War, a seasoned officer in his forties directing rather than improvising. In one action avalanche timing and mortar placement choked off a mechanized column's supply route in a mountain pass. In another a weeks-long deception convinced a besieging force that it was outnumbered ten to one, and the garrison was relieved. Northland's academies teach both still. The peace that followed left him the senior officer of a district no one above him remembered why he commanded. Letizia Falcetti's council cut his district's pay by a quarter in 1284 and again in 1291, and in October 1299 he sold his own horses to feed the sentries. He did not complain, and Falcetti took that for contentment. A man priced at nothing from birth does not argue over a quarter.

His mother had been owned in everything but the word, and when he first held a rank that allowed the question he went through the district archives looking for the paper that had done it. There was none. Nobody had needed one. He is said to have stood at the empty shelf for an afternoon, and the decree he wrote years later runs to four lines, with no recitals and no reasons,

which is about how long the shelf had taken to tell him. A second wish ran under it and is harder to document. He had studied Salvador Reyes's Long Campaign for its marches and, privately, for its ending, a First Marshal whose empire broke on the day he died. The copy in his rooms has one page turned down at that ending, with a thumbnail crease and no ink. Nichozh meant to build a thing that would outlast its builder. He never named his fear, and the staff worked it out from what he insisted on. Any order that would kill people he read aloud himself to the officer who must carry it out, in the same room, and he watched the man hear it. It was a rule against his father's method, the habit of letting the front do what a man would not do with his own hands. He had been the instrument of that once, and the rule cost him something every time, and he kept it.

Two bombs stood at the two ends of his adult life. The first, in 1249, made him a soldier. The second, on 17 January 1300, struck Christona and killed the government that had sent him to die and had then forgotten why it promoted him. Weeks passed before word of it reached the frontier in any form he could trust, and no order ever followed it. At seventy-five he turned his command outward on the frontier's four clan-holdings and began to unify them by force. Verrenkai and Kholvag came in without a shot. The Drenmoor needed convincing, and he burned two of their border settlements rather than negotiate through a winter he judged the campaign could not afford. The Oyun-Tash were besieged in their highlands, and when the siege broke them their fighting-age population was executed. Men under Yurik Verrenkai did it, and Nichozh never accounted for it in public. In February 1303, in a glacial valley where thousands died in a single day, he lost the use of one eye. On the first day he held power he abolished slavery by decree. The same arithmetic served both acts. It counted grain, winter and the number of days in which a country could be made to hold together, and it did not weigh any of them against the pity he plainly felt.

His father fled to a holdout faction after the collapse. There followed a night-long confrontation that ended with the general drawing a pistol on his son and Nikolai's dying reflex killing him. The official version is self-defence. By Nichozh's own later account it is the only version anyone was left alive to contradict, and he never offered a second. A younger half-brother, raised apart in the general's other household, built the Iron Union in a cordoned pocket of the new country on forced labour and the caste ideology the decree had abolished. Some years into his rule Nichozh personally authorised the final operation. He gave the order to Verrenkai in five lines and signed it with the name his father had chosen. The enclave's garrison was not taken alive. Verrenkai kept the paper for four years and then died.

The bill went to other people, which is the plainest fact about him. The Oyun-Tash paid. Yurik Verrenkai paid, in a decade of keeping a document case. A girl of ten who survived the valley paid, and he chose her anyway. In the winter of 1327 he was old enough that the bearers took the road to the Founder's Day service at a walk. The procession crossed the square in a cold that crackled the torches. The crowd knelt with eyes lowered, because to look on a god's face is forbidden, and the band across his eyes spared them the offence. The square was silent except for

one place near the front, where a boy of nine had lifted his head against his grandmother's hand. "Grandmother, he is only old." The bearers stopped. The old man turned toward the sound. "What do you see, boy?" "A cloth, Founder. Gold and cream." The Keepers drew breath. "Leave him," Nichozh said. "A child may look at a cloth." Then he turned his banded face toward the woman who held the boy, a woman of sixty-nine, and kept it there for the length of one breath. Whether he knew her, nothing says. The procession went on. The boy's name was Askold Tolgrim, and he did not forget the answer.

The Division's clearest picture of him comes from rooms rather than from witnesses. The inventory of the Founder's House, taken the week after he died, lists one pair of mountain boots resoled eleven times, one razor, one mantel clock of Christonian make that ran four minutes fast, and a plain coat whose left pocket had once worn through and been sewn up again by a hand that was not good at it. In the lining the clerks found raisins, a handful, hard as pebbles. Nobody on the staff ever saw him eat one. The housekeeper, questioned in 1330, said that the pocket was refilled each Tuesday from one cart in the lower market, that she had once offered him the last measure from her own bag and been told they were not for sharing, and that he had been seen to put a single raisin in his mouth during a funeral and look as though the pleasure of it might make him ill. The places are as plain. The garrison office was pulled down in 1301 for a rail yard. The chapel at the river crossing is a sheepfold, with the font used as a trough, and the farmer who owns it says the stone is good for nothing else.

Nichozh had no wife in any record and, officially, no child. The Relief Corps fed the underclass he was born into and was the nearest thing he had to a household. The cult was the nearest thing he had to descendants. He neither confirmed it nor denied it, and the state tended it for him, because a god was cheaper to obey than a statute. When the Keepers drafted a line saying that the Founder did not sleep, he is reported to have asked who had checked. In 1312 he chose as his heir a girl of nineteen from the clan he had destroyed, and the Division has found three reasons, none of which excludes the others. He died in 1328 of natural causes at 103, thirty-seven years before Northland's capital fell.

The legend did what he had once hoped a state would do and then spoiled it. Bayarmaa Oyun-Tash wore the black coat and the purple mantle and spoke the liturgy of the man whose soldiers had killed her clan, and she removed eleven lines from it by 1360. The schools stopped calling the siege anything but the hard winter of unification. His name, which a general had meant as a curse, was taught in Northland as meaning "unpriced," and nobody could say when the sense had turned. The boy who had looked up at the band grew into a field general and learned the mountain-pass manoeuvre from the academies like every officer in Northland. In 1355 he would wear no band and would expect to be compared, and when the credit for his own work went to the old man he let it go there. The Division comes to him in the account of the Turncoat War, and finds in his saddlebag the family psalter, with a line in its margin that his grandmother used to follow with one finger.

Cassius Altyr

PUSDR, b. AE 1329, head of state of the Peoples' Union of Socialist Democratic Republics from 1352.

Cassius Altyr was born twenty-four years after the last Eisenreich garrison went quiet, and the revolution that made his country reached him as furniture. He inherited the Registers in the state archive, the forty trunks in the Council room and an office built for another man. He never saw Yaroslava Tenchova, who had died eighteen years before he was born, and Zinaida Dimikrova had died in Kargopol twelve years before that. The two women who had made the Union were portraits and paper to him, and he grew up under their eyes without once having been asked what he thought of them.

His father was forty-eight at his birth and had spent his youth in the cellars of the Provost's House. Zarko Altyr wanted peace for the boy and set about arranging it as other men arrange a wall. He had also seen, early, that the child flinched at the guard's drill and gave his supper away, and he feared that softness more than he feared any enemy. The remedy he chose was cloth. Cassius was measured for maroon at five, and the gold went on at the cuff so that he might learn what it weighed. What he learned was how to wear it. By his teens he was six feet and one inch tall, with dark hair that no barber of the hall could make lie flat and amber-gold eyes that visitors remembered after they had forgotten what he said. He walked into rooms as though they had been waiting. The Council of the Union, whose older members had come out of the war in red and grey, found him easy to like and impossible to correct.

The swagger was real in the sense that it worked. It had been cut to his father's measure, and the child who gave away his supper was still in there somewhere, though Cassius was seldom in the mood to go and look. He had two private certainties, and neither was anyone's gift. The first was that he had a voice. It was a true baritone, and he sang in the bath, in the car and once, memorably, in the lift of the Council building, and what he wanted of the office, more than any treaty, was the Sunday evening slot on the national wireless, in perpetuity, with no one to cut him off. The second was that he could tell what a man was about to say. He finished other people's sentences, kindly, with a small flourish, and he was wrong more often than he was right, which nobody told him because nobody liked to interrupt. In the winter of 1355 the Yeshuren envoy began a sentence that would have ended in an escort at four. Cassius ended it for him as a toast, and the envoy, who had the Union's language too thinly to argue, drank. His courtiers called it confidence. The Registers, which he read at night because nobody had told him he need not, kept a different account, and he never once set the two side by side.

He had no quarrel with the old revolutionaries and no kinship with them. They sat on the Council in their plain collars and were courteous to him, and he was courteous back, and neither side supposed it a friendship. He thought of them as the men who had paid for the house, and himself as the man who lived in it. He did not despise them. He could not imagine the cellars, and the failure of imagination was the whole of what separated him from his father. Zarko had

earned his ease in a cell. Cassius found his in the ordinary run of a day.

His name did a second job that he had not asked it to do. Altyr was his family's and it was also a republic's, the agrarian half of the Yedinstvo Treaty, the half with the sickle and the thinner purse, and the delegates on the Altyr benches treated him as theirs. At the spring sitting they carried sacks of seed grain into the Council room. The Kargopol benches called this a petition and the Altyr benches called it a courtesy, and Cassius received every sack with a bow he had practised. Kargopol had the foundries, the rail and the Ministry. Altyr had the grain and a head of state with its name, and he could not tell whether he was loved as himself or as a harvest. He never asked, because he suspected the second.

The bow itself came from Osip Varnek, whose family had served the old Taran household before the kingdom joined the Union. Taran had been a monarchy for only a few years but it knew how a ruler enters a room: the name announced at the door, the order of precedence at table, the pause before sitting. The Union had won its freedom in cellars and on hillsides and had never learned any of this, and Zarko, cutting his cloth, had borrowed it. Cassius learned it from Varnek as other boys learn to ride. The Kargopol men called it the Taran habit, and he took that as praise.

They meant something else. Nikolai Chezkiv's ushanka still stood under glass in the Kargopol hall, and his disciples held that a poor country is persuaded by words and kept by them. Matvei Drogan, who taught Chezkiv's pamphlets at the Kargopol Institute and wore the beard in the founder's manner, thought the maroon coat absurd. The dark red was the sacrifice of two peoples and the gold was their grain, and here both were sewn up as a costume for one man. He said so in Council, in a sentence Cassius finished for him, wrongly, as a compliment to the tailoring. The room laughed. Drogan declined to correct him, and the tailors got an extra order. Privately Cassius thought Drogan the only man in the hall who spoke better than he did, and he envied the words, never the beard.

Beneath all of it lay the treaty's clause. Any republic that was unhappy could put its leaving to a referendum, and a head who had won nothing in a cellar or a field needed every republic to prefer him. In the winter of 1356 the Kinzel delegation came to Council. Kinzel had been a republic for one month, was prouder of that month than any other part of the Union was of its century, and was the least governed of them. The envoy began, "The people of Kinzel have been asked to consider whether," and Cassius finished the sentence with "the Union has been good to them. It has." The envoy had meant to ask whether the rail spur could be mended before the thaw. The word referendum had not been in the sentence until Cassius put it there, and Drogan wrote it into the minutes. It took three weeks and the spur, paid for out of Altyr grain stores, to put it back. After the Haldenau Road a battalion raised in Kinzel was in position by dawn, and nobody from Kinzel spoke of leaving in his hearing again. He did not take this for loyalty and said so to Varnek.

When Zarko died in 1352 he was buried in the maroon coat, and his son, twenty-three, stood at the grave in the same cloth and was observed to be dry eyed. The Council took this for strength.

It was nearer to the truth to say that the boy had not yet understood that anyone could be gone for good.

The war came two years later, and for three of them it arrived as paper. In the winter of 1355 he crossed the forecourt of Kargopol's central station on his way to a reception for the Yeshuren envoys, and the scene was set down afterwards by the chamberlain who walked at his shoulder.

The forecourt rang with a hawker's handbell and a stove-seller's hammer. People from the northern marches had made camps against the railings, with bundles and blankets in the red and grey of the old issue, and a woman lay asleep on a trunk with her boots under her head. Cassius's guard went ahead in maroon and the crowd parted for them without being asked. "The Registers show forty thousand in the city who were not here in the spring," said the chamberlain, a careful man named Osip Varnek. "They are in hand." "In hand," said Cassius. He was reading the envoy's letter as he walked, holding it open with two fingers and murmuring the ends of its sentences a line before they arrived. He stepped round a child's shoe without looking at it. "Tell the Yeshuren they will have their escort at four. And find out whether the wine has come." Varnek turned his head once, toward the woman on the trunk, and then followed. Behind them a guardsman, who had been told not to stop for anyone, did not stop.

The rest belongs to the record of the war. It stood in front of him in the summer of 1357, when the hospital trains from Tarvos began to come in. A man can decline to read a report. He cannot decline a platform. On a Thursday evening in July he came down to Kargopol station in a plain overcoat to receive a delegation that was late, and a porter in the crush, seeing a tall man standing about, put a crate into his arms and was gone before the maroon showed at the collar. It was the size of a bread oven and it clinked. No one will tell a man in maroon to put anything down, and Cassius, who had carried nothing heavier than a baton since he was nine, found that he could not put it down either, because a crowd had gathered on both sides of him with a settled view that he was doing it on purpose. He carried it the length of the platform. He carried it past the stretcher parties and a line of women with tin mugs and a boy selling pins, and it was at the far end, by the water tower, that he understood nobody on the platform was looking at him. They were looking at the carriages. He spent the next hour going from bearer to clerk to guard asking whose it was, and found it at last belonging to a field surgeon from Tarvos, a woman who thanked him without looking up and asked whether he could hold the other end of a door. It was eleven hundred pairs of spectacles. He held the door. The delegation arrived and was sent on to the Council without being seen.

He went to the front in September. The decision has been read as courage, as shame and as policy, and it was probably all three. He took Voronets's plan and signed it and did not take her army, and the salute she gave him at the line was cold and correct, and she had her reasons. In July, on the one transmitter that served the Tarvos sector, he had read his own address to the nation, all twenty-two minutes of it, uncut, in the baritone, while a battalion's call-sign waited on the same net and in the end gave up. He was told afterwards and thought it had been a fine address. His early orders from the relief column were long and ornamental, written in the voice

of a man who still believed that an order was a kind of speech. Voronets did not rebuke him. On the second evening she sat him down at the signal table in the farmhouse where the staff had been put, with the stove out and the map held down by an ink bottle and a spent shell case, and put the key under his hand. Beside him sat a signaller of nineteen named Dina Ostrov, who had been told to correct his spacing. "Send it," said Voronets. "Your own order. All of it." It took him eleven minutes by her watch to get through the first paragraph, and twice Ostrov reached across and flattened his fingers. On the net a colonel's call-sign came up and waited to speak, and he heard it come up and heard it go away, and the key went on under his hand. "Radio time is a kind of grain, Head of State," said Voronets. "You can run out of it." She had grey in her hair that had not been there at Varanka. "Now send the one the colonel needs." He thought for a moment. Then he sent: Third battalion to the Haldenau Road by dawn. It took four seconds, and Ostrov, who had been told nothing about courtesy, said "Better" before Voronets could. In the barn behind the house a horse shifted, and Cassius sneezed three times, as he always did near one, never two and never four. Ostrov wrote "four seconds" in the log, and under it, in a smaller hand, "sneezed".

The orders from the Haldenau Road, which Crake of Solenne read in captured copies and found shorter and plainer each week, mark the real change in him. He did not become humble. He stayed in maroon and kept his guard in it, and he continued to treat a room as his own. What went was the belief that a thing said well was a thing done. His broadcasts fell to four minutes and he sulked about it for a week, and then took the four minutes seriously, rewriting them in the back of the car with his tongue between his teeth, and the one he gave after the Haldenau Road is the only one anyone in the Union could still recite years later. In the same autumn, with less grace, he began to wait for the end of other people's sentences. It cost him the flourish and he missed it.

He was the war's clearest observer because he had stood outside both of its great arcs. Malakor Vane he knew only as a shape in the intercepts and in the Concession Board's price slate: a man who bought governments, who offered Typhon land to Kargopol's neighbours and shot Kargopol's crewed launches out of the sky. He is reported to have said of him that Malakor was a man who had signed the audit before he opened the books. He read Isador Reyes more kindly, as a schoolmaster who had been handed a country, and he understood before most that the Chicano leader was going the way he himself had been spared, from fellow feeling to arithmetic. He judged that the gap between the three of them was a matter of what each had been given to carry. Malakor had been given a calculation, Isador a debt, and he himself a seat in the front row, which he called the most dangerous of the three, since a man in the front row is expected to applaud.

When Chicano States signed the Accord in late 1359, he did not complain of betrayal. He remarked that Reyes had done what a state with no grain does, and the PUSDR Council took the remark for a pardon. His government fell in 1366, when he was thirty-seven. The Division says only that he wore maroon to the front, that the first of his guard to die did so on the Haldenau Road in October 1357, and that the tailors of Kargopol had the order for their replacements

within the month.

Malakor Vane

Solenne, b. AE 1337, Jakaar of Solenne from 1353, Observer of the Solenne Concession on Typhon from 1358, fate unrecorded.

At eleven he scored 260, and the figure is still the highest in the record. The formula behind it was run by Isaure Rook's department to Farren Vane's order with every safeguard taken out, and it left Malakor with bipolar disorder, ADHD, a diagnosis of psychosis and no capacity to be moved by anyone but himself. It left his memory, his speed and his humour whole. It also left him able to read the result, which his doctors had not expected, and he understood it sooner than they did. He treated it as he treated most facts about himself, as a measurement to be used.

He was the fourth child and the last. Vaussen had scored 172 in 1340, and Marcus and Lilian 201 and 208 in 1345, and in that house each figure had been read out as a failure. By the time the youngest came to the table the physician who had kept the formula gentle was dead of a chill, and Farren was past eighty and kept a sheet of ages with a column of years remaining, his own among them. He ran the last child as a man runs the last of anything. Lessons came by the hour and doses by the day. His mother, Lensi, lost the same argument about it every week and stayed, because there was nowhere in Solenne outside her husband's reach. When Malakor was five his father came home early from Anestria and shot the head of the Department of Trial. Nobody told the boy. Quint later recorded that he had worked out the event from the servants' silence before supper.

Daro Quint came to the house in the winter of 1346, fifteen years old, with one case and Rook's instructions in his head. The youngest son received him in a study with a stove newly blacked and still ticking as it dried, sitting very upright on a chair too large for him. He was nine. "They've told you to write down what I do." "Yes." "Then write the time as well. Nobody ever writes the time." Quint took out his notebook and wrote it. The boy watched the pencil. "You're from the street. Father's people take the street ones. Did it work on you?" "They said not." "Then you're the control," said Malakor, and said it kindly, in the voice of someone giving a present. Quint looked at the stove. The boy, who had expected thanks, studied his face a moment longer and then asked whether the stove always ticked like that and whether Quint knew why. Quint did not. By the end of the week Malakor had explained it to him, with a diagram. They kept to that arrangement for twenty-five years.

Farren meant him as the proof, and a father who needs proof does not look at the child. The old man asked for a figure, received the largest the world had recorded and asked for nothing further. Malakor drew the conclusion his arithmetic allowed. He was valued as an output and would be handled as one. He did not resent it, since resentment needs a feeling to be hurt, and he studied his father as he studied everything. From him he learned that a system says what it

wishes in public and keeps the real instruction in what it leaves unsaid. In February 1356 Farren died in Rook's care and asked in his last week whether the Jakaar was eating. Nobody answered. Quint's notes for that week held the answer, noon and nine at the desk, the same plate both times, and nobody asked Quint. When he gave Malakor the hour of death, Malakor wrote it in the margin of the propellant table and went on to the next line.

He stood six feet one, with light platinum-gold hair that shone like pale gold in a good light and was never white, and one eye bright green and one bright blue. Cameras found the eyes memorable. People in a small room found something else in them. He had learned warmth as other children learn the spoon, by watching, and he performed it better than anyone he had copied. Before a crowd he was funny, easy and exact about their names. When the room emptied of anyone who mattered he went cold and silent, and he knew which of the two states was the original, which was his private difficulty. He kept boiled sweets in his coat, the amber ones only, and once sent a whole crate of the red back to the supplier with a note on the flaw in the colour. He ate them in cabinet, one after another, with the open crunch of a boy at the pictures, and passed the red ones that had got through to Quint without a word. Quint noted that this was the first kindness he could identify, and that Malakor entered it in his own margin under the heading disposal. He could not whistle. At twelve he had spent a month on it, by method, with a mirror and a table of lip positions, and the failure still annoyed him more than most of his diagnoses. In 1353, at sixteen, he was named the Jakaar's own finalist by an instrument lodged with the Department of Trial, over Vaussen and Marcus, who had climbed through the regions. Oriel Marne, whose seal it bore, was eleven days dead.

On the night of the count the hall in the capital was loud with a result nobody in it had doubted. He had spent the quarter hour before it bargaining with the hall's electrician over the height of the lectern, and won, and he stood on a crate of programmes to deliver the speech. Malakor took the stage in a plain dark coat and thanked the regions one by one, by name, and made the crowd laugh at his brothers' expense so gently that Vaussen, standing at the edge of the lights, laughed too and came forward to shake hands for the cameras. They held the grip for the length of a photograph. In the corridor behind the stage the lamps were lower and the noise came through the wall like weather. Malakor's face had emptied. Vaussen, twenty-four and courteous, did not release the hand at once. "I would like to know whether Marne signed it alive." "So would I," said Malakor. He said it pleasantly. There was a pause, and Vaussen looked at his brother's two different eyes and could not tell whether he had been answered. Quint, holding the coat, counted the pause at four seconds. "You should eat," Malakor told him. "You look as if you've been counting something."

The illness took things in an order he could have listed. Sleep went first, in boyhood. Steadiness went next, and it returned in good years and left in bad ones. It left his judgement of other people, which stayed excellent, and his power to be liked, and the arithmetic, which ran faster than anyone could check it. It took the one thing the arithmetic needed in order to hurt him, any reason to mind the answer. In the winter after his election Rook's department offered him a way

to mind.

The third dose was given on a winter morning in his first year of office, in a plain room above a street office with no name on its door. Rook's log gives the time. Quint sat by the window, as he always did. By noon the drug had taken. Malakor looked at him and said in a level voice that he had been cold for most of his life and that he was sorry. Then he sat down to the quarterly propellant allocations, which he had once signed in an afternoon, and found he could not sign them, because every line had a town in it. He read the same page for an hour. At dusk he put the pen down. "I lost nothing in accuracy," he said. "I lost four hours. Slow is how people die in tables." Quint saw that his hands were shaking, and it was the only time he saw him frightened. Against the next dose in the log Malakor wrote one word in his own hand, declined. Nobody offered it again.

He refused it on a principle he could state. Sympathy made the sum slower, and a slow sum killed more people than a fast one. He believed his species was dying. Aridexia held the material for one effort off the planet and not two, and he was the first man in Solenne's government to say so aloud, years before DS-HP published the same tables in 1359. He took the conclusion further than the tables did. Saving everyone had never been possible, so the only open question was which effort would be the one, and he meant it to be Solenne's. That was the reason he gave and the arithmetic was sound. It did not account for 1354. He had arranged his own passage to Typhon well beforehand and needed the war for nothing. The men who sat nearest him came to think he wished to learn how far a mind like his, with money and no restraint, could move a world that had not agreed to be moved.

He bought the sabotage of rival programmes with Typhon land that was not yet his to give, paid from the Pan-Savoran pool, and he took the Korut Islands in twenty-three days at a cost of nine sailors. When VAPIK went on building he had its crews shot down in flight. Of nine crewed launches between 1356 and 1358, five were lost with forty-one people aboard. The Turncoat War cost about 720,000 lives, and in his accounts each was a line in a column. The mountains refused him for two years. By the winter of 1357 his aides spoke of weeks without sleep and of a night when he addressed the empty cabinet table for an hour, reading the propellant tables line by line and asking for objections. After each line he waited as long as an honest objection would have taken. Quint said later that he had counted the pauses. He met neither of the men who were his opposites. Isador Reyes began warm and calcified, and Cassius Altyr began blind and learned to look, while Malakor began in control and came apart. His file on Reyes, nine pages long, ended in his own hand, "Arithmetic arrives eventually," and his file on Altyr ended in September 1357 with the word "looking."

He signed the leave instrument in June 1358. He did not resign. The chief of his office was named to act in his absence, and the declaring and the ending of war were reserved to him in person. Aurelia Quillon governed for seven years in his name, and when she came to sign the Accord in 1359 the pen in his case had dried where he left it. He never wrote to her. He did not answer Crake's armistice either, and the colony never learned what he made of it.

On Typhon he was twenty-one and still the Jakaar in law. He took no council seat and was offered none. His household stood near the registry hall, and the light cycle of 12.4 days gave his sleeplessness a calendar that suited it. He signed receipts against the escrow accounts, read the traffic from the relay as it thinned and answered petitions in writing. At the start of each light cycle he walked the settlement edge and spoke to whoever stopped him. Settlers who met him once called him the best-natured man on the moon. Those who dealt with him longer described a man who went silent the moment the room emptied of anyone he needed. The record of his health on Typhon is Quint's alone, and Quint wrote little of it.

In his first light cycle on the moon he went down to the supply market at the settlement edge and bought, without bargaining, the whole stock of a stall that sold fried dough with a sour paste inside. He ate it on an upturned bucket in the open, in front of forty settlers, with a loud and appreciative pleasure that several of them found unsettling and one found infectious. A girl of about nine, sent by her mother to find out whether the Observer was really rich, stood in front of him and asked which of his eyes was the real one. "The blue," he said. "The green was a gift." He asked her what she thought the dough was made of. She said flour. He said he had been wondering for an hour and that it was the only question of the day with an answer. She told this at the registry in 1390, aged forty-two, and added that the week after, the door of her mother's hut, which had stuck since the landing, was rehung by two men from his household who said only that they had been told to. Quint's receipts for that week hold a line in Malakor's hand, "door, two men, one day. Reason?", and under it, in Quint's, "Ask him."

In the autumn of 1358, during a tremor that set the water in the cup ringing, Quint came into the study with a packet from the relay and laid it on the receipts. "From the Numarian line. Three signatures." "Whose?" "Crake's, Thorne's, Tolgrim's." Malakor went on writing. "Tolgrim signed. I had thought he would not." "The seal says he did." The cup stopped ringing. Malakor turned a page, and without looking up asked how long the tremors had been lasting this cycle. Quint said he had not counted. "You counted the pauses once." "You had not told me to stop." "Put it with the receipts." "Which pile?" Malakor did not answer. The light on the wall had moved a hand's width before Quint understood that no further answer was coming. He went out. The packet stayed where he had laid it, with its seal unbroken, and the record does not say what became of it.

The promises had been his from the start. When the governments that held them ceased to exist in 1365, the land they had been promised belonged to no one. The Ardekai council claimed the claims as heir, and the Ospyran council held that they had lapsed, and in 1366 both reached for the same two ore pockets, the richest on the moon, and each asked the Observer who was right. He declined to say, more than once, and the escrow ledger in his household was never opened to either council. Ione Tessarine kept a ledger of her own in the radio hall, with the last message from each fallen government, and told the night operator that the Observer knew about it and had not asked to see it. In 1369 his office funded the survey of the Farside Reach, and Quint walked the last four kilometres to the camp with the approval. "He wants to know what is there,"

Quint told Dr Neve Anquetil, who stood in a stained field coat with a board of core samples. "He always has."

Two years later Anquetil's team found the skull. It showed that the species he had spent his life calculating for had stood on that moon before and left it. There is no record that he went to look. The last mention of him is dated 1371 and says only that he was on Typhon and had not looked back. His fate is not recorded, and neither is Quint's, who was last seen in the household with the papers. He saw the sum first and was needed for it last. Thirteen centuries of careful design had made him, and Dunmar's empty chair, the Ledger's files, Department-Y and a father's table of ages had each taken a turn, and none of them had been built to make him.

Isador Reyes

Chicano States, 1328 to 1366 AE, leader of the revolution of 1357 and head of the Chicano government to its fall.

Isador Reyes was twenty-nine in the year he overthrew his government and thirty-one in the year he sold his allies. The two ages are easier to hold together than the two men, and the record, which is thin on him, shows the distance between them in small things: the pens, the names, the numbers he stopped reading.

He was born in Verdad in 1328 into a family that kept its papers. The line ran back through Teodoro Ibarra, the aide who left Salvador Reyes dying at Kelvath Hollow and then married Reyes's daughter Inés, and the family kept Ibarra's three accounts of that afternoon in a tin box under the stairs. The boy read all three before he was twelve. In the first, written in 813, the First Marshal said nothing audible. In the second, set down for the new government in 816, he said something about the mountains. In the third, dictated in 855, he said the whole sentence. His mother, Dolores, found him on the stairs with the box open and the pages in a row on the tread. "He was two hundred paces off," the boy said. "That is what Kelvath asked him." Dolores shut the lid. "Your name is the family's," she said. "The sentence is a stranger's. Keep them apart." He kept them apart for the rest of his life and took the lesson the wrong way round, which was that a famous line is only a debt somebody collects later.

At school the children called him Isa, and he turned down twice, with a joke, the family's request that he read the tin-box pages aloud at a cousin's wedding. He trained as a teacher of geography because a map was the one honest record of what a conqueror had done, and he taught at a school in Verdad for nine years. He knew the parents of every child in his rooms. He walked pupils home in the rain. On Thursdays he lost at brisca to Rosario Almada, the mother of the woman who taught arithmetic next door, who played for matchsticks and made him drink a sweet tea he never learned to like, and he lost with a loud honking laugh like a startled goose that sent the neighbours' shutters up. He kept four hives on the school roof and sold the honey to the bakery under a name that was not his. In the winter of 1356 the bribed government of Chicano

States had taken Solenne's money for the sabotage of other nations' launches, and the money had gone through hands that kept their share. The army was unpaid. The reserves existed on paper. Parents he had known for years were sending sons to a front that did not pay them, and he found he could no longer teach a map of it.

In February 1357 he led a movement out of Verdad that took the government in eleven days. His soldiers tore the old marks from their sleeves and sewed on a strip of plain red cloth. The Solennese press called him the Second Marshal's Ghost, meaning it as an insult, and the Chicano soldiers adopted the name before the week was out. A colonel from the old army came to his headquarters with a proclamation already drawn up and offered him the title of Second Marshal. Reyes read it standing, handed it back, and said that he would not wear a dead man's name twice. The colonel asked what the soldiers should call him. "Comandante," he said. "It is a job and it ends." In the second week, when the quartermaster's wife of the old garrison came to his headquarters to ask for her husband's papers and a loaf from the stores the mess had held, he sent word that he was busy, and he was, and he remembered it for the rest of his life as the first time. He took over a state with no money and a grudge, and in June he did what Solenne's planners had judged impossible and put the nation on VAPIK's side. The Typhon land that Malakor Vane had promised the old government was never delivered to him, and the record does not say whether he ever renounced it. It sat in escrow with the rest.

In Moonhaven that June, Philomena Dragunova received him in the city his country's army had besieged in 1319. He had come up the wall steps on foot, having read that the siege began with a motorcade. She was twenty-two years older than he was and had been president for eleven years. She shook his hand in the cold anteroom. He noticed that the tea on the side table was already poured and had a skin on it, which told him she had been waiting longer than the minutes allowed. "You walked," she said. "It seemed the least I owed the wall," he said. The minutes record the handshake and record that neither of them spoke of the Ashfields. In the car afterwards his chief of staff, Teresa Almada, who had taught arithmetic in the room next to his, asked if he had wanted to. "Every second of it," he said. "She would have forgiven me, and I could not have carried that."

The change in him can be dated, though he never marked it. It did not run in a line. Through the spring of 1357 he read the casualty return himself every night and said the names of the dead aloud to his staff, which they came to dread and then to wait for. In June he skipped a night and nobody said anything, and the week after he skipped two. By midsummer a lieutenant read it. Through the autumn he asked for totals first and names after, and in October one of the names was Tomas Rull, who had sat in the third row of his geography room and drew rivers that ran uphill. He sent the lieutenant out and read the whole return himself until dawn, line by line, and was gentle with everyone at breakfast. The next night he asked for the totals. He still wrote every letter of condolence for officers and for men who had served under him in the school corps. He wrote none for the conscripts of the south marches, whom he had never met. His love for the people near him did not change, which is what made the rest so hard to see. Almada stayed as

dear to him as ever, and his mother, who had moved into his staff house in Verdad, ate with him on Sundays to the last. The ones who faded were the people at the other end of an order.

The field hospital stands as the clearest picture of it. In March 1358 he stopped at a village schoolhouse above the river at Alt Brasa, one of the last rooms in Vessek's foothills with a roof, and went down the cots without his staff, saying a name at each. The room was warm from too many bodies and a stove fed on the school's own desks, and Reyes, who had taught in such a room, looked at the stove longer than he looked at the cots. A corporal with a bandaged hand, Anselmo Pico, was propped against the wall with his boots still on. "Is your sister's boy walking yet?" Reyes asked. "Not yet, mi comandante." "Tell her he will, and that I asked." The corporal laughed and then cried a little, and the cots on either side looked at the ceiling. Outside in the yard a staff captain waited in the cold with the crossing order for dusk. It named three companies. Reyes read the first line, which gave the objective, and signed at the bottom without reading the numbers. He knew the corporal's company was among them, and he knew it as one knows the date. He stood a minute with the pen uncapped, looking back at the schoolhouse door as though it were a long way off.

The red strips went into the water at the end of the light, 410 men in three companies, and 260 died in the river. The rest held the bank until the engineers bridged it at dawn. Askold Tolgrim, who commanded the Northland corps on the northern terrace, lost 2,400 men and Reyes 2,900. Reyes knew the black corps and the purple sash and the Founder's name, and he took the man across the river for a sentimentalist who had read too much. He did not ask what Tolgrim carried. He wrote to the corporal's sister that week. By June he had stopped reading the names, and in that same month Malakor Vane left for Typhon and left the war behind him.

Reyes read Malakor with the unease of a man who sees his own method in another's hand. The Jakaar was twenty when the revolution took Verdad, and Reyes had learned his age with a certain horror, because a boy that young was either a mouthpiece or a mind. He suspected a mind. He understood the arithmetic Malakor ran, the resource count and the cold sum, and he saw in it the shape of his own nightly totals. The difference, as he put it to Almada, was that Malakor had never needed to stop reading the names because he had never begun. Cassius Altyr he knew only through the VAPIK correspondence. He watched that man's orders go from ornamental to plain over the autumn of 1357 and recognised it as a man learning to look. He envied it. They were walking the same road in opposite directions and had passed each other without turning their heads.

After Malakor left, nothing on the Numarian front moved, and the treasury of the revolution, which had been empty when he took it, did not fill. In the late autumn of 1359 he travelled to a hall that the surviving copies do not name. Aurelia Quillon had made the first stroke with the Jakaar's pen, and it left a dry grey smear on the first line. "Nothing has filled it since he went," she said, in the low voice of someone confessing something about a relative. He signed beside her. He gave no public reason, and the minutes record none. In the car back to Verdad he told Almada that Chicano States could not afford another winter of the war, which was true. He did

not tell her which two names he had signed over. They were Vessek, whose mountains had broken his ancestor and whose hold-leaders he had crossed a river to defend, and Safemoon, whose President had shaken his hand. "Dragunova will hear it on the radio," Almada said. "She will," he said. "I have done the sum." He looked out at a field of stubble. "I used to teach that a nation is its map," he said. "I have just drawn Vessek out of ours."

He lived on seven more years in a country that had joined the four who would shoot at his former ally's launches. The southern marches that his army could no longer garrison were taken up by separatists whom PUSDR armed, and he sent no column south. The Turncoat War had cost Chicano States about 16,000 dead, and the years after cost more. He was still warm to those near him to the end. He carried bread to the sentries at Verdad's gate at night and knew all their names.

On the last night of the government, in 1365, he sat in the empty classroom he had taught in, with the lamps off, and his mother's chair brought down from the staff house. Almada found him at the geography map, which still hung there, the continent in faded pastel with the Hollow marked in a schoolmaster's red ink. "They are asking for orders," she said. He did not turn. "Tell them the name of each man they leave," he said. "Say it to them. I could not." She stayed in the doorway while he said the first twenty names of the men he had sent into the river, in order, from memory. At the nineteenth he gave Pico's sergeant the wrong first name, and rather than correct it he went back to the beginning, so that she heard the first eighteen twice. Then she went to give the orders herself. He held Verdad until the government fell. He died in 1366. The Typhon land promised to his predecessors was orphaned that year with every other escrowed claim. Rosario Almada outlived the government by nineteen years and kept the Thursday score on a slate behind her kitchen door. It stood at four hundred and twelve games to nine, in her favour, and she would not wipe it.

