Stars of Empire Primer

A Victorian Science Fiction Setting

The universe in the Stars of Empire (SoE)[1] setting differs from the one in our timeline (OTL) in several ways. The biggest changes are directly or indirectly related to technological advances caused by the 1865 discovery of a mineral that allows both aerial and space travel. Dubbed Aerolyth, this material first opened the skies of Earth and then the airless void of space to eager Victorian explorers. Explorers landed on Earth's Moon, and then both Venus and Mars saw Terran adventurers land in their riveted glass, steel and brass machines. By 1891 colonies of Earthmen stood on the Moon, Venus and Mars. Everywhere they went they found marvels and surprises.

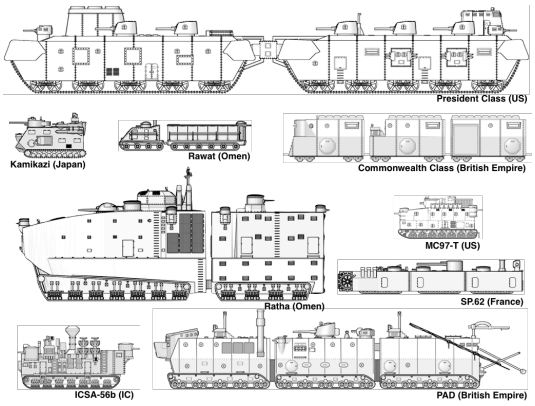

Figure 1 Size comparison of several vehicles in HQC

SoE is a universe where not only do great ocean liners ply the seas, but vast airships cruise the sky and huge astral liners ply the airless darkness between the planets. It is a setting where the human race that is vigorous, powerful, and above all hopeful for the future. It is also a universe where imperialist nations on Earth are engaged a vicious and oft-deadly conflicts to assert their supremacy across the globe and where ancient alien civilizations turn their own expansionist eyes upon the Earth.

1. History

The worlds of Stars of Empire diverge from our history in several places, firstly in 1830 when Babbage's Difference Engine becomes a working reality and forever changes the way that data is developed, handled and stored. By 1850, Babbage machines were used in every nation, in most industries; British ships navigated with them, German factories were controlled by them, American railroads couldn't function without them. In addition to their direct impact the "Babbage Revolution" caused improvements in machining and metallurgy to build such finely tuned, high tolerance machines.

The later discovery of Aerolyth opened up space for exploration. The Russians landed on the Moon in 1870, surprising everyone and ushering in a new Race for Space. An international treaty, the Treaty of Brussels, defined some rules for exploration and colonization, which defused some initial conflicts. In 1877, a multi-national Race to Mars was won by a British ship with a new reactionless drive. This opened Mars for

[1] Also known as the Hive, Queen, and Country setting

exploration and led to the discovery of the la sep, an ancient alien species, and the discovery of an entire human culture outside of Earth.

While the Nations of Earth were still digesting the new discoveries on Mars, in 1881 the first successful expedition to Venus returned. Again, new human cultures were discovered. Unlike Mars, these cultures were open to trade. Quickly, exotic Venusian metals, medicines, and artworks were being traded for Earthly goods. An International Settlement was founded, followed by a sprawling International where the best of Earth's and Venus' manufacturing knowhow combined.

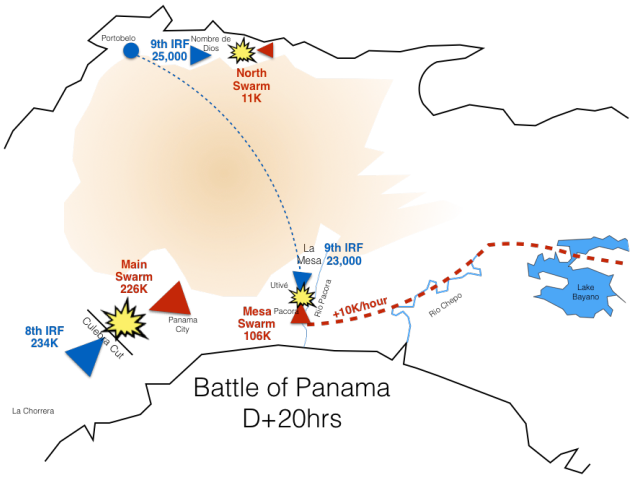

Figure 2 The Battle of Panama

Not all of the off-world exchange was welcome. In 1891 the Hive, a collection of insect-like alien organisms invaded England. Dozens of towns were overrun, with countless losses. The damage from the Hive War was immense, but only a prelude to the invasion of 1896 in which the Hive returned and overran much of South America. The planet was in danger of being consumed until early mechanized forces turned the tide in the Battle of Panama.

2. The Worlds of Stars of Empire

2.1 Earth

The Earth of SoE has been transformed by the Second Industrial Revolution, but also by concurrent Computing and Space Revolutions. Technology is greatly advanced from OTL, though many social and political structures still lag behind. The Great Powers still vie for power. Their ambitions now cover not only the land and sea, but space.

Earth's moon is a site of exploration and some colonization. Vast tunnels hint at a previous alien presence, but its full nature has yet to reveal itself.

2.2 Mars

Even though the surface of Mars can be seen via a powerful telescope on Earth, it is still a planet of vast mysteries. A mysterious group of aliens, the la sep, and their human servants, the Zuckasarki, have an agenda that is secret from the men of Earth. It appears that tremendous efforts, over tens of thousands of years, have been lavished to make Mars more livable. Although the surface of Mars now seems to be complete, supporting varied, beautiful and exotic life, the aliens appear to be waiting for some critical event. What that might be remains hidden. The Zuckasarki have opened tentative diplomatic relations with Earth, though their true motivations remain elusive.

