THIRD EDITION

HEAVY GEAR

EARTH COMPANION

THE SCIENCE FICTION ROLEPLAYING GAME

MODERN CONQUERORS

DREAM POD 9

HEAVY GEAR

Behind the Scenes

Fascist governments have always made for great villains. Their agressive stance and uncompromising ideology pushes them to action, and the evils they perpetrate in the name of the People give numerous opportunities for heroes to stand tall and do great deeds. The relative faceless anonimity of the Mob, one of the main components of any Fascist regimes, makes it even easier to fight against. Fascist, monopolistic governments also present their own set of problems from a creative stand-point. It is all too easy to just recreate the stereotypical jack-booted evil troopers surrounded by fanatical, trigger-happy political officers and call it a day.

Of course, in real life (and in the Heavy Gear universe) nothing is quite so black and white. There are always shadows and gray areas. The Colonial Expeditionary Force creates vat-growth soldiers to fight its war, but these creatures remain humans. The New Earth Commonwealth sends forth its armies to reconquer their lost colonies as much for power as for the additional resources that will let them feed their starving masses.

In many ways, they are tragic villains, ultimately destroying their future because of fear and ignorance when they, at the cost of some pride, could have acquired it through commerce and alliance.

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Chapter 1: Introduction

Earth — birthplace of Humanity, and the source of most of its current troubles. A planet ravaged by overuse and multiple human and natural calamities over the past millennias, the motherworld looks to the stars for both salvation and power.

CRADDLE OF MANKIND - 1.1

Human civilization on Earth goes back a long way. It has survived wars, earthquakes, ice ages and other calamities and has endured long enough to spawn out to the stars. The colonies, once hoped to be an extention of Mankind's dominion, turned out to be a burden, and like troublesome children, were abandoned. This turned out to be a major mistake: as Earth faced increased domestic troubles, it had no one to rely on, and the savage events of the past five hundred years hit it with full force. Now, it rises like a revengeful specter, eager to reach for the sky again.

The Sol System - 1.1.1

The Sol System is a nine-planet system orbiting the star Sol. Sol, also called the Sun, is a G2 type main sequence star located some 25,000 light-years from the center of a Milky Way galaxy. Its orbit around the core takes some 250 million years. The Sun is near the center of a 300-light year diameter cylindrical region of space known as Local Bubble. Interstellar region is relatively thin on this area and there apparently was a supernova on there in past.

The nine planets of the Sol system are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto and Nemesis. The Four innermost planets are rocky with Earth and Mars on habitable zone. The next four are massive gas giants with large number of moons and last two are small remote ice formations. There are also three areas of asteroids and comets: Asteroid Belt, Kuiper Belt and Oort Cloud.

The Stellar Neighborhood - 1.1.2

There are 19 star systems within 12 light-years of Sol. The closest is Alpha Centauri (4.4 light years), a trinary star system. The second is and Barnard's Star (5.9 light years), a red dwarf.

Humans have previously attempted two major exploration drives to study their neighboring stellar systems. Mars carried out the first interstellar exploration drive from 2692 to 2987. Over a hundred asteroid probes were sent to nearby systems releasing a series of automated satellites and planetary probes. These carried out a mapping of possible habitable or terraformable planets in nearby star systems. None succeeded in their mission. The United Earth Government carried out next set of interstellar exploration by sending 5 massive space arks over 250 years (from 3136 to 3387) to five most promising stellar systems. Nothing has ever been heard from these vessels.

Sublight Interstellar Exploration

The initial Martian probes were built into captured comets. Fusion engines would use comet's ice as reaction fuel and provide acceleration up to 12% of light speed. Upon approaching the target system, the probe would release a selection of sophisticated satellites and landing craft to study found planets. Data was simply transmitted back to Mars via standard radio communication.

The UGS Argo project was intended to send a large, well-equipped and multitalented human crew to nearby star systems to study them and start a new life there safe from Earth's seemingly never-ending ice age. Huge asteroids were carved into habitable, self-sufficient cities, equipped with fusion engines similar to Martian probes and then sent to new systems. Crews in cryogenic sleep to extend their lives and save supplies while those awake would live their lives as citizens of the asteroid vessel. The last solid information from these vessels was heard near their approach to the Oort Cloud.

◆ Mercury

Distance From Sun:	57,900,000 km	Surface Gravity:	0.38 g
Revolution Around Sun:	88 days	Escape Velocity:	4.18 km/sec.
Rotation:	58 days, 15 hours	Atmosphere:	trace
Axial Tilt:	0°	Hydrographics:	none
Diameter:	4,878 km	Mass:	3.3×10^{20} metric tons
Density:	5.4 x that of water		
Population of Planet:			variable
Population of Orbital Stations (21):			29 million
Average Surface Temperature:			430° C on day side, -170° C on night side
Languages:			English, Spacer's Runic, Merchant's Tongue

Extremely high temperature differences between day and night (from +430 to -170 degrees Celsius) as well as continuous high radiation from solar flares define Mercury. However, the planet's temperature is much more hospitable a few meters underneath the planet's surface allowing machinery work underground with relative ease. Human colonists live in cities dug deep underground in old mining shafts. These mining shafts protect people and machines from radiation. All surface activities happen during the nighttime due the excessive daytime temperatures. Most colonies are in relatively flat 1300 kilometer wide Caloris Basin.

Mercury is dense planet and has great mineral wealth and plentiful supply of radioactive minerals. Solar energy is free and plentiful allowing free electricity to all its colonists. Mercury has to import all volatiles. Mining operations are supported with numerous space stations that stay constantly on dark side of the planet to remain protected from heat.

◆ Venus

Distance From Sun:	108,200,000 km	Mass:	4.8×10^{21} metric tons
Revolution Around Sun:	225 days	Surface Gravity:	0.91 g
Rotation:	243 days	Escape Velocity:	10.3 km/sec.
Axial Tilt:	178°	Hydrographics:	2.3%
Diameter:	12,100 km		
Density:			5.3 x that of water
Population of Planet:			410 million
Population of Orbital Stations:			7 million
Average Surface Temperature:			+412 Celsius
Atmosphere:			1.5 to 4 atm. (42% CO_2, 35% O_2, 22% N_2, traces H_2O, H_2SO_4, HCl)
Languages:			Venusian dialect, English, Japanese, Cantonese
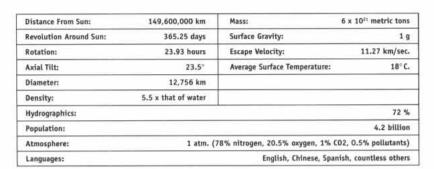
Venus has a uniform and extreme surface temperature, as well as a high atmospheric pressure that have prevents almost all surface activities. Terraforming efforts to tie atmosphere CO2 with Calcium have proceeded very slowly and planet is still fairly much in its natural state. Venus has proven to be extremely difficult case for terraforming and no one is ready to pay the bill for it.