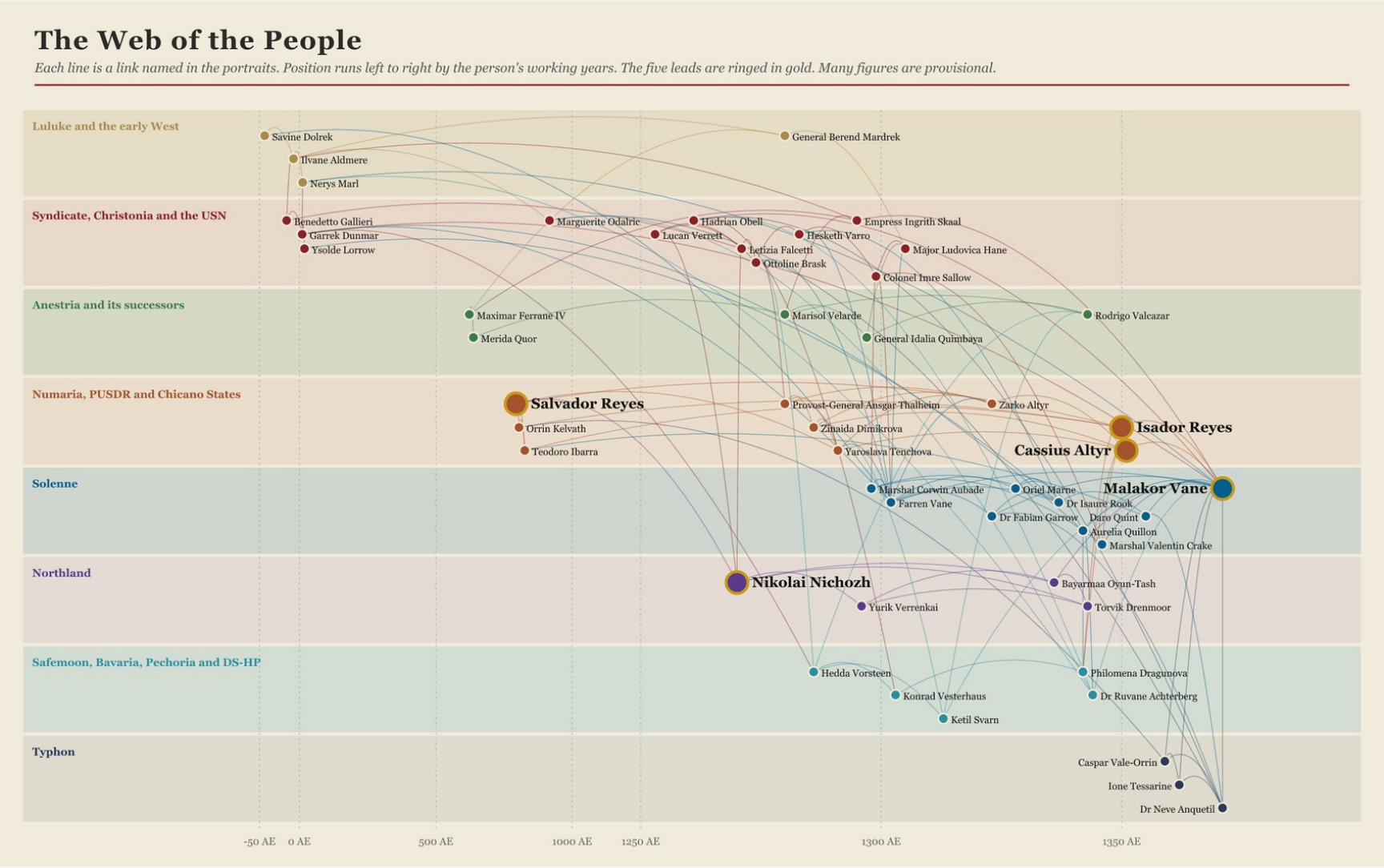


Plate: The web of the people: the links the portraits name, by region and working years.

38
The Founding Bargains

The record is mostly about institutions, and institutions are made of people who signed things. These portraits are the Division's reconstruction of the people behind the founding bargains: the treaty, the pesticide, the plague ship and the first contract state.

Savine Dolrek

Luluke, 88 to 21 BAE (before the Treaty), engineer of the AV-1 and partner of Irwin.

Irwin's order book for the winter of the first engine runs to two hundred and six lines, and Savine Dolrek wrote a remark in the margin of nearly every one. Beside a bulk order for brass bolts she wrote "Dear." Beside a customer who paid late she wrote "Again." The firm that became AVMS never threw away a ledger, so the book survives, and it is the best portrait of her there is, a record of someone enjoying her work.

She was born in a city-state that lived on lamp oil and iron fittings, and she grew up inside the long war the way other children grow up beside a river. She trained as a metalworker, took to chemistry because the metal kept failing in ways she could not explain, and in her thirties joined the workshop of Irwin, a single name the record keeps without a sex or a history. Irwin held the contracts. Dolrek held the problems, and she talked to them as she worked, to the lathe and the crucible and later the engine, in the voice people use on a difficult horse. She could not stay seated through a meeting, lost money steadily and laughed hardest at her own failures. Her notebooks hold eleven designs for a self-closing door, and none of the doors closes.

Three lines of the book carry most of her story. Line 41 is forty cells for the army's quartermaster, at the full rate, paid in advance, and the margin says "He asked what they were for. I said light." Line 77 is an engine for the court of the largest city-state, her best buyer for years. Beside it she wrote "for ploughs?", Irwin wrote "for the army", and she wrote "for ploughs, then", in a hand that presses harder. Line 112 is one bank of glass lamps, with cells, for the field hospital outside a ford on the Solvane, where the surgeons had been operating by oil lamps that guttered whenever a door opened. Irwin entered it at cost. Dolrek wrote beside it "ward lamp, no charge", and the

accounts show Irwin quietly making up the difference. Forty cells at the full rate paid for a good many nights of ward lamp.

The surgeon at that ford had been promised a demonstration and expected a lantern. When the ward went white he asked whether she could do it for every ward in the army. She said yes. He said the army would then ask what else it could do. She was already unscrewing a cell to show him how to carry it, and she told him the quartermaster had started the engine with one that morning.

She had built the first rechargeable battery on the planet and the first practical internal-combustion engine, then designed the action of the AG-01 herself, the rifle that fed itself, because the war paid for the engine and the battery came as a side effect of it. She worried about farmers, and she dealt with the worry as she dealt with most things, by going back to the bench. The AV-1, brass plate over a steel frame, rolled out in the war's last long stretch. The edge it gave took two decades to turn into a surrender, and she did not see it. Her action did. It stayed in production for twelve centuries, through the AG-14 and the Syndicate's long line and into the plants where Farren Vane's SR-30 was built, the rifle a founder could call clean because it had a different name. Later designers such as Khoshlikova and Ratikova of PUSDR worked to problems their masters set, and Vakkar Koedul would be remembered for what he connected, while Dolrek chose her own.

She died in the workshop she liked best, aged sixty-seven, of the lung complaint common among brass-workers, twenty-one years before the Treaty. The order book lay open on the bench at line 206. Rivet was sitting on it. Rivet was a jackdaw who had spent twenty years stealing her brass screws and, with a fairness she admired, bringing back the ones she dropped. The firm went on paying for his seed. The early accounts carry a standing line for it, one measure a month, long after the bird himself could have been alive to eat it.

Ilvane Aldmere

Luluke, 49 BAE to 21 AE, queen who signed the Treaty of the 200-Year War.

Ilvane Aldmere wore her father's boots under every court dress she owned. They were two sizes too large and she stuffed the toes with wool, and she never explained them. They had walked her father's fords, and she trusted them on a wet landing more than any shoe the court cobbler made. The court found them a dependable subject, which suited her, because a court discussing boots is not discussing the river.

Her house governed the largest of Luluke's founding city-states. Her father had been first among equals, a title that meant very little on paper and a great deal at the Solvane fords, where the other cities sent their grain barges and expected someone to tell them where the army was. She succeeded him young. She was a gossip of the useful kind and knew every barge captain's

children by name, with their ailments and their debts, and which of them could be trusted with a message to the next ford. She swore only in her nurse's dialect, which nobody at court spoke and which therefore could not be reported, and she took pastry from the kitchen before it was counted, with the ease of someone who would one day be queen.

In her accession year the granaries held less than the army had drawn from them, and she spent three decades learning how thin the margin was. Every autumn she walked the granaries herself and counted the sacks twice, once with the steward and once alone, and the second count was the one she believed.

She was fifty when the war ended. Her terms at the Treaty were hard and, by the standards of the age, restrained. Christonia would pay reparations in grain. It ceded the southern territory, including the richest reaches of the Solvane floodplain. It would keep an army of a capped size. Luluke's citizens could move into Christonian lands and Christonia's could not move into hers. Each clause answered a grievance her generation had inherited. Across the table Benedetto Gallieri, who had come without a pen, borrowed one from her secretary, repeated every term back in order and signed, and she liked him for it. Within the year the cities agreed, without much enthusiasm, to call her queen. In the Treaty's first seasons she signed the order that funded a young agronomist's station on the lower Solvane, since grain was owed and the agronomist, Nerys Marl, said she could supply it.

In the fourteenth summer of the peace a river-warden at a ford sent her a bundle of notched posts. They were ten years of his own marks and they showed the Solvane standing higher at its autumn low than it had in his father's time. The warden believed the river was recovering, and he wanted somebody to be pleased. The bundle reached her at the summer feast, between the river fish and the plums, and she was pleased. She had it unwrapped on the table. She read the warden's note aloud to the company in the voice she kept for good news, asked a barge captain's wife whether her own ford had been the same, and heard that it had. Then she told the court historian, in front of everyone, to file it where it belonged.

The historian was a careful man and understood her at once. The court's account of the war was that the engine, the rifle and the discipline of her cities had won it. A river that had begun to rise by itself, and a drying that was easing without anyone's help, made that account a good deal smaller. The bundle went into the bottom drawer of her writing table. The history was written without it, and the drying trend went unmentioned in her lifetime and long after. Later centuries would learn of it from tree rings and could say only that Luluke's court historians were not always careful. She had hidden nothing. She had told some forty people over fish, and every one of them had enjoyed the evening.

In the last year of her life she had the drawer emptied and sent the posts and the warden's note to the royal archive, with no label, because she could not decide what to call them and was by then too tired to ask anyone. She died in 21 AE, aged seventy, in her own bed, honoured, with a plate of kitchen pastry on the coverlet that the household reported she had finished. The first ship had sailed eighteen years before, and she put the emptying of the south down to the plague, which

was fair as far as it went. A clerk found the posts three hundred years later. He was a tidy man, and he filed them under fords.

Benedetto Gallieri

Christonian, 52 BAE to 7 AE, last Emperor of the broken empire and co-signatory of the Treaty.

Benedetto Gallieri was the third emperor of his line to take the throne during the war and the first to sit it in peace, and he was lazy in everything except one thing. He kept seven clocks in his study and was pleased that no two agreed, because it gave him seven reasons to be late. He prayed in the plain Christonian way and ate cheese at every meal.

What moved a lazy man to sign the Treaty of the 200-Year War at fifty-two, with a pen borrowed from a Luluke secretary because his own was in a case nobody had brought? He named the terms aloud in council first, because people ought to know what they were agreeing to: reparations in grain, the floodplain ceded, the army capped, and movement into his lands open to Luluke's people and shut to his own, so that any plague on the southern bank would walk north on its own feet.

In 3 AE, the year the diaspora began, it did. A physician brought him the first counts from the border villages, Carina-11 killing within two weeks and arriving on the road from Luluke in the baskets of the people leaving it. Was revoking the clause right? The alternative was a continent of dead farmers, and a hundred thousand people stood on the shoreline afterwards with nothing to go back to. He signed the revocation on 15 June, the day the Christonian calendar keeps for Christian Palazzolo, who taught his people to share their food. He read the order out at the state feast between the first course and the second, and the cooks took the rest away.

He wrote to Aldmere that night, and the letter is in her archive. "Ilvane. I have signed the paper that undoes our clause. You will dislike it and so do I. If I send them away they starve and if I let them in we starve, and I would prefer that somebody else had the arithmetic. Forgive the hand. The window in this room does not shut, the draught has put out the candle twice, and I am writing in my coat. I enclose a cheese. It is the good one. Do not give it to the treasury. B."

The people he turned back sailed, and some of them, under Garrek Dunmar, founded the Syndicate, whose credit would one day swallow his successors' country. The belief that a closed border keeps a nation clean outlived the plague by twelve centuries and reached Letizia Falcetti as caution and a northern general as something harder.

He died four years later, in bed, aged fifty-nine, still emperor of a country with little left to be emperor over. The seven clocks struck the hour at seven different times that night. The court was asked afterwards which of them had been right, and agreed that none of them was wrong.

Nerys Marl

Luluke, 25 BAE to 38 AE, developer of viriditas.

Mill loaf, for four hundred. The card hangs above the bakehouse door in Nerys Marl's hand, and apprentices have copied it out twice since, keeping every margin note, the rude ones included.

The recipe is short. Sixty-two measures of the Mill's wheat, and in the margin, "Taste the grain before the flour. If you cannot tell the difference, go and be useful in the cowshed." Four handfuls of salt, and "Never dose twice. A second salting does not mend the first." One jar of starter, fed at dusk, and "Keep the Table's cook away from it. He puts honey in everything and calls it kindness." Bake until the crust rings when flicked. The last line of the card has no quantity at all. It says, "Hands keep turning. Decide later."

The card is the end of her life and the rest of it comes earlier. She worked at an agricultural station on the lower Solvane and was good at it in the way treasuries notice. She was twenty-five when the Treaty was signed and had already shown that a spray of her own devising could keep rot out of a luminonion field for a season. The Treaty gave the problem its size. Luluke owed grain, grain needed yield, and a field worked by hand had to give a third more than its father's had. She made viriditas to supply it. She told one colleague in a corridor that she hoped her name would never be on a poison, and the colleague laughed. The crown's agricultural board approved the spray and it went through the south in two harvests. In the third year it began to kill. The toxin, which would be called Carina-11, was not in the spray. It formed slowly in the root of the luminonion when a field was dosed twice in the same soil, and it moved through the food chain faster than any quarantine could follow. She had asked for a second season of trials. The treasury refused, because a season would have delayed a payment already late. The famine followed, and the famine sent the diaspora to sea.

She went with it. She boarded the first ship under Garrek Dunmar's protection with her notebooks, a sealed case of samples and a stoppered jar in her coat that held a grey paste she had kept alive since the Solvane bakehouses. She named the starter Treasury, after the one body she was sure had never fed anyone. She spent thirty-five years at the Mill and was never charged with anything. Syndicate law was a ledger and her account was in credit, because the Mill needed a person who understood grain.

The last line of the card dates from the fourth year of the settlement. A delegation of bondfolk from the northern fields came to the Mill and asked Dunmar to surrender her to the people she had harmed. She was in the room, grinding flour by hand at a stone because she liked to feel what her trade produced. Dunmar heard the delegation out. The Table's law punished by debt, he said, she owed more than a lifetime could pay, and he would not hand a debtor to a crowd. "She will work it," he said. A woman at the back asked how long. He looked at Marl. "Until the last one of you is fed." She kept turning the stone. She said afterwards that her hands had not stopped, and that she had not decided whether that was cowardice, and then she wrote it on the card.

The bakehouse became hers, and so did the Mill's bread. Nobody had assigned it to her. She had walked in on the first morning of the first winter, said the oven was drawing badly, and stayed until it drew. She was bossy, sardonic and loud, with a laugh that carried across the yard, and she refused to apologise in public to anyone. In private she overfed everybody. She judged a person by his loaf and a visitor by whether he stopped talking when he was given one. Her own were never quite the same twice, and she blamed the weather, the wheat and the Table in that order, and the third was usually right. She had a settled hatred of cats, who she said knew things and did not tell. The bondfolk of the Mill never settled the discomfort of her, because she was useful and she was liked, and they could not manage to dislike her properly. She died at sixty-three on a baking day, between the second batch and the third. The third was baked.

The starter is still fed at dusk by an apprentice, from a jar that began on the Solvane and has never been called anything but Treasury.

Garrek Dunmar

Syndicate, 29 BAE to 39 AE, leader of the first ship and first Chair of the Table.

Garrek Dunmar was a miller's son from a Luluke river town, and he was bad with names. He was thirty-two when the first ship sailed. He had organised the voyage with a handful of other heads of household, found the captain and loaded the ship with seed, and of the people who boarded he could put names to about forty. The rest he called friend, so warmly that most of them never noticed. He had a big voice and a restless way of sitting, he argued for pleasure, and he whistled flat. He could not swim, which he mentioned to the captain on the second day out.

He meant the settlement to be a place where nobody held anything by blood alone, and he was easy about it, in the way a man is easy about wanting breakfast. Every holding on Savorus was leased by a signed contract for a term, sealed in wax and sworn on a sword. His own, the Mill, was bonded like the rest, and he made sure it was the first lease the Table inspected, so that he could complain about the inspector. He founded a Table of twelve, one vote each, with a Chair who rotated every year and could not be chosen again within three years. Ysolde Lorrow, the Justiciar he chose to bind him, tested the Chair's rule inside a decade, and he paid. Nerys Marl, whom he had sheltered, kept him in bread to the end.

His bond was renewed each term, as every bond was. The Dunmar heirs were the people who knew the Mill, so it was renewed for them in the next generation and the one after, and by custom, never by right, the house held its seat for twelve centuries. Nothing in the bond forbade it. Dunmar did not live to see any of it and the Division doubts he would have minded as much as the book does. He died at sixty-eight, at home in the Mill, after a good supper and an argument he believed he had won.

The best account of his one real invention comes from a boy with a broom. When the hall of the Seat was built the carpenters made twelve chairs, one for each vote. Dunmar asked for a thirteenth, to stand empty for the Syndicate itself, and in later centuries it would be copied by Farren Vane and invoked for Aurelia Quillon. The boy who swept the new floor told the story at Table dinners for the rest of a long life, always against himself. The Division has it from a steward's note of one such dinner some fifty years after the hall was built, at which the old man, asked about the chair, put his spoon down.

He said the carpenters were pleased with themselves, and Dunmar came in, counted, and said the room was one chair short. The master carpenter asked whom the thirteenth was for. Nobody, Dunmar said, and sat in it to test it, got up, and walked round it twice like a man pricing a horse. Then he looked about for someone to try it on and found the nearest, who was also the smallest. "He asked me whether it felt like mine," the old man said. "I was ten and I had a broom. I said no, and I was frightened, and he said good, that is how I want it to feel to everyone. Then he gave me a roll for my trouble. It was stale." He picked the spoon up again. "I have not sat in anything since without asking whose it was. My wife finds it tiresome."

Ysolde Lorrow

Syndicate, 24 BAE to 47 AE, first Justiciar of the Ledger Court.

Ysolde Lorrow was born into the Lorrow surveyors, the family of the lantern, and she learned early to measure a thing before arguing about it. She was twenty-seven when the first ship sailed. She carried a theodolite and a ream of paper rather than a trade. She walked everywhere, her knees were bad by forty, and she kept walking. She ate pickled onions from a jar in her pocket. She would not sit at a table that rocked, and she carried a folded wedge of slate to fix it. She made puns about units, which the Table tolerated because it could not follow them. By the time the Table was founded she had walked every pass that would later become a gate.

House Esselt held the Ledger Court and supplied its Justiciars, who judged in benches of three. Lorrow was Lorrow-born, so she was sworn in by bond, and she was the Court's guest as well as its founder. She designed it that way. The Notaries and Tallymen kept every bond, tally and seal in a registry, and she wrote the oath that bound them to the registry and not to the Table. Punishment was mostly debt. A man who owed could work it off. A man who owed and was dead had not paid.

The Court did what she built it to do for a thousand years. By about 340 the registry held every bond in the Syndicate, the Table could not renew a lease without a Notary's seal, and the Table had become a board and the Chair a chairman, though the Seal-Mace was still carried into the room. Vakkar Koedul's survey crews grew out of her house, Ottoline Brask and Hesketh Varro ran the Court at the end, when it was shut in an afternoon on 17 January 1300, and Isaure Rook found its machinery rebuilt in Solenne. Lorrow herself died in 47 AE, aged seventy-one, on a

survey walk, at a pass above the Mill's upper farms, on a rock she had tested first with her plumb line.

The case people cite is the flooded lease. In the ninth year of the settlement the race at the Dunmar Mill was raised, and a strip of bondfolk fields along it went under. The leaseholder, a freeholder named in the record only as Haldis of Ilmar, sued for the loss before a bench of three, with Lorrow in the middle. The defendant was the Chair.

She held the hearing on the race bank, so that she could see the water. The clerk's minute survives, and her marginal notes with it. The first entry records that proceedings were delayed a quarter of an hour for the levelling of the plank they were using as a bench. Against Haldis's account of the drowned strip she wrote "Level?" and against the Mill's she wrote "Level? No." She set her plumb line on the plank before she ruled. Dunmar had come without his seal, which was the right thing to do. She heard the case through the morning, found for the freeholder and set the sum. "The Chair will pay it from the Mill, not from the Table," she said.

"Agreed," said Dunmar.

"I did not ask whether you agreed."

He paid that week, in grain, to the last bushel.

Part B. Anestria, Numaria and the Question

39
Anestria, Numaria and the Question

The desert, the mountains and the long argument about who may own water, land and a name. These are the people at the centre of that argument, from an emperor who turned back a fleet to the scholar who proposed that the species was not native.

Maximar Ferrane IV

Ferrosian, 596 to 641 AE, last Emperor of the Iron Throne.

Maximar Ferrane IV was sick on camels. He was sick on every camel he rode in twenty-three years of reigning, and in an empire of oases, where the only roads between his governors ran through sand, this settled more of his policy than he ever admitted. He took the Iron Throne at twenty-two, in 618, from an empire that had not been tested by an outside enemy in three centuries and had slowly stopped being a state, and he inherited governors who were the grandsons of governors, who ran each oasis as a personal holding and were polite to the capital the way a tenant is polite to a distant landlord who has stopped asking for rent. He was mild, bookish and anxious, fond of small ceremonies and kind to clerks. He counted water by the cup.

He meant to keep the throne by loosening it, and the Water-Courts were the heart of the matter. Waterkeepers owned the sluices, metered every channel and recorded the flow in books that nobody but a Waterkeeper was permitted to read. Water rights were law, and the governor who controlled the Court controlled the oasis. His advisers told him that to reform the system was to take the oases from the governors and the throne from under his own chair. He asked each of them separately where the water went. Each said to ask the Waterkeepers, which was an answer.

His reforms of 626 were modest and they were real. He opened the sluice-books to audit by officials of the crown. He set a tax on measured water in place of the old tithe on grain, which the governors had learned to under-report. He forbade the sale of Court offices. Any of these would have been welcomed fifty years earlier. By 626 the Waterkeepers kept two sets of books and the

governors had learned to buy an official's silence in advance.

In 628, aged thirty-two, he went to see an audit for himself, with a small guard and a three-day ride that left him the colour of a lime. The senior Waterkeeper received him and presented the ledger, which was clean, page by page, with a pointer, for the better part of an hour. The emperor asked for a drink of water and was told what it cost. He paid it, at the measured rate, and the receipt was entered. Then a junior of the court, a young woman named Merida Quor, set a second book on the table without being asked and said, "This is the one we use." He turned to the page marked with a green thread. Half the channel's water had been sold to the governor's own farms for three years. He looked at the figures a long time. "Does every court have one of these?" he asked. She said, "Every court that has a governor." He thanked her and took the book away.

Within two years the oases were in revolt and Quor was leading the militia. Maximar gave the order for the Ironguard to defend the courts and his own reforms in the same breath, and the rebels did not hear it as one sentence. In 641 the last garrison at the capital opened its gates, and the people he had been reforming for took him from the Throne room. He was forty-five. The Republic's founding myth says a tyrant fell, and Marisol Velarde and Rodrigo Valcazar, who each claimed its legacy six centuries later, spoke of him as the man the oases rose against. The evidence shows a half-reformer who came a generation too late, and a revolution that was a quarrel over water.

The Council of Oases housed him in a house with a courtyard, and in the courtyard stood an orange tree in a pot that had come with the house. The steward had orders to keep him from brooding. He found the quickest way was to make the former emperor responsible for the tree. Maximar watered it by the cup, wrote down the amount, and was checked. He lived to see the first Council sit, and he died that same year. The steward found him in the courtyard in the afternoon with the second ledger shut on his knee and the cup empty beside the pot, and wrote down the amount.

Merida Quor

Anestrian, 601 to 663 AE, Waterkeeper who led the Ferrosian Rebellion.

Merida Quor sang, badly and loudly, every evening in the sluice-house of the capital oasis for the twenty-two years she kept the Great Book, and the Council never raised the matter, which the Division takes as a measure of her standing. She was vain about two things, her handwriting and her singing, and the handwriting was better. She drank her tea with seven sugars and ate dates from a tin she kept in a drawer with the seals.

She began as a minor Waterkeeper of a middling oasis, an official of the Empire in the strictest sense, and she knew exactly how the Empire worked because she had been paid to operate it. Her job was to record the flow at the sluice and enter it in the book. She entered it twice. One set of

figures went to the governor and the other stayed in a locked chest under her bed, and both were in the same fair hand, because she could not bear to write a lie badly. In 628 a visiting emperor was shown the clean set and she set the true one before him. He thanked her and took it away with him.

The rebellion began in 630 in her own oasis, when the governor raised the price of a measure of water for the third time in a year. The militia that formed around her was made of farmers with pruning-hook spears, wooden shields and patched tunics, and it wore a green armband because green was the one thing every oasis had in common. The Ironguard fought in black and rust. The Sand Riders, the Empire's long arm across the desert, were recruited from the fringes of Kharzun's territory, and when several of their companies refused the governors' orders she met their captains in the sand. The clans of Kharzun, who had never been conquered by anyone, sold her camels and water-skins and gave her passage on the old caravan tracks. The arrangement was trade only, and it was enough.

She had rebelled against the Empire, and when she won she kept its machinery. The Water-Courts survived, renamed Oasis Courts, with elected judges. The Waterkeepers remained, now accountable. The Collectors became salaried and audited, and the Ironguard was replaced by one regiment per oasis. In substance the Republic was the Empire's water apparatus under new management. She wrote the rule that the President-in-Council serves the Council. She held the office she took instead for twenty-two years and died in it in 663, aged sixty-two.

At the end of the Council's first sitting, in 641, she was at the back near the door with a cup of tea, listening to a speech in her head. The member for the northern channels rose, flushed, and moved that Merida Quor be asked to take the first office of the Republic. She heard him say Keeper. She stood, thanked him, said she would be honoured and had a good deal of ink to fetch, took the green armband off her sleeve, pressed it into his hand and went out for the ink. The chair, who was the member's cousin, put the question before the room had worked out which office had been named. It was carried.

The Division cannot establish that she misheard. Her ear was good enough to catch a lie at forty paces across a sluice. That evening the member found her in the sluice-house and asked what she had done. She said, "I will not have the job of watching myself." The minute of the first sitting is in her own fine hand, and it says only that the motion was carried.

Orrin Kelvath

Vessek, 768 to 830 AE, hold-leader at Kelvath Hollow.

Every strip of cloth that Orrin Kelvath ever tied was a granny knot, and that is how the valleys of Vessek told his work from anyone else's.

He held a hold in the high valleys above the Ashvale, and in a people who had never had a capital he was the nearest thing to one, though he had no title anybody would admit to. The valleys elected no kings and kept no army in the open. What they had was a loose confederacy of hold-leaders and the custom of tying a strip of cloth in the colours of one's home valley to whatever one carried. His was dark green with a thread of ochre, and by 811 more men wore it than any other. He was devout in the plain valley manner and sociable at table to the point of inconvenience. He sang the same two verses of one hymn at every meal and at no other time, and he could not bear silence or bells. He would cross a valley to avoid a bell. He had walked through three Ashvale villages after the Chicano columns and counted the cattle that were left, and the sum he made did not favour the mountains.

The valleys had one meal for leaving a place, and it went in a fixed order. The loaf was broken by the youngest, the jug passed sunwise, and fire was carried out of the hearth in a pot. The eldest present spoke first, and the words were always the same: she went with the fire, and the others answered that the fire went with her.

In 811 Reyes had been pushing into the highlands for six years and was still looking for a place to fight a battle the way he understood one. Kelvath gave him one. He emptied the hold of everyone who could climb, put the cattle and the grain on the upper pastures, and left behind the old and the sick who could not make the ascent. Then he lit the roofs himself, so that the smoke could be seen from the lower valleys. At dusk he went back down the path alone, carrying a torch, and found nine of the elders in the hall at a table with a loaf and a jug, as for a feast. The oldest was Yeva, who was eighty-one. She spoke first, as the eldest does, and said that she stayed with the fire. She had changed one word. The eight others gave the answer, with that word changed too, and Kelvath, who had come down to apologise, found that he was saying it with them. Then Yeva told him to start with the east wing, since the beams there were drier, and told him not to be sorry, because the mountains had asked and he was the one standing nearest.

He lit the east wing first. He told only two people about it in his life. In the spring Reyes led a column into the Hollow, and it did not leave. Kelvath grieved for a season and then there were roofs to raise. He met Teodoro Ibarra once, in 821, at the talks that ended the occupation, and Ibarra repeated the First Marshal's dying words as a courtesy. Kelvath asked how far away Ibarra had been standing. "Two hundred paces," Ibarra said. Kelvath said nothing and went out, and ate supper, and sang his two verses at it. A man named Caspar would take his first name for a clean start, centuries later on another world, and Isador Reyes would make a sacrifice of his own people in a colder temper.

He rebuilt the hold on its old footprint, with timber from the upper forests. He died in 830 at sixty-two, in the rebuilt hold, still without a title. The new beams were green when they went up, and the hall smelt of sap for the whole of the first winter. He walked under them every evening with his hands behind his back, humming the two verses, listening to the wood settle.

Teodoro Ibarra

Chicano, 780 to 861 AE, Reyes's aide at Kelvath Hollow.

The only person ever recorded as asking Teodoro Ibarra to his face what the First Marshal's last words were was his bride, and she asked at the wedding breakfast, in front of forty guests, which was considerate of her, since a question put in public can be answered with a performance. It was spring of 824. He was forty-four and she was twenty-five, and she was Inés, the daughter of the dead man in question. The breakfast had run to eleven courses. Ibarra stood, wiped his moustache and told her that her father had looked back at the mountains and said that every nation on the continent had bent and only the mountains never did, and that he had said it very calmly. It was the version he had written in 816 for the new government, delivered with a flourish. Both of them knew it was a performance, and the guests applauded. The record does not say what Inés knew. It says the breakfast lasted four hours, and that his horse waited outside in ribbons and ate a good part of a hedge.

The horse was called Prudence, and Ibarra always said she was the only one of them who had decided to run. He had been Reyes's aide for six years, a quick clerk from a middling family, charming, vain, fond of gossip, cheerfully cowardly, and a bad rider, which makes the story of the Hollow funnier than he ever told it. He was exact about numbers. Reyes did not read his own reports and asked Ibarra what they said. In 812, at thirty-two, he sat on a rise behind the column and watched the ridgeline above the Hollow fill with cloth strips and the first volleys land in the escort. The bugler beside him sounded the retreat, and Ibarra turned Prudence and ran.

It was a very good run for the Chicano line. He brought the survivors of the rear guard down the pass and rallied the home garrison at the river, and when the coalition marched into Chicano States in 816 he was one of the few officers who could say what the army had lost. Over the next five years he negotiated the end of the occupation. By the early 820s the country was independent again, chastened and considerably smaller, and the terms were his work. He met Orrin Kelvath at the talks in 821 and repeated the dying words as a courtesy. Kelvath asked how far away he had been standing. "Two hundred paces," Ibarra said, and Kelvath went out without a word, and the matter was not raised again.

He was honest about numbers and slippery about words. The count of the dead at the Hollow is the same, to the man, in all three of his accounts. In 813 Reyes said nothing audible. In 816 he said something about the mountains. By 855 the sentence was whole. Ibarra was careful never to say that he had been close enough to hear it, and nobody challenged him, since he was the only

one left who had been near and since the line suited the country that survived. It may be his invention and may also be true. He prospered, he was honoured, and he died in 861 at eighty-one, a respected old man and the head of a family that kept the story, through which the First Marshal's blood reaches Isador Reyes.

In 855, aged seventy-five, he sat in his garden with a young secretary and dictated the whole account once more, with the sentence in its final form. When it was done the secretary asked whether he would like it read back. Ibarra said, "Not the end."

Marguerite Odalric

Syndicate (Corvenna), 871 to 958 AE, author of the Convergence Hypothesis.

Marguerite Odalric rewrote the last sentence of her review three times, and the version that stuck was the funniest. The first draft said the author's thesis was mistaken. The second said it was a hope that had stopped doing science and started doing mythology. The third said that those who held it were best described as arrival theorists, since they had arrived at a conclusion before the evidence. She sent the third to the Corvenna Journal in 950. She was seventy-nine, the best-known biologist on the planet, and the review was of the first of the younger scientists who had begun to say, in print, that the Ardekai had come to Aridexia already formed. The phrase stuck, and the insult was real and lasted.

Why would she do it? The answer starts in Corvenna, a city that valued things that could be counted, where her father kept the tally-books of a grain factor. She trained at the Corvenna Academy as a naturalist, then in the new discipline of comparative anatomy, and at twenty-nine published the Convergence Hypothesis. It said that the Ardekai had arisen from the same evolutionary pressures that produced Aridexia's native primates, by independent convergence from entirely different material. It was clean, reasonable and brilliant, and for two hundred years it was the textbook. She was vain, funny and theatrical, loved an audience, kept a list of the scholars who had failed to cite her and wrote to them, and sang loudly in the bath. She had a horror of the colour yellow and would not have it in the house, so that the Academy's bursar learned to send her invoices on white paper. She also kept a tortoise, which she named Hollis after a professor whose lectures she thought slow and whose longevity she resented.

Her habit as a naturalist was to print the raw tables at the back of every study, because a conclusion was only as good as the data a hostile reader could check. In the Convergence book she printed them all. Table K listed the absence of any transitional fossil between Aridexia's primates and the Ardekai. Table M listed the genetic distance, which no intermediate form could bridge. Table P recorded the age of the earliest modern remains. Taken together, they were the case for the people she would spend her last years mocking.

Did she see it? Nothing she wrote says so. The autumn after the review, in 951, a young researcher whose name the record has lost stood at the lectern in the Academy hall with Tables K and M on a board behind him. "I do not dispute your figures," he said. "I ask what they predict." She rose in the second row and said they predicted that he would be disappointed. There was laughter. He packed his notes, left the hall and was never published again.

She died in 958, and her funeral closed the Academy for three days. The Journal printed forty pages of tribute, none of which mentioned the appendix. For a thousand years her mockery shaped the field's habit of dismissing the right answer politely. Neve Anquetil spent a career answering her, and the skull that Anquetil's team and an Ospyran colleague uncovered in 1371 was the argument Odalric had lost without knowing it. The Renner Prize, which was founded to answer her book, has been given eleven times and never for a solution.

That evening in 951 she had opened her own copy at the appendix and gone down Table K with a pencil, ticking each line. She did not tick the last. The Academy's porter left the book on her desk after the funeral, with the ticks stopping above the final line, and Hollis, who outlived her by forty years, slept on it in the sun.

40
The Ledger's Last Half Century

From the bomb of 1249 to the night of 1300, the Ledger Court's descendants ran the western world through contracts, watchers and a new regime. These are the people who built it, used it and tried to outlive it.

Lucan Verrett

Christonian, 1219 to 1276 AE, leader of the 1249 bombing cell.

The cell's operation notes ran to eighteen numbered items in Lucan Verrett's small upright hand, and the Ledger Court's inquiry read them aloud on its second day. Item three named the target, the registry annexe in the financial district at Corvenna. Item six was the charge, to go in the cellar under the strong-room that held the credit registers, set for two in the morning. Item seven was rifles, AVMS SR-9s, bought on credit from the houses he meant to starve. Item nine read, "occupancy: nil (watched five weeks)". Item fourteen read, "burn notes". The Division has found no paper that contradicts what the list says on its face, which is that he meant a warning.