2.3 Venus

Venus, is shrouded by clouds. The Victorians were stunned to find human beings living upon its islands and small continents. But it is a humankind strangely twisted by a harsh and exotic world. The warm shallow seas and dense jungles of Venus teem with life. Hunters stalk exotic game across her islands and small continents and her seas prove to be a challenge to whaler, fisherman, mariner, and ship as well.

It appears that some terrible cataclysm struck the planet in the distant past. This catastrophe forced the few remaining humans to form their own cultures as they attempted to survive the harsh climate and its terrible native wildlife. Some cultures, the "Treaty Venusians", have been broadly friendly towards the visitors from Earth. These include the trade-based Naxlii, the agrarian Marbii, the scholarly "Monks", and the remote Cloud Kingdoms. Some, most notably the Sea Kings and their allies, have been relentlessly hostile. Others, like the enigmatic Sky Pirates, are still a mystery.

3. Nations of Earth

In both SoE and in OTL, the British Empire was the sole global super power of the late 19th and early 20th centuries. The Industrial Revolution had found its original start in England. The impact of this technological edge was multiplied by three deeply interrelated factors: a vast overseas empire; a huge merchant fleet; and the supremely powerful Royal Navy that ensured the safety of the colonies and the merchant ships. By 1900, the huge advantages of the British Empire were being eroded as other nations gain ground technologically, economically, and militarily.

The United States of America is the only representative republic to be a Great Power. All others are either absolute or constitutional monarchies. Until recently, the United States was focused on consolidating its hold on the lands bought from France as part of the Louisiana Purchase and won from Mexico after the Mexican American War. The vastness of the American West preoccupied the American national psyche and prevented much interest in international activities. The Second Hive War catapulted the United States onto the world stage.

Russia was a huge and powerful expansionist imperial state in our history, but was often hamstrung by severe internal political issues, a backwards economy, and a general lack of capitalization. In the SoE universe, the Mars-based humans, the Zuckasarki or "Zucks," have seen all these factors as making Russia the perfect location from which to gain a foot-hold upon Earth. They have pumped large amounts of capital and technology into the Russian economy. Zuck supplied medical treatment saved the younger Tsarivich George from tuberculosis and Zuck suppled technology avenged the death of the heir, Tsarivich Nicholas, during the Ōtsu Incident. Russia, although now even more factionalized than ever before, has been making major advances in military, naval and industrial power.

The Triple Empire, made up of Spain, Portugal and Brazil, has been the power most impacted by the Second Hive War. Large parts of Brazil have been infested and the entire military and economic might of the empire is now focused solely on eradicating this menace.

In SoE, France is still ruled by a Napoleon, Emperor Louis Napoleon IV to be precise. Napoleon IV ascended the throne during the height of the French Anarchist Revolution, a bloody conflict in the mid-1880s that cost the nation hundreds of thousands of casualties as well as the Empress Donna Maria del Pilar and her infant daughter. Since that time, France has rebounded, showing the world its vigor in the 1889 Paris Exhibition. The Emperor has re-married to an American heiress, but many say that he is no longer the gay and bright man he was before his first wife's death.

The final Hapsburg state is the Dual Monarchy of the Empire of Austria-Hungary. Just as in OTL, this region is seen as economically depressed, trapped in the throes of ethnic and religious tension, and living far more on its history than its future.

A nation that has a far larger role in SoE than it did in OTL is the kingdom of Italy. Italy has discovered the only economically important deposits of aerolyth on Venus. This resource has more than doubled the exports of Italy and has funded improvements in their of economic and social infrastructure. The Italians have leveraged this increased influence and power to expand their holdings at the expense of the Ottoman Empire.

The Ottoman Empire finds itself in terrible straits in SoE. The Italians have been very successful in stripping much of North Africa from the "Sick Man of Europe." Russia has rearmed in the Black Sea, and it is simply a matter of time before a major assault is launched against Turkey itself. The Turks have been able to balance the British Empire and other great powers against Russia for the time being, but alliances shift rapidly and the Pasha has little with which to negotiate. Only the threat posed by a Russian occupation of the Dardanelles keeps any of the other great powers in the Turkish camp.

The Northern German States have formed a strong economic and mutual defense league with the Dutch. The discovery of aerolyth in the Dutch colony of Curacao has made the Netherlands much more of an economic powerhouse. Combined with the industrial strength of the German States, this has produced a treaty-bound region with vast resources, a modest Earthly colonial empire, and tremendous technological and mercantile abilities.

4. Technology

The Hive, Queen, and Country setting aims to be a "Hard" Victorian Sci-Fi setting, That is, it is set in the Victorian Era and it adheres (as much as possible) to the known laws of physics, presents reasonable economics, and develops an alternative history which is a plausible extrapolation from our timeline (OTL).

4.1 General Technologies

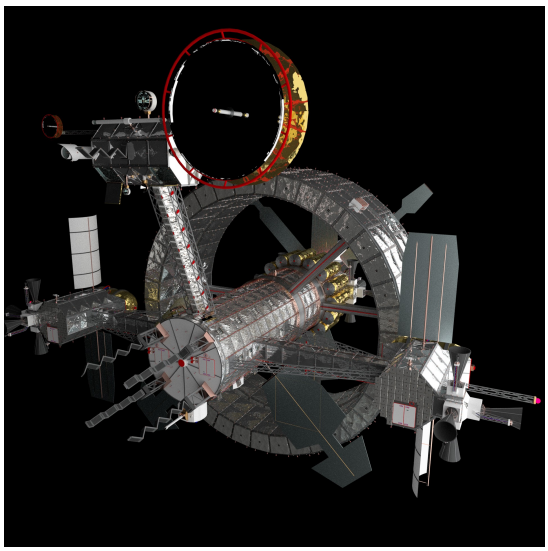

Figure 3 Russian Space Patrol Craft

With, that said, there are some departures from realism that are added to make the setting interesting (e.g. alien on Mars, a human colony on Venus) and some bending of technological and physical realism to make a space-faring Victorian culture possible. We have strived to keep these departures minimal and to bind them with their own tradeoffs.