There is not a constant human presence on surface but there are occasional opportunistic mining operations exploiting unique environment of Venus. High temperatures have allowed the formation of lakes of molten metals. Similarly the recently evolved young planetary surface sports occasional hot spots of almost pure metal on the surface. Massive sensor balloons fly high above sulfuric acid clouds to survey the surface for exploitable resources. Upon discovery, a robotic mining team is sent to quickly exploit the find. Each mining session is rushed to get things done before the equipment fails due to the hostile environment.

Several orbital stations support exploration and exploitation work on surface. Work is very taxing to equipment and maintenance is constant. Venus exports wide variety of metals.

Earth ◆

Distance From Sun:	149,600,000 km	Mass:	6×10^{21} metric tons
Revolution Around Sun:	365.25 days	Surface Gravity:	1 g
Rotation:	23.93 hours	Escape Velocity:	11.27 km/sec.
Axial Tilt:	23.5°	Average Surface Temperature:	18° C.
Diameter:	12,756 km		
Density:	5.5 x that of water		
Hydrographics:			72 %
Population:			4.2 billion
Atmosphere:		1 atm. (78% nitrogen, 20.5% oxygen, 1% CO2, 0.5% pollutants)	
Languages:		English, Chinese, Spanish, countless others	

World War III gave Earth a technological lead on many fronts, most prominently military research and development as well as security technologies. However, that edge came at a price. The Earth is now scarred by years of battles and is breaking down. Its population is far too great for what its unstable biosphere can support, and more fragile flora and fauna species are becoming extinct at a sickening pace. Radioactive zones and toxic areas are not common, but their presence is noticeable. The once blue skies and white clouds are now brown and dirtied. Weather patterns are becoming erratic as the planet grows warmer and sea levels creep upward.

Huge arcologies and cities house the majority of the nearly six billion inhabitants, the survivors of the conflict. The largest single structure is the capital of Rangstadt. It takes up much of the Mediterranean Sea and is visible from low orbit. Manufacturing stations circle the planet, with resources from across the solar system are fed back to mother Earth to supply its growing needs. Most of the three or so millions people in near-space work for military corporations. The planet is nearing the end of its rope and is reaching out to the stars to take what it needs.

Moon ◆

Distance From Earth:	356,395 to 406,767 km	Mass:	7.4×10^{19} metric tons
Revolution Around Earth:	27.3 days	Surface Gravity:	0.16 g
Rotation:	27.3 days	Escape Velocity:	2.38 km/sec
Axial Tilt:	1.5°	Average Surface Temperature:	-200° C
Diameter:			3,476 km
Density:			3.342 x that of water
Atmosphere:			none
Hydrographics:			none
Population:		5.4 million (not including military personnel)	
Languages:		English, Spacer's Runic	

The Moon was the earliest settled space body and was densely populated before the war's outbreak. It is a member of the New Earth Commonwealth. With a population of only 12 million people, they do not have much say, but the citizens of the moon are quite happy just having peace. The war affected them psyches of the Lunar peoples perhaps even more than the peoples of Earth.

The lunar atmosphere is practically non-existent, and the mean temperature very low; thus, all settlements are dug into the surface to provide protection from meteoroid impacts and the vacuum of space. This, however, did not stop the ravages of war. As a strategic target for location as well as the manufacturing plants on its surface, the conflict on the Moon was second only to the conflict on Earth. Rebuilding is underway and is concentrated on the manufacturing and military projects, but the landscape still shows the scars left by the conflict. Power is generated primarily through solar panel farms installed at the poles of the tide-locked satellite. Very few settlements exist on the dark side, primarily research stations and listening posts.

◆ Mars

Distance From Sun:	227,900,000 km	Surface Gravity:	0.38 g
Revolution Around Sun:	687 days	Escape Velocity:	5.15 km/sec.
Rotation:	24.6 hours	Hydrographics:	11%
Axial Tilt:	25.2°	Population of Planet:	350 million
Diameter:			6,787 km
Density:			3.9 x that of water
Mass:			6×10^{20} metric tons
Population of Orbital Stations:			4 million
Languages:			English, German
Atmosphere:			0.6 atm. (75% CO2, 12% O_2, 13% N_2, greenhouse gases)
Average Surface Temperature:			5°C after terraforming

Mars was humanities best example of terraforming before Utopia. It has a population of around one billion people. Most of it's surface is now covered by mining camps or factories and habitation domes poke out from amongst the jumble of machinery. Facilities in Mars orbit assemble the bulk of the CEF fleet.

Martian moons have been mined empty a lot time ago but its close proximity to Asteroid Belt has made it end destination of numerous in its history. With surface mining now cheaper in Mars the inflow of material has been somewhat slowing.

Olympus City is not just capital of Mars but also boasts the largest concentration of space-related know-how, facilities, workers and scientists.

◆ The Asteroid Belt

Distance From Sun:	variable	Mass:	variable, depending on mineral density
Revolution Around Sun:	variable	Internal Gravity:	0 to 1 g
Rotation:	variable	Escape Velocity:	variable, but always very low
Axial Tilt:	n/a	Average Inside Temperature:	18°C.
Diameter:			variable, usually between 0.5 to 2 km
Density:			variable
Atmosphere:			0.5 atm (55% N2, 40% O2, traces)
Hydrographics:			none to 30%
Population:			2.4 million (est.)
Languages:			English, Spacer's Runic, variable

The Asteroid Belt is actually a loose collection of millions of mostly rocky objects circling the Sun between Mars and Jupiter. Asteroids are generally small sized (most only a few kilometers in diameter) rocky objects that have concentrations of minerals (mostly nickel, iron or magnesium) and silicates. Most asteroids are millions of kilometers from each other but impacts happen occasionally. Jupiter's massive gravity causes Kirkwood gaps where the orbital period of an asteroid has an exact integer ratio with Jupiter's orbital period.
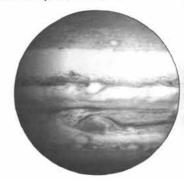
The few settlements are mining camps working on this empty area of space. A few stations are built on largest asteroids, notably Ceres, Vesta, Pallas, Hygiea, Davida, Eunomia and Juno. These asteroids were mined empty and have served as stations to house asteroid miners.