He was born in 1219 in a Christonian harbour town and worked as an assessor in its customs house, where he could read, line by line, what his country owed and to whom. It was a poor post for a nervous man. He sweated through his collars, talked too much when afraid and whistled hymns through his teeth when more afraid than that, and he kept a twist of boiled sweets in every pocket. He joined the Renner Faction in his twenties, when Elin Renner was an old woman and the Faction held no seats, no budget and no hearing, and he believed in its argument the way he believed in a well-made table of figures.

In 1247 he sat in the public gallery while the Conjunctioner council voted not to hear the Faction's last petition. The desk logged it as received, not heard, in the hand of a nineteen-year-old clerk named Letizia Falcetti. Verrett went home and began to number things.

On the night itself he stood in the arcade opposite the annexe, a little past eleven, on wet cobbles, beside a younger member of the cell who had not eaten since noon. Verrett had brought sandwiches and handed one over. The third floor of the annexe was lit. No item on the list had allowed for that.

"Year-end close," the younger man said. "They run late at year-end."

"The strong-room is never staffed after dark. There are three feet of stone between it and those lamps."

They stood until the church clock struck the half hour. Then Verrett turned up his collar and went to meet the boat. He told the inquiry that he had believed what he said, and the inquiry had no means to say otherwise. The year-end ledgers had been carried down to the strong-room at ten, and the clerks had gone down with them.

The bomb killed a handful of clerks and damaged one building. It severed nothing, because the Syndicate's economy had no single point to cut, and it handed the Syndicate its pretext. Within the year the Syndicate, Anestria, Luluke and the All-Finian Empire were at war, and the Thirty-Day War ended with Christonia, whose independence he had wished to save, folded into the United Syndicate Nations. Elin Renner had taken no part, though her name carried the cell. Among its conscripts was a frontier private of twenty-five named Nikolai Nichozh, who had never heard of Verrett. One of the dead was a registry tallyman, Corban Brask, whose daughter Ottoline was thirteen and would take his desk.

The Ledger Court tried Verrett at Corvenna and held him until he died. A chaplain asked him once what he had intended and wrote down the answer, that he had wanted to see whether the thing could be moved at all. Some call that despair and some call it vanity. A century on, Malakor Vane would begin a war for a reason not far from it, with the means to see it through. The chaplain also noted that the prisoner whistled hymns in his cell, always a little flat, and always to the end of the verse.

He died of a lung infection in the autumn of 1276, months after Christonia was independent again. The notice of his death went to the Director-General's office, where Ottoline Brask read it and filed it.

In the inquiry's copy of the notes, a later hand has pencilled one more entry beneath the eighteenth. It reads, "19. Go home."

Letizia Falcetti

Christonian, 1228 to 17 January 1300 AE, leader of the Conjunctioner council 1276 to 1300.

Letizia Falcetti kept a shelf of teapots in her office and broke about one a month, generally against the wall to the left of the door, where the plaster had gone pale in the shape of a small continent. She replaced each from the same stall within the week. Her clerks learned to read the afternoon from the sound of a lid.

She was born in Christona in 1228 to a family of council clerks, and at nineteen she was the junior on the petitions desk on the day the Renner Faction's last petition was received and not heard. She had logged it correctly, and said so for the rest of her life, usually unprompted. The Thirty-Day War took the country's freedom and left her the lesson, that a country which wants to be free must first be solvent. She spent the twenty-six years of the union in the provincial treasury, keeping the council's forms alive under another name. When independence returned in 1276 she drew up the amnesty list herself. Lucan Verrett was not on it, and she gave no reason.

She fought for eleven years with her baker over the price of a loaf and the colour of its crust. In 1288, to end the matter, she paid him a full year in advance, which she regarded as the best bargain of her life. He took the money, stopped speaking to her and sent the bread by a boy. She hated owing more than she hated losing, and the boy was the only person in Christona who ever saw her pleased.

The presidency came back with the republic as an elected office with little use in it. The council held the purse, so she held the council, and she did it with jokes. Her spring budget speech of 1291 is the one they remembered. The Treasury kept the Treaty ledger of the 200-Year War on a shelf beside her desk, and she told the chamber that Christonia had been in arrears to someone for nearly thirteen hundred years and she had no wish to break the habit, only to move the debt to creditors who sent flowers. The creditors were chartered lenders in Anestria and Luluke, who wrote their contracts in the Syndicate's old form with customs revenue pledged against default. The chamber laughed. She went on to say that pay for the northern garrisons, which had been cut by a quarter in 1284, would for the present be cut by a quarter again, the garrisons being a long way from the chamber and unable, in the nature of things, to attend. The chamber was still laughing when she moved to the next item.

The USN under Ottoline Brask treated the republic as a buffer and never pressed for repayment of anything it lent, a kindness whose price she understood. The caution Benedetto Gallieri had left in the closed-border habit reached her as a trait. She trusted nobody who lent, and borrowed from all of them.

In October 1299 a captain from the northern district brought her the garrison ledgers. The men had been unpaid since September, he said, and the commander had sold his own horses to feed the sentries. He added that the commander was not a man who complained. The commander was Nikolai Nichozh, seventy-four. She told the captain that the spring estimate would address it

and that an old man had seen worse winters, and she turned the page.

Falcetti died in Christona on the night of 17 January 1300, in the strike that ended her government. Word took weeks to reach the frontier, where the garrisons had by then gone four months unpaid. The spring estimate was never drawn.

Ottoline Brask

USN, born 1236 AE, death not recorded, Director-General 1276 to 1300.

In the spring of 1299 the Director-General sat down in the map room of the secretariat to play the succession drill, and as in every other spring she began by taking her own marker off the board. The drill was a table game of her own devising, played with turned wooden pieces and three sealed lists of deputies, each list kept in a different building. Hesketh Varro, the Head of Watch, played the enemy, and he played it with relish. He closed roads, took telegraph offices off the table and starved the Ledger's departments one at a time. Each time a list was broken open and a deputy moved up into the empty place and the game went on. Brask never spoke while her piece was in the box. She sat with her hands folded on the cloth and watched the board as another woman might watch a kettle. When the game ended she hummed the same eight bars of a harbour song and walked out to look at the tomatoes, and Varro, who had won, put the pieces away without being thanked.

She had been thirteen when the bomb at Corvenna killed her father, Corban Brask, a tallyman in the registry annexe, and she kept his habit of reading a document to its last line. The Ledger had a custom, never written down, of giving a dead clerk's desk to someone from his household, and at sixteen she took his. She did not charm and she seldom spoke at length. She rose over two decades by being the person who knew where the paper was, and she disliked to be interrupted so much that a clerk who once did it found his report returned with the broken sentence underlined in red and nothing else. She was tender in small ways and was often caught at it. She grew tomatoes in the registry courtyard, in boxes made from the covers of retired ledgers, and the first ripe one each summer went to whichever clerk had worked latest.

In 1276 the Second War ended and the Directors-General who had lost it were finished. Until then the Ledger had put generals and senators in the office as fronts and run the state behind them. Brask was the first to come from the secretariat itself, and the Ledger stopped bothering with a front. She governed twenty-four years from the registry's own floors. At every state occasion she spoke the unofficial motto, WATCH AND ENDURE, in the voice of someone telling a household to bank the fire. The Ledger had been built to outlast the people in it, and she knew she was one of them. That is what the drills were for.

In 1297 she sent a notary to the mining coast of Drozdov to buy uranium from the Bavarian Concession Board, whose chair, Hedda Vorsteen, refused. The USN sat in Bavaria's alliance and

still had no fleet that could leave harbour without Anestrian leave, and the Board sold only to customers who could collect. Brask did not press the point. She passed the problem to Varro, who found the ore in the smugglers' leasehold at Vaurek, and she asked for no report on how.

The Division has her last working afternoon from the notary's duty book. On 14 January 1300, a little after four, with frost on the inside of the window glass, she signed a stack of leave orders for staff college officers. The eleventh was for General Farren Vane, thirty days, for reasons of health. She read it twice and remarked to Varro, by the door, that a man on leave is a man who means to come back, and told him to let it be written so. Varro blotted the paper and put it in the folder for despatch. It is the last act in her hand that the record holds. No later order carries her name. Whether she gave the order that sent eleven bomber squadrons over Aridexia, or whether Varro's protocol gave it in her absence, the evidence cannot settle, and this book leaves it unsettled.

When Anestrian marines took the capital on the evening of the 17th they found a government already fled or in hiding and shot the last officials they could find. No body was named as hers. She may have wanted someone to endure. If she did, the man she chose was the one already planning to vanish.

In the autumn of 1300 a survey party of the occupying force recorded, in the burned court of the registry, a row of tomato plants in fruit. They had been staked with string and tied off with a neat double knot. The report does not say who tied them.

Hesketh Varro

USN, 1241 to 1311 AE, Head of the Office of Watch from 1290, later first head of Department-Y.

Hesketh Varro owned fourteen pairs of spectacles, one in the pocket of every coat he had, and he had never in his life misplaced a file. He labelled his luggage in two scripts, his medicine bottles by the hour and his jars of preserved ginger, which he ate for his stomach, by the year. The stomach was a famous organ and often discussed, and it was the one subject on which he was ever known to be vague.

He was the son of a Notary, and began his career reading other men's debts. When much of the senate and administration walked over to Coastville in 1286, someone in the Ledger had to know who had gone, who had been tempted and who had said nothing, and Varro kept the list in his own hand on cards in a biscuit tin. It became the first file of the Office of Watch, which Ottoline Brask created in 1290 and gave him to run, and the Eye that was added to the flag that year was his office's sign. He ran the Uranium Crisis, finding the ore at Vaurek after Hedda Vorsteen refused the USN, and he supervised the Black-Snake Corps, whose colonel obeyed him until the day he did not. In what time he had left he built a way out for one man. General Farren Vane had seen too much of the Uranium Crisis to be left standing near it, so Varro prepared false papers,

an erased service record, funds and a small loyal network, and asked that none of it ever be mentioned.

In 1290 he also wrote the continuity protocol, a sealed standing instruction that if the Director-General died or was taken the Ledger would carry out its prepared plans without waiting for a successor. The clause required a finding of death after three missed check-ins, signed by the Head of Watch and the senior notary on duty. He was proud of the drafting. On the night of 16 January 1300, in the operations room under the capital, the duty notary read out the log and said that the clause asked for a finding. "Enter it," Varro said. "Presumed dead." Asked on what evidence, he answered that the Director-General had not replied, which was all the clause required, since he had written the clause. Eleven squadrons were already on their aprons.

By the time the first city burned he had left by a door he had prepared for the purpose. He came out of the ruined capital with Farren Vane's party, under the name of Jonas Tolliver, a retired registrar. At a checkpoint on the coast road a marine sergeant of the occupation looked at Tolliver's pension number, found it correct to the last digit, and waved the party on. Varro was hurt. He had a sour stomach, a head cold from the door and nine hours without ginger, and the man had not asked about any of it. He raised the matter with Vane for the next thirty miles. Vane, who had other things on his mind, did not answer.

In Solenne he became the first head of the department Solenne would never acknowledge. It took its name from the shelf in the Office of Watch archive where he had kept the files he could not bring himself to destroy, and a democracy founded to be everything the USN was not inherited its watching arm entire, with the files and the staff attached. Varro approved of the arrangement and complained about his stomach. He lived out his years in a warm house with a good stove and died in 1311, aged seventy, leaving his papers to a girl of fifteen named Isaure Rook. Solenne's register of deaths for that year has him as Jonas Tolliver, retired registrar, aged seventy. It is the one lie in his life that he never improved.

Hadrian Obell

Syndicate-born, 1222 to 1287 AE, founding director of DS-HP.

"A crew will stand on Lira by this time next year," Hadrian Obell told the 1286 assembly, climbing on his chair so that the delegates at the back could see him. "I will put a silver spoon on it."

"Director, your own charter says nothing moves without consensus." The speaker was Konrad Vesterhaus, a young delegate from Safemoon who had spent the morning arguing that small nations needed programmes of their own and the afternoon being shown, in arithmetic sketched on the back of a menu, that none of them could afford one. "You will be dead before the quorum agrees."

"Then you may collect from my estate."

He laid the spoon on the table. It was one of a hundred and some that he carried, a gift from every delegation that had ever sat under him, and they clinked in his coat when he walked. He was a large, loud, boastful, generous man who promised everything to everybody and slept in a hammock slung across his office, which his deputies found more alarming than his charter.

He was born in Corvenna in 1222 and trained as a guidance engineer at the AVMS works, where he learned that every rocket is a promise made to a particular piece of ground. In 1265, the year Anestria put up its first crewed capsule, he drew the charter of the Deep Space Human Preservation initiative and became its director. DS-HP was to be international and insulated from every government, and it lived on a subsidy from the United Syndicate Nations. He bridged the problem with seats weighted by contribution, so that those who paid sat where decisions were taken, and with decisions by consensus, because he thought consensus protected the small. It also turned delay into a veto and a veto into a price. A later reader, Malakor Vane, saw that a nation with the largest purse and a patient manner could hold a quorum as long as it pleased, and Solenne, as lead representative for the UARRO members, took its seats in proportion to its money.

In 1279 he commissioned the first survey of Typhon, two fly-by probes with spectrometers, and the readings came back the next year. The sulphide returns were thin, a third under the model on all four passes. Obell wrote in the margin of the analyst's summary, in a small clear hand, "Sampling error. Rerun with a longer integration." The rerun was cut when the Lira programme needed the money, and the note stayed in the archive. It was the right observation with the wrong explanation. The ore was thin because other hands had worked it long before, and that waited for Neve Anquetil's excavation to say.

He died in 1287 in the hammock, a year before DS-HP put a crew down on Lira. The landing fell a year after the date he had named, which made it a year late, like most of what he promised. In 1288 the lawyers of his estate sent the silver spoon to Vesterhaus with a card in Obell's hand: "Collected, with apologies for the delay." Vesterhaus kept it in the drawer of his desk at the tracking station, beside the telemetry log, and once a year, on the day of the landing, he stirred his tea with it.

Colonel Imre Sallow

USN, 1254 to 1331 AE, commander of Operation Black-Snake, then of the Black-Snake Corps.

On the first morning of the autumn term of 1330 Colonel Sallow marched twenty-two boys to the school forge and told them to shoe a horse. He did not tell them how. He told them to start from the road.

The first boy lit the fire. The second hunted for the shoes. A third, a quiet boy named Valentin Crake, walked out of the yard and stood in the lane for some minutes looking at the ground, then came back and asked how far the horse had travelled and on what surface and how much of the old shoe was left. Sallow told him to sit down. "That is the lesson," he said to the others. "You have all just done the other thing." Crake would carry the habit of walking a plan backwards from its objective into the Turncoat War.

Sallow had come to the forge by a long road. He was the son of an army farrier from the Savoran interior and shod horses on Sundays all his life. He joined the infantry at eighteen in the middle of the Second War, which promoted whoever was left, and he was a colonel at thirty-two. He was given Operation Black-Snake, drafted by a staff major named Corwin Aubade, and it ran four years. It destroyed the Talona republic's only warship and its main tank depot and failed to kill its leaders, and Sallow understood better than his superiors why the difference mattered. The raid's survivors became the Black-Snake Corps in 1290 with Sallow in command, and the bone-coloured dress came with it. He hated the white, and hated parades more, and kept the recruits four years before he let one stand on a parade ground. In 1297 Hesketh Varro asked him to post the Corps in the Corvenna dock district during the ration disorders. Sallow answered that his men were trained to go in and come out and were not a wall, and that the district needed bread. He was retired within the week.

When the capital burned he was in a farmhouse in the interior, and Aubade, by then Solenne's first Marshal, found him there. Solenne banned the Corps's imagery and kept its doctrine, and Sallow taught the cadet course at the military preparatory school for the rest of his working life. He wore round spectacles, gave long plain lectures the boys came to like, and ate in the mess at the table next to the flying instructor Livia Penn. Farren Vane never attended one. He had the notes sent each term.

His health failed in 1331. The cadets had called him the Farrier from his first week. One of the boys of the last intake wrote home, in a letter that survives in the family papers, "Mother, the Farrier has made us shoe a horse starting from the road and I think I understand it now. Please send socks."

Hedda Vorsteen

Bavarian, 1241 to 1319 AE, Chancellor and chair of the Concession Board 1282 to 1312.

Hedda Vorsteen died in her own bed in 1319, aged seventy-eight, some hours after a dinner of eleven courses, and her executors found that she had weighed every coin in the house. She kept a shelf of nineteen antique scales in the Board's hall and trusted not one of them. For her whole working life she weighed her gold on each in turn and took the average.

She was born in 1241 in a mining town on Drozdov, in a settler family whose forebears had come from Luluke, the Syndicate and the USN in the successive waves of the rush, and she trained as a contracts clerk for the Concession Board, the body that held every lease on the continent in its own name and so made Bavaria possible. Bavaria had no internal rival, because there had never been a second faction with the capital to contest the first. It also had very little politics. It had leases, and a hall famous along the coast for its soups.

The Board's charter was modelled on the Syndicate's Table, with twelve seats around a long table, a Chair, and a thirteenth seat left empty and called the Seat of the Contract. Garrek Dunmar's rule was that the Chair rotated. Vorsteen took the Chair in 1282, at forty-one, and the Board chose her again every year for thirty, partly because nobody else could read all the contracts and partly because she fed them. In her first year she wrote the article known to Bavarian lawyers as the Vorsteen Clause: the Board shall sell to whoever holds the sea lanes, and shall survive any government. Bavaria had been in the Communist Power Alliance since it began and left when the USN burned, because a customer that no longer existed could not pay. About 1304 she took a veto in UARRO and used it once, to strike a clause that would have put a member's reserves at the Founding Members' call, at the request of Ketil Svarn's delegates. She sold alloys and propellant components to Konrad Vesterhaus for the Sanctuary Program at ordinary Board prices, and told him the price twice. The front Bavaria hosted for Solenne in 1354 and the arms it sent to separatists after 1361 were the same clause read again, long after she was dead.

Her most famous lunch fell in 1297. Brask's notary came to the Board's hall on the mining coast to buy uranium, and she gave him the soup of the house, a clear broth of smoked mutton with barley and a spoonful of sour cream, and let him finish it before she spoke.

"We will pay the Board's price in full, and in advance."

"I do not doubt it. Who carries it out?"

"In our ships."

"Your ships leave harbour by the leave of the Anestrian fleet, which sits across the strait with its guns. I do not sell to a customer's permission. I sell to a customer's delivery."

"Madam Chancellor, we are allies."

"You are a government. Governments end. The Board does not."

A river trout in brown butter followed, and then a roast goose, and she urged him through both. The thirteenth chair stood empty at the far end of the long table. By the goose the notary had understood that he was meant to ask whom it was for, and he asked, and she said, "The contract." The USN went to Vaurek, and the ore built six warheads.

Before the coffee she sent for the account. It listed the lunch at the Board's ordinary rate for a visiting delegation, with a charge for the use of the hall. The notary, who had come to pay for uranium in advance, paid for the lunch in full before the coffee arrived.

Ketil Svarn

Pechorian, 1268 to 1349 AE, Chair of the Federation 1299 to 1346.

Ketil Svarn counted waves, talked to his boat as other men talk to their dogs, and forgot faces completely. Visitors who had dined with him in March were introduced to him in April. The forgetting was no tactic, though it served as one.

He was born in 1268 on the Federation's northern coast, in a family of fishing-fleet pilots, and rose through the member councils by being forgotten. In the autumn of 1299 the councils wanted a Chair no great power had heard of, and he held the post for forty-seven years. After his death the Chair's secretaries found two rules on a card in his desk. Never be the nearest target. Never be the most useful. Pechoria placed nothing at its border that a neighbour could count, and sold nothing another state could buy elsewhere. Its yards built a few main battle tanks and fighters a generation ahead of the continent's, in small numbers, and showed them to nobody.

After Operation Fenwick, when Solenne founded the Pan-Savoran Union, he wrote the pooling charter for its common fund. Each member paid in proportion to its means, disbursements went by a vote of two in three, and the accounts were sealed from the members' own auditors, so that nobody could see how much Pechoria had given. It hid everyone's generosity. In 1354 Malakor Vane used the sealed pool to commit the Union's funds to Solenne's aerospace firms, and the record does not say whether Pechoria's Chair of that year assented or was outvoted. After 1361 his two rules gave a new answer, to arm one's neighbours' fragments and keep them small. By then he had left office, in 1346, and died on his own boat, at its moorings.

The story the coast tells about him belongs to the autumn of 1301, when Zinaida Dimikrova, twenty-two years into her exile, came to a fishing port on his coast to ask the Federation to recognise her government. They ate dried fish and barley in the harbourmaster's house, in a long dusk that did not seem to end. He heard her out. Then he told her about a pilot he had known, who had once found a whale lying across the channel.

The pilot could not go round it and could not go over it. A man who asked the whale to move would have made it his whale, and a man who greeted it would have become the nearest door to its temper. So the pilot looked at the whale every morning for eleven years and never once saw it.

When it left, as whales do, he was the only pilot on the coast whom nobody had asked a question about.

"And that, madam," Svarn said, passing her the bread, "is why we do not recognise whales."

Dimikrova understood that she had been refused. Forty crates of PK-2 carbines left the port the following week, marked as fisheries stores.

Part D. Occupation, Exile and Revolution

41
Occupation, Exile and Revolution

Eisenreich's occupation of Numaria's north left an exile government, a drawing archive and a revolution. Three people carried it.

Provost-General Ansgar Thalheim

Eisenreich, 1243 to 1305 AE, Provost-General and governor of the occupied homeland 1278 to 1300.

In March 1284 the Provost-General of the occupied homeland sent the war office a requisition, in his own hand, numbered and courteous. Item one asked for four hundred pairs of boots in the highland pattern, the issue boot being cut for a flatter foot. Item two asked for a second boiler for the schools. Item three asked for an aircraft able to hang over a mountain pass under gun and short-range missile fire and still come home. Item four asked that the drainage of the Provost's House be examined, the cellars being damp. A postscript, written after the signature, requested fish heads for the cats.

The ministry did what ministries do. It struck out the boots, deferred the boiler, forwarded the drainage to the Works Department and turned item three into a requirement. Ferrengrad Arms flew the result in 1292 as the IR-40 Ironback, and about ninety had been built when the revolution captured the airframe hall, the jigs and the drawings intact. PUSDR renamed it the CKK-10 Poing, built over a thousand more, and was still building new ones in 1356. The occupier had specified the aircraft that would help to free the occupied.

Ansgar Thalheim was born in 1243 in Eisenreich's industrial belt, the son of a railway inspector, and made his career as a logistician, the sort of officer who could tell a minister how many boots a province would wear out in a winter. In 1278 he was posted to govern the occupied homeland with a fixed belief that an orderly occupation was a kindly one. He built roads, drained fields, opened schools in the occupier's language and wrote every sack of grain into a series of ledgers called the Provost's Registers. They are the best record of the occupation that exists, and they are

damning without meaning to be. They count the dead as lost labour, the deported as district transfers and the burned villages of the highlands as shrinkage. He saw prosperity in the columns and could not see the people they described. He was prim about his boots, anxious about damp and kind to cats. He fed the strays of the Provost's House from his own plate and entered them in the Registers, under livestock, as unclaimed.

His enemies ran on his stock. Zinaida Dimikrova had left within a year of his arrival and quoted the Registers in every appeal she made abroad. Smuggled AR-22 carbines turned up in his seizures, stamped AVMS Corvenna, and he noted in 1290 that the Directors-General in Corvenna would deny them. In the winter of 1299 the eighteen-year-old Zarko Altyr was held in the cellars of the Provost's House, which were as damp as the requisition had said. Altyr reported later that Thalheim visited him once, to ask whether the prisoners were getting their potatoes.

In April 1300 Yaroslava Tenchova's column found him at his desk in a greatcoat, among shelves that ran from floor to ceiling on three walls. "Please mind the shelving," he told her. "The damp is a concern." Altyr was released that afternoon when the same column opened the cellar doors.

The People's tribunal of the spring of 1305, the year the name Eisenreich left the map, entered the Registers as exhibits, eleven cartloads of them. Thalheim died in custody before sentence was carried out, of heart failure. He had complained of damp in his cell and been moved to a drier one, and he died there.

Zinaida Dimikrova

PUSDR, 1241 to 1317 AE, head of the government in exile 1279 to 1305, then first President.

Orsolt Vey, mate of the coastal boat that carried Zinaida Dimikrova out of the occupied homeland in 1279, told the story of the crossing in harbour taverns for thirty years, and his is the only account there is. He had reasons to remember it. The boat was licensed for two tonnes of cargo, and the archivist who came aboard at the quay with her husband brought forty trunks of paper.

When the weather turned off the headland, Vey said, the captain looked at the waterline and told the passengers that the paper would go over the side. The archivist sat down on the first trunk and said she would play the crew for it. The captain, the mate, the deck boy and the archivist took a greasy pack of cards onto the hatch cover and played a four-handed trick-taking game that the coast calls Gulls, with a trunk as the stake. Vey lost eleven days' pay to her before the headland was behind them. He always swore she had a card in her sleeve, and that the boy had seen it. Asked years afterwards, the boy said only that she had been very good with her sleeves. The captain kept his word and took every trunk to the coast of Savorus.

She was born in 1241 in Kargopol, the capital of the homeland Eisenreich held and the industrial half of the later treaty, and she began as an archivist in the old Ministry of Industry. Its basement

held the drawings of an earlier age: a swept-wing fighter designed by Antiko Kloinsha in the 1210s, and a multirole fighter sketched by Polshinka Ratikova a decade later, before the Chicano hegemony closed the window in which such things could be drawn at all. When Ansgar Thalheim arrived in 1278 as Provost-General she saw what would happen to a ministry that held both the nation's drawings and its electoral rolls. She left in 1279 with her husband Anatol Dimikrov, an aircraft engineer, for Tianhai, the enclave on Savorus that would later take the name Xue Lin.

She ran the exile for twenty-six years from a rented schoolhouse, as a boarding house is run, with a rota for the stoves and rent collected in tea. The USN helped quietly and Tianhai's scientists found her paper stores and a room for the electoral rolls. Anatol died in 1288, and after 1300 the fighter bureau the revolution founded took his name. She kept his pipes in a rack in every room she lived in. Every appeal she made abroad quoted Thalheim's Registers, which she called the only honest statistics in the homeland. In 1301, in a fishing port on the Pechorian coast, she asked Ketil Svarn to recognise her government and came away with forty crates of carbines and no recognition. She was cheerful about it, and said she had been outplayed.

She returned in the autumn of 1305, after Eisenreich had fallen, and became the first President of the Peoples' Union. At her first sitting of the Council in the liberated capital she had the trunks carried in and held up the Kloinsha drawing, with its foxed paper and pencilled stresses, to a room that waited politely. An engineer of the arms bureau named Antiko Khoshlikova asked whether the works might have the drawings, and Dimikrova said all of them. The trunks left before the ration cards were reached. She followed the porters to the door telling them which end was up.

She governed six years with little power over the army, and in 1311, within months of Yaroslava Tenchova's death, Zarko Altyr displaced her. She did not contest it. She said she had minded the chair much less than the carrying of the trunks. The Klin fighter and the Krasny came out of those trunks, and the Flapjack came out of the Krasny. Her friendship with the scientists of Xue Lin was personal and ended with her, and since Altyr and later his son Cassius never renewed it, Xue Lin sat in Solenne's coalition in 1354 and was paid for the seat.

She died in 1317 and is buried in the capital she saved and could not run. She had played cards on Thursday evenings in a warm room full of her husband's pipes until the week she died, and her partners were agreed to the last that she cheated.

Yaroslava Tenchova

PUSDR, 1262 to 1311 AE, commander of the Great Revolution.

Her pack mule was called Reyes, because it too refused every title it was offered. In the summer of 1305 the Council's delegation climbed to the pass to offer Yaroslava Tenchova the rank of Marshal of the Union, and the mule sat down in the road. The delegates, who had come a long way in good boots, stood on the scree while the Commander hauled on the halter and swore at the animal in the highland dialect, with a range the youngest delegate called astonishing. She chewed pine resin throughout. Between pulls she told the mule that a title was only a peg for the next man's coat. The mule stood. She turned and declined, and wrote the same sentence into her letter of refusal. She had read Salvador Reyes in the captured library and knew how he ended, and she kept the word Commander.

She was born in 1262, the same year as Farren Vane, in a highland village of the occupied homeland, the daughter of a railway signalman, so that she was Altyr country by birth and Kargopol by her father's trade, and both republics could claim her. She was sixteen when Ansgar Thalheim arrived to govern and seventeen when she joined the resistance, and she spent the next twenty years learning the country in the one way an occupier cannot, on foot. She knitted socks for her fighters as she marched, badly and constantly, and disliked ceremony more than she disliked Eisenreich.

From 1294, when she and Vane were both thirty-two, her column received smuggled supplies by a deniable route run from Corvenna by a USN officer who gave one name and never lied about whom he served. They met twice. AR-22 carbines cut down for concealment, medical stores and a printing press came on the first of every month, and she trusted him because he was never late. On the night of 16 January 1300 the signal did not come. A boy of seventeen on the set said it was the weather. "He has stopped," she said, and went out to look at the frost on the pass.

Only in the spring did she learn that a general named Vane had won an election in the ruins of the USN. He had not written. The feud between PUSDR and Solenne that outlived them both began as her grudge. She had waited twenty years for a fight she could win, and it arrived in the week that ended every other fight, which she took for an insult and a gift and swore at in equal measure. The Great Revolution succeeded because the USN burned, and she never claimed otherwise.

She captured Thalheim that April and the Ferrengrad works soon after, and her armies took the last Eisenreich garrisons by 1305. She died in 1311, of a fever the sources do not describe. After her death the quartermaster's store was found to hold sixty-one socks of her knitting, none of them a pair.

42
The Night of 17 January 1300

One night, five seats. The strike that ended the United Syndicate Nations is seen here from the cockpit, the garrison, the capital and the two courts that had to answer for it.

Major Ludovica Hane

USN, 1266 to 1331 AE, commander of the squadron that struck Port Dionysis. Lived her last thirty years in Solenne under another name.

The dogs at the Solenne airfield were fed before the pilots were, and everyone knew whose doing that was. Livia Penn carried a biscuit tin in her jacket pocket and a cup of tea she stirred and never drank, and she was late to every meal in the mess because there was always one more dog or one more child. With the children she was loud. She sang the pre-flight checklist to them to a tune of her own, and she could stand through a fourth attempt at the same crosswind landing without a flicker. Nobody at the field knew she had been anyone else.

She had been Major Ludovica Hane, thirty-four on the night of 17 January 1300, a rank a peacetime service would have made her wait another ten years to reach. The Union's first two wars had emptied its officer corps, and she had risen through chairs that dead men left. That night she commanded one of the eleven bomber squadrons of the first strike, and hers was given Port Dionysis. The briefing said heavy conventional stores for a fixed installation. The Office of Watch told bomber crews only what bomber crews needed, so she had no reason to doubt it. Her people flew in charcoal suits without patches, so that a downed aircraft would name no squadron and no base, and the one mark on any of them was a number stamped at the collar. Hers was in the Office roll and nowhere else.

Her home was a city on the mainland, and on the following day General Idalia Quimbaya's bombers levelled it with conventional ordnance of their own. A garrison commander at the port had asked the spring before for dark eyewear for his men. She never learned his name. Hesketh Varro, who kept the roll of collar numbers and had left the capital with Farren Vane's party, passed her number to Vane's network within weeks. The roll survives in the archive of

Department-Y, which Isaure Rook inherited from Varro, with a second name pencilled beside each survivor who was given one. Hers is Livia Penn. Vane valued her as a flier and as the one person he could identify, and he never had to say which mattered more. She became the first flight instructor of Solenne's air arm.

In the winter of 1312 a stove ticked in the academy mess and a cadet in his first month was telling the table what he had read about Port Dionysis. He turned to the instructors, since instructors know things, and asked whether the crews had known. Hane was stirring her tea. They were told it was stores, she said. Heavy stores, for a fixed target. Had they believed it, ma'am? The spoon went round once. "It was easier to carry," she said. "Believing it." At the next table Imre Sallow, retired from the Corps and teaching at the same academy, put down his cup. He had once seen her old charcoal flying coat on a hangar peg with a square cut from the collar, and he had gone on cleaning his glasses. Neither of them spoke of it in the nineteen years that both had left. The cadet, who had meant it kindly, asked whether there was any more milk.

In the autumn of 1318 she stood at the end of the grass strip with the dogs around her boots and her watch in her hand. A boy of thirteen, whose parents had walked out of one of the levelled cities, was up alone for the first time. She had told him four circuits and down. He flew five, and she let him. She counted the minutes from the ground, which was the only place the rules allowed her to be, and she looked at nothing else. The wind sock swung and settled. He bounced twice, held it, and rolled out nearly to the hangar. He climbed down with his legs not working and asked her whether she had seen. She said she had seen all of it.

General Berend Mardrek

Luluke, 1252 to 17 January 1300 AE, general commanding the Port Dionysis garrison.

Why does a four-page memorandum survive when the garrison that wrote it does not? Because the Luluke civil service copied everything, a habit older than most of Aridexia's states, and General Berend Mardrek's memorandum of the spring of 1299 was copied four times. The original, the fair copy, the copy lodged in the Quartermaster-General's registry and the copy sent to the Treasury file all survive. Very little else from his garrison does.

He was forty-seven, large and short-tempered, with a handwriting so small that the clerks of three offices kept a reading glass for it. He smoked a pipe and forgot to light it. In the evenings he whittled toy boats for his grandchildren, one hull a week, and complained about the quality of the wood. When an inspecting colonel praised the barracks at Port Dionysis he agreed that they were very fine and added that they would burn beautifully. He served the oldest continuously existing nation on the planet, under a monarchy that had formalised itself at the Treaty in the year 0 and had not hurried since.

He had read the Anestrian test reports of the early 1200s, which most staff officers filed as somebody else's problem. They said one useful thing about the first second. A man who looks at the flash loses his sight before the blast arrives, and a garrison asleep at 2 AM cannot be told to turn its back. The remedy was cheap: dark, flash-protective eyewear for every man on the port. He knew nothing of the Uranium Crisis and argued only that a harbour several powers used was the kind of place a first strike would prefer. What did the oldest state do with a cheap and sensible request? In October it replied that the item lay outside the current establishment and would be taken up at the next review. The clerks' reflex of asking first whether a thing had been done before goes back to the court of Ilvane Aldmere. Mardrek wrote to the Quartermaster-General's office three times that autumn and was answered twice, once to say that his letter had been received.

So in December he took the coast road to Kaldrun to show them. He paid a Port Dionysis glazier to smoke thirty-six pairs of spectacles over a candle, and he drew a magnesium flare from the harbour signal store. He tried the flare on himself first, without glass, to be sure of his claim, and spent a quarter of an hour walking into doorframes. On the morning appointed he lined up two rows of borrowed sentries on the parade ground, one in the smoked spectacles and one without, and set the flare on a pole. The three officials due at eleven arrived at a quarter to two, from lunch, one of them still working at his teeth. The sentries had been standing in the cold for three hours. As soon as the officials were seated Mardrek lit the flare. The row in smoked glass did not move. The bare-eyed row put their hands to their faces and one man sat down on the parade ground, and ten minutes later they were all still blinking. The officials said it had been very bright. The minute of the visit records a satisfactory entertainment. The spectacles went back to Port Dionysis in a crate, a sample and never an issue.

He had not expected to be thanked, and he was not. Over lunch, which he took alone at an inn where the soup was a rumour, he worked out that the visit had cost him eleven days of leave, the glazier's bill and a good pipe left on the coach. He wrote the sum on the back of the bill and kept it, as he kept every bill, in case anyone should ask later what the Crown had been spared.

The under-secretary received him afterwards. The request was reasonable, he said, and nobody had made it before. Then I am the first, said Mardrek. Then it is a precedent, said the under-secretary, and "precedents go to committee." The committee sat in the spring. Mardrek wrote the date in his notebook in his small hand and thanked him.

He was back at Port Dionysis on the fourteenth. A parcel had gone to his daughter's house by the December post, six boat hulls with the masts to follow. On the night of the sixteenth he went to bed as his garrison did, in barracks dress, with the lamps lit down the lines. At 2 AM a squadron commanded by a woman whose name he never knew released over the port. The Treasury copy of his memorandum carries a stamp recording that it was received within two days. The system was never slow at receiving.

General Idalia Quimbaya

Anestria, 1265 to 1319 AE, general commanding the strategic bomber force. Compiler of the Quimbaya Count.