The most important space technologies are:

- **Aerolyth Rockets**: A rocket made from the fictitious stone Aerolyth, it can create a very efficient (I_{sp} > 14000s) high thrust impulse. It has the downside that it requires a large electrical charge to ignite, and it is not easily throttleable.
- **E&S Drive**: A low-thrust reactionless drive, capable of propelling ships at accelerations of a fraction of a m/s^2. It has the downsides of interfering with radar and radio signals, not being composable with Aerolyth rockets, and producing substantial amounts of waste heat.

These two technologies are the foundation of SoE space capabilities. Some other technologies provide additional benefits, with less 'bending' of the laws of physics:

- **Babbage Computers:** Digital (i.e. operate on discrete numbers, as opposed to analog) mechanical (i.e. state is represented and computation is performed with moving parts rather than electrons) computers are much more advanced in SoE. These are orders of magnitude less powerful than even early electronic computers (a 'fast' Babbage machine might be able to execute a thousand instructions in a second, rather than millions). However, they still provide sufficient speed to control ascent and shipboard systems (See section **Error! Reference source not found.**).
- **Materials:** Structural materials are better, and aluminum is available at a much lower cost.
- **Sensors:** In OTL, early bolometers and thermocouples (infrared detector) were invented in 1878. In SoE, the technology is more refined and sensors are more efficient (though still quite noisy by modern OTL standards).

4.2 Vehicle Technology & Drivers

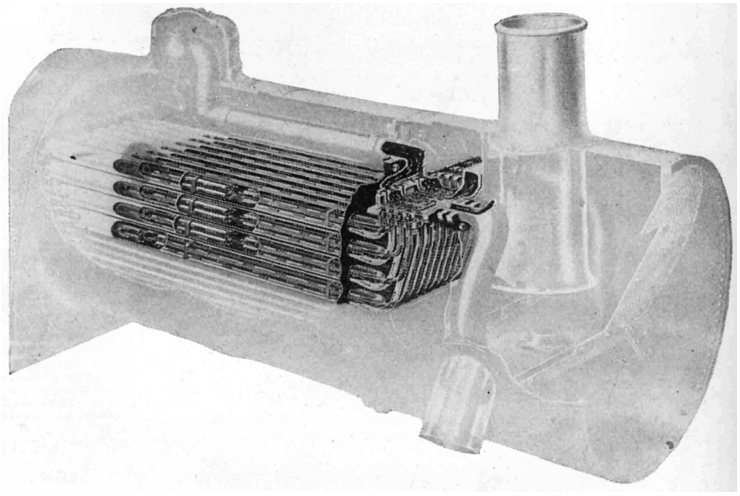

Figure 4 Superheated water-tube boiler

Ground vehicle designs in SoE are driven by the limitations and possibilities of the period's technology:

- **Reliability**. Early armored vehicles were notoriously unreliable. This is still a major problem.
- **Logistics**: Engine efficiencies are low, requiring frequent refueling. Additionally, steam engines require new feed water at regular intervals.
- **Ground pressure**: Walkers and super-heavy vehicles are limited by ground pressure.
- **Portable Babbage machines** will make computer-controlled artillery *de rigueur* for the modern battlefield.

5. Sample Vehicles

5.1 US Tankette M1898

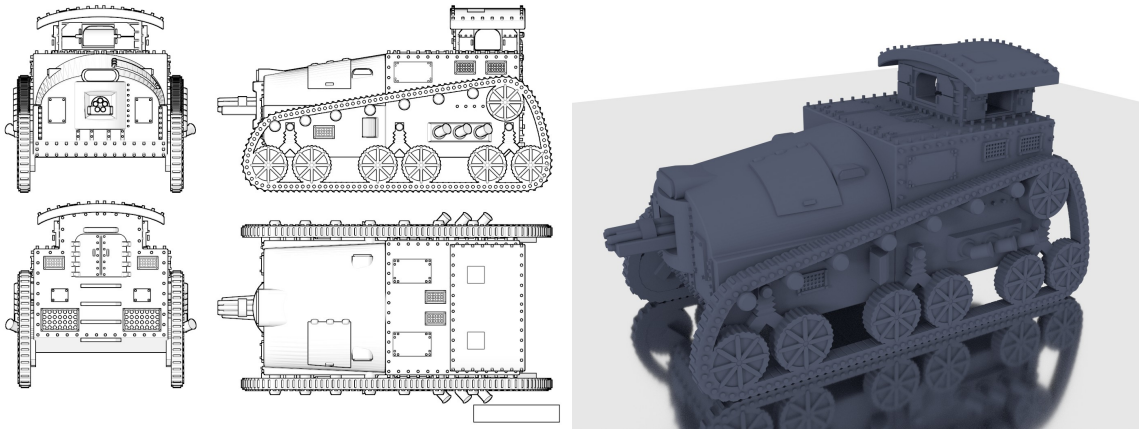

Figure 5-1 The *US Tankette M1898*

Designed in 1898 by J. Walter Christie, the *M1898 Tankette* uses an internal combustion engine to reduce weight. The major drawback is the poor reliability of both the engine and the relatively complex 4-speed transmission, particularly a difficult 1st to 2nd gear transition.