There are also several space stations are located in Kirkwood gap areas to avoid impact hazard. Most of these serve as staging bases for supplies coming from Mars and Jupiter. The belt exports minerals to Mars and earth on a regular basis. Outside Kirkwood gap stations, the outposts are usually small and originally intended for temporary living. Lack of gravity is a threat in Asteroid belt and usually its inhabitants visit larger stations to retain their ability to function in full gravity.

Jupiter and the Trojan Asteroids ◆

Distance From Sun:	778,300,000 km	Mass:	1.9×10^{24} metric tons
Revolution Around Sun:	11.86 years	Surface Gravity:	depends on altitude
Rotation:	9.9 hours	Escape Velocity:	59.5 km/sec
Axial Tilt:	3°		
Diameter:			142,800 km
Density:			1.3 x that of water
Hydrographics:			none
Population:			540 million
Average Surface Temperature:			-130° C at cloud tops
Atmosphere:			86% hydrogen, 14% helium, 0.1% methane, 0.02% ammonia
Languages:			English, Spacer's Runic, French
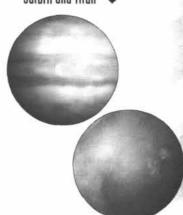
Jupiter is a massive gas giant. Mining settlements have been established to exploit its four biggest moons. Europa is extensively drilled for its water deposits while Ganymede and Callisto are interesting mostly for their mineral wealth. Io is so close to Jupiter's radiation belt that robotic exploitation is used. Settlements have been established underground in Europa, Ganymede and Callisto for protection from radiation. The major product of Jupiter is hydrogen from gas mining. Oxygen and hydrogen are extracted at massive scale from water drilled in Europa. This allows vessels moving from inner solar system to outer planets and beyond (and vice versa) to re-fuel and re-supply themselves up. This role has brought repair and overhaul facilities for space vessels to Jupiter and several massive installation orbit Jupiter and its moons to work as staging areas.

Jupiter is within comfortable reach of Asteroid Belt allowing these stations to survive if contact to Mars and Earth would be lost for any reason. Prospectors from the Belt and Jupiter extensively mine Trojan asteroids that congregate at Jupiter's stable LaGrange points.

Saturn and Titan ◆

Saturn			
Distance From Sun:	1,430,000,000 km	Density:	0.9 x that of water
Revolution Around Sun:	29.5 years	Mass:	5.69×10^{23} metric tons
Rotation:	10 hours, 39 min.	Average Surface Temperature:	-140° C in upper clouds
Diameter:	120,540 km		

Titan			
Distance From Saturn:	1,221,900 km	Average Surface Temperature:	-175° C
Revolution Around Saturn:	16 days	Atmosphere:	92% nitrogen, 8% methane
Rotation:	15,94 days	Hydrographics:	55% hydrocarbon seas
Diameter:	5,150 km	Population:	40,000
Density:	1.9 x that of water	Primary Imports:	technology
Mass:	1.35×10^{20} metric tons		

The gas giant Saturn has numerous moons, the most important being Titan. Titan is the second biggest moon in the solar system, and is larger than Mercury. Titan is unique in having a thick atmosphere of organic compounds, mostly nitrogen but also methane and hydrocarbons like ethane and acetylene.
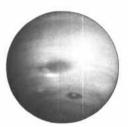
Earth and Mars have little or no naturally existing petrochemical extraction industries left and therefore have to produce this material artificially at huge cost. Titan allows harvesting air for organic compounds that can be extracted and processed in Titan, within massive refinery vessels during long trip to inner solar system or in industrial refineries orbiting Earth or Mars.

Saturn is the most important planet to continuing high-technology civilization in both Mars and Earth. Saturn and its surrounding moons offer possibilities for mining and ice extraction but most work is concentrated on chemical industry of Titan. The NEC currently considers everything else secondary.

◆ The Outer Planets

Uranus	
Distance From Sun:	2,875,000,000 km
Revolution Around Sun:	84.01 years
Rotation:	17 hours, 12 min.
Diameter:	51,120 km
Density:	1.2 x that of water
Mass:	8.7×10^{22} metric tons
Average Surface Temperature:	-221° C in upper clouds

Neptune	
Distance From Sun:	4,504,300,000 km
Revolution Around Sun:	164,79 years
Rotation:	16 hours
Diameter:	49,520 km
Density:	1.7 x that of water
Mass:	1.03×10^{23} metric tons
Average Surface Temperature:	-230° C in upper clouds

Pluto	
Distance From Sun:	5,900,000,000 km
Revolution Around Sun:	248,43 years
Rotation:	6 hours, 24 min.
Diameter:	2,280 km
Density:	2.1 x that of water
Mass:	1.2×10^{19} metric tons
Average Surface Temperature:	-238° C

Uranus, Neptune and Pluto are just now beginning to be exploited due to their immense distance from Earth. Their locations make manned missions difficult, and their use as a staging ground for ships heading to the Tannhauser Gate is minimal at best. Exploitation of the Kuiper Belt is far easier than the exploitation of these planets. The belt is a disk shaped region starting at Neptune's orbit and continuing from there on deeper into space. There are tens of thousands of icy objects suitable for exploitation.

◆ The Oort Cloud

The very edge of solar system includes hundreds of millions of icy objects that occasionally fall down to inner solar system. The difference between various objects there is believed to be on order of tens of millions of kilometers. The temperature on surface at this distance from Sun is roughly -270 degrees Celsius. Orbits of these objects are affected by faint gravitation of the Sun planets, but there are also such factors as the movement of the Milky Way disc of stars as well as any passing stars. Occasionally cold molecular hydrogen might also pass parts of Oort cloud. In any case, these factors decide if a comet is born and under what speed it'll fall down towards Gravity well of Sun.