In the second week of January 1300 the best dancer in the Anestrian officers' mess was a general. She danced everything, the slow Oasis figures and the quick ones from the coast, and she sang low under the music when she thought the band could not hear. She kept dates in a paper bag in her pocket and offered them round. Only at a desk was Idalia Quimbaya sober. At a desk she was a mathematician by temperament and a bomber commander by career, the only officer on the planet who was thoroughly competent in both.

On 17 January her President-in-Council, Marisol Velarde, asked what could be done to the USN without spending the Republic's reserve, and Quimbaya answered with a list of cities. Over the following day her strategic bomber force destroyed every remaining major city on the USN mainland and the Pelruvian Islands with conventional ordnance. She had thought about what the All-Finian Empire's morning had done to the people who authorised it, and she wanted a victory that did not resemble theirs. The plan could be defended in a council chamber. It was defended there, and it worked.

On the evening the marines reported the capital taken, the window frames of her office were gritty with sand and the fans turned slowly overhead. Her adjutant brought the first damage assessments and asked where he should file them. She asked for a ledger. The only one he could find was an Oasis Court register, ruled in columns for water allocations. He remarked that the Court's clerks would want their water back, and she laughed, briefly, as she had laughed in the mess, and turned to the first clean page and wrote the date. He pointed out that all the assessments were estimates. "Then write estimate beside each one," she said, "and keep going." The register went onto a shelf in the flight office.

She kept at it for nineteen years. The columns ran by city and by day and recorded the dead of her own raids, of the six cities the USN struck, of the Empire's two strikes and of the marines' work in the captured capital. One column held her own estimate, and a margin note marked every figure that was a guess. They did not say whether conventional ordnance had killed fewer people than the weapon in reserve would have done, or more. She never allowed herself the comparison, and the Division has declined to supply one. The Count lists the eleven USN squadrons that flew on the night with the note "commanders unrecorded," and the home city of one of those commanders stands in the column for the day after.

In her last years she taught arithmetic to Rodrigo Valcazar, a small boy and a friend of his mother's family, tipping a jar of date stones across a kitchen table and making him carry the tens. She died in 1319 in the middle of a column, and he was eight. He afterwards called himself her pupil. He kept the columns and dropped the margin notes, and in 1359 he signed for Anestria the Threshold Accord, which rested on a DS-HP assessment that called itself pure arithmetic. The Count was published after her death. The register stayed on its shelf with its first page still ruled

for water, and the jar of date stones stood beside it, a third full, with the lid off.

Marisol Velarde

Anestria, 1250 to 1301 AE, President-in-Council of the Republic on 17 January 1300.

Marisol Velarde kept eleven hens in the yard of the Council house, and the clerks learned to read her temper by whether she fed them before the morning's business or after. At breakfast she read one clause of the Republic's founding law aloud, in order, one a day, to whoever was at the table, and she had been round the whole text three times. She read each clause twice before she acted under it. People called her scrupulous, and the hens did not mind.

She was fifty on 17 January 1300 and had come up through the Council of Oases, where one delegate answers for one oasis and every well has a name. Merida Quor had written the rule that the President serves the Council, and Velarde held the office on the one night of its history when the rule could not be kept. The USN had struck the Republic along with its neighbours, and the All-Finian Empire had answered with every weapon it owned. Velarde asked General Idalia Quimbaya for a reply she could defend that did not spend the Republic's reserve. Quimbaya gave her a day of conventional destruction. Velarde accepted it and asked what it would cost, and Quimbaya began finding out that evening.

At dusk the Council could not be convened. Its delegates were scattered across the oases, the lines were down or full, and the marines had taken the USN capital and found its officials in hiding. The founding law said nothing about what to do with them. Velarde sent for the Recorder and the minute-book and dictated that the Council had not been convened, that it could not be, and that the order was hers: the officials were to be shot, on her authority, at that hour, because she judged that the Republic would otherwise have no answer to give. She corrected a comma and signed. She asked the next morning how many there had been and wrote the figure in the margin of her copy of the founding law, beside the clause on trial. She read that clause aloud at breakfast when its day came round, as she read all the others.

The generators were rationed that winter and the Council house kept to the hours of daylight. Velarde did her reading by the east window and took her letters in the yard, standing among the hens, because the yard was the one place in the building that was warm by noon. The delegates who could reach the capital found her there. They remarked afterwards that she had never once lowered her voice in front of the hens, and never once raised it.

What was left was a year of Thursdays. How do two people share a weapon that neither can use alone? Velarde held the authority to use the reserved deterrent and Quimbaya's force held the hardware, and neither would hand the other the key. So they met each Thursday afternoon in a small room off the hen yard. By courtesy each poured for the other, and by courtesy neither drank until the other had, so the tea went cold every week. They talked about the districts, the

harvest and the price of fuel, and once for twenty minutes about a hen that had gone missing. The key came up the way the weather comes up in a country where it rains.

The Republic's ten districts began to declare themselves almost at once, and the reserve had no referee. Five successors followed Velarde, each of whom wanted the weapon, and Rodrigo Valcazar, who was born ten years after she died, grew up to claim her chair for the Constitutional Anestrian Republic. She died in 1301, and the record gives no cause.

The last Thursday the Division can date fell in the spring of that year. For the first time Quimbaya poured first. Velarde took it as an offer, and said so, and Quimbaya allowed that it might be one. They drank the tea hot. Neither of them mentioned the key, and no record shows it changing hands.

Empress Ingrith Skaal

All-Finian Empire, 1263 to 1317 AE, last monarch of the Empire.

"A finger above the bud," the Empress said, and took the secateurs out of the young man's hand. "A rose forgives most things, but it is slow to forgive hurry." It was the spring of 1312. He was an archivist of twenty-three, sent from Halvern with a list of questions about the morning of 17 January 1300, and she had met him at the garden gate with tea and a pair of gloves. For an hour she talked about roses. She talked about the soil on the harbour terrace, about blackspot, and about an admiral who dyed his whiskers and had once been bitten by a heron. Somewhere between the blackspot and the heron he asked why she had dissolved the Empire, and she said she had wished it to be tidy, and went on to the aphids. He wrote it down and did not underline it. The answer was exact, and he had come for something grander.

She was thirty-seven on the night. Her house traced itself to the exiles of 3 AE, so that the chain begun by Ilvane Aldmere's peace had put her ancestors on a ship. In the four hours after 2 AM she learned that the Union's bombs had fallen on Port Dionysis and on the cities of her allies, and that her own Empire had taken a mortal blow. She authorised two strikes on USN soil, which used the whole of the Empire's much smaller stockpile. Then she dissolved the state that had made them. Her decree named five city-states, Korveil, Finhaven, Halvern, Tavelin and Skerrow, and declared each to have taken no part in the decisions of the former Crown. Aldmere's historians had been told what to leave out. Skaal left everything in and gave it no owner.

She insisted that a state be ended correctly, and the staff officers dressed for it in the corridor of the old palace at Finhaven, in naval grey with white-piped collars, a pot of tea going cold on the chart table. They queued behind the pen. She told them to sign as witnesses to the dissolution and said the strikes were hers and needed none. An admiral held the pen over the paper and asked about the Admiralty's copies of the strike orders. The archive would say they had been there. The archive, she said, was in a building that belonged to no one from that hour, and he

should sign. A gull was walking along the sea wall under the window. The admiral signed.

She lived on for seventeen years in a house above the harbour at Finhaven, addressed as Empress by courtesy and holding no office, and she was, by every account the Division has, content. She slept late. She had the admirals to dinner and the gossip with it. After her death, when Malakor Vane's navy came to Finhaven in 1354, it took four of her five cities and found in each a government that had never been in any war. Tavelin it left.

By the harbour wall there is a pale rose that came up on the terrace in her second summer. The gardener asked every spring what it should be called. She said she would think about it. It is entered in the garden book as the pale one, in her hand, and nobody has changed it.

Part F. Northland

43 Northland

Northland after Nikolai Nichozh is the record's longest silence. These portraits give it back its people: the man himself, the lieutenant who kept his order, and the successors who inherited a god's reputation and a clan's grievance.

Yurik Verrenkai

Northland (Verrenkai clan), 1272 to 1312 AE, lieutenant to Nikolai Nichozh.

The inventory of Yurik Verrenkai's house ran to 340 items and took a household clerk two days. It was made before his document case, marked with the clan's sign, went to his ward, and it is thorough in the way of a man who kept everything. Items 1 to 40 are coats, six pairs of boots and a sled. Items 41 to 120 are ticket stubs from the Relief Corps fairs, each filed with its date. There are twenty-three mittens, nearly all of them a child's and none of them matching. There are forty-one poems addressed to a bay gelding, in his own hand, the rhymes poor and the sentiments sound.

The man who owned them was the biggest man of the largest clan on the frontier, and in the winter of 1300 the clan took its decisions from him. When Nichozh turned the garrison outward, Yurik met him at the district line and the clan came over without a shot. He raised the levies. In the spring of 1301 he took the surrender of the Drenmoor from a hard old chief among the ruins of two burned settlements. His levies held the ring round the Oyun-Tash highlands in the siege of 1302 and 1303, and when the siege broke, the fighting-age population was executed by men under his command. Nichozh's government never accounted for it, and Yurik never disputed it.

Item 211 is one field order of five lines, between a child's mitten and a saddle receipt. It is dated 1308, it sends the Iron Union's enclave to its end without prisoners, and it is signed with the name Nichozh's father chose for him. Yurik had asked for it in writing, in a log hut where the ink had frozen in the well and a clerk was thawing it against his chest. The clerk who made the inventory wrote "one paper, field order" and did not read it. The draft, the dispatch book and the relay logs for that spring were lost or burned, so item 211 is the only reason anyone knows what was ordered.

A month after the operation he had gone to a Relief Corps orphans' house and asked by name for a girl of fifteen. He never told her what his men had done in the highlands. He died in 1312, aged forty. Item 340 is a ruled ledger, partly filled in a girl's neat hand, the last entry a column of figures carried over to a page not yet written.

Bayarmaa Oyun-Tash

Northland (Oyun-Tash clan), 1293 to 1365 AE, head of state after Nichozh, 1328 to 1365.

Bayarmaa Oyun-Tash could not carry a tune. She hummed through the Founder's liturgy a little flat, and the Keepers of the Band learned to sing louder when she did. She hated the cold halls it was kept in. The Division cannot say how much either fact matters to what follows.

She was ten in the glacial valley in February 1303 and was among the very few of her clan to leave it. The record does not say how. A Relief Corps house took her. In 1308 Yurik Verrenkai asked for her by name, and the Corps, which gave orphans away readily, gave her to him. She learned to read from his clerk and kept his ledgers at sixteen. When he died she was nineteen, and he left her a document case.

She read it that night. Inside was Nichozh's field order against the Iron Union, one sheet, five lines. It explained a good deal about the people who had raised her. She did not publish it. The cult held the state together and the Relief Corps fed more people than any army had killed, so a truth that broke the Founder would break the grain returns with it. The next winter Nichozh named her his heir.

When he died in 1328 she became head of state, governing jointly with Southland. She wore the black coat with the gold trim and the purple mantle and presided over the worship of the man whose soldiers had killed her clan. Each Founder's Day she spoke the liturgy, and each year a line or two had gone from it. The Division counts eleven lines removed by 1360.

On Founder's Day of 1358 she stood in the regalia while the Keepers sang the responses. At the ninth verse she passed over the line that called the Founder giver of the clans. The congregation gave the response anyway, half a beat late. Afterwards a young Keeper brought her the book open at the page. She said it was a long text and asked him to mark it for the copyist. He marked it. In the next printing the line was gone, and he believed the idea his own.

The Division cannot tell which of the eleven cuts were policy and which were her knees. The Keepers' diary gives the temperature of the hall on three of the Founder's Days, and on all three it was below freezing. The longest cut, four lines, is one of the three. She was a woman of sixty-five with bad knees and a text that ran to nine verses. Both readings fit, and she never said.

In 1354 an offer had come from Solenne, from a Jakaar of seventeen who had already worked out how many years he had on her. Malakor Vane promised land on Typhon in exchange for the cooperation of Northland and Southland. The state was poor, the winters were long, and she

could not outlast him. She accepted, and the record shows no meeting between them. Five years later she signed the Threshold Accord beside Torvik Drenmoor. In 1365 the capital fell, the Typhon land in escrow became a claim without a claimant, and both heads are recorded dead that year.

Verrenkai's case was recovered from the ruins among the papers of the capital, with a clerk's inventory still folded inside it. The sheet is in Nichozh's hand, five lines, signed with the name his father gave him. It lay at item 211.

Torvik Drenmoor

Southland, 1310 to 1365 AE, head of Southland.

"Sir, the line is for the joint government." The Solennese clerk leaned across the table at the signing of the Threshold Accord in late 1359. Bayarmaa Oyun-Tash had signed and passed the pen. Torvik Drenmoor declined it. He took a pen from his breast pocket, one of the three he carried, each filled with a different ink, and drew a second line beneath hers with the date again beside it. "The joint government has two heads," he said. "It will have two signatures. Record that the second was added in a different ink." The clerk said it would be recorded. It was. The ink was blue-black where the rest of the page was black.

He had been born in 1310 into the clan whose chief, his grandfather, watched two border settlements burn in the winter of 1300 because a general could not spare the time to talk. The old man yielded to Yurik Verrenkai the next spring and told the story of it one way, and Verrenkai's household told it another. Torvik believed his grandfather. A few years later the lower third of the country was cut away as Southland, by mutual decision and without a war, and he grew up inside that decision. He spent his adult life making it mean something.

He was sulky, funny, courtly and petty in about equal parts. Southland's field dress was Northland's plain black with a single purple sash, and he wore it at every joint session and filed a short note of reservation each time. His secretaries bound the notes in a volume nobody read. Southland's schools taught no catechism of the Founder, and he told his officials to say the joint government and never the state. When Malakor Vane's offer of Typhon land reached both capitals in 1354, his first act was to ask that Southland's share be drawn on a separate deed. The drafters thought it a quibble and allowed it.

Once a week, in whichever capital was warmer, he played a counter game with Bayarmaa on a board with a cracked corner. She hummed while she played and he brought honey cakes. He kept the score in a third ink, brown, and lost more often than not. It was what they did instead of raising the past. She had lost more than his clan had, and the record shows that neither of them raised it.

Both heads are recorded dead in 1365. On the last page of the Accord the black line lies above the blue-black one, with a gap between them about the width of a thumb.

44 Solenne

Solenne was designed, and the people in it are the people who designed it, served it, doubted it and were used by it. Two of them, Farren and Malakor Vane, are the book's centre of gravity.

Farren Vane

Solenne, born in the USN, 1262 to 1356 AE, general of the USN and first Jakaar of Solenne.

Farren Vane ate one boiled egg for breakfast every morning of his adult life, four minutes in the pan and a pinch of salt, and he could name the children of his cook, his driver and every sentry on his gate. He hummed in meetings. It was a barracks tune nobody could place and he took it a little flat. Ministers learned to read it, since it stopped when he was bored and climbed a tone when someone lied to him. Visitors to the house in the capital went away feeling that the general had waited all week for exactly their conversation, and most of them were right.

He was born in 1262 into an officer corps that the first two wars had emptied twice over, and he rose fast because so many chairs stood vacant. By his late thirties he was a general with sight of the Uranium Crisis papers, and he read them as a surveyor reads a crack in a dam. The regime would not last the decade. On the 14th January 1300 Ottoline Brask signed a thirty-day leave for reasons of health, the last order in her hand that the record holds, and Hesketh Varro had already built the rest of the road: false papers, an erased service record, funds, a small loyal network. The photographs went, and the uniform. The egg did not. His cook in the first months of hiding remembered only that the general asked for a pan and a timer and was unreasonable about the timer.

One debt stayed behind. From 1294 he had run, through a go-between in Corvenna, the deniable supply that reached Yaroslava Tenchova's column in the Numarian highlands: AR-22 carbines cut down for concealment, medical stores, a printing press. They were born in the same year and met twice. He gave one name and never lied about whom he served. The monthly signal due on the night of the 16th January 1300 did not come, and he did not write to explain it. She learned the rest in the spring.

He came out of hiding into the ash of the 17th January with his network and a public too stunned to ask who he was. He installed the Jakaar system, won its first election and served the one term, 1300 to 1308, then left on schedule. He had read of the Syndicate's thirteenth chair, kept empty for the institution itself, and every eight years he filled his own with someone who had sworn nothing and owed him everything. He did the same with people. Varro's roll of collar numbers gave a bomber commander from Port Dionysis another name, and Ludovica Hane became Livia Penn, Solenne's first flight instructor. He kept her as he kept most people, by being the only man who knew who she had been.

He married Lensi Huono in about 1327, when no rival was left, and opened the marriage by bringing her a sheet of paper. It listed ages: his own, hers, the heads of departments, each with a column of years remaining. He read hers aloud, then his, which was shorter, and said the sums were sound. She said the sums were an insult and that she had terms. She wanted her own cook, his papers kept out of the bedroom, no department men at table on Sundays and a garden. He gave way on each in turn, quickly and with every sign of pleasure, until the garden, which he fought for an evening and lost. It is the only negotiation on record that he did not win. He kept the sheets for the rest of his life, and no diary was ever found. He was sixty-seven at his first child's birth and seventy-five at his last, and he ran all four, and the homeless children of the capital beside them, through Department-Y's protocol as fast as his arithmetic allowed. In 1342 he shot the head of the Department of Trial on the spot, and nobody said so aloud. Malakor's 260 was the largest number he ever got out of anything.

The system he built needed no Vane. In 1353 it named one, a boy of sixteen, on an instrument that bore the signature of Oriel Marne, who was dead before anyone could test it. Whether Farren asked for it or only let her see what he hoped is not on record. The Turncoat War opened the next year and he followed it from his chair. He said nothing to the Jakaar and nothing to the chain. He had no criticism ready. The formula had worked.

In his last week Isaure Rook sat up with him through the nights. The window stood open a hand's width, and below it a recruiting band practised the marching tune the fleet had taken up since the Korut Islands fell, and practised it badly. He hummed it correctly, under his breath, whenever the band lost the thread. He asked her to read him the dispatches, and she read the tonnage, the annexation figures, the first casualty lists from the Numarian approaches. He listened with his eyes shut. When she finished he asked, "Is he eating?" She said the Jakaar's household did not report on it. "Then ask," he said. She waited for the instruction that ought to follow, the sentence a founder says to a department head about a war his son has begun, and none came. The lamp had burned low and smelled of hot tin. After a long time he said, "Leave it," and she took him to mean the lamp. He died in the night, and she wrote the hour in her own book. It was February 1356, he was ninety-four, and the bed was his own.

The chain of Jakaars he arranged had run fifty-three years when it named his son. The government fell nine years after the old man died.

Marshal Corwin Aubade

Solenne, born in the USN, 1258 to 1326 AE, First Marshal of Solenne 1300 to 1318.

Corwin Aubade was four years older than Farren Vane and a good deal less interesting, which was why he was asked. In 1286, as a staff major, he drafted Operation Black-Snake, the raid on Talona. It destroyed a warship and a tank depot and left the rebel leaders alive in a cellar. Farren signed the budget and found the author exact and incurious. That suited a Marshal.

The title came from the Syndicate's Table, a war-office name revived as the USN had revived Warden. Aubade thought it theatrical and used it anyway. He loved drill, and loved it most with a band. He played the cornet in an amateur band of clerks and quartermasters, badly, and was kept on because he never missed a practice. He was kind to recruits and lost half their names in the second week.

On the morning of the first oath, in the depot yard in 1300, he stood at the back. He had written the oath himself. It named the Charter and the people of Solenne and no person at all. A sergeant read it out and the recruits said it after him. A boy in the second rank asked the man beside him to whom they had sworn. "The Charter," said the sergeant. The boy asked who that was. Aubade began to laugh. He laughed until the sergeant came back along the line and told him, very quietly, to stop.

He built the army from the USN's depots, drill books and sergeants. He drove out himself to a farmhouse in the interior to ask Imre Sallow, retired for refusing to turn the Black-Snake Corps on a hungry district, to teach. The snake and the Eye came off every badge and the doctrine stayed. The SR-30 came in 1303. In 1305 Operation Fenwick went in from a forward base on Solenne's own ground, with TV-24A Tempest armour and N-14 Asmedeus aircraft carrying AGM-11 Inferno missiles. The crews were green, because the training order had never landed. The dispatch ledger showed it leaving the Marshalate on the proper day and no entry at a relay that had been Department-Y's since 1301. Aubade read the page twice, asked for tea, and wrote the casualty letters himself.

He suspected the department's lost courier and asked nobody. The question would have gone to the sitting Jakaar, and the sitting Jakaar was Farren. He left office in 1318 and died in 1326. In 1330 Isaure Rook found the courier's docket in the old boxes. It had no closing entry.

His retirement parade ended at the depot gate. The Marshalate band played the Charter March, and the old Marshal fell in at the back with his cornet and played it a half-tone flat all the way down the road. By every account he was the happiest man on the parade.

Dr Fabian Garrow

Solenne, born in the USN, 1290 to 1346 AE, physician to the intelligence protocol.

"The scales are in a mood," Dr Garrow told the boy on the cot, and tapped the brass beam. "They say you have put on four pounds since Tuesday. Nobody puts on four pounds in a week. We shall ask them again." The boy, who was seven and had been weighed in this room for nineteen months, got off and on once more. The beam wobbled and settled a pound and a half lower. "Better," said Garrow. "They are always better when they are asked twice."

For years the scales took the blame for everything. They were in a mood, or had got up on the wrong side, or had been out late with the scales in the Department of Trial. A child with a poor weight was never told that the number was bad. The scales were scolded, the child was given a second turn and a boiled sweet, and the notebook received the honest figure afterwards, in pencil, when the child had gone.

Fabian Garrow was ten on the 17th January 1300 and spent the winter after it in a cellar with a younger sister who did not live to spring. He never joked about that, and nobody who knew him thought it unconnected to the rest. He became a paediatrician on a state bursary. In 1334 Isaure Rook invited him into a department whose name he was not allowed to write down. She said the protocol would go on with or without him and would be run better by a man who counted every child. He said yes, and asked where he could keep a glue pot.

He mended the children's broken toys at his desk, wheels and ears and the legs of wooden horses, and a cupboard behind him held spare parts sorted by animal. He sang to the infants in a pleasant, slightly sorry bass, always the same three songs. He kept a notebook for every head, with weight, appetite, sleep, night terrors and what the child liked to eat, and he drew in the margins: ships, mostly, and once a very bad portrait of Rook. The books were so exact that they became the department's best evidence of what the protocol did. His changes to the dosing and the rest regimen cut the relapses and the collapses, and children who would have broken did not. When Vaussen Vane scored 172 in 1340, and Marcus and Lilian scored 201 and 208 in 1345 under a formula partly his own, the figures were the product of his care, and he could read what a good figure made likelier.

Farren Vane was not satisfied with 208. He wanted a formula without safeguards, and the safeguards were Garrow's. The youngest Vane boy was eight, and on the last afternoon of that quarter he sat on the couch with his shirt off, watching the stethoscope go over his ribs. When Garrow wrote the week's doses on the slate the boy said, "Your total's wrong." Garrow checked. It was wrong by a fortieth of a unit. "The scales are in a mood," he said. The boy considered this. "The scales didn't add anything," he said. "You did." "So I did. Thank you." The boy looked at the window for a time. "Father says you're going to stop." Garrow took the earpieces out. "Did he say why?" "He said you were the sort who does. He said it was all right." The boy put his shirt on without help and did the buttons correctly from the bottom up.

That night Garrow began to write. He argued from the notebooks that the margin between a gifted child and a damaged one was whatever he had put into the regimen, and that to take it out would produce a mind that could count to any figure and be glad of none. He wrote eleven pages and signed each one. Rook lodged the dissent on the permanent record. It is one of the very few papers in the holdings that speak for the children, and the staff of the Typhon Astrobiology Programme had put a paper of the same kind on their own record a few years before. He died of pneumonia in 1346, within months, and the certificate called it a chill taken on the cold wards.

His notebooks are in the archive, one for each child, with the Tuesdays marked. The margins are full of small ships. On the last page of every book there is a pair of scales with a sulky face.

Dr Isaure Rook

Solenne, born in the USN, 1296 to 1365 AE, physician, head of Department-Y 1330 to 1358.

In the spring of 1311 a girl of fifteen pushed a handcart through the capital with a dead man's archive on it. Hesketh Varro had died that week, and his will left his papers to Isaure Rook. It gave no reason, and the Division has none. She had worked in his archive since she was twelve and she was the only person who knew where everything was. That is a fact about her and may be the whole answer.

A carter on the harbour road offered to take the load for a fee. She told him the fee was robbery, the cart was worse and the horse was a disgrace, and by the end of the street he was carrying the heavy boxes for a quarter of his price and had accepted a lemon sweet in settlement. By the time a clerk and two porters came from the Office with a requisition form, she had made a card index of the first four boxes in her own hand, by name, date and shelf. The clerk tried it against his own list and found hers faster. She kept the boxes, and the room that went with them.

She trained as a physician, since the department needed physicians. She swam in the sea every morning before work in every month of the year, ate lemon sweets all day and kept her pantry in alphabetical order, so that anchovies stood before barley and a visitor who asked for sugar was told where to look. In 1330, in her mid-thirties, she took charge of Department-Y and of everything the Office of Watch had ever known about anyone. Her first week went to the old boxes. In one of them she found the docket of the courier lost in 1305, on the road that carried the Fenwick training order. Nothing in the file showed that anyone had asked after him, and she did not ask either.

Under her the folders became the best-kept papers in Solenne. They logged doses, weights, hours of sleep, the day each child came in and every day the file was opened, and they held birthdays that nobody else in the country was keeping. On each birthday she moved a lemon sweet to the shelf above the folder. The children were never told. Each December she sat down to write at the foot of the summary that no harm to any child could be shown from the records, and each

December she wrote instead that it had not been shown. It was a different sentence and she knew it, and she used the same pen for both.

Fabian Garrow's dissent of 1345 went onto the permanent record on her signature. She filed it and did not forward it. In 1346 she placed Daro Quint in the Vane house as the youngest son's companion, with instructions to write down what he saw. In the first winter of Malakor Vane's presidency she designed the treatments that might let him feel ordinary sympathy, and after he refused them she gave the order that they were not to be offered again. Her dose log records the refusal in his own hand. Her signature is on the certificates of Oriel Marne and of Farren Vane, whose bedside she kept through his last week.

On a grey morning in 1358 she signed the manifest at the departure field, with the transport already fuelled. The clearance form had three lines: Fit to travel. No contraindication. Medication: none. She wrote the first two at once and held the pen over the third. Malakor, talking to the pilot as easily as to an old friend, called across to ask whether it was a long form, and told her she could say it, since he would not be on her books after today. She told him he was on them until she closed them. He smiled the smile the cameras liked, and she signed. Daro Quint came up behind with two cases, one of clothes and one of papers, and she asked whether he wanted the file. He thought about it. "No," he said. "I wrote half of it."

She resigned that week. She appears in the papers of 1365 and is not named again. Nothing in the surviving archive says where the folders went.

Oriel Marne

Solenne, 1292 to 1353 AE, Jakaar 1345 to 1353.

"Section forty-one," said Oriel Marne, and went on looking for her lunch.

Vaussen Vane had asked who advised her on the appointment. It was the first of his three visits in her last winter, and he sat where witnesses sat, though she had not asked him to. He wrote the number down. Section forty-one of the Electoral Act was real and had nothing to do with it. The second time, over tea he had refused and then accepted when she poured it anyway, he asked again, and she gave him section twelve, which was also real and also beside the point. The third time she said section two hundred and twelve, with great confidence, and he turned his cup a quarter turn on its saucer and thanked her. The Act ends at section one hundred and ninety. She found that out a week later, hunting through it for a sandwich she had been using as a bookmark. She told nobody. If Vaussen ever looked the number up, the record does not say.

She was fifty-three. The Jakaar elected in 1340 had died in office, and the eight-year grid had to be broken to replace him, so the special election of 1345 gave her a fresh term and moved the cycle to 1345, 1353 and 1361. She was an advocate of the ordinary regional and statewide route, and belonged to Farren Vane's chain without having been made by it. She remembered statutes

by number and forgot meals by the dozen. Aurelia Quillon kept biscuits in the filing drawer for her. Her office clock ran four minutes slow, and everyone who worked there arrived early and never worked out why.

She governed as she had pleaded, from the text. She read the statute before the briefing, audited the regional pools and let the Department of Defensive Logistics argue its budget in public. In 1351 that department opened talks with Chicano States on a Typhon survey concession, which she meant as a courtesy. In Moonhaven it was read as a bribe aimed at the city's walls, and Safemoon left UARRO that year. Each spring she called upon Farren Vane, as every Jakaar of the chain did, and called it a courtesy to the founder. Her staff understood that it was an inspection, and that she did not. Isaure Rook brought her the Department-Y reports. Marne read them, thanked her, and acted on none, holding that a steward does not use what she was not elected to hold.

At the end of a term a Jakaar may appoint one politician directly into the final election. According to an instrument lodged with the Department of Trial, Marne's appointee was Malakor Vane, sixteen years old, who had held no office, over Vaussen and Marcus, who had earned theirs. The instrument carried her seal and her signature and was dated the autumn before. Eleven days before her term ended, Quillon found her dead at her desk. Rook signed the certificate, which gave a failing heart. A registrar of the Department of Trial produced the instrument that afternoon and said he had been holding it. Nobody has been able to prove that she signed it alive, and nobody has been able to prove that she did not.

The clock stayed four minutes slow. Quillon, who had found her under it, never put it right, and the office went on arriving early.

Aurelia Quillon

Solenne, 1309 to 1365 AE, chief of the Jakaar's Office, Acting Jakaar 1358 to 1365.

The protocol officer thought she might be ill. He wrote so that night in a private notebook, a careful man, proud of his table plan, who had set the Jakaar's chair at the head of the table in a hall whose name the copies omit, with the Jakaar's pen case before it, because Solenne had drafted the protocol and the protocol said the head of state signs first. The Jakaar was on Typhon. In late 1359 the Acting Jakaar came in by the side door, took the pen from the case and made her first stroke on the first line. The pen had stood unused for a year and a half. "It left a dry grey smear," he wrote. "She looked at it for what I counted as eleven seconds. She did not ask for another page, which I would have fetched. She took her own pen from her coat and signed beneath, in that small round hand, and under her name she wrote the five words of the formula. I asked whether the chair should be removed. She said to leave it where it was. She said someone in the room should have to look at it. She was holding a button in her left hand. I do not believe it was hers."

She had been born nine years after the 17th January and never knew the state that was destroyed in it. She entered the Jakaar's Office as a junior clerk, became Oriel Marne's chief of staff in 1345, found Marne dead at her desk in 1353 and stayed on under Marne's successor, who was sixteen. She cooked, and the whole office ate at her table on Fridays. She kept a jar on her desk of the buttons other people lost in the corridors, each labelled with the date and the room, and returned them to their owners with great ceremony and no explanation.

In June 1358 Malakor Vane went on leave. He never resigned. The instrument that granted it, drawn by the Department of Trial and signed in his hand, named the chief of his office to act in his absence and reserved to the Jakaar in person the declaring and the ending of war. His term would have run out in 1361. Solenne held no elections in wartime, and no clause existed to end the term otherwise, so for seven years a man on a moon was head of state and a woman in the capital signed for him. Every paper she issued carried the same formula at the foot, For the Jakaar, on leave. She never sat in the Jakaar's chair. The Syndicate's old hall had kept a thirteenth chair empty for something that was not a person, and she had read none of that history.

She governed for the public because she had never been meant to govern at all. Earlier Jakaars had been chosen for loyalty, and she had been chosen for being near. She answered petitions in her own hand and kept the regional pools honest. After the first month she stopped reading the Department-Y reports, which went into a cabinet whose key she wore on her own ring. She hoped to hand the office back and dreaded the day she would have to, and he never wrote.

In 1359 DS-HP issued the assessment signed by Dr Ruvane Achterberg. It said the planet could keep one off-world effort alive and not two, and it recommended restraint. Quillon asked for the working papers, found the sum on page nineteen and pencilled in the margin that restraint meant choosing one. Solenne was the one with rockets on the pad. In 1360 she wrote once to Philomena Dragunova, offering Safemoon recognition of its walls if it stood its pads down. She meant it as a mercy. Dragunova had it read aloud in cabinet and filed it.

The government fell in 1365 with Malakor still on leave, and she died the same year. The register gives her title as Acting Jakaar.

The office told one more story about her, and told it better each year. A man in a river town had written forty times about a goat requisitioned for a troop train. His letters had gone, as all such letters went, into the pile marked livestock. She answered the forty-first herself, in her own hand, after the quartermaster found the goat in a siding two hundred kilometres away, eating the upholstery of a staff carriage. It went home on the Thursday mail van with a cancelled requisition receipt pinned to its collar, a little thinner and entirely unrepentant.

Marshal Valentin Crake

Solenne, 1318 to 1365 AE, Marshal, field commander in the Turncoat War.

Between 1356 and his death Valentin Crake sent the same request to the Jakaar's office and then to the Observer's, numbering each one in case its predecessor had been lost. It ran to a sentence. Cease fire. The replies, in order, were these. Spring 1356: thanks for the memorandum, with the winter boot schedule enclosed, four thousand pairs. Autumn 1356: boots, resoled, delivery by rail. Early 1357: forage for the horse lines and a query about a missing crate of boot-blacking. Late 1357: boots. Winter 1358, from Aurelia Quillon, who could sign an Accord and could not sign a peace: a letter that apologised on every page and was about nothing else. Spring 1360, from the supply office: regret that the last consignment had come without laces, and laces to follow. He wrote in the margin, Good, we may now advance tied. It was the only reply in nine years that he kept pinned over his desk.

He was born the year Corwin Aubade left office and joined the army Aubade built. At thirteen he was among the boys of Imre Sallow's last two intakes at the military preparatory school. Sallow died in 1331. Crake spent the rest of his life applying what he learned there. A plan is walked backwards from its objective, and the objective is asked what it will look like when you reach it. Sallow's standing example was the Talona plan, drafted by Aubade, which had begun at the harbour and never asked where the leaders slept.

He was in his mid-thirties in 1354, a Marshal by title and field commander of the Turncoat War by appointment, and he reached Numaria with a doctrine that told him to find what the enemy could not afford to lose. PUSDR had depots and he hit them. Vessek had no factory and no uniform, and the doctrine had nothing to take hold of. He carried out the orders for the interception of crewed launches as they were written, though he thought them a poor use of his staff. Of Cassius Altyr, his adversary, he kept the captured orders in a biscuit tin in date order and read the newest first. They were getting shorter. By the last year most of them fitted on a card, and he caught himself answering them in his head in the same number of words.

The leave notice reached him in a requisitioned grain store outside a Bavarian town, on a wet evening in 1358, from a signals lieutenant who had read it twice in the corridor. Crake thanked him for reading it twice, folded the flimsy in half and in half again, and asked for the ammunition returns at six. That autumn he drafted an armistice and sent it twice to Typhon. No answer came. He stayed in command on the Numarian line, where nothing happened for seven years and nobody was allowed to say that it was over.

He was dead before 1365 ended, and the record names no place and no cause. On the line they remembered the concertina. He played it badly, three tunes in the same order each evening, every one of them missing the same note, and he called it the army's only offensive weapon.

45 The Alliances and the Turncoat War

The coalition that fought Solenne was a set of bargains between governments that distrusted each other. These are the people who made them, broke them and, in two cases, signed the accord that ended the world they had known.

Zarko Altyr

PUSDR, 1281 to 1352 AE, head of state of the Peoples' Union of Socialist Democratic Republics from 1311.

Zarko Altyr sat down to more state dinners than anyone has troubled to count, and at every one of them he finished first, asked for the dish again before the guests had found their forks, and left the hall by a door he had chosen before he entered it. The appetite and the door both came from the Provost's cellars. He was taken at sixteen for carrying messages between two resistance cells and kept there, on a ration that Provost-General Thalheim, who visited once to ask whether the prisoners were getting their potatoes, considered adequate, until the Great Revolution opened the doors in 1300.

He came out thin, an Altyr man from the agrarian half of the old treaty, and stayed hungry for the remaining fifty-two years of his life. The revolution used him well. He served as a staff officer under Yaroslava Tenchova, who commanded it, read Salvador Reyes and turned down the title that her success offered, and when she died in 1311 Zarko took her place at the head of the Union. Zinaida Dimikrova, the first President, did not contest it, and her friendships among the scientists of Xue Lin went with her, since neither Zarko nor his son thought to renew them.