The armor was considered reasonable protection against light arms, and the armament, a 37mm revolving cannon, was designed to provide good penetration against moderately armored targets and a high rate of fire. Initially, it had only a single crew member, which

made maneuvering and firing simultaneously difficult. However, by the time it entered full production a second crewmember had been added.

The powerful 37mm Hotchkiss was an effective weapon, but caused several design complications. The weight of the gun required the engine to be rear-mounted for balance. Since the gun protrudes beyond the tracks/nose it can ground on slopes. Such a large gun's recoil energy is considerable and the ammunition adds considerable mass.

During the 1st IRF, the tankette formed the core of a quick reaction force organized to help defend Porto Alegre. They served well, and their speed and heavy guns saved the defensive lines several times. However, attrition and mechanical losses gradually reduced the number of functional tankettes.

Four tankettes were provided to the 5th IRF (September 1900) landing force. However, heavy resistance from flying Hive creatures prevented them from being landed.

Twenty tankettes were deployed in the second wave of the 7th IRF. They formed a mobile reaction force, and helped reinforce parts of the perimeter which were about to come under attack. Using information from the aerial fleet and their speed, they were usually able to arrive before the Hive attack would reach its peak. Only one tankette was lost before the withdrawal, when it was overrun at the Western Ostrog during the second swarm. However, another had to be abandoned due to mechanical issues.

The *M1898 Tankette* served with both the 8th and 9th IRFs. It was critical to the 9th IRF during the La Mesa Charge where its heavy rapid-fire gun was able to counter all but the largest Hive creatures. Nine hundred and fifty served in the Battle of Panama, mainly with the 9th IRF, 283 were destroyed. The tankette was considered one of the best vehicles deployed during the battle, and was much beloved by the infantry squads. Some preferred the Russian tankette by a slim margin due to its better reliability. However, the better protection afforded by the US tankette was universally recognized.

Currently, huge numbers of the tankette are serving in the Reconquest. With factories in St. Louis, Detroit and Chicago, over 10,000 have been produced by Christie's US Wheel Track Layer Corporation. Reliability issues still plague the tankette, though more recent versions have addressed some issues (e.g., the exhaust ports have been repositioned to reduce dirt and mud from the tracks fouling the engine). Some variants have been produced, with the most common replacing the Hotchkiss with a 2.95-inch mountain howitzer.

Several tankettes have been shipped to Venus for use by the American contingent of the International City's defensive forces. Many more have been sold to private explorers, Sky Wolves or native powers.

5.2 Infantry Carrying Mk 2

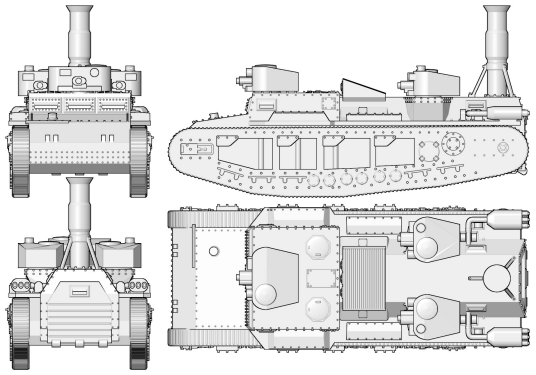

Figure 6 The Infantry Carrying Mk 2

The first generation of infantry carriers provided troops with armor protection and mobility but, as the Hive began to produce larger and more dangerous castes, the inability of the unarmed carriers to defend themselves became a serious liability. The second generation of infantry carriers were modified to provide for their defense. Three small turrets were installed on the vehicle's roof. Due to production at several different firms, a variety of turrets and weapons were fitted, including one-pdr pom poms, flame throwers, three-pdr cannons and machine guns. The carried infantrymen manned these weapons. The addition of the turrets added considerable weight and cost to these machines, but increased their firepower and survivability tremendously. Surviving *Mk I* infantry carriers were transferred to support roles, such as artillery prime movers or ambulances.

5.3 TBM-70

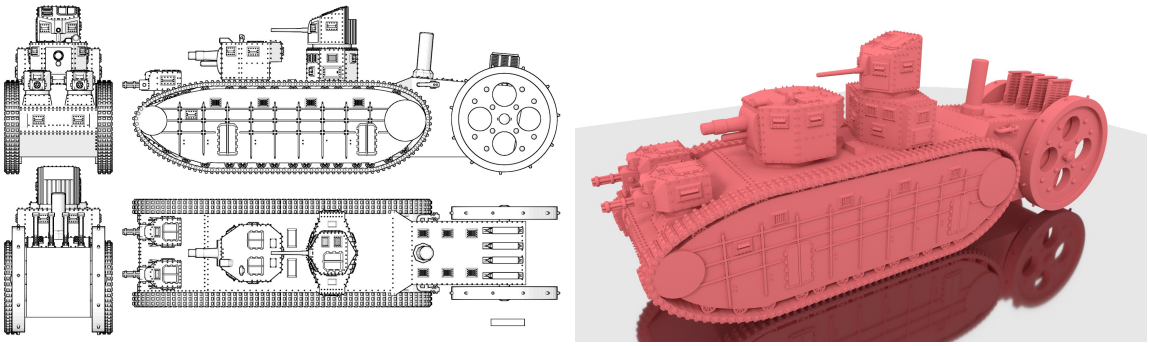

Figure 5-3 The *TBM-60*

The Russians have vast territories in the empire that are nearly roadless. To exploit these wastelands, they have previously been forced to use horses or travel by foot. The halftrack has been developed as a hybrid between expensive fully tracked machines and less mobile wheeled ones. As with so many other inventions in Russia, this system has been turned to military uses as well. Large halftrack fighting machines have been seen on parades and exercises. Like all compromises, these vehicles are not as capable across rough terrain as a fully tracked machine and are far more complex and expensive than one with wheels, so it is not certain if this experiment will be successful.