The Tannhauser Gate and Gateway Station ◆

While not technically a part of the solar system, the Tannhauser gate sits just outside of the boundaries and is quite possible the single most important celestial phenomenon known to man. The miniscule anomaly is controlled by the NECAF, as is the Portal binary system that lies through the gate. Gateway Station is in actuality two stations, one lying on either side of the gate. In both cases it serves as a refueling and resupply station for CEF, a staging ground for any movement through the gate, and a NECAF garrison to protect the gates from outside harm.

Space Stations ◆

Within the solar system, there are a variety of space stations of variable types in orbit around Earth and some of the other planets. During World War III, these stations were often cut off from outside assistance or attacked as the various sides sought to conquer them or destroy enemy territory. Today most orbital settlements are designed around low-g manufacturing processes, and serve as headquarters for corporations.

Over the centuries, a wide variety of human habitation designs has emerged to house humans in the solar system and beyond.

Counter Mass: A vessel might be connected to a counter mass and spun up. Asteroid miners usually use these kinds of habitats as they can lock it to a rotating asteroid. This is a simple and very low cost solution to the need to have an (often-temporary) habitat on location. This design is often used by the smaller CEF surveillance outposts.

Dumbbell: Two habitats can be connected to each other and spun up to generate pseudo-gravity. This is again a simple solution and often used when more gravity-enabled volume is needed. Extending the dumbbell into a cylinder rotating about its short axis are generally used when a variety of gravity levels is no large concern but there must be at least some gravitation. Variable gravities are seldom necessary except for research purposes and therefore varieties of rotating poles or stick designs are quite rare (humans generally suffer more nausea the faster they spin, and thus this design is avoided if possible).

Torus: The pure torus design is seldom used anymore, but flattened toruses are common. This allows more floor space than the dumbbell design, with the ring usually kept within a comfortable 1-g zone. This is a fairly light design structurally and thus cheap and easily constructed. The need for heavy radiation shielding, however, reduces these advantages. This is the most common design in areas close to the orbits of Venus, Earth, Mars and Pluto.

Cylinder: Cylinders with or without hemispherical caps are most efficient in building stations with whole biospheres inside. This design has good radiation shielding properties as well and is used for massive stations that house several tens of thousands of people. These kinds of stations are most common in Earth, Moon and Mars orbits, where population count is high. They suffered the greatest attri

Sphere: The sphere design offers only limited surface area at normal gravity ranges. It has also the most efficient shape for maximum possible structural strength for a given mass. Stations close to Mercury, bases orbiting the closest moons of Jupiter and Saturn and military outposts are the most typical users.

1.2 - EARTH IN THE 62ND CENTURY

Earth is no longer "the Blue Planet." After the hundred years of war, the skies are brown and the land black. Much of the planet is nothing more than a barren wasteland at best, and a nuclear holocaust at worst. Fossil fuels and minerals are all but nonexistent now, mined out by growing industrialization decades ago, and most of the mineral resources Earth requires now come from off planet. Huge hydroponics farms grow genetically modified foods to cut down on resource use. Weather is erratic. Global mean temperatures are rising each year. Harsh dust storms carrying fallout and toxins across the planet. Land is eroding at an unprecedented pace, aided by frequent acid rain. Greenhouse gasses, radioactive and volcanic ash cover the skies, causing odd fluctuations in local weather. Most water is simply undrinkable.

Scientists are unsure how long the biosphere will hold up, but it is agreed that it will not be very long if nothing is done. Earth cannot be healed, but Mankind can hold out, at least for a little while. Once Earth is exhausted, however, it will have to remain fallow for a number of centuries, unable to support more than a meager biosphere. There is now only one viable option for the people of Earth. They need new homes before Earth is no longer habitable. The NEC has promised them they will have those homes, and the Colonial Expeditionary Force was formed out of the New Earth Commonwealth Armed Forces. Mankind no longer looks to stars with awe and wonder, but with desperation.

1.2.1 - Earth Planetary Basics

Earth orbits within the habitable zone of Sol, a G2 (yellow) star at a distance of roughly 149,600,000 km. Earth has an axial tilt of 23.5 degrees and an equatorial radius of 12,356 km. Earth's tilt and orbital path make seasonal change quite noticeable and winters can be as much as 80 degrees colder than summers.

Earth has only one natural satellite called Luna, or the Moon. It is tide-locked or in synchronous rotation with Earth, so only one side ever faces the planet. The Moon orbits earth every 27 days, 7 hours, and 43 minutes.

Earth is the third of nine planets. Starting from the Sun, the others are Mercury and Venus before Earth, and Mars, Jupiter, Saturn, Neptune, Uranus and Pluto afterwards.

1.2.2 - Time Keeping

Earth spins on its axis every 23.93 hours and orbits the Sun every 365.26 days. Earth's Day is 24 hours long, and each Year 365 days. Each hour is made up of 60 minutes and each minute is made up of 60 seconds. The year is divided into 12 months with varying numbers of days. Each week is seven days long. Most people sleep during the night for at least 8 hours.

The calendar is adjusted to make up for the difference between the rotational period and the number of hours by adding a day to February each 4 years. These are known as "Leap Years." This is omitted once every hundred years to make up for the overcompensation.

Earth standardized timekeeping before the 20th Century, and the basics of the timekeeping method have remained. Daylight savings time has been removed, and all people now function on 24-hour clock, with midnight being 00:00 and noon being 12:00. To keep in synch with the sunrise, and hence the day, the Earth is divided into 24 time zones, each 15 degrees of Longitude.

Years are currently measures from 1 Anno Domini (AD). Times before this are measured in Before Christ (BC). There is no year Zero.

Basic Geography - 1.2.3

Earth's landmass covers approximately 30% of its surface. It is commonly subdivided into five separate continents: North and South America, Eurasia, Africa, and Antarctica.

For the most part, large geographical landmarks such as mountain Ranges and oceans have changed very little since the 20th century. However, many lakebeds and surface features are drastically different now due to the combined effect of the Ice Age and the War. The polar ice caps, which once nearly encompassed the entire planet, are now retreating.

Geology - 1.2.4

The return from the Ice age sped up natural erosion of the planet. The extra weight of the ice that nearly encompassed the globe centuries ago put tremendous pressures on the tectonic plates. It was only a matter of time or circumstance before these pressures would let loose. World War III saw very little nuclear combat, but the large-scale strikes that did occur sped up the release of these pressures. Earthquakes are common across the globe, and volcanic eruptions occur with greater frequency.