He was good at the work. He read his reports with a pencil in one hand and a pear in the other, and was said to have forgiven more mistakes at breakfast than the Council punished all day. The Union under him was fed and stayed out of its neighbours' wars by paying for other people's, as when it backed Nam Minh against Chicano States in 1319.

Cassius was born in 1329, when his father was forty-eight, and the household came to be arranged around a nursery. The boy flinched at the guard's drill and gave his supper to whoever stood nearest. Zarko had the drill moved to the far court and a second supper sent up after the first, and never asked where the first had gone. Across the Savoran water Farren Vane was bringing up his sons the other way. Zarko had sat in a cellar and meant the boy never to.

The founders of the Union had come out of the cells in red and grey and wore them to Council for the rest of their lives. Zarko, a socialist of thirty years' standing, devised a court dress of maroon wool trimmed in gold, took its manners from the household of the old Taran kingdom, issued it to his guard and his officers and had it cut small for his son. The old comrades made the same joke about it every winter and he laughed loudest.

The first dinner in the maroon hall at Kargopol was held in the winter of 1334. That morning the tailors had pinned Cassius, aged five, on a stool, and Zarko, standing by the bolt of madder-dyed wool and turning the gold braid between two fingers, had been asked whether the boy should have the gold at the cuff. "At the cuff," he said. "Let him learn what it weighs." An old sergeant of Tenchova's, told to attend in his red and grey, left before the pinning was done. The dinner had nine courses. Zarko took the first three in public and with great attention, praised the cook by name, and at the fourth, a dish of river fish, reached for the bread basket as a man reaches for a cuff link, took two rolls and put them inside his coat. The envoy from Nam Minh on his left was busy admiring the lamb. Cassius saw it from the end of the table, where he had been put on two cushions with a fork of his own. He looked at the coat, looked at his father's face and went on with his fish. It was the first lesson of his life in how the Union was run, and he learned it perfectly.

The rolls went into the coat for eighteen more years. He died in the spring of 1352, loved by a good many people who had spent years afraid of him, and since he had wasted in his last winter the tailors were sent for to take in the maroon coat for the burial. They found eleven heels of bread sewn flat into the lining, the oldest as hard as roof slate.

Konrad Vesterhaus

Safemoon, 1262 to 1331 AE, founder of the Moonhaven Spaceflight Authority in 1303.

What does a child carry home from school? Konrad Vesterhaus thought he knew, and in the spring of 1308 he went to a Moonhaven schoolroom to prove it. The textbook committee met there because the desks were already in place, and the draft of the primary reader lay open on the master's table beside a jar of chalk. He read the sentence aloud in a flat voice. "Sanctuary I carried the first national crew to leave Aridexia on a national booster." Then he said, "Too long." He took the pencil from behind his ear, struck the line and wrote above it: the first two Aridexians to leave their planet.

The oldest teacher on the committee, who had taught ten-year-olds for forty years and sat on a front-row desk with her feet not reaching the floor, remarked that Anestria had flown a capsule in 1265 and that DS-HP had put a crew on Lira in 1288. "They will say it at eight years old with their hands behind their backs," said Vesterhaus. "A child can carry a short line home. She cannot carry the long one across a yard." The teacher asked what became of the clause about the booster. "It goes in the teacher's notes," he said. He left Marrenkov's own words on the facing page alone. Those had been recorded as spoken, and he had no pencil that reached that far.

The man doing the trimming was a civil engineer who had been forty-one in 1303, when a frightened nation asked him to build something that was not a wall. He disliked the commission and carried it out with great thoroughness. He was also afraid of heights. In a career that included three launch towers he never climbed one, and sent his deputy up with a clipboard to report on the view.

He knew what the back of a room looked like. In the mid 1280s he sat as a junior delegate for Safemoon on the committee that governed seats at the Deep Space Human Preservation body, met Hadrian Obell across a table and lost an argument. Obell's charter weighted seats by funding, Safemoon paid little and sat at the back, and Vesterhaus pointed out that a rule meant to save the species would ration the saving by who could pay. A wager with Obell at the 1286 assembly left him a silver spoon, which went into the drawer of his tracking-station desk and stayed there. Obell died in 1287. The landing on Lira followed in 1288 under the DS-HP flag, with a crew drawn from the large funders and none from Safemoon, and Vesterhaus read its telemetry from that desk and resolved that his country would not again watch the sky from the back of the room.

After the Third War, with the fall of Eisenreich leaving PUSDR on three sides of his country, he founded the Moonhaven Spaceflight Authority and kept it inside the civil defence budget for two years, because he feared the word luxury more than he feared Kargopol. He bought tracking time from Bavaria, where Hedda Vorsteen's Concession Board sold to whoever held the sea lanes. She charged the full rate, and he is said to have called her the only supplier who never pretended to like Safemoon. Every system he built was doubled or tripled and every abort mode was drilled until it bored the crews. Two uncrewed flights in 1304 and 1305 came home, Operation Fenwick

was fought in the year of the second, and in 1307 Sanctuary I carried Ilsa Marrenkov and Dorian Vask to Lira and back.

The short line took, as the omission Ilvane Aldmere's historians made had taken thirteen centuries earlier. Philomena Dragunova, born the year before the flight, met it in her first form and never met the longer one. Vesterhaus died in 1331, aged sixty-nine.

He had watched the launch of Sanctuary I from the cellar of the tracking station, since the cellar had no windows, and it was remarked at the time that his readings from down there were the steadiest of the night.

Philomena Dragunova

Safemoon, 1306 to 1366 AE, President from 1346 to 1366.

In the spring of 1319 the Chicano army drove Safemoon back to Moonhaven, and Philomena Dragunova, thirteen years old, spent the siege in the last defences of the capital carrying water and, as the weeks went on, other things. Her mother had put up cabbage in the autumn for no better reason than that the barrel was empty, and that barrel fed the street for most of the siege. She remembered two things from it and told them in the same breath for the rest of her life. One was the sound of the walls being used. The other was that raw pickled cabbage, eaten out of the barrel in the dark, was the best thing she had ever tasted. She held both against the Chicano army with equal fury.

She was taught from Konrad Vesterhaus's schoolroom text and had the line about the first two Aridexians by heart before she could have said where she learned it. At forty she became President, and the first thing the cabinet learned about her was how she went through a grain store. She walked the silos with a wooden spoon, tapping the sacks. The Ministry of Supply told afterwards of a deputy minister who reported the east silo full and was invited to climb into it. He was in it to the knees. She extended Vesterhaus's rule of redundancy to everything the state touched, the water, the reserve pads, the heavy hardware that the rest of the continent thought absurd, and Safemoon, which had always spent more on walls than on offence, spent more still. Every autumn she put up preserves in the presidential kitchen, and let it be known that any minister who thought this undignified was welcome to explain it to the winter.

In 1351 Solenne's Department of Defensive Logistics, then answering to Oriel Marne, opened talks with Chicano States on a Typhon survey concession. It was a small gesture by a government still run by Farren Vane's network, and it was meant as a courtesy. She read it as a bribe aimed at her walls. The nation that had burned the Ashfields and besieged Moonhaven was being offered the ground where the future would be settled. Safemoon left UARRO that year. Two years later Malakor Vane took office and made the offer a policy, and when the Turncoat War came she sat in the VAPIK coalition with PUSDR, Vessek, the Yeshuren Union and Nam Minh. In 1357 she

received Isador Reyes, a descendant of the First Marshal, in the city his country's army had besieged. The minutes record that she shook his hand and that neither of them spoke of the Ashfields.

In late 1359 she heard on the radio, like everyone else, that her coalition's ally had signed the Threshold Accord, and that Chicano States now stood among the four who would shoot at her launches. Solenne had already shot VAPIK crews out of the sky in the war, and the Accord made the practice a doctrine. In 1360 Aurelia Quillon wrote to her once, in the name of the absent Jakaar, offering Safemoon recognition of its walls if it stood its pads down. The Finance Minister wanted to accept. Dragunova had the letter read aloud, then took it from the clerk and read it again herself, a paragraph at a time, with comments. "Recognition of our walls," she said. "How handsome of her, to recognise a thing we built." Of the offer of mutual respect she said that it came from a woman signing for a man who had left. The Finance Minister said that the pads cost more than the schools. She agreed that they did. "A nation that closes its pads has agreed that its future belongs to others," she said, "and I will not sign that. Tell me, since you are so good with figures, how many jars the winter needs." He did not know. She told him. The letter was filed.

She sent her crews up the one road where no wall could follow and attended every launch. On the night of the fourth crewed launch since the Accord, the second to be lost, she stood behind the tracking officer's chair in the control room cut into the hill, as she had stood for the others. At two hundred and twelve seconds he said, "Loss of track," and after the pause the procedure required, "Loss of signal." She drank the cold tea someone had left on the console. She asked for the crew's names to be read again and wrote them herself in the black book she kept for launches, in pencil, under the names of the earlier crews. "Do we hold the next?" the officer asked. "We hold nothing," said Dragunova. "We have been holding since before I was born. Set the date." She put the book in her coat.

Safemoon's government fell in 1366 and she died the same year, aged sixty. In the cellar under the President's house the preserves stand in rows by year, plums and beetroot and the green tomatoes nobody liked, each jar labelled in her hand. The last label reads 1366.

Rodrigo Valcazar

Constitutional Anestrian Republic, 1311 to 1365 AE, President.

The hat for the occasion was the grey one with the narrow ribbon, and Rodrigo Valcazar wore it to the cistern at Tamarit because a ruling given bareheaded, he held, was only an opinion. The dispute was over water, as most were. Four brothers shared a plot below the cistern and a right to eleven hours of its flow, and the eldest had sold six of those hours to a neighbour for a harmonium, signing in the name of all four while the other three were at a funeral. Valcazar heard the case standing, since the court's one bench had been taken by the neighbour's mother. He found for the brothers in a ruling that the oases still quote for its puns: that the eldest had sold what he did not own and bought what would not carry him, that a signature is a bridge and no man should be marched over one blindfold, and that no man is bound by a name he did not sign. The brothers wept. The neighbour kept the harmonium and gave back the water.

He owned eleven hats, apologised to furniture and made puns the way other men clear their throats. The court at the capital stood at the top of a hundred and twelve stairs, and he had counted every one on his first morning and announced the total each morning since, to the clerks' lasting weariness. The habit of counting was old. As a small boy he was taught arithmetic by Idalia Quimbaya, a friend of his mother's family, who showed him how a column is carried. She died in 1319, when he was eight, and her private tally of the dead of 17 and 18 January 1300 was published afterwards as the Quimbaya Count. He read it as an adult and took from it that nothing uncounted is believed. He counted votes, seals and signatures.

He rose through the Oasis Courts to the bench and was elected President of the Constitutional Anestrian Republic in the 1350s. The Republic kept the old tricolour, the roundel and the sand-tan uniform, and claimed succession from the Republic whose last President-in-Council, Marisol Velarde, had ordered the marines to execute the officials left in the USN's capital. His claim rested on a chain of papers, Velarde's last orders, the Council's seal and the archive of the oasis courts, and his Republic had kept all of them. The four other successors, the Kingdom of Antares, the Federated States of Imperium, New Virgen and the Antilla-Vegan Union, had kept only soldiers, and each would have disputed his claim over any table in the world.

He signed the Threshold Accord in the late autumn of 1359, in a hall the surviving copies do not name. Aurelia Quillon had signed before him, in the name of a Jakaar who was not in the room, and her pen had left a dry smear on the first line. Torvik Drenmoor was reading the clauses a third time. Valcazar asked the Solennese clerk whether the text could say Anestria and its successor states. The clerk answered that the text said Anestria. "Then it says Anestria," said Valcazar, and uncapped his pen. He had a speech ready for the question that would follow, which was whether he held authority from Antares, Imperium, New Virgen or the Antilla-Vegan Union, and he kept it ready through the whole of the signing. He wrote his full name and the title of his office, the ink slow, and blew on it like a schoolboy and handed the paper back. The clerk thanked him for his time. Nobody asked the question.

The four successors never recognised the signature. Bavaria and Pechoria, each following its own old rule, armed separatist movements inside the patchwork, and the separatist wars of 1361 to 1363 were fought against his signature in the name of the four. He held the CAR capital until the successor governments fell in 1365. In the last winter the court heard no cases at all. He climbed the hundred and twelve stairs each morning in a hat, sat down, and counted them again on the way out.

He died in 1365, aged fifty-four.

Dr Ruvane Achterberg

DS-HP, 1317 to 1363 AE, author of the 1359 resource assessment.

The report ran to twenty-two pages and the appendix to thirty-one. That was Ruvane Achterberg's usual proportion, and her colleagues at DS-HP had stopped objecting to it by the time she was thirty. Every figure she gave came with a debt attached: where it came from, what it assumed, what it left out and who would be hurt if it were wrong. She did the Christonian crossword in ink at breakfast, called the clues down the stairs to her three children, and cycled to headquarters in all weathers with her trouser legs clipped. She had taught the youngest to read from a table of tax bands and was apologetic about it afterwards. Colleagues said she explained a joke before telling it, to be fair to the audience.

She was a systems accountant from the Christonian interior who joined the Deep Space Human Preservation body at twenty-four, in 1341, the year the first settlers reached Typhon. She audited propellant stocks, counted drums in sheds and loved the institution for its slowness. She liked its committees, its tea urn and the long afternoons in which nothing was decided, because nothing decided was nothing she would have to correct. She had read the charter Hadrian Obell drew in 1265, his 1280 note putting the thin Typhon ore down to sampling error, the printed tables of Marguerite Odalric's Convergence Hypothesis, which listed the evidence against their author's own case, and Nerys Marl's story, which every analyst of her generation knew. She took one rule from the four of them, which was to print the assumption that hurts you.

In 1359 she was given the question DS-HP could no longer put off. How much of Aridexia's remaining launch-grade propellant, precision alloy and fissile material could be committed to an effort off the planet, and how many such efforts could the total bear? Her answer was one. A second programme would draw on the first's margin, fail on its own account and bring the first down with it. She did not know that Malakor Vane had reached the same figure years before and built a war around it, nor how far his hand had been inside the body she served.

The summary page was the last written. She used the word restraint, initialled the page and, alone among the pages of the assessment, left off her full name. A younger colleague named Tobiah caught her at the bicycle rack the next evening, one clip on and one off, and asked what

restraint meant. "It means one," she said. "It is on page nineteen." He asked why she had not simply written one. She said that then the next question would be which, and which was a question for people who choose. DS-HP counted.

Appendix C was headed Assumptions, and reasons I may be wrong, and it runs to eleven items. Item one says that the propellant figures come from the 1357 stock audit, which she carried out in person, "and I may have miscounted the drums in the east shed, which had no light and a floor I did not trust." Item two says that the fissile estimates assume no new source is found: "If one is found, this document is wrong and I shall be delighted." Item three says that the 1357 recovery rates are assumed to hold, "and I have a feeling about the east refinery that I cannot put in a table." Item four says: "I have excluded the reserves of the Anestrian successor governments because I was not permitted to count them. This is a reason and I do not offer it as a justification." Item six says: "Three refineries gave me recovery rates for precision alloy. All three gave the same rate to one decimal place. I have used it and I do not believe it." Item nine says: "I have assumed that a second programme would be badly run. If it were well run it would fail more slowly." Item ten says: "The summary uses the word restraint. I wanted to write a number. I was advised that a number would be read as a recommendation. It will be read as one anyway."

The four signatories of the Threshold Accord read her tables with more care than she had hoped. Aurelia Quillon asked for the working papers, found page nineteen, pencilled in the margin that restraint meant choosing one, and signed anyway. The assessment recommended restraint, and four nations enforced it by shooting launches down. Achterberg was forty-six when she died in 1363, in the first bombing of the DS-HP headquarters on Aridexia. The attack was never attributed. The revised tables she had been preparing did not survive.

Appendix C did. Its eleventh item stands on a line by itself: "Please check my sums."

Part I. Typhon

CHAPTER 46 · THE PEOPLE

46
Typhon

On the green moon, two councils, one buried answer and a man who had come to watch. These are the last people in the record.

Daro Quint

Solenne, born 1331 AE, died after 1371 AE, protocol subject and companion of Malakor Vane.

"They're the cook's," said Daro Quint. "He plays the coal man for his Sundays with them."

It was the winter of 1347, in the kitchen of the Vane house after the cook had gone up to bed. Malakor was ten and had lost nothing to anybody in that house for as long as there had been a house, and was beginning to find it dull. He rolled the cook's dice once, for himself. Then Quint rolled them three times running and took the boy's stake, a brass button off his father's dress coat. Malakor picked the dice up, weighed them in his palm and rolled one by his ear. "They have a note," he said. "One side rings." He looked at Quint with great interest and no anger. "You knew." "I grew up on a pavement," said Quint. The boy pushed the button back across the table with one finger. "Keep it," he said, and went on studying the dice as if they were a lock he had been handed the key to. Quint pocketed the button and whistled a sparrow's alarm through his teeth, which was what he did when he had nothing to say.

The story comes from the cook, who told it to the fifth person who asked, and in the cook's version the dice were honest. Quint did not write it in the notebook. Isaure Rook had told him to write down what he saw, and for twenty-five years he wrote down what Malakor did and left out what Malakor was given.

He had been born in 1331 to a mother the record does not name, on the streets of Solenne's capital, and was taken at nine, in the winter after Vaussen Vane's score of 172, when Farren Vane authorised the collectors of Department-Y to widen the pool. The protocol did to him what it did to the others and less than it did to Malakor. His results were ordinary. Rook, who kept the subjects' files with a care no other adult gave them, put him aside as a comparison and later found a use for him. In 1346 she placed him in the Vane house as the youngest son's companion, six years older than the boy.

He stayed. In 1353, when Malakor became Jakaar, he might have left, and in 1358, when the war stalled, he might have left again, and he gave no reason either time. Three explanations circulated. He had watched Malakor take the sympathy drug and refuse it afterwards, and may have stayed to see what a person did once nothing was holding him back. Rook signed Malakor's manifest for Typhon in 1358 and wrote Quint onto it as staff, which the file reads as either the last act of custody or the one kindness in it. He went. From 1358 to 1371 he lived in the Observer's household in the Hearthlands, took no council seat, belonged to no side and kept the Observer's papers. Almost all that is known of Malakor on Typhon comes through him, second hand, and from a handful of things he said to other people.

In 1369 he walked the last four kilometres to the Farside camp, because the vehicle would not take the slope. He had the Observer's approval of the survey grant in his coat. A woman with a board of core samples under her arm came out of a tent to meet him. "What does he want from it?" Neve Anquetil asked. Quint thought about it for some time. "He wants to know what is there," he said. "He always has." On the walk back he whistled a sparrow, a bird the moon did not have.

Of Quint after 1371 the record has nothing. The papers he kept were found in the Observer's study, in order and tied in three bundles, and on the top bundle lay a pair of dice with one corner worn round.

Ione Tessarine

Typhon (Ardekai), born 1322 AE, founder of the Ardekai settlement council.

"Behind the bride," said the bride's aunt, "is the Pelruvian flag, and it goes where it has always gone."

"Behind the groom," said the groom's brother, "is a bare wall, and that is where it has always gone."

It was the spring of 1368, in the hall, with the stew at the stage where it needed stirring and two councils' worth of relatives glaring across the benches. The bride, Mirela Dasko, was Ardekai and from the islands. The groom, Tobin Varga, was Ospyran of the east ridge block. It was the first marriage between the two since the quarrel began, in the third year of a war. Ione Tessarine stood between them with a wooden spoon in one hand and the registry pen in the other. Tobin took from his pocket a strip of cloth in his block's colour, plain as a bandage. She looked at the strip and at the flag. She took both to the kitchen hatch, borrowed the cook's needle, which was her own, and sewed the strip into the hem of the Pelruvian flag along the bottom edge, where only someone who knew would find it. She hung the flag behind the pair. Both families saw what they came to see. Then she entered the marriage in her book, and in the column for origins, where for twenty-seven years every settler had given one nation and one town, she wrote two

places on a single line.

She had been born in 1322 in the Pelruvian Islands, to four generations of ledger-keepers, and was nineteen when the first wave reached the Hearthlands in 1341, with three boxes of paper in her luggage allowance. The first thing she did on Typhon was ask where the registry was. There was none. She built it. By the middle of the 1340s she was registrar, in charge of the book of births and arrivals, the land claims and a ledger of origins, and the colony called it the Archive. It grew to hold a flag from every country its people had come from, sewn from ship's cloth and hung on the long wall of the hall.

She also ran the hall kitchen, because the hall was where people came and nobody argues well hungry. She was hopeless with money, and the registry owed the kitchen for most of two decades while the kitchen owed the registry. By her own count she had matched forty-one couples before the quarrel, and she treated the quarrel as a matchmaking problem.

When the argument over what Typhon should be came into the open in 1360, she answered it in a sentence: the nations, the flags and the histories did not stop mattering because the ground had changed. She kept the word Ardekai, the old formal word for human, unchanged and worn on purpose, and gave her side its name by declining to change one. A colony that carried forward everything it had been, she told Caspar Vale-Orrin, would carry its wars with its furniture. She went on carrying, and in 1361 shut his old name in a sealed volume rather than strike it.

From 1365 the governments she had listed began to go silent. She kept a ledger in the radio hall in which she wrote the last transmission received from each, and sat with it through a night late in 1366 while the night operator read out call signs. The operator asked why she wrote them down, since they would not come back. "Somebody should know which of them stopped first," she said. "And Solenne?" "A year ago." "And the Observer?" "He knows. He has not asked for the ledger."

Her council argued that the land claims Malakor Vane held in escrow, promised to the nations that had taken his bribes, passed on their fall to the Ardekai as heirs. The Ospyran council argued that they lapsed with the governments. Malakor, who took no council seat, declined to say which was right, and both councils claimed the same ground. After the skull was found in 1371 she visited the site within the year, as most people did. Her word took on a meaning she had not intended. Ardekai had always meant only human, and now it also meant the ones who came back.

The last flag she sewed was Pechoria's, for a Pechorian family who had joined late and carried nothing but the child. She cut it from the curtain over the kitchen hatch. The cook complained of the draught until the spring.

Caspar Vale-Orrin

Typhon (Ospyran), born 1319 AE, founder of the Ospyran settlement council.

Caspar Vale-Orrin told the story of his name at parties, and he told it three ways. Dilys Maro, who fitted pipes in his crew for nine years and ate her lunch standing up because he did, gave the versions as she had them.

"Spanner," she said. "First time was a christening. He said he was named after the best torque spanner in Vessek, which his father had carried out of a mine on his back, and Orrin was what the miners called it. I believed it for a month because he showed me the spanner. Second time was a wedding, and a dead uncle called Orrin, a drover who went off a bridge. The third time he was sober, and he looked at his hands and said it was in a box." She wiped her fingers on her apron. "He hated being thanked. Give him a job well done and he'd tell you where you had left a thread. I have the spanner. It is a good spanner. I have never asked him whether it is the one."

The registry holds some of the rest. He was born in 1319 in the lower settlements of Vessek, in the second year of the Reclamation War, in a mining town Chicano States had taken in the first months, and his family left it on a road with a cart. He arrived on Typhon at twenty-two in the first wave of 1341, and his birth name is not in the record. He had it removed from the open register in 1361. Ione Tessarine would not strike anything from her book, so he asked her to put it in a box and not read it to him, and she folded it into a sealed volume. The name he took was Orrin, after Orrin Kelvath, who burned his own hold in 811, and Vale he added from the valleys. His family had always said they were kin of Kelvath. The record neither confirms nor denies it, and he confirmed nothing.

He gave his faction its word. When Tessarine kept Ardekai he chose Ospyran, after Osprey, the world itself. No flags hung in the halls of his council, and within a few seasons the blocks were wearing strips of cloth in their own colours, a custom from the valleys he called practical. In six years his followers went from a handful of colonists to a rival government. He haggled with the Observer over the escrow like every other councillor and got nothing.

In 1371 he allowed Ospyran researchers onto the Farside team and went out to the dig himself. He stood at the edge of the excavation with his hands in his coat. In the right-hand pocket was a strip of cloth, faded, in the colour of a valley no one on that moon had seen.

Dr Neve Anquetil

Typhon, born 1334 AE, lead of the Farside excavation.

What was a table of measurements doing in the back of a book that argued against it? Neve Anquetil put the question to herself at university, in the Convergence Hypothesis of Marguerite Odalric, and it stayed with her. The table, in an appendix, listed without comment a set of features in the earliest Ardekai remains that no native primate shared. Odalric had printed the evidence for the position she mocked. Anquetil, who was loud about most things, kept her conclusion to herself, since in her profession an arrival theorist was an insult, and she was privately and with caution one.

She was broad, bluff and a fluent swearer. She named her tools: the rock hammer was Gerald, the headlamp was the Dowager and the survey pump, which never worked, was Optimism. She never learned to pair socks and saw no reason to start. She ate hard sausage in the dark with her gloves on, and had loved caves since she was small enough to be lost in one.

At twenty-four she left Aridexia, in 1358, for the moon where a different biology might be compared, and joined what remained of the Typhon Astrobiology Programme that Hadrian Obell had created. The field staff, folded into the colonial administration, still kept their old objections on record. In its archive she read Obell's 1280 note putting the thin ore down to sampling error, and found the same phrase in the colonial geologists' reports sixty years on. She said later that she had never met a mistake so long-lived. Was it a mistake, or an answer nobody was ready for? She did not say. If the arrival theorists were right, the species had destroyed one civilisation already and come back to the ground it had destroyed it on. If they were wrong, she had given her working life to a mockery. She slept well either way, which annoyed her, and went on drawing strata.

In 1369 a man walked up the last four kilometres to her camp with the Observer's approval of the Farside Reach survey grant. The survey it paid for found the cave. She did not know what the Observer wanted from the ground, and she never asked him.

The call came in 1371 from a foreman at the flooded cave on the margin of the Reach. She went down in waders that had belonged to a taller man and filled at the knee, through water to the waist and so cold it burned, behind the swing of his lamp. Calcite hung from the roof like wet cloth and copper showed green where the light caught it. Halfway along she dropped her own lamp into the water, fished it out by its strap and said to the foreman, "Don't tell anyone." He agreed with such gravity that it was clear he would tell everyone. In an air pocket the survey had almost skipped, on a shelf of stone, lay the skull. It was heavier in the brow than any she had held in a drawer, and its dome was high. It looked modern, and it looked old. "Is it one of ours?" the foreman asked. She stood a long time. "I don't know whose it is," she said. "Stop the pumps. Nobody speaks of this above ground until I have said so." Then she took out the camera and found her hands shook too much to hold it. For an hour she did not photograph the skull. She ate her sausage and looked. She said afterwards that it was the only meal she had ever eaten in front

of so old a guest without offering him any.

She then took months. She had the analysis run, and run again, by Ardekai and Ospyran specialists in turn, and delayed the announcement while Ione Tessarine and Caspar Vale-Orrin each came to her door and asked for the result. She told each of them the same: not yet. A wrong answer announced early would lose the argument in public for whoever gave it, and she said she was waiting for her own certainty. Those who worked beside her said she was waiting for the day neither side could be first. The pump, Optimism, was repaired twice that winter and failed three times, and she took this as a form of loyalty. When the result was finally given, Tessarine fed her two helpings in the hall kitchen and she slept for fourteen hours.

The unsigned field note in the excavation log, which says the colonists were the ones who came back and forgot, has been credited to at least four members of the joint team. She is one of them. Asked about it in 1371, she said she had once signed a lunch bag and nothing else, and could not stand over any of her sentences about the cave.

APPENDICES

The Reference Matter

APPENDIX A

The Planetary System Dossier

Master Physics Table

All gravitational quantities use G = 6.67430 × 10^{-11} $m^3 \cdot kg^{-1} \cdot s^{-2}$. Where v1 had numerical conflicts, mass and radius are canonical, surface gravity and escape velocity are derived. Sidereal rotation periods and axial tilts are new for v2.

Body	Mass (kg)	Radius (km)	g (m/s^2)	ve (km/s)	Sidereal day	Tilt
Solis	2.050×10^{30}	704,000	276.07	623.46	24.2 d	7.1°
Aridexia	5.970×10^{24}	6,371	9.817	11.184	23h 56m	23.5°
Osprey	8.060×10^{24}	7,645	9.204	11.863	31h 12m	11.4°
Keplum	5.850×10^{24}	11,460	2.973	8.255	47h 06m	3.2°
Orjust	8.361×10^{23}	3,380	4.885	5.746	26h 18m	18.7°
Anquilla	4.300×10^{24}	5,734	8.729	10.005	30.1 d*	0.9°
Keplanus	1.5204×10^{27}	63,710	25.000	56.440	11h 04m	3.8°
Glocius	1.6657×10^{25}	8,282	16.208	16.385	58h 22m	5.4°

* Anquilla is in a 3:2 spin-orbit resonance with Solis, similar to Mercury, the day length is locked to its year.

Orbital Elements

Body	a (AU)	Period	e	i (°)	SOI (km)
Aridexia	1.000	365.25 d	0.017	0.00	925,000
Osprey	1.100	425.0 d	0.044	1.32	1,180,000
Keplum	1.600	980.4 d	0.061	2.18	2,100,000
Orjust	0.380	84.6 d	0.142	4.90	168,000
Anquilla	0.600	210.0 d	0.024	0.71	612,000
Keplanus	5.200	11,870 d	0.058	1.04	78,400,000
Glocius	9.450	29,200 d	0.089	6.70	21,800,000

SOI = Sphere of Influence, computed via the standard patched-conics approximation a·(M_p / M_*)^(2/5).

Solis, G2V, the Active Sun

Stellar Profile

Spectral class	G2V (chromospherically active)
Mass	1.03 Msolar (2.05×10^{30} kg)
Radius	1.01 Rsolar (704,000 km)
Luminosity	1.12 Lsolar
Effective temp.	5,820 K
Surface gravity	276 m/s² (log g ≈ 4.44)
Rotation (equator)	24.2 days
Differential rot.	Pole 31.4 d, equator 24.2 d
Magnetic cycle	9.7-year sunspot cycle (in-universe Schwabe analogue)
Mean surface field	0.55 G (twice solar)
Solar wind speed	400 to 750 km/s (slow/fast streams)
X-class flare rate	0.7 to 1.3 / month at solar maximum
Conservative HZ	0.95, 1.50 AU
Optimistic HZ	0.78, 1.78 AU
Age	≈ 4.6 Ga
Composition (X/Y/Z)	0.71 / 0.276 / 0.014

Why Solis Is Not the Sun

Solis sits firmly within the G2V box but runs hot inside it. Its luminosity is 12% above solar, its rotation is faster than the Sun's 25.4-day equatorial period, and its mean surface magnetic field is roughly twice Earth-normal. The consequence is a flare environment that any spacefaring civilization must engineer around, not occasionally, but constantly.

The 0.7 to 1.3 X-class flares per month figure compares to roughly 10 per year for the modern Sun and ~50/year at solar maximum. Solis is not catastrophically active, that would put it among the BY Draconis stars, but it is unmistakably young-active, comparable to estimates of the Sun at ~2 Ga. Stellar evolution models suggest Solis will quiet to near-solar activity over the next 0.5 to 1 Ga.

Space Weather Regimes

Regime	Cadence	Particle env.	Operational impact
Quiet	~60% of cycle	10^2 pfu (>10 MeV)	Routine ops, daily comms uninterrupted
Active	~30% of cycle	10^3–10^4 pfu	EVA restrictions inside 1.5 AU, relay lag
Storm (X-class)	8 to 15/yr peak	10^5 pfu, hours-days	EVA halt, HF blackouts, SEP shielding required
Superflare	~1 per 200 yr	10^7 pfu	System-wide GIC events, satellite losses likely

Heliosphere &, Magnetospheric Reach

The Solis heliopause sits at approximately 142 AU sunward, 88 AU tailward, slightly larger than Sol's due to higher mass-loss rate. The current sheet (in-universe "Rajan Sheet", after the cartographer who first mapped it) tilts at up to 78° during solar maximum, sweeping high-latitude plasma into the ecliptic and producing aurorae on every magnetized body in the system, including Glocius.

> ***Mission implication:*** *Any human-rated craft beyond Aridexia's magnetosphere requires either (a) a polyethylene-water-shell shelter rated for 10^5 pfu, or (b) an active magnetic deflector. The L1 "Watchkeeper" network provides 25 to 40 minutes warning for SEP events, the standard go/no-go threshold for crewed transit windows.*

Aridexia, The Baseline World

At a Glance

Orbit	**1.000 AU · 365.25 d · e = 0.017**
Mass / Radius	5.970×10^{24} kg / 6,371 km
Surface gravity	9.817 m/s²
Escape velocity	11.184 km/s
Mean density	5,511 kg/m³
Sidereal day	23h 56m 4s
Axial tilt	23.5°
Atmospheric mass	5.15×10^{18} kg
Surface pressure	101.325 kPa
Scale height	8.5 km
Mean surface temp.	+15 °C
Albedo (Bond)	0.306
Magnetic moment	8.0×10^{22} A·m² (dipole-dominant)
Natural satellites	1 (Lira)

Atmosphere &, Climate

Aridexia's atmosphere is, to within instrument precision, an Earth analogue: 78.08% N_2, 20.95% O_2, 0.93% Ar, 0.041% CO_2, with trace water vapor (0.1 to 4% by volume), methane (1.9 ppm), and noble gases. The troposphere extends to 12 km at the equator and 8 km at the poles, the tropopause cold trap holds at -56 °C, the stratopause at +0 °C, mesopause at -90 °C.

Crucially for aerobraking, the scale height is 8.5 km and the atmosphere effectively ends at 140 km (the Kármán line analogue at 100 km is canonical for licensing astronauts). Standard ICAO-equivalent atmosphere applies for re-entry calculations.

Hydrosphere

71.0% ocean coverage, mean ocean depth 3,682 m, Aridexian Trench (Eastern Hemisphere) reaches 11,034 m at its deepest sounding. Salinity averages 34.7 PSU. Three thermohaline conveyor branches drive global heat transport: the North Aridexian Drift, the Southern Circumpolar Stream, and the Equatorial Counterflow.

Tectonics &, Geology

Active plate tectonics with 7 major plates and 14 minor. Mean crustal thickness 35 km continental / 7 km oceanic. The Eastern Rift, currently spreading at 4.2 cm/yr, will partition the eastern continental block within 30 Ma. Volcanic CO_2 flux ≈ 540 Mt/yr, balanced by carbonate-silicate weathering on 100-kyr timescales.

Biosphere

Estimated 8.7 million eukaryotic species, of which 1.6 million are described. Net primary productivity 104.9 GtC/yr (terrestrial 56.4 + oceanic 48.5). Atmospheric O_2 flux 3.5×10^{13} kg/yr. The biosphere has been continuous for ~3.8 Ga, with five major mass-extinction events on record.

Lira, Aridexia's Moon

Origin	Captured proto-Anquillan body (chemical fingerprints differ from Aridexian mantle)
Semi-major axis	412,000 km
Orbital period	29.84 d (synodic 31.2 d)
Eccentricity	0.058
Inclination (eq.)	5.18°
Radius	1,820 km (0.286 REarth)
Mass	8.4×10^{22} kg (0.0141 MEarth)
Surface gravity	1.69 m/s²
Escape velocity	2.48 km/s
Rotation	Tidally locked (synchronous)
Albedo	0.18 (darker than Luna)
SOI radius	82,400 km

Lira is denser and more iron-rich than would be expected from a giant-impact origin, supporting the canonical capture hypothesis. Surface composition is dominated by anorthositic highlands (60%) and dark, iron-titanium-enriched maria (40%), but the maria here are not basaltic flood plains, they are megaregolith brecciated by an ancient, system-shaping bombardment now dated to 3.9 Ga.

Lira stabilizes Aridexia's axial tilt to within ±1° over Ga timescales. Without Lira, obliquity excursions of 0 to 60° would be possible. The "Lira Pact" in lore protects the moon from large-scale strip mining for this reason.