The Imperial Russian *Heavy Combat Machine* (Tyazhelaya Boyevaya Mashina)(Тяжелая боевая машина) *Object 70* was an unusual example of the half-track design. Instead of a more conventional system where forward wheels are used for steering and rear tracks provide propulsion, this Russian tank used rear wheels for propulsion. This arrangement required a 10-ton traction weight over the drive wheels to provide sufficient tractive force.

The vehicle carried an impressive array of weapons. The main turret housed a six-inch Howitzer and a range finder. A secondary turret behind this provided a 3pdr gun, and two forward turrets carried Gatling guns.

6. Abbreviated Timeline

Date	Event
25,321 BC	After a savage space battle, a pair of alien vessels suffer a conjoined critical mis-jump and arrive in Earth's solar system. Both vessels are badly damaged but successfully make planet-falls. The Oonalis make planetfall on Venus. The larger vessel, crewed by a race of constructed beings called the la selpurdi, is a planetary colonizing ship. It enters a solar orbit in the asteroid belt, and begins a survey of the system.
~25,000 BC	The la selpurdi take nearly a century to complete their survey. They choose the airless, lifeless world of Mars to terraform.
	The la selpurdi harvest humans from Earth to augment their depleted work force. Humans quickly acclimate to their new home in facilities on Mercury, Earth's moon, and Mars. They become known as the Zuckasarki.
	La selpurdi begin harvesting biological specimens from Venus by using an imported human workforce.
	Having completed bioengineering and resource recovery activities on Venus, la selpurdi abandon the colony. To ensure its destruction, they push a space elevator counterweight on to the surface and deactivate protective barriers. Human settlements are left defenseless against dangerous life forms.
1810	George Cayley publishes "On Aerial Navigation," the first modern coverage of the theory behind heavier-than-air travel.
1822	Charles Babbage begins work on a mechanical digital computer, which he calls a Difference Engine.
1830	Gurney and others begin building and operating commercially successful steam-powered road transports. Efforts by both railroads and horse-and-carriage interests to restrict the development of this technology fail. Several lightweight steam engines are developed for these small transports.
1831	The first commercial Difference Engine is available in London. Over a dozen are purchased that year.
1838	Victoria is crowned Queen of England.
1844	Ada Lovelace, in a series of articles, develops the concepts of a "language" for computing machines. She works very closely with her idol Babbage as he develops a machine sophisticated enough to use the concepts she has evolved.

Date	Event
1848	Babbage introduces his Analytical Engine, capable of executing arbitrary sequences of mathematical operations. Though effective at some computations, sales are slow due to the difficulties in sequencing, or "programming," these instructions.
1849	The newly formed Imperial Maudsley and Babbage Corporation (IMB) begins producing Analytical Engines for sale.
1850	Ada Lovelace publishes "Concerning the Softer Side of Computing" which details how to efficiently program Analytical Engines using a new computer language.
1855	The Crimean War ends after the reduction of several fortresses. In the Baltic, gun, mortar and rocket boats use new gunnery techniques and improved Hale rockets to destroy fortifications, shipyards and armories. In the Crimean, Sevastopol is bombarded by "scientific artillery" – a combination of artillery and mechanical computers – finally ending the siege.
1856	First solution of the Navier–Stokes equations on a Babbage machine ushers in a new era in aerodynamic design.
1856	Impressed by the performance of British rockets during the Crimean War, Russia begins development of new rocket types. Championed by Eduard Totleben, the Russian rocket program soon becomes a major national research and development project.
March 25, 1860	First Russian rocket and its seven crew reaches 'space' with a flight to 114km.
1862	Russia launches first two-stage liquid fuel (N_2O_4/Kerosene) rocket.
1865	During a thunderstorm, John Lubbock discovers the anti-gravitational properties of certain types of dolerite. The new material, called aerolyth, soon revolutionizes air travel.
1865	The poor health of Empress Dowager Cixi allows Prince Gong to out maneuver the conservative faction at court and retain the office of Prince-Regent. The Chinese Self-Strengthening Movement surges forward.
1867	Sofia Kovalevskaya begins experiments with aerolyth. These lead to the development of the aerolyth rocket and the first orbital craft later that year.
1868	Cross channel aerial service opens between Dover and Calais.
1870	Imperial Russian Spacecraft land on Luna. The Czar claims the entire moon for the Russian Empire. The vessels use aerolyth rockets to achieve the velocity necessary for a direct lunar mission.
1870	France's attempt to intervene in the succession of the Triple Empire leads to the War of the Four Empires.