Earth has now been stripped of its mineral and hydrocarbon resources. Centuries of exploitation and environmental damage have left nothing for the people of Earth to use. Waste reclamation is the new form mining on Earth, and it cannot supply what the people need to survive, let alone what the NEC needs for conquest of the Colonies.

Hydrography - 1.2.5

Oceans cover approximately 70% of Earth's surface. The melting from the Ice Age made rivers flow faster than ever. However almost all of the water on Earth is now polluted, either through sediment from erosion, years of environmental abuse, or from the remnants of war. Water levels will be rising soon as more pieces of the polar ice caps crumble into the seas from the environmental damage and rising temperatures.

The water cycle, the circulatory system of Earth, is now polluted and destroying the planet. Acid rain increases erosion, Radiation moves through rivers, and biological contaminants breed disease where the water flows. Plants that used to purify the water can no longer keep Earth's blood clean.

Terran Lifeforms - 1.2.6

The flora and fauna of Earth are dying rapidly. Each year more die and species are rapidly becoming extinct. Habitable areas are being pushed back bit by bit each year. Now, only 25% of Earth's life forms are still alive.

The biggest challenge to the flora and fauna is food and water. Plants cannot live without clean water and nutrients. Herbivores starve due to lack of plants, or die slowly of poisoning from tainted plants or the water. Carnivores face the same problem. Only animals able to adapt quickly or live off the remnants of others will live. For the most part, this means that only scavengers and pestilence carriers such as rats, cockroaches and flies are common, as most other animals simply cannot live.

Living With the Changes

Earth's climate is changing toward a new equilibrium. Pollutants and volcanic activity have raised Greenhouse gas levels. Each year, the global mean temperature inches ever so slowly up, even with the volcanic ash in the atmosphere. Summers are longer and hotter, while winters come later and are much colder. Storms of incredible strength are formed when opposing weather systems collide. The water is poisoned.

The air is still mostly breathable, and people carry rebreathers for when conditions turn bad. Proper clothing helps with temperature changes and acid rain. Water is purified in plants, and food grown hydroponically. But most importantly, they have a desperate hope. Earth is not doing well, and the NEC has promised the people of Earth new homes. Human beings are very adaptable, and the people of Earth will make it through at any cost.

EARTH MAP

SOLAR SYSTEM

DEFENSE
FLEET

GATE

PLUTO

SATURN

JUPITER

VENUS

MERCURY

EARTH

MARS

NEPTUNE

URANUS
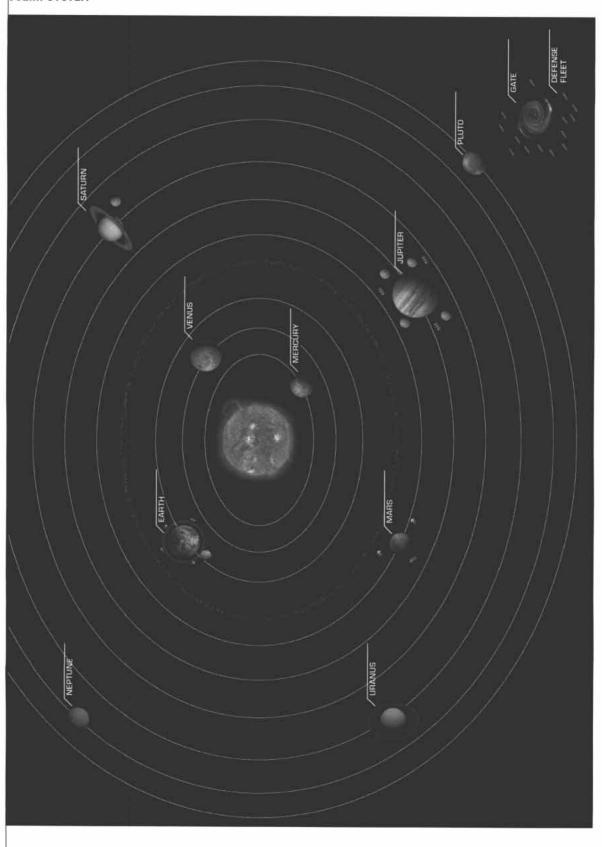
1.2.7 - Life in Orbit

During the war, the people who could afford the trip tried to escape the destruction by heading to the orbital colonies. Unfortunately for them, the war soon caught up. Some settlements were blown open with brutal attacks, their entire populations exposed to space. After these attacks, the few remaining orbital settlements joined together in asking for New Eurasian Commonwealth protection. It was granted on the condition that the NEC could use the settlements as staging points for their troops and equipment. The NEC used these settlements to launch devastating orbital strikes and troop drops. This "lightning attack" method was exceedingly effective in bringing about a quicker end to the war, and would repeated later by the CEF when retaking the Colonies.

The Sol system space infrastructure was decimated in the Third World War, with most stations close to Earth and Mars wiped out in savage fighting. Many stations further away had to be abandoned due lack of supplies from Earth and Mars. The end of war has again revitalized the space exploration and exploitation. Earth's factories need steady supply of raw materials and hydrocarbons from Moon, Mars, Asteroids and beyond. The NEC controls these vital shipments with an iron hand at the same time as Martian expertise in space exploration has been harnessed to creation and supporting CEF for colonial war.

The orbital settlements are now "territories" of the New Earth Commonwealth. They have their own separate economies, but have only minor voting power. Any food or other resources the colonies produce in surplus of their needs is shipped down to Earth.

Many mining, military and aerospace corporations have set up within the settlements. The settlements' locations make it easier to send ships to and from the mining settlements and take advantage of low gravity manufacturing techniques.

Many people within the orbital settlements feel trapped by the NEC. They see the terms of their agreement with the NEC and treatment afterwards unfair. However, they need the corporations, and are afraid to stand up to the NEC, fearing they will lose any form of independence. They are careful about voicing their opinions, but it is here that the Black Talons will find the most help.

1.2.8 - Off-world Settlements

World War III did not only affect Earth and it's orbital settlements. Warfare was conducted throughout the solar system, and terrorist attacks far more common than most would admit. Civilian lives were used for political gain by all sides, and the attacks were brutal. Many of the planetary settlements were crippled, turned into nightmares for those still left alive.

After the war, it was realized that terraforming the planets would take longer than conquering the Colonies. Corporations bought out the remains of almost all of the planetary settlements, using the remaining buildings as mining/extraction camps. Anything that contains resources is open game and many planets are now nothing more than giant strip-mines. More and more mining camps are set up each year, but the need for resources always outstrips the production.