Atmosphere, Radiation, and Surface Environment

Lira's own escape velocity (2.48 km/s) sits well below the threshold a body needs to hold onto anything heavier than a collisionless trace gas over geologic time, the same physical ceiling that leaves Aridexia's own moon-analogues everywhere in the real universe airless. Lira is no exception:

Surface pressure	**$<10^{-14}$ atm, a true exosphere, not a real atmosphere, individual molecules follow ballistic trajectories rather than colliding with each other**
Exosphere composition	Sodium and potassium (surface sputtering by solar wind and micrometeorite impact), helium-4 and argon-40 (radiogenic decay of crustal uranium/thorium/potassium), trace neon and hydrogen (implanted directly from the solar wind)
Surface gravity	1.69 m/s² (0.172 g)
Surface temperature (subsolar noon)	≈ 380 K (107 °C)
Surface temperature (night)	≈ 100 K (−173 °C)
Background radiation (galactic cosmic rays)	≈ 380 mSv/yr at the surface, chronic, unshielded, present everywhere on the moon at all times
Episodic radiation (solar particle events)	Spikes of 1 to 5 Sv over hours during a major Solis flare event, with no atmosphere or magnetosphere to attenuate any of it, the single most dangerous acute hazard to anyone caught on the surface without shelter during one

With no atmosphere to redistribute heat and no magnetosphere to deflect charged particles, Lira's surface environment is defined entirely by what isn't there to stop anything: the day/night temperature swing above is a direct consequence of nothing existing to carry heat from the sunlit hemisphere to the dark one, and the radiation figures above are what reaches the ground completely unfiltered rather than passing through kilometers of shielding atmosphere first, the way it does on Aridexia itself. Surface installations are built partially or fully regolith-shielded for exactly this reason, a few meters of Lira's own loose surface material stops the overwhelming majority of both the chronic background dose and any given solar particle event.

Locally, the iron-titanium-enriched maria (Section above) run measurably "hotter" on a Geiger counter than the anorthositic highlands, a real, minor secondary radiation source layered on top of the two described above, driven by the same uranium/thorium-bearing mineralogy that makes the maria dense and dark in the first place rather than anything externally sourced. It's a difference workers notice in cumulative dose logs, not a hazard serious enough on its own to keep anyone off the maria entirely.

Notable Lunar Features

- **Mare Concordis**, the largest visible mare, site of the first crewed landing (DSY 12).
- **Promontory Vesh**, a 7-km basalt cliff with permanent shadow at its base, harbors confirmed water ice (≈ 12 wt%).

- **Crater Demeryn**, 78 km, complex central peak, host to the canonical Far-Side Radio Observatory.
- **Sinus Achlys**, small mare on the leading hemisphere, preferred orbital insertion target due to gentle slopes.

Hazards

- Tropical cyclones: 80 to 120 named storms/yr, 2 to 3 reach Cat-4+ intensity.
- Volcanic activity: ~50 active volcanoes, one VEI-5+ event per century on average.
- Solar storm coupling: GIC events of >2,000 nT/min recorded every 11-year cycle.
- Asteroid threat: 2 near-Aridexian objects of >1 km diameter currently tracked, impact probability nominal.

Mission Architecture

Standard LAO (Low Aridexian Orbit) at 200 km requires $\Delta v \approx 9{,}400$ m/s from sea level. Lira return mission Δv budget: 3,260 m/s LAO to Lira injection, 870 m/s Lira capture, 2,400 m/s descent + ascent, 1,050 m/s return. Refueling stations canonically reside at the Aridexia-Lira L1 (61,500 km from Lira).

Osprey, Stormworld with a Habitable Moon

At a Glance

Orbit	**1.100 AU · 425.0 d · e = 0.044**
Mass / Radius	8.060×10^{24} kg / 7,645 km
Surface gravity	9.204 m/s²
Escape velocity	11.863 km/s
Mean density	4,306 kg/m³
Sidereal day	31h 12m
Axial tilt	11.4°
Surface pressure	147 kPa (1.45 atm)
Scale height	9.8 km
Mean temp.	+22 °C (equator), +4 °C (poles)
Atmospheric comp.	N_2 71%, O_2 23%, Ar 0.8%, H_2O 3 to 5%, CO_2 0.05%
Ocean coverage	70.4% (deep basins, mean depth 4,200 m)
Magnetic moment	1.4×10^{23} A·m² (active dynamo)
Natural satellites	1 major (Typhon) + 2 minor (Glaucus, Selache)

The Storm Engine

Osprey's aggressive weather is not a quirk, it is structural. The planet sits 10% farther from Solis than Aridexia but receives only ~83% of its insolation, yet runs warmer at the surface because the atmosphere is 45% denser. Heat capacity is therefore enormous, and once equatorial waters

charge with thermal energy in summer, they release it in storm complexes that can persist for weeks.

The lower axial tilt (11.4°) means seasonal contrast is muted, but the rotation period of 31 hours produces wide Hadley cells extending to 38° latitude, with extreme wind shear at the cell boundaries. The Coriolis-modulated jet stream peaks at 110 m/s at 12 km altitude, comparable to terrestrial subtropical jets but persistent year-round.

Cyclone Statistics

Category	Annual count	Wind range	Notes
Tropical depression	~340	<63 km/h	Background convective activity
Named storm	~180	63 to 118 km/h	Standard naming protocol
Cat-1 to Cat-3	~75	119 to 208 km/h	Routine landfall expectations
Cat-4 / Cat-5	~22	209 to 250+ km/h	Major infrastructure events
Hypercane	1 to 3	>300 km/h	Sea-surface temp. >, 32 °C, eye pressure <, 870 hPa

Storm formation is not evenly spread across Osprey's year. The 425-day orbit and 11.4° tilt produce two overlapping convective seasons rather than one, the **Long Boil** (roughly 190 local days, centered on the equatorial summer solstice, responsible for ~70% of annual hypercane formation) and the shorter, sharper **Coreward Swing** (~60 days, when the planet's slightly eccentric orbit, e = 0.044, brings it closest to Solis and equatorial sea-surface temperatures spike fastest). Nothing that operates on Osprey's surface schedules construction, resupply, or a landing window during either season if it can be avoided, the roughly 175-day gap between them is the only real calm the planet offers.

Geology and the Exposed 29.6%

Osprey's 70.4% ocean coverage leaves a genuine, mapped landmass, not an afterthought, three major continental fragments, none of them large by Aridexian standards, all of them shaped by the same storm regime that dominates the planet's identity:

- **Tarrow**, the largest fragment, straddling the equator, low-relief and heavily weathered, its interior lowlands flood on a near-annual basis during the Long Boil and are effectively unusable for permanent surface infrastructure without engineered flood control.
- **The Corvane Highlands**, a smaller, higher-latitude fragment holding Osprey's tallest point, **Mount Ashkeel** (6,140 m), whose slopes are the only stretch of the planet's landmass that reliably sits above the worst of the storm surge described below.
- **Pellastri**, the smallest fragment, an isolated mid-latitude island-continent whose relative shelter from the equatorial storm belt makes it the single most-cited candidate site in DS-HP planning documents for any future permanent Osprey-surface installation, as opposed to a Typhon-based one.

The seafloor holds its own extreme: the **Maren Deep**, at 12,880 m, is the deepest known point in the APS system, deeper than Aridexia's own Aridexian Trench, consistent with a denser, more tectonically active ocean floor than Aridexia's, active spreading centers along the Maren Deep's flanking ridges are the leading hypothesis for why Osprey's ocean chemistry runs measurably higher in dissolved trace metals than Aridexia's.

Typhon, The Habitable Moon

Typhon is the second-most-studied body in the system after Aridexia and the most likely site of human secondary settlement. Its existence around a stormy ocean planet is a quirk of the Osprey system's formation: Typhon is large enough to hold its own atmosphere and active enough to maintain a magnetosphere, and it sits in the warm radiative zone of Osprey while shielded from direct solar weather by the parent planet's magnetotail for ~30% of each orbit.

Semi-major axis	**388,000 km from Osprey**
Orbital period	12.4 d
Eccentricity	0.012
Inclination	0.81° (Osprey equator)
Radius	1,100 km
Mass	1.94×10^{23} kg
Surface gravity	1.07 m/s²
Escape velocity	1.54 km/s
Rotation	Tidally locked
Surface pressure	51 kPa (≈ 0.5 atm)
Atmospheric comp.	N_2 80%, O_2 18%, CO_2 1.1%, H_2O variable
Mean temp.	+15 °C
Tidal heating	2.5×10^{18} J/yr
Surface ocean	32% coverage, mean depth 110 m
Day-night cycle	Full Osprey-rotation, 12.4 d

Why Typhon is Habitable

Three conditions converge:

- Tidal flexing from Osprey delivers 2.5×10^{18} J/yr of internal heat, roughly 4× Earth's radiogenic budget at one-fifth the volume.
- Volcanism is gentle but persistent. Outgassing maintains a half-bar atmosphere despite the low gravity (escape velocity 1.54 km/s) because non-thermal escape is suppressed by Osprey's magnetic envelope.
- Surface temperatures are buffered by the shallow ocean, which stratifies seasonally but never freezes equatorward of 60° latitude.

Geography

Typhon's tidal lock means one hemisphere always faces Osprey, the "nearside", and its climate zones read as concentric bands radiating from that fixed sub-Osprey point rather than by latitude alone, since Osprey itself dominates the nearside sky and its reflected light and gravitational flexing both peak there. Three named landmasses and the moon's one true ocean basin structure the map:

- **The Hearthlands**, Typhon's largest continuous landmass, centered near the sub-Osprey point, warmest and most volcanically active given its position over the strongest tidal flexing, this is also where all four biomes below are represented in miniature within a few hundred kilometers of each other, making it the single most-sampled region on the moon.
- **Farside Reach**, the antipodal landmass, cooler and geologically quieter, outside the direct tidal-flexing maximum, longer volcanic quiescence here has let deeper, older strata weather to the surface, making it the preferred target for anything studying Typhon's early geologic history rather than its present biology.
- **The Girdle Isles**, a broken chain of smaller landmasses ringing Typhon at the boundary between nearside and farside climate regimes, this is where the shallow surface ocean (32% coverage, mean depth 110 m, the **Meridian Sea**) is at its widest and where most of the moon's mat-forming algae biomass is concentrated.

The Farside Anomaly

One surface feature on Farside Reach doesn't fit the rest of the survey data. A shallow, wide depression, 4.1 km deep, 38 km across, an unusually low depth-to-diameter ratio for anything on Typhon's catalogue of confirmed impact structures, sits in otherwise undisturbed old crust with no associated ejecta blanket, no radial fracture pattern, and no candidate impactor of the required size in any tracked debris population. Standard impact dating methods place its formation as geologically recent relative to the surrounding terrain, which only deepens the inconsistency: a body this size striking at this age should have left unambiguous evidence, and it hasn't. It remains open-catalogued, unclassified, and unremarked on beyond the survey note that first flagged it.

Biomes and the Astrobiology Programme

Native life is documented across four biomes, none of it yet ruled complex enough to complicate any future settlement decision, but none of it fully characterized either:

- **Vent-margin mats**, thick, colony-forming algal mats fringing Hearthlands' shallow geothermal outflows, Typhon's most productive biome by biomass.
- **Littoral scrub**, the "low shrubs" of the original survey reports, a woody ground-cover found across the Girdle Isles' coastlines, the closest thing on Typhon to a terrestrial-style plant community.
- **Open-water plankton analogues**, a diffuse, poorly sampled layer in the Meridian Sea, the least-characterized of the four biomes and the Programme's current highest priority for a dedicated sampling mission.

- **Arthropod-analogue grazers**, small, jointed, multi-legged motile organisms found wherever littoral scrub grows thick enough to support them, the most terrestrial-familiar organisms on Typhon by body plan, and the ones every landing-party photograph of the moon actually features.

The **Typhon Astrobiology Programme**, headquartered at the semi-permanent **Hearthlands Research Station**, exists to answer one question the four biomes above have not yet settled either way: whether Typhon's biochemistry is close enough to Aridexia's own that cross-contamination in either direction is a real planetary-protection risk, or distant enough that it isn't. Every organism sampled so far uses left-handed amino acids and a DNA-equivalent nucleic acid, the same as Aridexian life, which is either a sign of shared deep chemistry, a sign of two biospheres converging on the only chemistry that actually works, or (the Programme's own stated null hypothesis, deliberately kept open) evidence of nothing more than limited sample size. **No motile complex organism larger than the arthropod-analogue grazers has been confirmed anywhere on Typhon**, and the open-water biome specifically has not been ruled out as holding something larger still. This is stated here exactly as flatly as the Programme itself states it: unresolved, not overlooked.

Resource Potential

Typhon's shallow crust and active tidal heating make it a plausible future ISRU target independent of any settlement question, water is abundant (the Meridian Sea alone), and the same volcanism that vents into the vent-margin biome also concentrates sulphide and base-metal ores near the surface across the Hearthlands. No extraction program exists yet, the Astrobiology Programme's planetary-protection mandate currently takes precedence over any resource survey that would require ground-disturbing work near a biome.

Glaucus &, Selache, The Minor Moons

Glaucus (radius 84 km, semi-major axis 215,000 km) and Selache (radius 51 km, semi-major axis 612,000 km) are captured carbonaceous bodies, both airless and geologically simple compared to Typhon, which makes them useful in exactly the way Typhon can't be: neither carries any planetary-protection restriction, so both are open to unrestricted survey and eventual extraction. Glaucus shows resurfacing on its leading hemisphere, likely cryovolcanic, venting briny subsurface pockets rather than silicate lava, and carries confirmed water-ice deposits at its poles, comparable in concentration to Lira's Promontory Vesh. Selache is smaller, older-surfaced, and shows no resurfacing at all, its main strategic value is orbital rather than material, sitting in a 3:7 resonance with Typhon that makes it a stable, low-maintenance relay and propellant-cache site for anything operating in Osprey's system.

Hazards &, Mission Notes

- Storm surge on Osprey's coastlines reaches 14 m for major events, surface installations require mobile or submarine architecture.

- Salt-corrosion: chloride aerosols extend 600 km inland, standard aerospace alloys require teflon or ceramic-composite shielding.
- Typhon descent profile favors aerocapture (atmospheric density supports it down to 2.1 km/s peak heating), highly fuel-efficient.
- Typhon ascent Δv: 1,860 m/s to circular 100-km orbit, a single methalox stage can do it round-trip with cargo.

The Typhon Corridor Fleet

Aridexia and Osprey sit close by the standards of this system, 1.000 AU and 1.100 AU, both near-circular, barely inclined to each other (1.32°), which makes the Aridexia-Osprey Hohmann transfer the cheapest real interplanetary corridor DS-HP operates anywhere, roughly 3,400 m/s total burn against the multi-thousand-m/s budgets every other body in this dossier needs. Everything DS-HP has ever flown to Typhon, in every role, is one of exactly four named vehicle families, built around that same cheap corridor and Typhon's own aerocapture-friendly descent profile (above), the two crewed/cargo classes designed and built by Solenne's own aerospace program specifically, flown under DS-HP's mission umbrella the same way Solenne's own space-age industrial base already underwrites most of the corridor's hardware (Section XXV):

- **Koedul-class Heavy Transport**, named for **Vakkar Koedul** (Section IV), the Syndicate-era engineer whose rail and canal network first connected Savorus's own industrial base rather than just extracting from it, a builder untainted by anything the USN later became. The workhorse: an interplanetary cruise stage handles the Hohmann leg, a second stage aerocaptures directly into Typhon orbit and descends on the same 1,860 m/s round-trip budget already established for cargo landers, carrying bulk freight, prefabricated habitat modules, construction plant, raw material the colony can't yet produce for itself. Uncrewed except for a minimal maintenance detachment on the longer cruise legs. Every physical structure standing on Typhon before local manufacturing came online arrived on a Koedul.
- **Asmedeus II-class Crew Transport**, named, like the older N-14 "Asmedeus" fighter (Section XXV) it's a deliberate numbered sequel to, for the old Savoran sky god neither the Syndicate nor Solenne ever worshipped but never quite stopped naming things after either. The only vehicle in the fleet rated to carry settlers rather than cargo, and the reason there's a colony on Typhon to write about at all. Larger life-support loop, radiation-hardened crew module for the cruise (the Solis flare environment doesn't get any gentler for having a shorter trip), and enough berths per flight to make the real, sustained population transfer the Osprey Exodus volume describes actually logistically possible rather than symbolic. The first wave that reached Typhon in AE 1341 flew on Asmedeus II-class ships.
- **Innus-class Relay**, not a crewed or cargo vehicle at all, but small enough to launch on expendable boosters rather than needing the corridor's heavy-lift infrastructure: a comms-relay satellite constellation, stationed in Osprey orbit and at Selache (already the system's own natural relay/propellant-cache site, Typhon's minor moon above), keeping Aridexia and the Typhon colony in continuous contact across the transfer window. This is the actual named system behind the Osprey Exodus volume's own account of Aridexia's final transmissions

thinning out and going silent during GAW4 (Section VII of that document), an Innus relay doesn't stop working because it breaks, it stops working because there's no one left on the Aridexia side still transmitting to it.

- **Velt-class Survey Probe**, the smallest and the first, flown for over a decade before any settler ever left Aridexia. Every biome map, landing-site survey, and early data set behind the Typhon Astrobiology Programme's own findings (above) came from a Velt probe, not a crewed mission, the entire pre-colonization survey era ran on this one uncrewed design, which is also why the Programme's own planetary-protection objections to colonization (Chapter 21) carried real institutional weight: the people raising them had a decade of their own Velt data saying exactly what colonization would be disturbing.

Keplum, Ocean Beneath Ice

At a Glance

Orbit	**1.600 AU · 980.4 d · e = 0.061**
Mass / Radius	5.850 × 10^{24} kg / 11,460 km
Surface gravity	2.973 m/s^2
Escape velocity	8.255 km/s
Mean density	928 kg/m^3 (lowest of any APS terrestrial)
Sidereal day	47h 06m
Axial tilt	3.2°
Surface (ice) temp.	-142 °C mean, -178 °C polar
Surface pressure	0.012 kPa (tenuous N_2/CH_4 exosphere)
Ice shell thickness	10 to 20 km (avg 13.4)
Subsurface ocean	60 to 100 km deep (Thalassa)
Ocean salinity	≈ 56 PSU (estimated, chloride + sulphate)
Magnetic moment	Induced only, no internal dynamo
Natural satellites	2 (Lemnos, Halia)

Structure of Keplum

Keplum's exceptionally low density (928 kg/m^3) is a direct consequence of its layered structure:

- **Surface ice shell**, 10 to 20 km of water ice Ih, fractured by extensional tectonics into chaos terrains and ridge belts. Brine pockets are common.
- **Subsurface ocean (Thalassa)**, 60 to 100 km of liquid water under 25 to 80 MPa. Stratified, with denser brine pooling at depth.
- **High-pressure ice mantle**, ices VI and VII transition at 250 and 800 km depth, convective and possibly capable of transporting nutrients downward.
- **Silicate core**, modest, ~3,200 km radius, hydrated and serpentinized. Hydrothermal venting at the silicate-ocean boundary is the canonical energy source for ecosystems.

> ***Thalassa: the canonical name.*** *v1 referred to "Thalassa" in two ways. v2 fixes this: the world remains Keplum, its global subsurface ocean is Thalassa. "Visiting Thalassa" in lore means descending through the ice shell to the ocean.*

Astrobiology

Hydrothermal sites are the strongest astrobiological targets in the entire system. Three lines of evidence support active chemosynthetic ecosystems:

- Plume spectroscopy detected methane (3.2 ppm), molecular hydrogen (0.8%), and complex organics with masses up to 720 Da.
- Surface deposits show non-equilibrium sulphur isotope ratios consistent with biotic fractionation.
- Thermal anomalies above the "Astraea Vent Field" are stable on decadal timescales, not consistent with purely abiotic geyser cycles.

The current canonical view: chemolithoautotrophic prokaryote-equivalent organisms are present at vent sites, with possible motile multicellular forms in the upper ocean. This has not been directly confirmed.

Lemnos &, Halia, Keplum's Moons

	Lemnos	Halia
Radius	94 km	162 km
Semi-major axis	78,000 km	412,000 km
Period	1.42 d	16.8 d
Character	Heavily cratered, dark, captured asteroid	Mixed ice/rock, tidally locked, resurfaced regions on trailing hemisphere

Mission Architecture

The Keplum Cryobot Campaign is the system's flagship astrobiology programme. Standard mission profile:

- **Phase 1 (Year 0):** Heavy orbiter delivers radar shell-thickness map and identifies a thin-shell candidate site.
- **Phase 2 (Year 2 to 4):** Surface lander delivers thermal cryobot (RTG-heated probe) to the chosen site.
- **Phase 3 (Year 4 to 9):** Cryobot descends through the ice shell at 1 to 3 m/hr, paying out fiber-optic tether to the surface relay.
- **Phase 4 (Year 9 to 12):** Hydrobot AUV swarm (4 to 8 vehicles) explores the ocean, samples vent fluids, and acoustically maps the silicate floor.
- **Phase 5 (Year 12+):** Sample return decision under highest planetary-protection protocol, minimum 30-year quarantine analysis if approved.

Δv budget for Aridexia to Keplum transfer (Hohmann): 3,610 m/s LAO injection, 1,850 m/s Keplum capture. Realistic mission with margin: ~5,800 m/s.

Orjust, The Robotic Frontier

At a Glance

Orbit	**0.380 AU · 84.6 d · e = 0.142**
Mass / Radius	8.361×10^{23} kg / 3,380 km
Surface gravity	4.885 m/s²
Escape velocity	5.746 km/s
Mean density	5,169 kg/m³
Sidereal day	26h 18m
Axial tilt	18.7°
Surface pressure	5.0 kPa (50 mbar)
Atmospheric comp.	CO_2 94%, N_2 4%, Ar 1.6%, H_2O ≤ 0.1%
Surface temp.	-80 °C night to +12 °C day (equator)
Magnetic moment	Crustal remanent only, no dynamo
Natural satellites	0

Why Orjust Matters

Orjust is the only world in the system where the combination of low Δv, accessible surface chemistry, and zero biospheric risk makes large-scale autonomous mining viable. Its 0.38 AU orbit means transit windows from Aridexia open every 116 days, the 50-mbar atmosphere supports parachute-assisted EDL but is thin enough that ascent vehicles need not be aggressively streamlined.

The economic case rests on three resource classes:

- **Regolith ISRU:** oxygen extraction from iron oxides, iron metal from carbothermal reduction, water from polar ice deposits (5 to 8 wt% in PSRs).
- **Rare-earth concentrates** in the Tharsis-equivalent volcanic provinces, particularly the "Hesper Plateau".
- **Helium-3** in regolith at 12 to 18 ppb, economically marginal alone, but useful as a co-product of bulk ISRU.

Geology

Orjust is geologically dead at the present epoch but was vigorously active 3 to 3.5 Ga ago. The northern hemisphere is dominated by the Borean Lowlands, an ancient impact basin filled by basaltic flows, while the south is heavily cratered highlands. Volcanic constructs include three large shield volcanoes, the largest, Mons Velhar, rises 19.4 km above the datum and spans 580

km at its base. Polar caps are CO_2-water composite, with the residual cap (water ice) persisting through summer. Total surface water inventory is estimated at 4×10^{15} kg, sufficient to sustain industrial-scale operations for centuries.

Hazards

- Global dust storms during southern summer, opacity $\tau >, 5$ for weeks, solar power output drops 80%.
- Electrostatic regolith, fines lift on diurnal cycles, abrasive damage to seals and optics within 90 sols of unprotected operation.
- Thermal cycling: $\Delta T \approx 90$ K per sol, mechanical fatigue limits continuous-use lifetimes to 5 to 8 Aridexia-years for unhardened equipment.

Mission Architecture

Standard cargo lander class: 3.0 t payload to surface, 1.2 t ascent capability with ISRU-produced methalox. The Orjust Pipeline (canonically operating since DSY 18) delivers ~140 t/yr of refined metals to the Aridexia-Solis L1 propellant depot. Δv budget: Aridexia surface to Orjust surface ≈ 14,200 m/s, Orjust surface to LAO with ISRU return ≈ 4,100 m/s.

Anquilla, The Quartz Terminator World

At a Glance

Orbit	**0.600 AU · 210.0 d · e = 0.024**
Mass / Radius	4.300×10^{24} kg / 5,734 km
Surface gravity	8.729 m/s²
Escape velocity	10.005 km/s
Mean density	5,445 kg/m³
Sidereal day	30.1 d (3:2 spin-orbit resonance)
Solar day	63.0 d
Axial tilt	0.9°
Surface pressure	32 kPa (sub-bar, partly desiccated)
Atmospheric comp.	N_2 88%, CO_2 9%, SO_2 1.4%, H_2O <0.01%
Day-side temp.	+147 °C peak
Night-side temp.	-110 °C trough
Terminator temp.	+8 to +25 °C (habitable band)
Magnetic moment	Weak dipole, 6% of Aridexian
Natural satellites	0 (3 quasi-satellites, Trojan asteroids)

Geology, A World of Glass and Stone

Anquilla's defining feature is its quartz-rich crust. Continental-scale plateaus of optical-grade silicate, formed in a long-lost wet era under extreme hydrothermal conditions, now sit exposed

across 38% of the planet's surface. The largest, the Hesperin Plateau, spans 1,400 × 880 km of nearly pure α-quartz with grain sizes up to 12 cm.

This is not just a geological curiosity, it is the system's most strategically important non-metallic resource. Optical-grade quartz at this purity supports photonics, semiconductor, and laser-grade applications that are otherwise extraordinarily expensive to manufacture.

The Terminator Habitable Band

Anquilla's 3:2 resonance, same as Mercury, gives it a 63-day solar day. Day-side surface temperatures are lethal, night-side temperatures freeze CO_2 briefly. But the migrating terminator zone, a band roughly 280 km wide on either side of dawn and dusk, sits in a temperate window from +8 to +25 °C for hours to days at a time depending on latitude. Habitable settlements "chase the dawn," migrating westward at ~17 km/h average.

The canonical settlements, Vesperin, Crepuscula, and Aurelain, are mobile mag-rail cities, each massing 4 to 8 megatonnes, that traverse the Hesperin Plateau on continuous east-west tracks.

Why the Quartz Helps

- Anquillan quartz is moderately transparent to visible light but blocks UV-C and most X-ray frequencies, providing a natural radiation shield.
- Heat capacity of large quartz beds dampens diurnal temperature swings near the terminator, extending the habitable window by 20 to 30%.
- Piezoelectric pressure sensors built directly into bedrock provide planet-wide seismic monitoring without buried hardware.

Anquilla Trojans

Three asteroids share Anquilla's orbit: Skotos (L4, 18 km diameter), Aphos (L5, 11 km), and the recently catalogued Lethe (L4 horseshoe, 4 km). Skotos and Aphos are stable on Gyr timescales, Lethe's horseshoe will dissipate within 8 Ma. All three are dark C-type bodies with water-ice signatures, strategic propellant caches.

Hazards &, Mission Notes

- SO_2 atmospheric content is corrosive to standard alloys, surface hardware uses ceramic-composite or gold-plated coatings.
- Day-side EVA is impossible without active cooling rated for >150 °C external.
- Quartz harvesting is dangerous, large-scale extraction triggers piezoelectric discharge events ("crystal storms") that can damage electronics within 30 km.
- Δv to Anquilla surface from LAO: 6,800 m/s (Hohmann) or 8,200 m/s (3-month direct).

Keplanus, Gas Giant & Moon Kingdom

At a Glance

Orbit	**5.200 AU · 11,870 d · e = 0.058**
Mass / Radius	1.5204×10^{27} kg / 63,710 km
Surface gravity (1 bar)	25.000 m/s²
Escape velocity	56.440 km/s
Mean density	1,404 kg/m³
Sidereal day	11h 04m (extreme oblateness 0.072)
Axial tilt	3.8°
Cloud-top temp.	-148 °C (1 bar level)
Composition	H_2 86%, He 13.4%, CH_4 0.4%, NH_3 0.15%, traces
Magnetic moment	1.6×10^{27} A·m² (24× Aridexian)
Magnetopause stand-off	85 R_K sunward, 1,100 R_K tailward
Ring system	Faint, 12 main bands, total mass 4×10^{16} kg
Natural satellites	9 named (3 major, 6 minor) + 200+ irregulars

Atmosphere &, Storm Systems

Keplanus is a true gas giant in the Jovian sense, slightly smaller and substantially less massive than Jupiter but more dynamic in its upper atmosphere. The cloud structure shows three deck levels: NH_3 ice (0.5 bar), NH_4SH (1.5 bar), and H_2O (4 to 6 bar). The visible banding is dominated by ammonia clouds, with persistent cyclonic features at high latitudes.

Notable atmospheric features:

- **The Indigo Oval**, a long-lived (>200 yr) anticyclone at -32° latitude, 14,000 km × 9,000 km, peak winds 480 km/h.
- **The Polar Hexagon (north)**, a six-sided jet structure analogous to Saturn's, mean latitude 78°.
- **Equatorial superrotation**, eastward jets at 460 km/h, westward at 280 km/h, shearing across narrow latitude bands.

Magnetosphere, A Hostile Volume

Keplanus's magnetic moment is 24× Aridexia's. Its radiation belts are correspondingly hostile: the inner belt peaks at 7 R_K (rocky-icy moon traversal regime) with electron fluxes $>10^9$ $cm^{-2} \cdot s^{-1} \cdot sr^{-1}$ at MeV energies. Crewed visits to inner moons require either short-duration profiles (<8 hours total exposure inside 12 R_K) or active shielding architecture massing >180 t.

The magnetotail is the longest in the system, stretching past Glocius's orbit during anti-solar configurations. This produces auroral activity on every magnetized body in the outer system, including the regular illumination of Glocius's polar regions.

The Major Moons

Titanis, The Frozen Ocean (radius 2,500 km)

Semi-major axis	1,070,000 km (16.8 R_K)
Orbital period	7.2 d
Eccentricity	0.0094 (forced by Hydra resonance)
Mass	1.92×10^{23} kg
Surface gravity	2.05 m/s²
Escape velocity	3.20 km/s
Surface temp.	-183 °C
Atmosphere	Thin N_2/CH_4, 0.5 kPa
Subsurface ocean	≈ 80 km deep, beneath 25 km ice shell
Tidal heating	5.6×10^{18} J/yr

Titanis is Keplum's outer-system equivalent: another candidate astrobiology target with a global subsurface ocean and active hydrothermal venting. The thicker ice shell makes access harder, but the surface is more stable for long-duration surface installations than Hydra's. Crucially, Titanis's magnetic environment within Keplanus's magnetosphere is partially shielded.

Hydra, Plumes &, Spectacle (radius 1,800 km)

Semi-major axis	1,890,000 km (29.7 R_K)
Orbital period	16.9 d
Eccentricity	0.0211 (forced)
Mass	9.4×10^{22} kg
Surface gravity	1.93 m/s²
Escape velocity	2.64 km/s
Surface temp.	-198 °C
Plume activity	≥ 70 active vents, mass loss 280 kg/s
Surface composition	H_2O ice + organic tholins + sulphur compounds

Hydra is the system's most spectacular moon. Cryovolcanic plumes vent water vapor, complex organics, and silicate nanograins to altitudes of 350+ km, well above the surface, easily sampled by flyby missions. Plume composition includes amino acid precursors and aliphatic hydrocarbons up to C20. The "Tigris Stripes", four parallel cryovolcanic ridges spanning 130 km, are the canonical eighth wonder of the system.

Aurelia, The Mining Moon (radius 1,200 km)

Semi-major axis	3,420,000 km (53.7 R_K)
Orbital period	41.4 d
Eccentricity	0.078
Mass	5.8 × 10²² kg
Surface gravity	2.69 m/s²
Escape velocity	2.54 km/s
Composition	Differentiated rocky/metallic, iron core 35% radius
Surface temp.	-172 °C
Notable	Tycho-like impact basin "Aevum" (480 km) exposes mantle

Aurelia sits outside Keplanus's most intense radiation belts and is therefore the system's premier industrial moon. Differentiation has concentrated platinum-group metals in the upper mantle, the Aevum basin exposes these directly. Aurelia is canonically the seat of the Outer System Mining Concord, a chartered economic body distinct from any inner-system government.

Minor Moons

Six smaller named bodies orbit Keplanus, plus an irregular swarm of >200 captured asteroids in retrograde orbits beyond 12 million km.

Moon	Radius	Semi-major axis	Period	Character
Mira	82 km	238,000 km	0.71 d	Inner shepherd of ring system
Sostrate	115 km	415,000 km	1.62 d	Ice-rock, co-orbital pair with Pyx
Pyx	97 km	415,000 km	1.62 d	Trojan companion to Sostrate at L4
Krenos	54 km	678,000 km	3.40 d	Heavily cratered, resonance gap shepherd
Indra	146 km	5,840,000 km	94.7 d	Captured C-type, retrograde
Vespera	33 km	8,920,000 km	182 d	Captured, chaotic obliquity

Mission Architecture

Aridexia to Keplanus Hohmann: 1,030 days transit, Δv 6,300 m/s departure + 4,200 m/s capture (or 1,800 m/s with aerocapture in Keplanus's upper atmosphere). The standard architecture uses Aurelia as the staging base because it sits outside the worst radiation environment. Hydra plume sampler: high science return, low contamination risk, modest Δv (~1,400 m/s from Aurelia). Titanis cryobot: planetary-protection regime equivalent to Keplum, 12-year mission baseline. Aurelia mining: continuous logistics chain canonical from DSY 31.

Glocius, The Metal Heart

At a Glance

Orbit	9.450 AU · 29,200 d · e = 0.089
Mass / Radius	1.6657×10^{25} kg / 8,282 km
Surface gravity	16.208 m/s² (highest terrestrial in system)
Escape velocity	16.385 km/s
Mean density	7,000 kg/m³
Sidereal day	58h 22m
Axial tilt	5.4°
Surface pressure	0.4 kPa (SO_2-rich)
Atmospheric comp.	SO_2 78%, CO_2 18%, N_2 4%
Surface temp.	+42 °C day, -164 °C night
Magnetic moment	Strong, 0.6 × Aridexian (active iron-core dynamo)
Natural satellites	1 (Ferris)

A World Made Mostly of Iron

Glocius is the system's anomaly, a 7,000 kg/m³ body at 9.45 AU, where standard formation models predict ice giants. The canonical explanation: Glocius is the stripped core of a former gas giant, exposed by a glancing collision with a Mars-mass body 3.7 Ga ago that ejected the bulk of its mantle and atmosphere. The remaining body is 70% iron-nickel by mass, with a thin silicate-sulphide crust holding exposed ore deposits unlike anywhere else in the system.

The strong magnetic field, 0.6× Aridexia's, confirms an active liquid-iron core dynamo. Auroral activity is intense and visible from orbit, the canonical "Glocian Veil" aurorae extend to ±60° latitude during Solis storms.

Resources

- **Bulk iron-nickel:** directly mineable surface deposits, particularly in the "Sidero Plain" (1,200 × 800 km of exposed Fe-Ni).
- **Platinum-group metals:** 4 to 8 ppm in surface regolith, concentrated to >2,000 ppm in three identified impact-melt deposits.
- **Sulphide ores:** Cu, Zn, Co, Au accessible via standard pyrometallurgy.
- **Tellurium and rare-earth elements:** 100 to 400× Aridexian crustal abundance.

Hazards

- SO_2 atmosphere is acutely corrosive, equipment lifetimes <2 years without ceramic shielding.
- Radiation environment from active dynamo + Solis SEPs: surface dose rate 8 mSv/day during quiet periods.
- Day-night thermal swing of >200 K stresses all materials, magnetic-rail systems use phase-change thermal sinks.
- Long synodic period (Aridexia-Glocius 415 d) means cargo windows are predictable but rare.

Ferris, Glocius's Moon

Radius	100 km
Semi-major axis	32,400 km
Orbital period	0.61 d
Mass	1.4×10^{19} kg
Surface gravity	0.094 m/s²
Composition	Pure metallic, possibly co-formed during parent-body disruption
Strategic role	Mass driver staging, orbital launch from Ferris is essentially free

Mission Architecture

Δv from Aridexia to Glocius surface: 11,400 m/s (Hohmann, 1,640 days transit). Standard cargo architecture uses an Aurelia (Keplanus) staging base, then a fast trajectory to Glocius. The "Glocian Express" cycler, a 14-year orbital loop between Aridexia and Glocius, provides continuous low-Δv logistics for non-urgent cargo. Mass-driver launches from Ferris deliver pre-refined ore to interplanetary trajectories at 1.5 to 2.0 km/s exit velocity for ≈ 0.04 J/kg launch cost.

Small-Body Populations, Belts, Trojans, and the Cold Frontier

The Inner Belt

Located between 2.1 and 3.6 AU, the Inner Belt holds an estimated 1.4 million bodies larger than 1 km. Total mass ≈ 4% Aridexian. Composition is mixed S-type (inner) and C-type (outer), with a notable population of M-type metallic asteroids near 2.8 AU. Three dwarf planets are catalogued:

- **Vesta-analogue: "Threnos"**, 532 km diameter, basaltic surface, differentiated.
- **Ceres-analogue: "Mnemosyne"**, 940 km, water-ice rich, possible subsurface brine.
- **Pallas-analogue: "Astera"**, 510 km, carbonaceous, irregular shape.