Date	Event
1871	The War of the Four Empires continues. France takes the Philippine Islands, but Triple Empire forces from Brazil occupy French Guiana. War rages on at sea and in various colonies. On the Franco-Spanish border, French forces lay siege to the Spanish cities of Bilbao, Zaragoza, and Barcelona.
1872	The Triple Empire's defenses resist the French siege, forcing the French to resort to kinetic lances to end the War of the Four Empires. France forces the Triple Empire to cede territories along the former Franco-Spanish border. To raise money for war reparations, the Triple Empire sells some holdings in the Mediterranean and equatorial Africa to the Russian Empire. They also sell some Caribbean holdings to the United States.
1877	Using the new Ewing & Stewart drive, the *Royal Albert* becomes the first effective interplanetary vessel once it leaves Earth's orbit and arrives in Martian orbit, winning the race to Mars. The first landing on Mars is soon after and contact with the Zuckasarki is made.
1879	Sir Richard Burton makes contact with la selpurdi on Mars.
1879-1881	Several missions to Venus fail to return.
1881	The first mission succeeds in reaching the Venusian surface and returning. By the end of the year, over two dozen ships have landed.
1882	The International Settlement is founded on Venus.
1882	Paul Héroult perfects an aluminum smelting process and the cost of aluminum falls, leading to experiments in its use as a structural material.
Aug., 1882	Russia, with Boer support and due to British disengagement, secures a rail link through Triple Empire territory to the Transvaal, increasing their influence in the Boer States.
1883	The Venusian International Settlement is besieged by natives allied with the Sea Kings.
1885	The British Army Aerial Company is finally released to attempt rescue of Gordon. The three vessels arrive just as the Mahdist forces are storming the city. The vessels are able to force back the desert warriors long enough for the majority of the town's surviving garrison and civilians to board the ships. A Mahdist counterattack strikes the convoy while the ships are pumping feed water for their boilers from the Nile. One of the ships is destroyed; the other two are badly damaged.
1885	The French Panama Canal Company fails and plunges Europe into an economic crisis. Emperor Napoleon III dies and an anarchist revolution breaks out across the realm. French revolutionary vessels attack the British Channel Squadron.

Date	Event
1886	The Siege of Paris ends with a suborbital kinetic lance strike by anarchists. The Empress is killed, but Napoleon IV is able to rally the rest of France behind his cause.
1886	Martin Hall improves the Héroult process. Combined with off-planet sources, the price of aluminum drops significantly.
1888	The International Settlement on Venus is attacked by natives and besieged for several months. Relief forces arrive from Earth and friendly Venusian cultures assist to break the siege.
Late 1880s	Russia opens a series of mines in the Boer states. Thousands of Russian workers (called *uitlanders* by the Boers) work the mines.
1889	The Hive arrives in England and is covertly sheltered by an unsuspecting noble.
1889	The Great Powers form an organization to rebuild the International Settlement into a much larger and more impressive holding on Venus, to be called the International City (IC).
1890	Plans for the International City are complete and construction begins in earnest.
March-Sept., 1890	The Otso Expedition on Venus retrieves a variety of biological specimens and cultural artifacts.
March 21, 1891	The Hive breaks out of its initial underground home. Upcott is the seat of the Hive.
May 11, 1891	The Ōtsu Incident: A disgruntled Samurai attempts to assassinate Nicholas Alexandrovich, Tsarevich of Russia. Imperial Russian forces respond with a massive attack on Japan, destroying much of their military, kidnapping the Japanese Emperor, and humiliating Japan.
Late May, 1891	Hive swarm raids reach the north coast.
Mid-June, 1891	Exeter falls and Plymouth is besieged.
June 27, 1891	Landsend falls.
July 12, 1891	The Taunton Stop Line is established.
Sept., 1891	Downstream Deluge: A larval migration of land-dwelling carnivorous arthropods inundates the fledgling International City. Swarming from upstream to the sea, the dog-sized creatures kill 16,000. The slaughter leaves the future of the IC project in doubt as workers protest and governments eye pulling out. Only a last minute series of incentives and loan guarantees by the Naxlii Acadi-Xica Bank restores confidence in the project. The city is fortified against future animal invasions from the river.

Date	Event
Sept.-Dec., 1891	A series of successful local human counterattacks leads to a broadening of the Plymouth defensive area.
Dec., 1891	The British Army and its commonwealth allies ready a massive counterattack. On Boxing Day, the assault begins. Within hours, the attack falters as the Hive ambushes the invading troops. Casualties are massive.
Spring, 1892	Spring breaks with swarm raids regaining most of the territory lost in the fall. The stop line is breached in several areas.
March, 1892	The theft of the International City's Russian Military Garrison payroll by parties unknown shocks the city.
March–Sept., 1892	Matthew Henson leads an expedition that contacts the North Clan Wildmen of Mars.
Summer, 1892	The bugs attempt to send swimmers across the Bristol Channel against shipping and to establish a foothold in South Wales. Several boarding actions are fought. On at least one occasion, flying lancers support the swimmers.
July 1892– Jan., 1894	The Second Franco-Dahomean war sees French vehicles fighting native Dahomeans, who are backed with some Russian vehicles.
Sept., 1892	Using high-altitude bombing and scientific artillery, the British pound the Hive into a shapeless mass of scorched and shattered dirt. The final assault starts on the 9th.
Oct. 18, 1892	The First Hive is totally destroyed.
Feb. 8, 1893	A group, probably Naxlii, attempts to raid an Italian train on Venus.
July, 1893	Upstream Deluge: Adult giant arthropods swimming upstream attack the International City, breaching its defenses. An estimated 24,800 die.
1894	The population of the International City is over 250,000.
1894	Amazonian Pathways is founded in Moscow with the purpose of opening up the Amazon to trade and mineral extraction. The company fails to find a profitable niche, but the Russian investors continue to support it.
1894	Russia beings supplying King Menelik II of Ethiopia with arms and training. This included 50 *BM-18* Tankettes and 10 *BM-19* Destroyer Tanks.
Oct., 1894	The Peary–Cowell Expedition explores Mercury, discovering the "*Mercury Landship*" and other artifacts.
1895	The population of the International City is over 350,000.
March, 1895	Naxlii and Russian detectives capture Cadfael Richards, a serial killer who murdered over 15 missionaries from several nations. That his spree of murders went undetected for so long reveals major flaws in international police collaboration in the IC, leading to reforms.