Only Mars was spared being bought out. The settlements on the planet held together during the war, and are now a small but useful "country" within the NEC. While it does not have very much power, Mars has become the center of military manufacturing for the CEF. While the orbital settlements are used for precision manufacturing, Mars produces the larger components and assembles final products.

HISTORY OF THE CEF - 1.3

The history of the Colonial Expeditionary Force is firmly grounded in that of its parent body, the New Earth Commonwealth. To understand the one, one must first understand the other. The NEC's origins trace back nearly 350 years. Driven by the powerful economic upheavals of a major depression, the system fueling the time period that was considered by many to be the Third Renaissance effectively collapsed in 5790. A group of hard-core isolationists rose to power, supported by over-burdened taxpayers sick of funding the distant colonies, and proceeded to make a series of dramatic cuts to the subsidies and grants that fueled interstellar travel and industry. As panic rocked the colonies, the Concordat government's tactics became even more draconian, removing all but a limited number of Gateships from active service.

The next nine months saw scenes of utter chaos that shook the inhabited worlds as many colonists used whatever means they could — legal or illegal — to secure space on a ship headed back to Earth. Within a year, all of the massive Gateships had been removed from service, and all communication ceased between the Sol system and the colony worlds.

Twilight of the Concordat - 1.3.1

The mayhem that followed the government's actions did not endear the isolationist faction to the electorate, and they didn't remain in power for very long. Soon replaced by a less conservative party, the isolationists were forced out of power completely. This new government sought to redress the mistakes of its predecessor, but the instability of the regime was already beginning to take its toll, and nothing much was achieved beyond endless conferences and summits and the circuitous passing of blame.

Considering themselves a 'party for the people,' the new Concordat government passed a series of small bills that returned a number of legislative powers to the masses. Installing a system whereby the populace could force the Concordat to hold a referendum on any issue, as long as a certain number of signatures could be collected in a petition, the legislative branch of the government was soon swamped by tens of thousands of calls for referendums covering every topic from child abuse to mandatory uniforms for the homeless. Unable to deal with the overwhelming flood of requests, the government offices were effectively shut down for the better part of a year. The populace, seriously disillusioned, removed the government's mandate through a referendum ironically designed under the Concordat's own new program.

A long series of new and different political parties followed, with elections called and recalled every 14 months on average. This process of rapid succession did nothing to stabilize the system, and new legislation could barely be passed before the next set of leaders was working on repealing every advance made by its predecessors. With no stable leadership, the economy seriously damaged by the fall of interstellar industry and the social structure crumbling as poverty spread, the great machine of the Human Concordat was slowly grinding to a halt. Neither an instantaneous collapse nor a slow and steady decline, the fall of the Concordat resembled nothing so much as an ECG, spiking to new heights before plummeting once more into the depths of disillusionment. The dips, unfortunately, consistently outweighed any recovery, and the eventual demise of the system seemed inevitable.

1.3.2 - The Age of Isolation

The Concordat's answer to the downward spiral, and the increasing social unrest, was, effectively, to declare martial law. Increasing funds to security forces and the military, the government enacted a series of laws designed to give police forces the final word in how areas were controlled. The crude methods used to keep the peace did nothing to improve the tattered social fabric, of course, and the escalating violence spawned thousands of small terrorist movements targeting the Concordat government as well as religious and industrial institutions. Discovering the benefits of large-scale attacks, many of these smaller groups banded together and began a kind of guerrilla-style warfare against the major economic and political conglomerates in the society. Whole regions became consumed in the battle, turned into free-fire zones, and finally into completely lawless no-man's-lands where even the highly trained soldiers of the Concordat would not venture without massive backup.

Violence begets violence, and each brutal act inspired another, whether in admiration or retaliation. Large groups of the population were displaced, fleeing these hotspots by the hundreds of thousands. The worst of the waves of refugees began in 5870, when a terrorist group known as the Sovat in New Moscow acquired an arsenal of nuclear weapons and began a series of threats against those groups they defined as "enemies of humankind." This nuclear blackmail caused mass panic throughout the major cities of Earth, a wave of insecurity and fear that could not be dispelled even once the threat had been neutralized. Certain that their elected leaders could not defend them against enemy forces, the populace lost its faith in the Concordat as a whole and began to band together in localized, highly nationalistic groups in order to defend themselves against the ever-increasing disorder. As these groups grew in size and power, they began to take on the duties of government, centralized in new local capitals. The inevitable was finally accepted by all of the New Earth Nations, and on January 1st, 6003, the Human Concordat effectively dissolved itself.

1.3.3 - The Third World War

The New Earth Nations was a new title encompassing hundreds of new city-states, each claiming sovereign rule over often-intersecting territories that spanned the globe. Local alliances helped to give an image of stability to the war-ravaged civilization, and economic growth, fueled by trade and barter between nations, made funds available to repair the decaying infrastructure of human government. Not all nations were created equal, however, and those that could lay claim to functional communications technology and seaworthy vessels soon found themselves at the top of the heap.

The coastal cities of Europe, through a combination of luck, greed and control over the ports of this resource-rich continent, were the first to take a lead role in this new society. Forging a series of military and diplomatic alliances across the entire Eurasian continent, the western nations, the city-states of Ruantallan and Ar n-Eilean-Ne in the forefront, began to gather smaller, satellite city-states into large conglomerates. Similar alliances, born out of necessity and greed, made their appearance across the landscape; whether forged through geographical closeness or solid trading partnerships, each new treaty placed thousands of vital resources within the reach of the controlling city-states.

Land-locked and badly ravaged areas did not fare nearly so well, their worth in alliances limited and their options few. Resentment began to grow in these disadvantaged nations, fueled by envy directed towards those for whom the rebuilding was seen as 'too easy.' The Third World War officially began in the year 6007, after a series of broken treaties led to skirmishes and finally all-out war over control of the resource-rich Eurasian continent and the lush farmlands of the African Sahara. Brutal and effective, the Siberian armies claimed a swift and decisive victory, lending a definite cachet to the nation that would develop into the New Earth Commonwealth.