Keplanus Trojans

Two stable Trojan camps at Keplanus's L4 and L5 points host ~9,000 catalogued bodies >5 km. The L4 leading camp (the "Helios Trojans") is denser, the L5 trailing camp (the "Hesperian Trojans") holds three dwarf planets including the 480-km "Telos."

The Outer Belt, Beyond Glocius

From 14 AU outward, a Kuiper-belt analogue extends to 78 AU before grading into the scattered disk. Notable populations:

- **Classical disk (14 to 22 AU):** cold, low-eccentricity bodies. Largest catalogued: "Vykres" at 1,100 km diameter.

- **Resonant populations:** 2:3 and 1:2 resonances with Glocius hold ~400 bodies >100 km.
- **Scattered disk (22 to 78 AU):** high-eccentricity bodies, perihelion typically inside Glocius's orbit. Three dwarf planets known, the largest and only binary among them, **Nyxara-Erebos**, is catalogued in full below.

Nyxara-Erebos, The Outer Binary

	Nyxara (primary)	Erebos (companion)
Radius	1,380 km	690 km
Mass	1.02×10^{22} kg	1.3×10^{21} kg
Mean density	1,850 kg/m³	1,720 kg/m³
Surface temp.	-228 °C	-228 °C
Composition	$N_2/CH_4/H_2O$ ice over a rocky core	Water ice, no confirmed core differentiation

System orbit (a)	System period	e	i (°)	Mutual separation
46.2 AU	314 yr	0.248	17.1°	19,400 km, 6.39 d mutual period

Nyxara and Erebos are tidally locked to each other (a double-synchronous pair, like the real solar system's Pluto-Charon), which makes the pair dynamically simple to model despite its extreme distance: both bodies keep the same face toward their shared barycenter permanently. Nyxara's surface shows patchy N_2/CH_4 frost migration consistent with a thin, seasonal atmosphere near perihelion, its 314-year orbit means "near perihelion" happens once in multiple human generations, and the system has not yet observed it happen, the current epoch (DSY 0-adjacent) sits close to Nyxara's aphelion, the coldest and most volatile-locked point in its year. Erebos shows a single, unusually sharp-edged impact basin, "Charun," covering nearly a quarter of its leading hemisphere, old enough to be heavily degraded by sublimation, but sharp enough at the rim that it postdates the pair's tidal lock rather than predating it.

No mission, crewed or robotic, has been sent to Nyxara-Erebos, at 46.2 AU it currently sits well beyond any canonical DS-HP mission architecture in this dossier, and is included specifically as forward-looking headroom: a real, physically consistent target for a future mission generation, not a body anything in the present-day setting has actually reached.

Comets &, The Oort Analogue

Long-period comets originate in the Solis Oort cloud at 8,000 to 60,000 AU. Average influx: 2.3 new long-period comets per year cross 5 AU. The most recent major perihelion passage was Comet Vairon (DSY 23), which delivered visible coma at 0.8 AU and is now a permanent fixture in the lore as the "Year of Two Tails."

Two other periodic comets are close enough to well-characterized orbits to be considered part of the standing catalogue rather than one-off passages:

- **Comet Halvenn**, a Halley-type comet on a 76-year period, perihelion at 0.6 AU, its next return is the single most-anticipated near-term sky event in DS-HP's own public outreach

materials, precisely because it is common knowledge exactly when it's coming.

- **Comet Ostrey**, a Jupiter-family-analogue comet locked into a 2:1 resonance with Keplanus, perihelion just inside Orjust's orbit at 5.9-year intervals, too faint for unaided visibility but a recurring, reliable target for the Orjust Pipeline's own space-weather instrumentation, which tracks it as a standing calibration source.

System Dynamics & Long-Term Stability

Resonances

Several mean-motion resonances structure the system:

- Aridexia-Osprey 11:14 (near, not exact), produces 350-yr libration in Osprey's longitude of perihelion.
- Titanis-Hydra-Aurelia: not a Laplace resonance per se, but Titanis and Hydra are in 7:3 mean-motion resonance, forcing both eccentricities.
- Anquilla 3:2 spin-orbit, locked since ~3 Ga, fully canonical.
- Lira-Aridexia synchronous rotation, lock established within 0.4 Ga of capture.

Stability Horizon

Numerical integrations of the system over 5 Ga show:

- Inner system (Orjust through Keplum) is dynamically cold, eccentricity oscillations remain bounded.
- Anquilla's eccentricity has a 1.4-Myr secular cycle driven by Keplanus.
- Glocius experiences 5-degree inclination oscillations on 7-Myr timescales, observable but harmless.
- Outer Keplanus irregulars (Indra, Vespera) have chaotic obliquity, their orbital lifetimes are bounded at ~800 Myr.
- Nyxara-Erebos's 314-year mutual orbit around Solis is stable on Gyr timescales, its 17.1° inclination keeps it well clear of any resonant interaction with Glocius, unlike the resonant scattered-disk population it otherwise shares a region with.

Solar Evolution Track

Solis is approximately 4.6 Ga old. Standard solar-evolution models predict:

- In 0.5 to 1 Ga, magnetic activity drops by ~60%, flare cadence falls toward solar-quiet levels.
- In ~3 Ga, luminosity rises 12% above present, pushing the conservative HZ to 1.05 to 1.65 AU. Aridexia's long-term habitability requires intervention by then.
- In ~5 Ga, Solis leaves the main sequence. The outer system gains transient habitability windows around Titanis and Typhon.

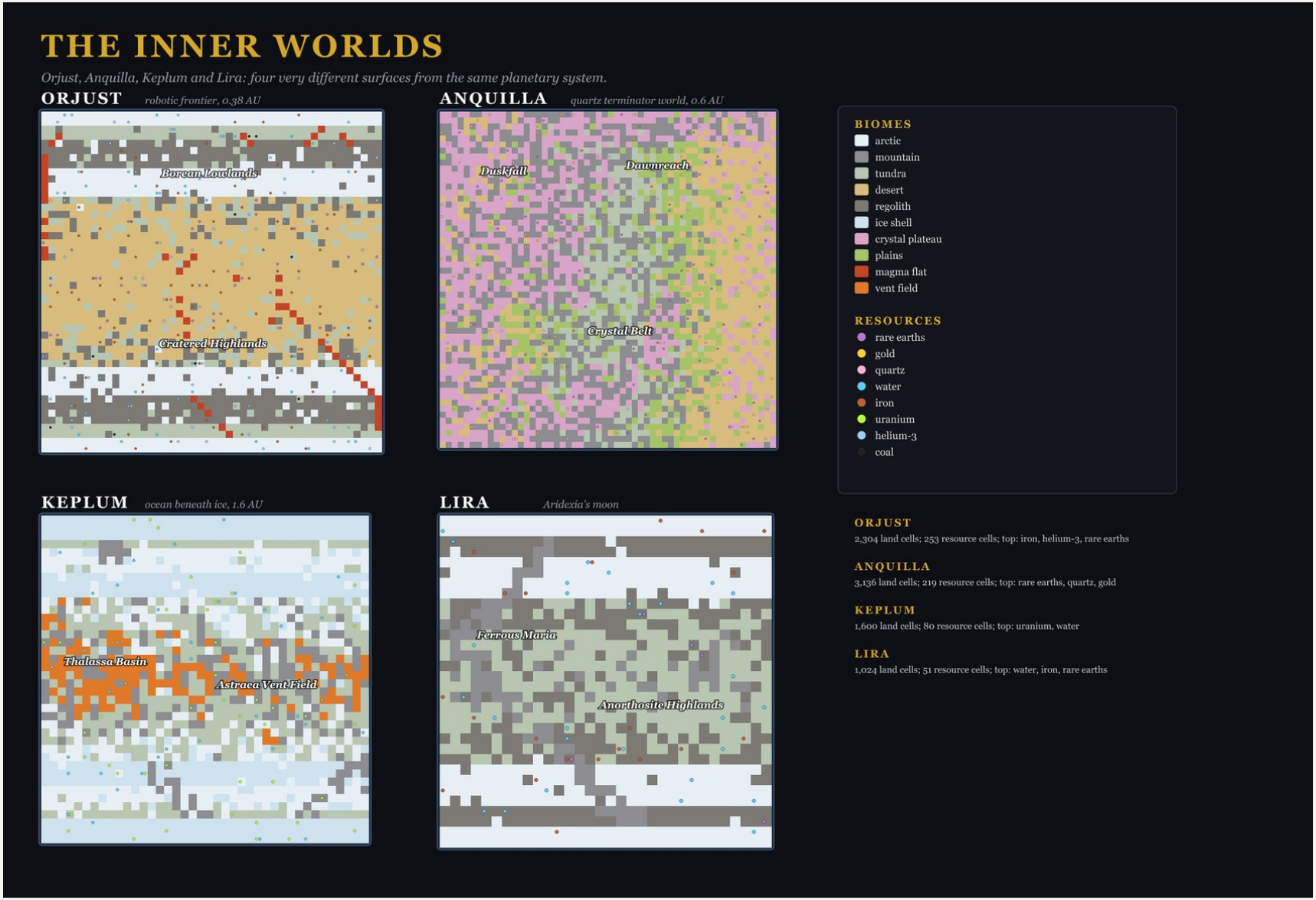


Plate: the inner worlds, from the project's gridpainter maps.

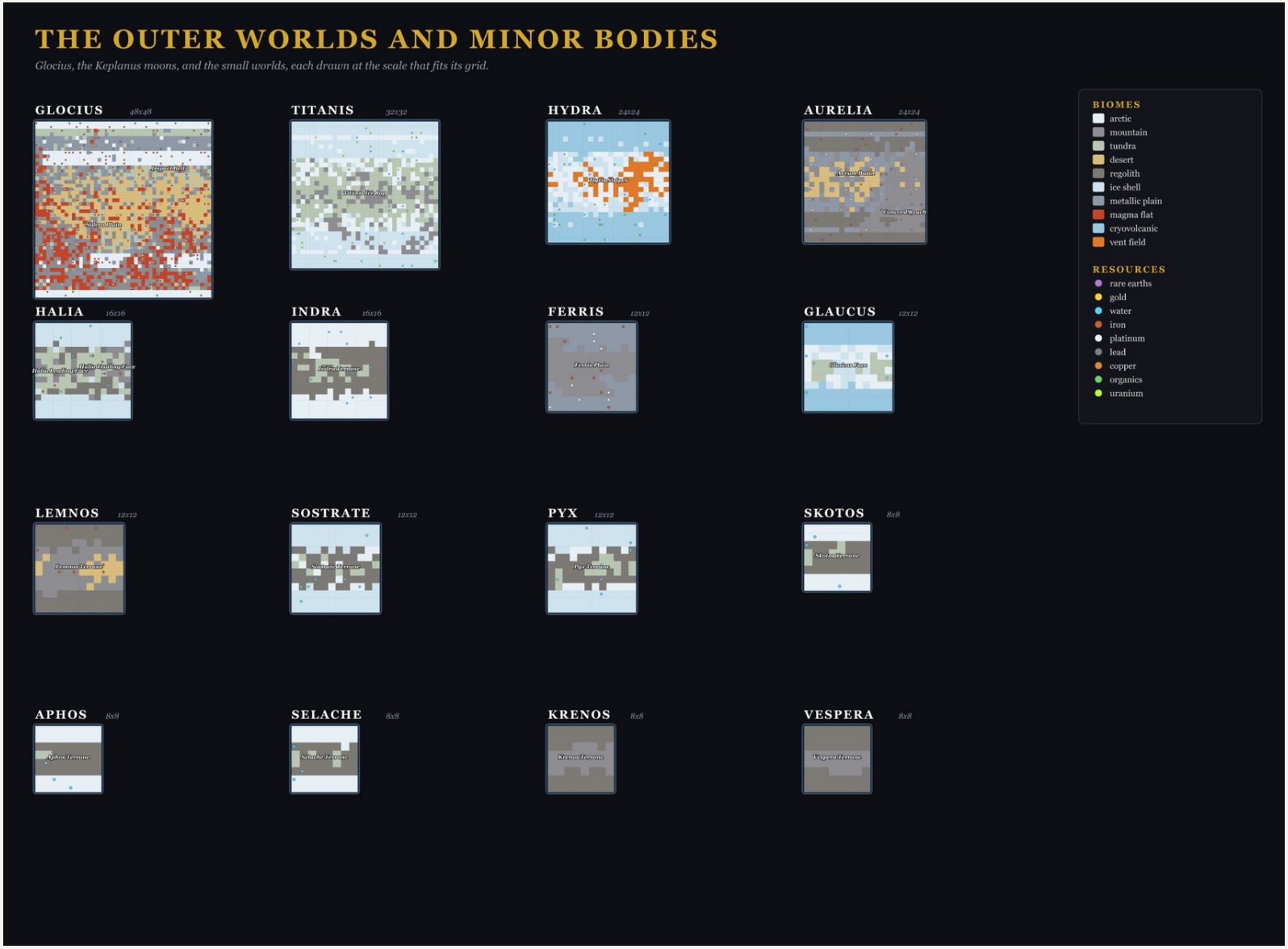


Plate: the outer worlds and minor bodies.

APPENDIX B

The Calendar

Year length, precisely: Aridexia's solar orbit is 365.25 days (established in the APS Stellar dossier), the same length as an Earth year, no dilation or compression involved. One AE year and one DSY year are both just one Aridexian orbit. That part isn't approximate, it's a fixed, load-bearing fact you can build other math on.

Linking AE to DSY, precisely: The APS dossier's DSY (Deep-Space Year) calendar is DS-HP's own internal system, and until now it was anchored separately from AE, that's the actual "two calendar systems" problem. Fixing it with one formula:

DSY = AE − 1276

DSY 0 lands on AE 1276, the year the Second Aridexian War ended and left the USN crippled (though still standing, see Chapter 12), a clean anchor point for DS-HP's own internal dating regardless. That anchor also happens to line up cleanly with the milestones already listed in the APS dossier's save-file structure, which is a good sign it's the right one:

DSY	AE	Event
0	1276	Second Aridexian War ends, the USN survives, crippled, DS-HP epoch begins
12	1288	First crewed Lira landing (during the Talona Crisis)
23	1299	Comet Vairon perihelion, the Uranium Crisis, one year before the Third Aridexian War
31	1307	Aurelia mining fully established, outer-system economy mature

Any DSY date in the APS dossier now converts to AE (or back) with simple addition or subtraction, you never have to guess which calendar a given number belongs to.

Tech-era touchstones, approximate, and deliberately labeled as such: There's no honest way to map an AE year onto "the same year in real Earth history," because Aridexia's timeline doesn't advance at Earth's pace, it moves faster through some stretches (Classical Age to nuclear weapons in about 1,300 years) and that's a real difference, not an error to fix. What is useful is a quick sense of what level of technology and society a given AE year implies, the same instinct behind the original notes' own "looked like 1940s America" comparison for Christonia at AE 1000:

AE range	Roughly feels like (Earth-history equivalent)
-270 to 0	Late Iron Age sliding into early gunpowder, swords and matchlocks giving way to rifles and armor by the end
0 to 500	Age of Sail through the early Industrial Revolution
500 to 900	Industrial Revolution through the early 20th century
900 to 1000	Early-to-mid 20th century (Christonia ≈ 1940s America, explicitly)
1000 to 1250	Mid-20th century, accelerating, mechanized warfare, early nuclear physics
1250 to 1300	Cold-War-equivalent tension and arms buildup, ending in full nuclear exchange
1300 to 1302	Immediate post-nuclear collapse and fallout
1302 to 1320	Post-war reconstruction accelerating into roughly two decades of heavy, competitive military rearmament, aircraft (the easiest single yardstick) climb from late 4.5th/5th-generation designs up to late-5th/mid-6th-generation by the end of this window
1320 to 1359	Military technology plateaus at roughly mid-6th-generation and stays there, not from any lack of capability, but because the resource dilemma (Chapter 5/IX, XXVII) becomes impossible for national leaderships to keep ignoring around this point, and real investment shifts from arms racing into space programs and resource conservation instead. This is also the Turncoat War's own era (AE 1354 to 1358, Chapter 22), fought with hardware that was already near the top of what this economy was ever going to build, not a wartime leap past it
1359 to 1371	GAW4 itself, fought with the same mid-6th-generation-plateau hardware the 1320s settled into, worn down by six years of continuous conventional war rather than replaced by anything more advanced, there was no more resource margin left, by this point, for a technological leap even a desperate war might otherwise have funded

Use this table to calibrate tone and tech level when you're writing something set in a given year, not as a literal date converter. It exists so "AE 1300" immediately reads as "nuclear-armed, Cold-War-tier civilization," not "medieval kingdom." Aircraft generation is just the easiest single yardstick for the 1302-onward era specifically, treat every other technology category (armor, small arms, naval, space) as plateauing on the same 1320 AE curve for the same reason, not as its own independent timeline.

APPENDIX C

Story Hooks by Era

These are premises for episodes and arcs. Each is built on canon events and on cast members from the Cast Bible, and each says what theme it serves and what the episode should feel like. Names marked provisional in the Cast Bible are used here as the Division's working names. A production may change them. The events they hang on may not be changed. The Open Questions appendix lists what is fixed and what is free.

Luluke and the Diaspora (about 270 BAE to 250 AE)

The Lamp Ward. Savine Dolrek fits her rechargeable cell to a field hospital so a surgeon can finish an operation by steady light. Before the week ends, two quartermasters arrive to ask what else the cell could start. *Serves: war pays for technology. Tone: intimate, dry, one room.*

The Rainfall Tallies. A junior archivist at Ilvane Aldmere's court finds the original harvest records and sees that the drying had begun to ease before the treaty was drawn. Her superiors explain, patiently, why the court history will say otherwise. *Serves: convenient histories. Tone: procedural, polite, chilling.*

First Seed. Told through the farmers who buy Nerys Marl's viriditas in its first season, and the season it works. Nobody in the story is a fool, and the ending is still Carina-11. *Serves: scarcity logic. Tone: slow dread, warm until the last act.*

The Bridge Closes. In 3 AE Benedetto Gallieri revokes even the one-way movement clause. A Luluke family is halfway across the border bridge when the order is read out. *Serves: defensible choices with terrible results. Tone: tense, small-scale.*

Under Protection. On Garrek Dunmar's ship, the crew slowly work out who the quiet passenger in the grain hold is and what she made. Dunmar decides what the voyage will do about it. *Serves: who gets punished. Tone: claustrophobic, moral, no villain.*

The Syndicate Fief Period (3 to about 340 AE)

The Thirteenth Chair. At the first sitting of the Table, Garrek Dunmar insists on a chair for the Syndicate itself, and Ysolde Lorrow asks him who is supposed to sit in it. The two never agree on an answer. *Serves: institutions that outlive people. Tone: dry, character-led.*

The Price Written in the Bond. A bondwoman has saved enough to buy out her lease at the figure entered in her bond. The tallyman who must accept the payment has just learned that his own house is about to call in its debts. *Serves: debt as law. Tone: wry, tightening.*

Hired Company. A Pass-Warden captain at Falkreth Gate has to let the Table's first paid company through his pass. The mountain men have held the gate for generations and have never been paid in coin. *Serves: buying force instead of raising it. Tone: gritty, bleak humour.*

Void. House Esselt's Justiciars void another house's bonds in front of the whole Table, and Lorrow's check on power becomes visible as the power itself. A Notary watches from the back of the hall. *Serves: the check that becomes the ruler. Tone: courtroom, quiet menace.*

Striped Posts. Ilmar's toll men and Garnoth's steel carters fight over a boundary post in fog, and the gold and black chevrons are painted to stop the next fight. This is the origin of the Syndicate's hazard stripe. *Serves: how symbols are made by accident. Tone: comic first, then not.*

The Ferrosian and Anestrian Ages (310 to about 800 AE)

The Meter. A Waterkeeper clerk in a drought year has to decide which channel runs dry, and the Imperial Governor can do nothing because wells cannot be moved. *Serves: scarcity makes government. Tone: parched, procedural.*

The Half-Reformer. Maximar Ferrane IV tries to loosen the water-courts one generation too late and is deposed by the people he was reforming for. The story follows his last year, and he knows how it ends. *Serves: reform too late. Tone: tragic, restrained.*

Green Armbands. Merida Quor leads the Ferrosian Rebellion and then declines the office she wrote. A Sand Rider from Kharzun, who owes the rebels nothing, rides in to see what the new masters look like. *Serves: revolutions inherit machinery. Tone: sparse, desert-light.*

The Sabre Trade. In the Three Kingdoms, an Imperium smith sells a Ferrosian sabre to a trader from Antares. The smith knows exactly whose neck it will end up near. *Serves: war funds craft. Tone: amoral comedy.*

After the Throne. An old Ironguard captain joins the Republic's militia and finds himself guarding the same sluices he once defended for the Empire. Nobody asks him to change anything except his armband. *Serves: continuity under new flags. Tone: wry, bruised.*

Reyes and Numaria (795 to about 860 AE)

A Quarter of Vessek. The 795 campaign seen from a Vessek border town, the week before it is cut off. The family there will later be a footnote in the biography of the man the campaign made. *Serves: how empires start as small victories. Tone: dread, domestic.*

Kelvath Hollow. Orrin Kelvath burns his own hold to draw Reyes into the Hollow, and nobody in the hold was told. The story follows a child who wakes to the smoke. *Serves: the price of "the mountains never bent." Tone: epic, quiet, wounding.*

What Ibarra Heard. Teodoro Ibarra is retreating when Reyes dies, and every later telling of the dying words comes from him. The episode plays the same hour four ways, each convenient

for a different listener. *Serves: who writes the record. Tone: unreliable narrator, cool.*

The Harbour Pilot. In Reyes's first naval campaign, a pilot is told to bring a fleet into harbour at dawn. By noon the harbour is empty and the capital falls in three weeks. *Serves: speed as a weapon. Tone: brisk, then cold.*

The Release. In the early 820s a chastened Chicano States negotiates the release of an occupied country, and Ibarra is the man at the table. His wife is Reyes's daughter. *Serves: peace as bookkeeping. Tone: diplomatic chamber drama.*

The Road to 1249 and the Thirty-Day War

The Clerk at the Annexe. The last working day of a registry tallyman, Corban Brask, told in full, with his daughter bringing him lunch. Only the final minute belongs to the bomb. *Serves: small acts, large wars. Tone: ordinary, then devastating.*

Clean Hands. Elin Renner hears of the bombing in a lecture hall and understands that her name will be used and her hands are clean. Lucan Verrett's cell never mentions her at all. *Serves: movements outrun their authors. Tone: cold, interior.*

The Credit Lines. Letizia Falcetti's council refuses to hear the Faction because it needs the Syndicate's money. The episode is a single long budget meeting. *Serves: dependence disguised as independence. Tone: tense, talky, oddly funny.*

The Rout. Nikolai Nichozh, aged 25, is a conscript in a regiment the frontier command regards as expendable. He survives the first great use of tanks and carriers with no idea that the war will make him an officer. *Serves: war as a career ladder. Tone: grim, kinetic.*

The Seam. A draughtsman at the 1250 settlement is told to design a flag for a union with no outside. He draws the dashed seam where three states were joined, and a senior official asks him to hide it. *Serves: symbols that admit things. Tone: satirical, procedural.*

The Second War and the Talona Crisis (1264 to 1290)

Offshore. A crew on a Pelruvian oil platform watches the USN annex their archipelago for a reserve nobody else wanted. They have no idea who is fighting whom until the ships arrive. *Serves: wars over the resource left on the map. Tone: isolated, ironic.*

The Avalanche Timer. Nichozh, in his forties, cuts off a mechanised column with mortars and the timing of a slide. Years later his men are still arguing about how many of them he knew would die. *Serves: patience as command. Tone: tactical, melancholic.*

A Charter for Everyone. Hadrian Obell writes the slow, consensus charter that will later make DS-HP easy to compromise. In 1280 he writes a field note about the Typhon ore and calls it sampling error. *Serves: good institutions with built-in flaws. Tone: hopeful, then ominous.*

Coastville. Senators of the USN defect to Talona because the pay is better. The episode follows one of them and the aide who must decide whether to follow. *Serves: regimes lose people by*

comfort. Tone: dry political thriller.

The Retired Colonel. Imre Sallow's Black-Snake raid sinks Talona's only warship and fails to kill its leaders. He refuses to let the Corps become a domestic punishment force and is retired for it. *Serves: doctrine outliving symbols. Tone: bitter, military.*

17 January 1300

Collar Numbers. Ludovica Hane flies a bomber with no unit patch and a stamped number on her collar. She believes her stores are conventional. *Serves: complicity without knowledge. Tone: tight, procedural, terrible.*

The Memo. Berend Mardrek, commanding Port Dionysis, asked for flash-protective eyewear in 1299 and was refused. The oldest nation was slow to answer, and the episode is one night in barracks dress. *Serves: how stable institutions kill. Tone: quiet, ironic, brief.*

The Count. Idalia Quimbaya's bombers destroy every remaining city on the USN mainland in a day with conventional ordnance. Then she begins to count the dead in a private notebook. *Serves: the cost of winning. Tone: sombre, restrained.*

Six-Thirty. At the All-Finian court, staff officers sign the dissolution in naval grey while Ingrith Skaal decides what the successors should inherit. She chooses innocence for the five new states. *Serves: guilt as an inheritance. Tone: formal, spare.*

The Leave Order. Hesketh Varro's continuity protocol releases the strike on the presumption that Ottoline Brask is dead. Farren Vane has already left, and Yaroslava Tenchova's supply stops that night without a word. *Serves: who gave the order. Tone: bureaucratic thriller, unresolved.*

Fenwick, the Reclamation War and the Long Peace (1303 to 1337)

The Training Order. Operation Fenwick's crews go in green because the training order never landed. Corwin Aubade suspects Department-Y's lost courier and decides not to investigate. *Serves: wars lost by paperwork. Tone: military drama with a leak.*

Solid Ground. Safemoon's Sanctuary I lands on Lira, and Konrad Vesterhaus edits the story for the schoolrooms. Ilsa Marrenkov reads the version the children will learn. *Serves: national myths. Tone: warm, then wry.*

The Seat of the Contract. In the Bavarian hall Hedda Vorsteen answers a buyer by pointing to a thirteenth chair and asking who it is for. The Board will survive any customer. *Serves: states that survive by having no politics. Tone: dry, mercantile.*

The Archive Returns. Zinaida Dimikrova comes home to find a country that does not need her. The pre-Conquest designs from her archive are about to become PUSDR's best aircraft. *Serves: exile and return. Tone: wistful.*

Moonhaven. In 1319 the Chicano advance stops at Safemoon's walls, built for exactly one last-ditch stand. The siege is told from the city's engineers. *Serves: defensive design pays. Tone:*

siege drama.

The Turncoat War (1345 to 1358)

Eleven Days. Oriel Marne dies eleven days before her term ends, and her appointment of a sixteen-year-old is a pre-dated paper nobody can prove she signed. Aurelia Quillon, her chief of staff, holds the only copy. *Serves: legitimacy built on paper. Tone: political thriller.*

The Third Dose. Isaure Rook's dose log, kept in a plain room above a street office with no name on the door, records the morning Malakor rejects sympathy as weak. Daro Quint, once a hungry child in the protocol, is in the room. *Serves: designed monsters. Tone: clinical, haunting.*

A Recruiting Band. Farren Vane dies at 94 in bed, and a recruiting band practises badly under the window. He saw the war begin and said nothing. *Serves: founders and silence. Tone: elegiac, small.*

The Signal Officer. Valentin Crake learns that Malakor has left for Typhon from a signal officer, and the war he has been fighting was never meant to finish. Crake wants a treaty and has no one to sign it. *Serves: war as private experiment. Tone: bleak, deadpan.*

The Ghost. Isador Reyes, 29, takes field command and starts sacrificing his own people. His warmth for those near him does not change, and Chicano soldiers have already borrowed a Solennese epithet for him. *Serves: calcification. Tone: grave, character study.*

The Fourth Aridexian War (1359 to 1371)

Pure Math. Ruvane Achterberg's resource assessment is read in an Accord drafting room as a licence to shoot down launches. She meant "restraint" and the room heard "choose one." *Serves: numbers used by others. Tone: procedural, cold.*

The Empty Chair, Again. In late 1359 a protocol officer sets a chair for the Jakaar at the head of the table. Aurelia Quillon signs the Threshold Accord in the name of a man who is not there. *Serves: government without a person. Tone: formal, uncanny.*

Unadmitted. A Safemoon crew's rocket is shot down, no signatory admits it, and every nation on the receiving end knows by the next morning. The story follows the families. *Serves: deniable atrocity. Tone: stark, domestic.*

The Fifth Signature. Rodrigo Valcazar signs for Anestria, and the other four successors never recognise it. Bavaria begins arming the fragments in 1361. *Serves: proxy war. Tone: legalistic, then bloody.*

The Last Government. Hardluckia and the Schwalbenheimers outlast every other state until 1371. A ministry clerk in the desert interior keeps filing paperwork for a country the rest of the world has forgotten. *Serves: endings with no ceremony. Tone: dry, desolate.*

Typhon (1341 to 1371 and beyond)

Sampling Error. A young geologist in Hearthlands writes that the surface ore is thin because of sampling error. Her note is wrong in an interesting way, and she will not learn why for thirty years. *Serves: evidence misread. Tone: quiet, pastoral.*

The Permanent Record. The Astrobiology Programme's senior staff lodge their dissent before the first landing. Fabian Garrow wrote the same kind of document on Aridexia, and it did him no good either. *Serves: dissent on the record. Tone: procedural, fatalistic.*

Two Names. Ione Tessarine and Caspar Vale-Orrin both keep a word for themselves. One of them chooses Orrin Kelvath's first name to define himself against the past. *Serves: chosen identity from old materials. Tone: intimate, quarrelsome.*

The Observer. Malakor Vane arrives as "Observer of the Solenne Concession" with Daro Quint and holds the escrowed land promised to the bribed nations. When the governments fall, the claims are orphaned and two councils claim one ground. *Serves: consequence of a calculation. Tone: cold, unnervingly pleasant.*

The Skull. Neve Anquetil delays confirmation for months so that neither side gets it wrong first. Malakor sits in the camp while the answer to the Descendant Problem comes out of a flooded cave. *Serves: the answer arrives, and nobody is ready. Tone: awed, restrained, ambiguous.*

APPENDIX D

Open Questions

This is the Division's candid list of what the record leaves undecided. It is meant to tell a writer where there is room and where there is none. Three labels are used throughout.

Fixed means canon in documents 32 to 39 or in a canon datasheet. It cannot be changed. **Provisional** means the Cast Bible invented it to fill a gap. The owner may overturn it, and a writer should avoid building anything that cannot survive a change. **Open** means the record is silent, on purpose or by neglect. A writer may decide it, but should say so in the script notes so the decision can be filed.

What Is Fixed Everywhere

The dates and shape of the four great wars, the Turncoat War, the Reclamation War and Operation Fenwick. The six cities struck on 17 January 1300 and the eight warheads in all. The fall of the USN that day. The founding of Solenne in the vacuum afterwards. The Threshold Accord of late 1359, its four signatories, and the year-by-year collapse of governments from 1365 to 1371. The Farside skull, dated about 50,000 years before GAW3. The humans-came-from-Typhon answer to the Descendant Problem. Nichozh's life dates and the broad shape of his state. Reyes's campaigns and Kelvath Hollow. The twelve houses of the Syndicate and the Table's thirteenth chair. All flags and uniform colours described in the Tone and Look guide.

The Ancient World and Luluke

The treaty that ended the 200-Year War is fixed. The people who signed it, Ilvane Aldmere and Benedetto Gallieri, are provisional, as is everything about Savine Dolrek and Nerys Marl. Irwin remains a single name with no sex and no history, and a writer should leave that alone unless the story needs it.

Open: no ruler of Luluke is named after Aldmere. The current Luluke government is described only as stable and slow to change. Writers may invent monarchs but should keep them slow. Whether Aldmere knew the drying had eased on its own is provisional, and so is the idea that her historians hid it.

The Syndicate and the Ledger

The fief structure in document 38 flags its own inventions in Section VII as "choices to confirm". These are the twelve houses, the single vote each, the rotating Chair and the empty chair. They are in use and in the heraldry, so treat them as fixed unless the owner says otherwise.

Provisional: Garrek Dunmar, Ysolde Lorrow, the claim that the Ledger Court became the real government by about 340 AE, and its survival under every regime until 1300. This is the Division's resolution of the "thousand-year dictatorship" contradiction. It is an institution and not a person.

Open: the Lords-Principal of the twelve houses are unnamed. So are the Chairs between Dunmar and Koedul's era, and the sex and origin of most of the Table.

Anestria

Fixed: three kingdoms, the Ferrosian Empire from 310 to 641 AE, the rebellion, the Republic, the industrial bridge, and the five successor states of 1302. Provisional: Maximar Ferrane IV, Merida Quor, Marisol Velarde, Idalia Quimbaya, Rodrigo Valcazar.

Open and deliberately so: what became of Anestria's single reserved warhead after 1300. The Cast Bible keeps the record silent and the book does the same, though the custody dispute is provisional. Whether any successor state has since reunified is also open. So is the fate of the restored Kingdom of Antares, which has no king named.

Resolved by ruling: only the Constitutional Anestrian Republic signed the Threshold Accord, in the name of "Anestria". The other four never recognised it, and that dispute is the cause of the 1361 separatist wars. The audit asked this question, and the answer is a ruling and not canon.

Numaria, Drozdov and Vessek

Fixed: the Karavynic Empire, the Litharic schism, Kessel Pass in 809 and Kelvath Hollow in 812, Eisenreich's fall by 1305, and PUSDR's founding.

Placeholder names: Ashwick, Talgrave, Prynn and Corvath were called placeholders in the source. The Division left them alone, and Reyes's conquered rulers still have no names. A writer may name them if the owner agrees. Do not use them as if they were final.

Open: Eisenreich's rulers beyond Ansgar Thalheim, who is provisional. The Great Revolution's battles. Vessek has no named leader in any era. Bavaria's rulers before Hedda Vorsteen. The Cyrillic script on the Bavarian flag appears only in the heraldry builder and is unconfirmed.

Resolved by ruling: the PUSDR designers Kloinsha and Ratikova worked in a pre-Conquest window in the 1210s and 1220s, and their drawings survived as paper in Dimikrova's exile archive. Provisional.

The USN and 17 January 1300

Fixed: the Uranium Crisis, eleven squadrons, collar numbers only, Port Dionysis at 2 AM, Anestria's conventional response, the Empire's dissolution at 6:30 AM.

Open: who gave the order to strike. The Cast Bible rules that the Ledger's continuity protocol released it under Hesketh Varro on the presumption that Ottoline Brask was dead. Whether

Brask gave it is deliberately unresolved. This is the most important open question in the book, and writers should not settle it.

Open: Brask's own fate. Her last signed act is the leave order that let Farren Vane vanish.

Provisional: the Black-Snake Corps as the USN's praetorian formation. Its dress was redesigned once, from an all-black pattern to bone, crimson and graphite, and the old pattern is withdrawn. The name Office of Watch is also a Division invention.

Solenne

Fixed: the Jakaar system as described in document 36, Farren's single term from 1300 to 1308, the chain of loyal successors, Malakor's appointment in 1353 at 16, and Department-Y, which is never acknowledged.

Resolved by ruling, and open to overturn:

- The Jakaar election grid. The 1340 Jakaar died in office, a special election in 1345 gave Oriel Marne a fresh eight-year term, and she died eleven days before it ended. Her appointment of Malakor is a pre-dated instrument that no one can prove she signed.
- Who governed 1358 to 1365. Malakor never resigned and went on "leave". Aurelia Quillon governed as acting Jakaar and signed the Accord.
- The five seals on the cream hoist band. The number is a project choice in document 37 and no document names the regions. Treat it as free until the owner decides.

Open: the fates of Vaussen, Marcus and Lilian Vane. Document 36 lists them as undecided. Arvonia has no history, no map position and no description. Do not imply any.

Candrasia and Northland

Fixed: Nichozh, from his father's death to his end at 103, the four clans, the Iron Union and the field order.

Provisional: Bayarmaa Oyun-Tash as head of state from 1328 to 1365, her wardship under Yurik Verrenkai, and Torvik Drenmoor as Southland's head. Nothing is canon about Northland between 1328 and 1365 except its place in the Accord and the Turncoat coalition. Einsenia, Southland and Christonia after 1276 each have only a sentence or two. Anything may be written there that fits.