Date	Event
29 Dec. 1895 – 2 Jan., 1896	Jameson Raid: Rhodesian forces attack the Transvaal and attempt to start an uprising among British workers. The Boers fear British intentions and accept a Russian "Assistance Force."
1896	The population of the International City is over 500,000.
1896	The Lagounov Affair: Vyacheslav Macsin Lagounov, son of a Russian Diplomat on Mars, sets off a massive explosion in the Moscow Military Railyard and manages to steal several vehicles and transport them to Manaus, Brazil. There, he attempts to set up some sort of independent fiefdom, backed by his aircraft and ground vehicles. When provincial police come to arrest him, he and his planes flee into the jungle, never to be heard from again.
Winter, 1896	The Second Hive begins spreading. Explorers and traders report rumors from Amazonian tribes of violent encounters with unknown monsters. These reports are dismissed as native myths.
Nov., 1896	Deodoro da Fonseca leads a detachment of the Triple Empire Army into the Amazon in response to reports of mysteriously destroyed fortifications. They assume the forts were destroyed by Columbia or Peru, who also claim the region.
Dec., 1896	In the International City, the International-Skori Times paper uncovers the Municipal Conspiracy – an attempt by American companies and Triple Empire agents to monopolize key city services.
1897	Italo-Ethiopian War: Attempts to resolve differing interpretations of the Treaty of Wuchale fail and Italian vehicles and aircraft fight the Russian-trained and equipped Ethiopian Army, led by King Menelik II. After heavy Italian losses at the Battle of Adwa, the war ends in a peace treaty.
Feb., 1897	A new Japanese constitution favors the Freedom and People's Rights Movement. Post-Ōtsu unrest comes to a halt.
March, 1897	Margaret Parke becomes president of the Mysore Rocket Company.
Sept., 1897	More rumors of conflict emerge from the Amazon. A loose coalition of native tribes, Quilombos, and isolated bands of Russians from the Amazonian Pathways Company forms to combat the monsters.
Late 1897	Deodoro da Fonseca dies fighting a gallant rear guard action against a Hive horde. It takes weeks to get a message to Rio, and Marshal Peixoto is sent with reinforcements.
1898	During the second siege of the International City, much of the city is destroyed.
Early 1898	The rumors from the Amazon continue to grow to the point they cannot be ignored. Expeditions from Venezuela, the Triple Empire, and Argentina all confirm the return of the Hive. The Second Hive War begins in earnest.

Date	Event
April, 1898	Battle of Careiro: The *HMIAS Mazagon* and the 1st Sikh Infantry encounter the Hive and take heavy losses.
May, 1898	Marshal Peixoto's detachment is defeated.
May, 1898	Siege of Manaus: The rubber town of Manaus is overrun by the Hive.
May, 1898	Andijan Uprising of 1898: Kyrgyz rebels, equipped with Omen Tankettes, fight Russian vehicles and infantry.
June–Sept., 1898	Pherick-Hayashi Expedition to Venus
Aug., 1898	Teddy Roosevelt defends a mission filled with refugees. His staunch defense with his First US Volunteer Mechanical Cavalry leads directly to higher political office.
Sept., 1898	The 3rd Russian Naval Squadron meets the aliens at sea and is defeated. In addition to swimmers and flying lancers, this is the first sighting of the large "Sea Hives."
Aug.-Sept., 1898	Inspired by the Tauton Stop Line strategy, several countries set up their own defensive lines. Though these have some local success, they have large gaps between the lines and there is little international coordination.
Sept.-Dec., 1898	The Hive proves adept at finding discontinuities in the stop lines and outflanking the human positions. As the various nations see their lines begin to falter, support grows for greater international cooperation.
Jan., 1899	Smaller "sub-Hives" begin to appear in North America and even in Africa. These Hives are either flown in or carried in vast floating hive platforms.
Feb., 1899	The United States initiates "Sweeper Patrols" based in Tampa and New Orleans to search for and destroy any sub-Hives in the northern hemisphere.
March, 1899	British and French would-be homesteaders in the International City start a riot after the promised land rush (originally planned for 1898) is delayed for the fifth time. 1,778 die.
March, 1899	The Altamira-Vitoria-Palmas Line falls.
April, 1899	US sea patrols, based in the Galapagos and Trinidad, begin.
June, 1899	A riot begins within the International City's "native quarter." Marbii and Naxlii attack against Skori ethnic persons. American and German gangs join in the fray until the International City police quell the disturbance. 1,851 deaths are recorded.
June, 1899	Montes Claros-Rio Verde Line falls.
Aug., 1899	Battle of Charybdis