WWIII is believed to have caused the death of over twelve percent of the Solar System's population, nearly one and a half billion people, combatants and civilians alike. While most of the conflicts were restricted to conventional forms of warfare, due to the limited availability of high technology, entire cities were occasionally leveled using experimental tactical antimatter warheads and orbital kinetic energy cannons. The most notorious and reviled event of the war occurred on August 8, 6045, when the heavily urbanized land of the Mexican peninsula disintegrated under the blast of a 45-megaton antimatter device, killing over 50 million individuals in less than one second.

The New Eurasian Commonwealth - 1.3.4

From very inauspicious beginnings as a small conglomerate of city-states perched on the rim of the Black Sea, the New Eurasian Commonwealth grew to immense size and importance in a short amount of time. Originally nothing but a collection of trading partners with small but well-trained armies, the members of the NEC banded together in force to defend the sea routes vital to trade in their region. Incensed by the perceived arrogance of the western European Nations, they signed an extensive and heavily binding series of treaties and agreements that forged the disparate groups into a solid whole.

While noted at the time for their success in rebuilding cultural institutions, the NEC's real hallmark was trade. The member nations were all coastal cities, their influence reaching out to riverside and inland city-states with control over strategically important land routes and causeways. Exploiting their positions to the fullest, the NEC member nations' major shipping route extended from the Mediterranean Sea to the Pacific coast via an extensive series of channels and rivers. This line provided their first access to Central Asia and beyond, to the South Pacific and the Far East.

The city-states of Asia were the end points for a number of the waves of refugees seeking asylum, and almost all of the nations of the area boasted huge populations. Possessing higher levels of technology than most of the beleaguered Western nations, the city-states of Asia lacked some essential pieces, such as biotechnology, that the NEC could happily supply. At the same time these Asian cities had access to services and resources that the NEC — and Europe as a whole — seriously lacked. Trade was swift and plentiful, huge cargo submarines moving underneath the Arctic ice cap between Siberia and the Eastern Alliances. Noting the spread of power in the west, the Eastern Alliances joined forces with the NEC under the Siberian Nations' flag on the day when the bloody conflict of the Third World War officially broke in Yakutia.

The start of WW III left little room for celebration in the new alliance. The united forces of the vast new nation found themselves embroiled in bloody and protracted conflict with the other major forces of the globe. Beginning in an unfortunate defensive position, the NEC was losing territory and valuable resource holdings at an alarming pace. Pulling out all the stops and relying on diplomacy and quick-witted ambassadors, the NEC managed to survive through careful manipulation of its enemies. Turning them against each other, the NEC outlasted the bulk of the early conflict through cautious obscurity, fading into the woodwork. Propaganda was considered one of the alliance's most valuable tools, and resources were squandered madly in order to buy off officials and armies. As successful as this strategy was in the short term, it was not sustainable in the slightest, and the NEC called the leaders of the individual nations within its auspices to a conference in Yakutsk to plan for the future.

Birth of the Commonwealth [6011] ●

The historic meeting was a stormy one, the two major factions arguing late into the night. First to take the floor were the nationalists, who espoused broad freedom of choice and movement within a loose trade union composed of independent member states. Seeing the best possible future for an NEC structured as a commonwealth of separate and distinct member nations, the nationalists proposed a treaty structure in which each and every crisis would be solved solely by the nations involved, with no interference from other member nations unless petitioned. This format was what the NEC had been based upon at its creation, and it was a system that had served the citizens well during the time before the Third World War.

The Yakut, who had seen their city-state under perpetual siege since the outbreak of the War, advocated an alternative viewpoint. Demanding a common, unified defense strategy, solid independent leadership and iron discipline to keep the nations in line, the Yakut's first priority was to unify the NEC in order to drive back the forces of the West. They saw a strong and binding military treaty as the natural solution for the problems plaguing the region and argued that the NEC's military setbacks were ample proof that individual militias were not the best option.

After days of wrangling with the issues, delegates came to the conclusion that relinquishing some of the sovereign powers of their city-states in favor of a concentrated leadership and a united army was vital to the continued survival of the region as a whole. Creating the position of General Manager, a leader who would rule through the trust of the majority of the voting members of the NEC, the delegates also mandated the creation of the New Eurasian Commonwealth Armed Forces, an army that would draw its members and officers from all of the member nations. Each nation signed a contract guaranteeing its support, with the option to renegotiate terms with the governing council if necessary. In return, the governing council would have no say in internal affairs of a nation, relegating its involvement to purely inter-nation matters.

The voting power of each member nation was determined according to an extremely complex mathematical system, bringing into account such factors as population counts and prompt payment of membership fees. This voting power was divided up within each nation as it saw fit, the options chosen ranging from one representative with the equivalent of 100 voting shares, to an electoral college of sorts with one share each. Both the General Manager and the governing board were subject to votes of confidence by the delegates from the member nations, but such an extreme measure was considered solely as a last resort.

1.3.5 - The NECAF

The New Eurasian Commonwealth Armed Forces were placed under the command of the General Manager, who oversaw a large hierarchy of officers and bureaucrats. Each member nation contributed equipment, funding and manpower to varying degrees, and the doctrines and training varied from city-state to city-state as well, although each maintained its own, private standing army. In the early days of the treaty, the amply financed NECAF served as a reactionary force, sent to regions under attack in order to tender aid or launch a counter-strike against a victorious enemy. Recruiting volunteers from every member nation, the Armed Forces were never at a loss for personnel, whether in support roles or on the front lines. The strong and vital appearance of the NECAF led to a swell of nationalistic pride within the NEC, promoting greater stability within the region. As the fronts stabilized and the NECAF became more practiced with the techniques of its combined armies, the Commonwealth could finally hold its own against attackers and even regain ground taken from it in previous years.

As the situation changed for the Commonwealth, the role of the NECAF changed as well. Moving the bulk of its troops to the front lines, the NEC relied on the armies of the member nations to provide rear security, support and defense build-ups. As direct attacks against the NEC became less and less frequent they also escalated in scale, causing far more damage than previously, especially when antimatter weaponry came to the fore. The NECAF reacted by increasing its own reliance on technology, becoming a heavily mechanized fighting force. The scientists of all member nations were kept busy developing new equipment as well as improving the old. As the NECAF's fighting power increased, the lure of aggressive tactics began to replace the strictly defensive protocols put in place at the army's formation.