Alliances and Realignments

The audit found that Bavaria, Safemoon, Pechoria, Xue Lin and Chicano States all change sides without a recorded reason. The Cast Bible supplies causes. Bavaria follows the Vorsteen Clause. Safemoon left UARRO after the 1351 Typhon promise to Chicano States. Pechoria follows Svarn's rule of never being the nearest target. Xue Lin's seat follows funding. Chicano States signed the Accord because it could no longer afford the war. These are rulings. They are the best reading of the record and not part of it.

Open: the leaders of the Ostrenia, Velemira, Kesarova and Dravensk states, and everything about Skotia, Mesaland before 1250, and the five Korut city-states beyond their one-line characters.

Typhon and the Descendant Problem

Fixed: the colonisation wave of 1341, the Ardekai-Ospyran split, the war from 1366 to 1371, and the skull.

Provisional: Ione Tessarine, Caspar Vale-Orrin, Daro Quint and Neve Anquetil, and the escrow that Malakor holds as Observer of the Solenne Concession. The 1369 grant for the Farside Reach survey is provisional too.

Open: Malakor's fate. The author of the unsigned field note. The identity of whoever worked Typhon's ore before the colony. The record says the crossing from Typhon to Aridexia is unrecoverable, and writers should leave it that way. Whether anyone survives on Aridexia after 1371 is not stated.

The Possible Episodes Folder

The three drafts are non-canon. They may inform tone and staging. They bind nothing, and nothing from them should be treated as fixed, including the names of any characters that appear only there.

The Short Rule

If a thing is dated, named and sourced in documents 32 to 39, it is fixed. If it is in the Cast Bible, it is a good working answer. If neither, decide it, and write it down.

APPENDIX E

A Guide to Tone and Look

This guide is for writers, directors and animators. It says how the world should feel, what its rules are, how each major nation looks, and what to avoid. Colour values come from the canon heraldry volume. Where the record is silent, the guide says so and leaves the choice to the production.

The Tone

Aridexia is a world that fights because it is short of things. Water, grain, iron, fissile ore and launch-grade propellant run out, and the wars follow the shortages. The tone is dry, melancholic and war-funded realism. Nobody in the story is stupid. The people who set the disasters going usually do the sums correctly and choose the cheaper harm.

The dryness matters. Documents, memos, charters and ledgers carry much of the history, and the best scenes often take place in rooms where somebody reads a paragraph out loud. A dry joke is welcome. Melodrama is not. Let a character die in the middle of a sentence about supply.

Warground tone applies to every nation. A state that is winning looks stable, even comfortable, and a state that is losing looks like hell. Nothing sits still. Even the slowest nation, Luluke, is slow because its bureaucracy copies everything, and that has a cost. Show the cost.

The Rules

No supernatural. There is no magic, no prophecy, no hidden power. The man worshipped as a living god in Northland is a three-war veteran with a wound. The answer to the Descendant Problem is a skull in a cave. If something looks uncanny, a person made it, and a document explains it.

Technology is tied to the war that paid for it. The rechargeable cell came from a field hospital that the army then bought. The first self-loading rifle came from the same workshop. Satellites, rockets and bomber fleets arrive because a state or alliance was afraid. Show who paid and what they wanted. Do not show gadgets that appear without a budget.

Nothing is stagnant. Every age is moving toward its next crisis, even the quiet ones. A peace is a pause between invoices. A long peace in the story is a period when the next war is being financed.

Scarcity limits everything. Eight warheads in all were possible, so the war of 1300 lasted one night. In GAW4 the lack of fissile ore means long, ugly conventional war. Keep the limit visible.

The record may be wrong. Founding myths, schoolroom texts and official histories are all shown to be convenient. The audience should know the real version a little before the characters do.

The Look of the Nations

The Syndicate

The Syndicate is black `#121212` and gold `#d6a92a`, with a darker gold `#a8801a` for shadow and embroidery. Black is the ledger and the night sea. Gold is coin. The flag is a black field with a gold hoist band cut by black chevrons, two pairs of thin gold bars along the edges and a ring of twelve beads around three peaks over two swells of sea. There is no crown, weapon or animal on it. The Syndicate presented itself as infrastructure, and that should show in its buildings.

The gold-and-black chevron is on warehouse doors, crate ends, harbour gates and company vehicles, and it started as paint on boundary posts in the fog. Use it as a hazard marking. Each of the twelve houses has its own colour for a pennant and a gold charge. Tallymen wear long black robes with white collars and gold cords, and they are the most frightening people in any room. In the fief period, levies wear undyed linen because they cannot afford the black dye. Lords-Principal wear mountain steel with the most gold edging. The Pass-Wardens bear a round shield painted with the three peaks.

The United Syndicate Nations

Black `#121212` and crimson `#8a2226`, with no gold at all. The 1250 flag is an eight-wedge field with a snake eating its tail and a dashed seam in its body. The 1290 flag adds an Eye, the Office of Watch. Banned in Solenne ever since.

The regular army wears charcoal-olive with matte black belt and boots, a plain red-on-black chevron and a stamped steel pin. Nothing is meant to be memorable. The Black-Snake Corps is the opposite and is the regime's one vanity. Its revised full dress is the Bone, a long undyed wool tunic in bone `#e9e4d4` closing off-centre in silver buttons, with a crimson half-cape, a crimson sash, straight graphite `#2b2e35` trousers and a low flat-topped kepi. Cuffs are crimson with silver rank bands, and the cuff title reads CONTINUITY. The greatcoat has wide crimson lapels. The field order is plain, with an ash-olive jacket `#59604f`, a steel-and-composite pot helmet with a crimson band, khaki webbing `#7a7258` and an AR-22 carbine. Silver `#c9ccd2` is the metal, never brass or gold. Do not use the earlier all-black Corps dress. It is withdrawn.

The bomber crews of 17 January 1300 carry no unit patches and only a stamped number on the collar. Keep the strike crews anonymous.

Solenne

Blue `#075d8e`, gold `#d8ab2e` and cream `#f6f0dc`. The flag is a deep blue field with a cream hoist band bearing five seals. The centre is a sixteen-ray gold sun around a ring holding a star in a laurel wreath. The rays are the USN's wedges thrown outward. The ring is where the snake used to be, and the founders kept the circle. Allow the audience to notice. The Jakaar's standard has a double gold border and a star in each corner, and flies wherever the Jakaar is present.

Solenne should look new, clean and optimistic, and be quietly watching. The SR-30 rifle is grey-tan with a see-through magazine, where the AR-22 was black. Buildings and uniforms should avoid the USN's black and crimson entirely. The surveillance should appear in ordinary details such as a form that asks one question too many.

Anestria

Water, sand and iron. Three colours run through everything since 641 AE: red for Antares, iron-grey for Imperium, green for Anestria-proper, on a sand-coloured ground. Soldiers wear pale layers and cotton webbing, never leather where it can be avoided. The oasis is the unit of everything, so towns cluster around wells and channels. In the Ferrosian Empire, the Ironguard wear black lamellar with a rust sash and tower shields, and Sand Riders appear as camel scouts. The Republic's militia wear a green armband. Show the water machinery, sluices and meters. It is the real power.

Northland

Black and purple, with gold. Nichozh himself stood 6'6" and wore a long high-collared black coat over dark armour, a fur-lined purple mantle and a wide gold-and-cream band across the eyes. The band is the practical cover for a lost eye and the religious cover for a face no one may look at. Northland's military dress follows his black and purple. The culture is austere and devout, and the welfare state is real. Keep its relief corps visible, alongside the cult.

The Numarian States

PUSDR is red and black, a pairing several other states kept after 1300 for their own reasons. Its court dress under Cassius Altyr is rich maroon and gold, and Cassius is 6'1" with tousled dark hair and amber-gold eyes. Its aircraft and armour come from the design bureaus named in the datasheets, so read those before drawing anything. Vessek has no capital, and its people use cloth strips in valley colours. Their gear is captured Eisenreich weapons and hunting rifles. Chicano States has no fixed palette in the record, so the production may choose one. Isador Reyes should look warm at the start of his arc and harder by the end. Bavaria is sky blue with a rearing crimson horse, though the script on its flag is unconfirmed.

Typhon

Hearthlands is volcanic, gentle and constantly unstable because of tidal flexing. Settlements stay close to the four documented biomes. The Ardekai keep Aridexian flags and uniforms. The Ospyrans may adopt new marks of their own and avoid the old symbols. The record gives none. Both sides lose infrastructure first, so show broken water-reclamation plants and mining shafts, not armies in the open.

The Cast in General Terms

Specific faces belong to the portraits in the cast files. In general terms:

Malakor Vane is 6'1" with light platinum-gold blond hair (it shines like pale gold in the light, clearly yellow-blond and never white) and eyes of different colours, one green and one blue. In front of a camera he is the warmest man in the room. Off camera his voice goes flat and he stops moving. The two registers should be clearly different.

Farren Vane is charismatic and persuasive, with a politician's patience. Voices of the Vane line are calm and rarely raised. Nikolai Nichozh is very tall and one-eyed, with the manner of an officer who has outlived his superiors. Cassius Altyr is regal and smug, and learns to listen too late. Aurelia Quillon governs an empty chair and should sound like someone who was never meant to.

Each culture should have its own manner of speech. Luluke is formal and unhurried. Syndicate speakers use ledger metaphors without noticing. Anestrians are laconic and talk about water. Northlanders are spare. Solenne's officials speak in civic plain language, softened by courtesy. Scientists on Typhon speak in numbers.

Names follow culture. Luluke names are two syllables with hard consonants, such as Aldrek and Falkreth. Syndicate names echo the twelve houses. Ospyran names are chosen, and often borrowed from old stock.

What to Avoid

- Gold on any USN costume or flag, or brass on the Black-Snake Corps.
- Lions, eagles, crowns or swords on the Syndicate flag.
- Glowing, clean or magical technology.
- Clean wars. Every victory costs something visible.
- Villains who sneer. Malakor charms on screen, and the audience should like him until they do not.
- Mushroom-cloud spectacle. Use a brief white flash and silence, then the aftermath on the ground.
- Heroic last stands without a reason. Reasons are in supplies, orders and budgets.
- A single clean founder. Each founder, whether Reyes, Nichozh, Farren or Dunmar, has a cost nobody remembers.

- Using the Possible Episodes drafts as canon.

APPENDIX F

The Balance of Power by Era

This appendix gives the order of the powers at six moments in the record, and the rules that keep the order honest. The record never prints a table of gross product or army size for most of these states, so the order is built from what it does state: production runs, who could afford what, and who held which ground. Where the record is silent the appendix says so.

The rules of scale

Resources cap every nation. Aridexia has little rich, shallow ore, and the wars worked as unplanned rationing by wrecking the industry that drew the ore down. Fissile ore is the hardest cap, so a nuclear programme is a handful of warheads and never an arsenal. The Third War used eight in all, six of them the United Syndicate Nations' and two the All-Finian Empire's, and no strategic warhead is built afterwards.

After 1320 technology sits on a plateau at about the middle of the sixth generation of aircraft. The Turncoat War and the Last War are fought on that hardware, worn down, so no nation leaps ahead of the others in generation. The differences are production, the quality of each nation's best few types, and who can still get rationed electronics.

Production is the honest measure of a nation's power. A series run of a hundred to nineteen hundred units means a real force. A limited run of a few to a couple of hundred means a nation stretching. A token run of one to seven is a status symbol or a political gift. Only Solenne and PUSDR have an arms industry big enough to design a front-line aircraft or tank from scratch.

1249, the eve of the First War

The Syndicate is first, with the best-equipped army of its coalition and a century of capital laid over Christonia. Chicano States is second, with one of the strongest armies and air forces in the world, the strongest navy on its continent and more territory than Eisenreich or Vessek. Anestria is third, a peer of the Syndicate with a first nuclear test behind it. Eisenreich is fourth, Numaria's dominant industrial power, and holds the lands of Altyr and Kargopol. Bavaria is fifth, a first-tier power rich from its mining strikes. Then come the All-Finian Empire, Luluke and Christonia, which has no arms industry of its own. Safemoon is squeezed to the ground around Moonhaven, Vessek holds only its mountains, and PUSDR does not yet exist as a state.

1300, the night of 17 January

Anestria comes out first. Its bomber force destroys every remaining Syndicate city in a day and its marines take the capital that evening, and it keeps its nuclear deterrent. The United Syndicate Nations are second only in that they fought: eleven bomber squadrons, six warheads, all spent, and the state ceases to exist. Luluke's garrison at Port Dionysis is destroyed, the Empire dissolves at half past six that morning, and Christonia's capital is struck. The record gives no order below the first two.

1301 to 1305, PUSDR at its peak

PUSDR takes Kargopol into being and carries it. It absorbs Eisenreich with its factories captured intact and ranks very strong, the chief rival to Solenne within five years of its birth. In 1305 it moves on Safemoon and Operation Fenwick answers. UARRO closes ranks around Safemoon and the bid fails. PUSDR loses to UARRO at its first real test, and from then on it keeps its industry but not its reach.

1329 to 1338, the second generation

By production PUSDR leads. Its JH-1AZ tank, its DKK-1 and CKK-10 fighters and its helicopter and airdrop vehicle put it far ahead on ground and air counts, and it is the only Numarian state with a full design and build base. Solenne is second, with the most modern arsenal and uncontested naval superiority, and is the richest state on the map. Bavaria is third. The Anestrian successors follow, then Northland and Southland, then Chicano States, which fields its tank in the hundreds and is poorer than its equipment suggests. Skotia and the Pechorian Federation field a few good types, and Safemoon and Nam Minh field token runs.

1354 to 1358, the Turncoat War

Solenne holds the sea. PUSDR anchors VAPIK on land and the ground war stalls with its arsenal intact. It cannot send force across water, and the coalition against it is Solenne's partners in the Pan-Savoran Union. The order holds on every other table, with Solenne first at sea and in the air, PUSDR first on land by numbers, and everyone else below them in hundreds.

1359 to 1371, the Last War

The war is fought on the same plateau hardware and nothing leaps. The governments fall in the order the record states, and PUSDR loses its own in 1366.

What the record does not say

It gives no figure for the gross product, population or standing army of any nation after 1250. It gives no naval order of battle beyond a few named Solenne ships, and it does not rank economies before 1250 or between 1300 and 1354. The appendix leaves those blank. Do not fill them with a number that makes one nation overpowering without an explicit reason, its production figures or a stated patron.

Index

A

Aevum 332, 393, 693
AFN 32, 119, 124, 197, 201, 202
Aldrek Keep 326, 393, 398, 405, 421
All-Finian Empire 14, 15, 32, 47, 65, 66
Altyr, Cassius 99, 100, 101, 102, 103, 104
Anestria 15, 33, 34, 36, 39, 41
Anestrian Coprosperity Sphere 98, 360, 384
Anestrian Craton . . . 198, 199, 295, 408, 410, 418
Anestrian Founding Myth 347
Anestrian Marines 326, 327, 345
Anestrian Nuclear Programme 327, 360
Anestrian Strategic Bomber Force 327, 377
Annexation of the Korut Islands 378
Annexation of the Pelruvian Archipelago . 365, 371
Anquilla 122, 343, 389, 390, 392, 396
Anquilla Trojans 389, 390, 411, 423, 690
Antilla-Vegan Union . . 98, 134, 170, 171, 202, 239
Aphos 389, 411, 423, 690
Apokka 94, 311, 341, 376, 394, 400
Ardekai 10, 156, 162, 175, 176, 177
Ardekai-Ospyran War158, 328, 346, 349, 350, 363
Aridexia 7, 10, 33, 43, 47, 57
Aridexia-Lira L1 . . . . . 411, 680
Aridexia-Solis L1 propellant depot363, 391, 417, 689
Aridexian Descendant Problem10, 179, 185, 321, 330, 339
Aridexian Trench 391, 398, 412, 678, 682
Arrival Theories 329, 339, 373
Arvansk 54, 65, 120, 206, 285, 295
Ashfields 142, 167, 413, 434, 606
Ashfields Campaign . . . 57, 59, 60, 206, 210, 253
Ashkeel, Mount 396
Ashvale 56, 312, 322, 355, 429, 592
Ashwick 55, 56, 57, 285, 287, 288
Ashwick Bay 392, 393, 591
Ashwick War 55, 333, 345, 348
Asmedeus 137, 185, 244, 246, 308, 315
Asmedeus Habitat Module 246, 315, 332, 373, 432
Asmedeus II-class Crew Transport 332, 379, 434, 456, 685
Asmedeus-1 . . . . . 143, 246, 308, 315, 331, 356
Astera 405, 413, 425, 695
Astraea Vent Field 355, 407, 425, 687
Aurelain 389, 396, 404, 429, 447, 690
Aurelia 144, 169, 171, 189, 332, 364
Aurelia Mining Operation 350, 363, 364
AVMS 12, 36, 86, 90, 101, 109

B

Bannermen 22, 25, 27, 29, 309, 333
Battle of Ashwick Bay . 55, 285, 322, 331, 345, 393
Battle of Dorrenheim Heights . 56, 312, 322, 355, 358, 396
Battle of Kelvath Hollow 338, 355, 358
Battle of Ornwellburg . 99, 290, 371, 384, 393, 417
Battle of the Corvath Crossing . . 55, 291, 322, 340
Battle of the Tolgen Fords . 55, 310, 322, 372, 375
Bavaria 43, 49, 50, 54, 56, 81
Black-Snake Corps 29, 77, 92, 227, 272, 290
Bond System 357, 373, 374
Borean Lowlands 413, 417
Brasmere Quay 335, 395
Bredezen 99, 133, 170, 290, 296, 371

C

Calmouth 345, 392, 428, 591
Candrasia 31, 32, 69, 73, 161, 172
CAR 98, 99, 132, 202, 207, 239
Carina-11 Famine 341, 360, 378

Central Continent 11, 66, 289, 297, 320, 360
Charter-Houses of the Syndicate . 326, 335, 336, 340, 343, 345
Charun 398, 416, 696
Chezkiv, Nikolai . . . 101, 301, 303, 307, 315, 437
Chicano Interwar Collapse 330, 366
Chicano Revolution of 1357 . . . . . 378, 382
Chicano States 54, 57, 58, 59, 60, 65
Christona 71, 86, 87, 94, 131, 289
Christonia 30, 31, 32, 43, 47, 48
Classical disk 418, 430, 695
Coastville 84, 91, 290, 339, 375, 425
Collapse of the First Marshal's Empire . . 333, 348
Collectors 36, 39, 77, 272, 293, 347
Comet Halvenn 395, 416, 696
Comet Ostrey 363, 395, 416, 697
Comet Vairon 382, 385, 395, 416, 440, 696
Communist Power Alliance 77, 81, 88, 241, 286, 302
Confederate States of Talona 84, 91, 289, 290, 311, 362
Constitutional Anestrian Republic 98, 132, 143, 275, 284, 285
Convergence Hypothesis 183, 184, 185, 191, 329, 373
Corvane Deeps 340
Corvane Highlands . . 391, 392, 395, 417, 418, 419
Corvath 55, 56, 57, 285, 287, 288
Corvath War 55, 334, 348, 372
Corvenna 32, 85, 87, 90, 91, 92
Council of Oases 39, 132, 283, 338, 347, 361
CPA 81, 82, 220, 241, 272, 311
Crater Demeryn 347, 399, 411, 412, 680
Crepuscula 389, 392, 404, 429, 447, 690

D

Department of Defensive Logistics . 107, 142, 169, 353, 439, 657
Department of Trial, head of the 107, 110, 144, 315, 316, 324
Department-Y 107, 108, 110, 149, 308, 324
Destruction of Port Dionysis 376
Diaspora of 3 AE 335, 359, 366, 372
Dimikrov Katinka Krasny Design Bureau 249, 320, 365, 439
Diplomatic Resource War 160, 349, 377
Dissolution of the All-Finian Empire . . . 366, 376
Dorrenheim Heights 165, 408, 429
Dravensk 48, 64, 161, 172, 205, 209
Drozdov, captain 43, 49, 50, 53, 54, 56
DS-HP 85, 90, 120, 122, 123, 141
Dunmar Mill 343, 402, 421, 617

E

Eastern Rift 391, 678
Economic Absorption of Christonia 336, 339, 369, 374
Einsenia 69, 73, 129, 131, 161, 172
Eisenreich 54, 58, 59, 60, 67, 69
Eisenreich Occupation of PUSDR . . 347, 350, 367
Election of Malakor Vane 346, 366
Equatorial Counterflow 390, 414, 424, 678
Erebos 394, 415, 416, 696
Esselt Court 345, 401
Esselt, House 357
Exodus Point 60, 288, 337, 402, 413, 414

F

Falkreth Gate 345, 388, 703
Fall of Calmouth 55, 285, 322, 331
Fall of the USN Capital 327, 376
Far-Side Radio Observatory 396, 680
Farren Vane's Intelligence-Optimisation Programme 340, 341, 349, 353
Farside Anomaly . . . 180, 190, 191, 346, 399, 400
Farside Excavation 329, 330, 379
Farside excavation site 181, 399, 400, 427
Farside Reach 176, 180, 190, 323, 346, 399

Federal Province of Kinzel 103, 278, 302, 303, 310, 350
Federated States of Imperium 98, 133, 284, 285, 291, 294
Ferrengrad Arms . . 203, 208, 292, 316, 332, 344
Ferris 350, 400, 402, 421, 694, 695
Ferrosian Empire 36, 54, 275, 283, 284, 293
Ferrosian Rebellion . . 36, 283, 327, 330, 340, 347
Finhaven 119, 124, 126, 127, 140, 141
First Crewed Capsule Flight 384
First Crewed Lira Landing 357, 370
First Marshal's Empire . 331, 333, 334, 337, 338, 340
Fortaleza 60, 288, 337, 400, 420, 428
Fortero 60, 288, 337, 400, 420
Founding of Solenne 98, 345, 353, 377
Fourth Aridexian War 152, 158, 159, 161, 223, 285
Fracture of the Typhon Colony 328, 329, 363, 379
Freeport 94, 311, 341, 376, 390, 413

G

Garnoth Forges 350, 398
GAW1 . . . . . 30, 54, 57, 59, 67, 70
GAW2 . . . . . 57, 59, 60, 67, 71, 82
GAW3 . . . . . 50, 58, 59, 60, 67, 69
GAW4 . . . . . 73, 152, 320, 349, 442, 482
Girdle Isles 400, 403, 412, 427, 447, 683
Glaucus 417, 418, 420, 421, 427, 684
Glocian Express 400, 402, 442, 695
Glocian Veil 402, 694
Glocius 350, 393, 400, 401, 402, 406
Gran Chicania 59, 60, 206, 210, 287, 330
Great Revolution . . 104, 105, 204, 278, 292, 302

H

HAFDAP 81, 82, 220, 238, 284, 297
Halia 407, 410, 687
Halvane Vale 351, 397
Halvern 119, 124, 127, 142, 150, 163
Hardluckia 65, 119, 162, 172, 205, 209
Hearthlands 156, 175, 176, 185, 186, 187
Hearthlands Research Station . 185, 379, 403, 427, 456, 684
Helian 54, 66, 351, 359, 403, 443
Heliodysseia 66, 196, 351, 359, 403, 410
Heliodysseian Plate 198, 394, 403, 410, 420
Helios Trojans 404, 407, 695
Hesper Plateau 417, 688
Hesperian Trojans 404, 407, 425, 695
Hesperin Plateau . . 389, 392, 396, 404, 429, 447
Hired Companies 333, 360
Historic Alliance For Democracy And Prosperity
Huono, Lensi 109, 315, 324, 652
Hydra 404, 406, 426, 692, 693, 697

I

Ilmar Span 352
Indigo Oval 406, 419, 691
Indra 406, 429, 697
Inner Belt 392, 413, 425, 695
Innus-class Relay 379, 421, 444, 456, 685
Iron Union 72, 73, 300, 318, 319, 320
Ironguard 36, 37, 39, 41, 133, 241

J

Jakaar System 107, 340, 341, 345, 346, 349
Jurak Tower 354, 405
Jurak, House, and the Bell-and-Beacon Network 364

K

Kaldrun 202, 208, 297, 405, 445, 642
Karavynic Empire 53, 54, 158, 285, 299, 357
Kargopol 65, 67, 99, 100, 101, 102

Kelvath Hollow 56, 285, 287, 312, 322, 333
Keplanus 122, 332, 343, 364, 388, 392
Keplanus Trojans 405, 406, 425, 695
Keplum 355, 392, 402, 407, 410, 425
Keplum Cryobot Campaign 407, 438, 687
Kesarova 48, 161, 172, 205, 209, 224
Kessane Quarry 355, 412
Kessel Pass 56, 312, 322, 333, 392, 397
Kessel Pass Disaster 333, 358
Kharzun 34, 36, 64, 65, 172, 197
Khoshlikova, Antiko . 203, 204, 247, 303, 316, 317
Kingdom of Antares . . 98, 99, 133, 284, 285, 290
Kloinsha, Antiko . . . 101, 249, 317, 320, 365, 433
Koedul Rail and Canal Network 356, 359
Koedul, Vakkar 19, 20, 22, 29, 30, 31
Koedul-1 . . . . . 245, 246, 308, 317, 332, 356
Koedul-class Heavy Transport . 245, 317, 379, 446, 456, 685
Korut 14, 124, 127, 141, 150, 158
Korut Arc 198, 282, 409, 415, 420
Korveil 119, 124, 126, 140, 142, 150
Korveil and the Successor City-States 283, 303, 309
Krenos 406, 413
Kryodysseia 65, 66, 196, 197, 356, 359
Kryodysseian Non-Militarisation Norm 359
Kryodysseian Plate 198, 388, 403, 410

L

Ledger Court 22, 85, 87, 271, 309, 335
Lemnos 402, 407, 687
Lethe 389, 423, 690
Lira 90, 122, 123, 139, 141, 305
Lira Pact 347, 348, 411, 446, 678
Litharic Church 50, 53, 294, 299, 354, 358
Litharic Schism 53, 354, 357, 415, 446
Long Campaign 56, 167, 312, 322, 333, 337
Long Emptying 143, 154, 379
Long Survey 196, 309, 351, 356, 403, 410
Lorrow Watch 359, 408
Lorrow, House 356
Luluke 11, 12, 14, 15, 19, 20
Luluke-Christonian War 332, 351, 378

M

Mare Concordis . . . 348, 396, 411, 420, 421, 679
Maren Deep 391, 417, 418, 682
Marrenkov, Ilsa 123, 139, 141, 305, 325, 370
Marshals of the Syndicate . . . 333, 351, 364, 374
Meridian Sea 186, 379, 401, 427, 449, 683
Mesaland 32, 67, 77, 82, 87, 129
MiguelTek 43, 284, 327, 448
Mira 406, 410
Mnemosyne 392, 405, 425, 695
Mons Velhar 393, 417
Moonhaven 59, 138, 139, 141, 142, 144
Moonhaven Spaceflight Authority 123, 305, 318, 330, 370, 371

N

Nam Minh 59, 120, 138, 139, 161, 169
Navarro 60, 288, 337, 398, 402, 414
New Geneva 94, 311, 341, 376, 390, 400
New Virgen 98, 134, 170, 171, 202, 207
Nichozh, father of Nikolai 318
Nichozh, half-brother of Nikolai 319, 352
Nichozh, Nikolai 70, 71, 72, 73, 86, 132
North Aridexian Drift 390, 398, 424, 678
Northern Tureshan Kingdom . 49, 286, 294, 295, 342, 354
Northland 69, 70, 71, 72, 73, 119
Northland State Relief Corps 352, 381

Nueva Chicania 60, 288, 337, 402
Numaria 43, 49, 50, 53, 54, 57
Numarian Plate 49, 198, 286, 299, 361, 397
Nyxara 394, 398, 416, 696
Nyxara-Erebos 394, 398, 415, 418, 696, 697

O

Oasis Courts 39, 132, 340, 385, 449, 620
Oasis Guard 39, 41, 132, 134, 170, 236
Office of Watch 85, 91, 92, 227, 229, 272
Oort cloud 395, 418, 696
Open War 161, 349, 376
Operation Black-Snake . 84, 91, 227, 290, 311, 334
Operation Fenwick . . . 59, 105, 118, 119, 137, 243
Opytnyy Tank Competition 365, 386
Orjust 122, 343, 363, 391, 393, 395
Orjust Pipeline 332, 350, 364, 391, 395, 417
Ornwellburg 99, 133, 296, 393, 418, 430
Osprey 154, 156, 158, 162, 175, 188
Ospyran 175, 176, 181, 188, 189, 190
Ostrenia 48, 161, 172, 205, 209, 224
Outer Belt 395, 416, 430, 695
Outer System Mining Concord 332, 388, 393, 450, 693

P

Palazzolo, Christian 11, 289, 437, 613
Pan-Anestria 64, 162, 183, 197, 198, 199
Pan-Savoran Union . . . 67, 119, 129, 141, 189, 210
Pass-Wardens 22, 27, 92, 309, 334, 345
Peaceful Secession of Tianhai 368, 377
Pechorian coast 421, 638
Pechorian Federation . . . 15, 32, 50, 119, 120, 130
Pellastri 396, 417, 418, 425, 681
Pelruvian Archipelago . 82, 88, 311, 365, 371, 423
Pelruvian Campaign 88, 328, 371, 383
People's Revolutionary Air Force 249, 303, 342, 365, 482
People's Revolutionary Airborne Landing Force 365, 395, 433
People's Revolutionary Army 103, 203, 204, 247, 303, 316
Peoples' Union of Socialist Democratic Republics
Phaeshan Federation . 14, 282, 283, 297, 303, 341
Polar Hexagon 405, 406, 691
Port Dionysis 94, 125, 221, 297, 311, 341
Postwar Scramble on Numaria 337
Project Turncoat . . . 149, 301, 309, 324, 338, 345
Promontory Vesh 396, 401, 411, 679, 684
Properio 60, 288, 337, 400
Prospera 60, 288, 337, 400, 420, 428
Proxy War 160, 349, 376
Prynn 56, 57, 285, 287, 288, 291
PSU 67, 119, 149, 210, 222, 260
PUSDR 50, 54, 58, 59, 60, 67
PUSDR Resistance and Government-in-Exile 339, 344, 355
PUSDR State Arms Industry 363, 365, 386

R

Rajan 320, 423, 424, 451, 677
Ratikova, Polshinka . . 101, 249, 317, 365, 451, 611
Realignment of Tianhai 355, 364
Reclamation War . . . 138, 188, 217, 221, 288, 298
Reeves and Factors 373, 374
Renner Bombing 332, 369, 377
Renner Faction 31, 32, 76, 201, 202, 219
Renner Prize 184, 191, 321, 329, 369, 439
Renner, Elin 31, 85, 131, 184, 191, 289
Republic of Altyr 58, 99, 301, 303, 307, 315
Reyes, Isador 151, 163, 166, 167, 168, 169
Reyes, Salvador 30, 49, 53, 54, 55, 56

S

Safemoon Republic . . 59, 103, 105, 119, 205, 253
Safemoon-Vessek Mutual-Defence Understanding
Sanctuary Program . 122, 123, 305, 318, 343, 348
Sand Riders 36, 293, 347, 353, 452, 620
Savoran Plate 198, 305, 306, 394, 403, 409
Savorus 19, 20, 30, 31, 32, 47
Savorus, Nations of 297, 301, 311
Schwalbenheimers . . 65, 162, 172, 205, 223, 224
Seal-Mace 22, 29, 336, 375, 453
Second Aridexian War . . 48, 71, 82, 85, 219, 284
Selache 352, 401, 417, 418, 427, 444
Sidero Plain 402, 694
Siege of Bredezen 99, 290, 334, 384, 393
Siege of Moonhaven 361, 368, 370
Siege of Prynn 56, 348
Siege of Vantor 334, 375
Sinus Achlys 396, 411, 412, 680
Skarnovia 47, 48, 64, 66, 129, 161
Skarnovian Colonies 307, 310
Skarnovian Plate 198, 306, 420, 422
Skarnovian Scramble 47, 341, 383
Skerrow 119, 124, 128, 150, 163, 296
Skotia 66, 129, 150, 161, 169, 172
Skotos 389, 390, 411, 690
Socialist Republic of Kargopol . 58, 99, 301, 303, 304, 315
Solenne 15, 30, 57, 58, 60, 67
Solenne mainland 419, 421
Solis 7, 99, 106, 273, 308, 320
Solvane 11, 12, 125, 289, 297, 360
Sostrate 406, 410, 413, 420
Southern Circumpolar Stream . 390, 398, 414, 678
Southland 73, 132, 149, 150, 158, 159
Special Origin Schools 329, 330, 339
Stewardship 22, 335, 369, 374
Sulsbury 94, 311, 341, 376, 390, 400
Syndicate 14, 15, 19, 20, 22, 23
Syndicate Navy 243, 271, 373, 453
Syndicate Under the Fiefs . 326, 335, 336, 340, 341, 343
Syndicate-Chartered Trading Companies 336, 344, 369, 383

T

Talgrave 55, 56, 57, 285, 287, 288
Talgrave Armistice . . 55, 310, 322, 372, 375, 428
Talgrave War 55, 322, 331, 334, 348, 372
Talona 84, 91, 92, 95, 131, 227
Talona Crisis 84, 85, 90, 94, 227, 229
Taran Kingdom . . . 103, 278, 292, 302, 303, 350
Tarrow 396, 417, 418, 419, 681
Tavelin 119, 124, 128, 150, 161, 163
Telos 404, 407, 695
Terrorist Campaign 160, 349, 362, 367
Thalassa 392, 407, 425, 686, 687
Third Aridexian War . . 43, 48, 154, 220, 284, 286
Thirty-Day War 32, 70, 76, 201, 212, 217
Threnos 392, 405, 413, 695
Threshold Accord 73, 159, 160, 161, 169, 181
Tianhai 64, 67, 89, 91, 101, 105
Tianhai / Xue Lin 206, 300, 305, 309, 311
Tigris Stripes 404, 692
Titanis 404, 406, 426, 451, 691, 692
Tolgen Fords 428, 591
Treaty of the 200-Year War 12, 289, 297, 335, 360, 424
Turncoat War 57, 129, 134, 139, 149, 150
Typhon 57, 90, 122, 134, 140, 142
Typhon Astrobiology Programme 154, 185, 343, 351, 358, 383
Typhon Colonisation . 331, 343, 346, 351, 358, 366
Typhon Corridor Fleet 245, 246, 317, 331, 352, 356

U

UARRO 50, 59, 65, 67, 118, 119
UARRO Exclusive Economic Sector 120, 380, 381
UARRO Foundational Charter . 119, 342, 363, 380, 381, 383
Unification of Northland . 348, 352, 361, 371, 384
United Syndicate Nations . 29, 77, 87, 90, 94, 219
Univar 59, 60, 287, 337, 398, 402
Uranium Crisis 60, 94, 108, 311, 312, 323
USN 15, 30, 32, 48, 50, 58

V

Valentia 60, 288, 337, 400, 420, 428
Vane, Farren 108, 201, 214, 308, 315, 316
Vane, Lilian 152, 325, 710
Vane, Malakor 57, 134, 139, 144, 148, 151
Vane, Marcus 152, 324
Vane, Vaussen 101, 109, 111, 143, 187, 315
Vantor 55, 310, 322, 372, 375, 393
VAPIK 58, 139, 150, 166, 167, 168
Vask, Dorian 123, 141, 305, 318, 370, 413
Vaurek Concession 43, 60, 94, 120, 298, 311
VEIL 120, 308, 380, 381, 457, 458
Velemira 48, 161, 172, 205, 209, 224
Velemiran Independence 365, 372
Velis-1 . . . . . 245, 308, 317, 356, 373, 446
Velt-class Survey Probe 379, 456, 458, 686
Verdad 60, 163, 166, 167, 171, 288
Verrenkai, Kholvag, Drenmoor and Oyun-Tash 348, 381
Vespera 405, 406, 697
Vesperin 389, 392, 396, 404, 447, 690
Vessek 54, 55, 56, 57, 58, 59
Vessek Resistance 337, 358, 368, 370
Vinear Coast 99, 133, 290, 296, 371, 384
Vinear Coast War . . . 99, 170, 202, 239, 275, 290
Vivemus-1 . . . . . 85, 90, 284, 348, 458
Vykres 395, 418, 695

W

Water-Courts 36, 39, 293, 338, 347, 361

Y

Year of Two Tails 382, 395, 696
Yedinstvo Treaty 58, 99, 101, 104, 278, 301
Yeshuren Union 120, 161, 169, 172, 204, 206

Z

Zhokrova Tank Plant . . . 247, 303, 363, 365, 367