Date	Event
Sept., 1899	The city of Natal, already swollen with refugees, is surrounded and falls to the Hive. This marks the largest loss of life to date in the war as the Hive creatures devour much of the populace. Only a few small enclaves survive.
Nov., 1899	The Galapagos Shoals Encounter and the Leviathan Sea Swarm show the growing ocean presence of the Hive. US sea patrols are redoubled.
1900	Construction of the International City is declared "complete" as the goals of the 1892 plan are reached. The population is roughly one million.
Jan. 4, 1900	The Treaty of Casablanca forms the International Coalition. A multi-national general staff begins coordination of all human forces and forms the International Relief Forces. A codicil to the treaty allows an expanded Russian presence in Madagascar as a refueling and repair base for air and naval assets. Britain allows this to secure Russian support in the war.
Feb., 1900	Several anti-air weapon systems are tested at the Sandy Hook Proving Grounds during extensive trials.
March, 1900	1st International Relief Force (Porto Alegrea), mainly comprised of Triple Empire forces with some British Empire and US ships, is sent to defend Porto Alegrea, Brazil. The city is held but it is largely cut off and encircled.
April, 1900	2nd International Relief Force (Caracas) is launched. A smaller, mainly French force with some Triple Empire units, light Russian forces, and some US support, attempts to hold Caracas. Their landing in Caracas is unopposed and they achieve some success but ultimately are unable to save the city. This battle marks the first appearance of the Hive Meso-flyers.
June, 1900	Harassment patrols from Grenada perform scouting and reconnaissance-in-force missions along the Venezuelan coast. The patrols are comprised of various Cayleys and light craft from many nations and some heavier US ships.
July, 1900	3rd International Relief Force (Buenos Aires) begins. Comprised mainly of Triple Empire force with some Japanese support, this IRF reinforces the beleaguered city of Buenos Aires.
Aug., 1900	4th International Relief Force (Natal) is formed mainly of British Empire forces, with some Triple Empire and Italian support. The 4th IRF manages to liberate the town of Natal, but ultimately fails to break out.
Sept., 1900	6th International Relief Force (Medellin) begins. The 6th IRF is sent to defend Medellin. This force includes ships from a number of nations. The defense goes very well, until the appearance of huge Macro-flyers sends the human force into disarray. Eventually, the Russian and Japanese counterattacks are able to drive off the Macros, but losses are heavy, including the US aerial battleship *Arizona*.

Date	Event
Sept., 1900	The 5th International Relief Force is one of the first offensive operations directed at destroying a Hive target, rather than liberating a human one. Led by the US, but including a range of forces, the 5th IRF attacks a "small" sub-hive in southern Venezuela. The IRF manages to kill at least one Macro-flyer, but the IRF forces are forced to retreat. Due to delays in the planning and logistics for the attack, the 5th IRF launches slightly later than the 6th IRF.
Nov., 1900	The 7th International Relief Force is another offensive operation against a sub-Hive in Ecuador. This is more successful than the 5th IRF, but they are unable to hold the position for long and withdraw.
Dec., 1900	The Japanese Legation in Korea is evacuated after riots damage the Legation compound. Chinese involvement is suspected.
Jan., 1901	The Battles of Torti and Morti occur in Panama as the Hive pushes north. Both battles see rag-tag assemblies of vehicles being used to hold off and delay the Hive's advance.
Jan. 27, 1901,	Orbital and high-altitude observation locates a mass of 650,000 to 1 million bugs near the Pinogana District of Panama. Preparations for the Battle of Panama begin.
Feb. 11-14, 1901	The Battle of Panama marks the turning point in the Second Hive War. Tipped off by orbital intelligence, the 8th & 9th International Relief Forces are deployed to the isthmus to incept the Hive offensive. Using the natural bottleneck, the smaller 8th IRF is able to hold back the Hive advance while the 9th IRF performs a devastating surprise flanking attack at Portobelo, cutting off the tip of the Hive forces and allowing them to be destroyed. A large number of Macro flyers die in this attack.
March 1, 1901	A group of Sea Kings attempt to destroy an Italian train on Venus.
March 4, 1901	The *Alabama Jacks* Incident sours relations between US and Russia.
Late March, 1901	With the success of the Battle of Panama, the International Coalition declares the beginning of the Reconquest. The planned 10th International Relief Force is reorganized into the 1st, 2nd, and 3rd Reconquest Forces that open up fronts in the north (via Panama), east (from Venezuela) and south (from Porto Alegre).
April, 1901	The Reconquest begins.
June, 1901	The British Sanderson Commission accuses France of stockpiling aerolyth that was supposed to be used only for IRF missions. France denies the accusation and convenes a tribunal to determine if British "hoarding" of aerolyth could be a violation of the Treaty of Casablanca. Though diplomatic intervention by the Triple Empire defuses the situation, both nations remain suspicious.

Date	Event
July, 1901	During the “Skori Riots” in the International City, US workers attack Skori settlers due to tension over labor competition. British and American criminal gangs use the confusion to run rampant in the Native Quarter until suppressed by Naxlii security forces.
Sept., 1901	International Pursuit Forces (IPF) are organized to track down and destroy any sub-Hives that escaped South America.
Nov.-Sept., 1901	The 1st Reconquest Force undertakes the Meta–Vichada Campaign, which secures a wide section of the Rio Upia.
Oct., 1902	After a lengthy battle, the 3rd Reconquest Force takes a large structure believed to be the main Hive.
Nov., 1902	On Venus, the *Liberté*, an aerolyth ship operated by the notorious Kelcey Group, is destroyed by agents of the Pinkerton National Detective Agency in the Battle of Klee Canyon.
Jan., 1903	French-Triple Empire “Football Riots” in the International City leave 112 dead.
Aug. 10-13, 1903	William “Billy” Stiles and crew successfully steal the payroll from an Italian train. They are eventually caught.
March, 1904	The Construction Riots: Echoing tensions on Earth, French and Russian groups clash with American and British groups in the International City. What begins as a riot threatens to spiral into open warfare until Naxlii diplomatic efforts calm the conflict.
April, 1904	The French ambassador to the International City is assassinated by French anarchists. Over 35 individuals are killed by French governmental agents in reprisals for the assassination.
May 29-June 8, 1904	Sino–Japanese War
Aug., 1904–Oct., 1905	Russo-Boer War
Sept., 1905	Discovery of a major Naxlii slavery ring in the International City: This multi-national investigation solves numerous kidnappings, some of famous or influential persons, who were ransomed back as a "side business.”