Within a few years, the ponderous defense force had turned into a sleek and potent high-tech aggressor, fully capable of taking the fight into enemy territory. The lure of economic growth and the potential waiting to be unleashed from the resource-rich lands held by the enemy proved to be the final temptation, and some member nations favored the total conquest of Earth and, indeed, the entire Solar System. The Yakut strongly supported this hawkish attitude, and it was under their leadership that the most powerful lobbying group in the NEC was formed. The group, dubbed 'The Party,' was a loose coalition of people from all walks of life, who had similar desires for power and resources. By the time of the antimatter blast in Mexico, the lobbying group had changed into a tightly run organization devoted to the unceasing expansion of the New Eurasian Commonwealth by any means necessary.

The Party - 1.3.6

Party leadership was a mixed one. Some of them were civilians and industrialists, while others were military officers. They concentrated their efforts on lobbying for a more aggressive stand and espoused the doctrine that it was the NEC's turn to rule the humanity where the Human Concordat had failed. They rationalized their viewpoint with a variety of reasons ranging from economic need to humanitarian ideals. Careful manipulation of the media backed the Party's doctrine in the public opinion, and it secured the upper hand among the NEC board: humanity's fate was cast. As WWIII grond on, NEC policy gradually favored more and more aggressive tactics towards others. This attitude filtered from the military circles to the internal politics of Party itself. Publicly, the policy was not intolerance of others but rather the NEC's manifest destiny to guide the rest of the humanity towards a common ideal. The ideology of inherited superiority and the lofty idea of humanitarian crusades were sustained through the war. They were especially strong at the end when the NEC's victory was certain.

The NEC did not, however, seek dominance over the others with sword and fire alone. Instead it chose a variety of methods from diplomacy to trade to military conquest to genocide. It switched between tactics whenever necessary and prepared to rewrite history when the War was finally over and the NEC had won, claiming it had brought nothing but peace. The unification of many regions of the Earth took decades; the most extreme example was the pacification of the Baltic Ocean areas, which took some 50 years before the rebel People's Resistance organization was finally eradicated.

WWIII lasted for approximately 100 years. It was fought everywhere in the Solar System, but the consequences were gravest to the Earth's biosphere. The use of weapons of mass destruction did more than destroy lives; it altered weather patterns and poisoned nearly the entire planet. The butcher's bill was staggering: at the end of the war, the population of Earth had been cut by nearly one sixth. The War ended officially in 6105 when the New Eurasian Commonwealth formally changed its name to the New Earth Commonwealth, and it became the unquestioned leader of Earth affairs and easily the most influential member of the Solar System as well. While internal squabbles, rampart terrorism and brutal guerilla wars were still being fought in every corner of the system, the NEC had delivered what it had promised: relative safety and stability.

After the War - 1.3.7

Humanity had suffered dearly in the fighting. Urban sprawls were in ruins. Teeming camps were filled with refugees. Poverty and disease were widespread among the survivors. Psychological and physiological problems were rampant among the population. Earth itself seemed to be in its death throes. The surface temperature had increased rapidly during the War, and scientists warned that polar ice could conceivably melt during the coming century or later. Weather patterns were wildly changing and unpredictable, and the rate of erosion increased dramatically. Nuclear, chemical and biological weapons had destroyed much of the biosphere. Both on land and in the seas, countless species of plant and animal life had vanished seemingly overnight. The New Earth promised little more than acid rains, poisoned ground and endless dust storms. All evidence suggested that life on Earth would slowly meet an agonizing end in the near future.

● Expansionism

The NEC, however, did not intend to sit down and die. Its leadership soon created a plan for the future. Extending its policy of its manifest destiny, the NEC set about planning to retake the colonies that lived in luxury while those who had given them their origins suffered in squalor. Massive population transfer was the ultimate goal. The military favored the idea, memories of terrible losses during WWIII fading rapidly, replaced by visions of comparatively easy conquest of the presumably tame and unsophisticated colonies.

Major corporations were interested as well. They had profited handsomely during the War, and during the peace that followed, and they saw both the planned invasion and eventual conquest as further opportunity. The fact that the NECAF was capable of transporting corporate representatives to the colonies and the fact that the NEC had access to the expensive Gateships mothballed at Jupiter sweetened the deal, since it lowered the corporations' projected costs. The only drawback was the possibility of a drawn-out conflict. Their support was hesitant at first, but the promises of new markets and exploitable resources soon turned the biggest corporations into the most-vocal proponents of the campaign.

The public was originally not thrilled with the idea of conquest of the colonies, since the prospect seemed to have little to do with them. The fact that the NECAF already had a large army of vat-grown super-soldiers with little to do in the age of peace eventually won the public over, however. The GRELs could be used as the mainstay of manpower and cut human losses to an absolute minimum. NEC propaganda completed the shift of public opinion by stressing that it was the NEC's duty to reunite all of humanity, not just the fraction remaining in the Solar System.

The successful invasion of Home, alongside with growing nervousness about the real possibility of a radical change in Earth's biosphere equilibrium, has forced the Commonwealth to radically revise its original strategy of exploiting colonies for rebuilding the motherworld. While the NEC is officially scoffing at theories of Earth's eventual doom, its leadership is quietly taking a series of steps to deal with the situation: an emigration program would ensure the ongoing survival of Earth's best and brightest, just like Project ARGO attempted to do during the Ice Age. The planetary population is being scouted for those most desirable to survive if Earth would face a catastrophe sooner than expected.

The long-term planning for a full inhabitation of Home has been initiated, with a number of secret studies being made under the auspices of a program of exploitation of Home's resources. Key personnel are being transferred from rebuilding of Earth to support of the colonial wars, with the eye of turning Home system into a bastion of Earth's military supremacy. Extensive network of bases, supply depots and infrastructure necessary for supporting military industries are being planned, and built. This construction would allow NEC to remain and very possibly prosper behind shield of CEF and then resume its manifest destiny of uniting entire humanity under its flag.

The NEC plans assume that as soon as the CEF has declared the planet safe, the NECAF will turn over the administration of it to NECA civilians and first colonists can start to exploit Home system. Volunteers are sought from Earth and Mars for work and many companies are lining up for the consideration. Most Party members refuse to believe any talk of doom of Earth but several influential policy makers know what the reality is. They have been making political moves to ensure they and their families would be amongst the émigrés to Home to ensure survival of the upper Party membership (as well as themselves).

The Colonial Expeditionary Force Creation – 1.3.8

Taking back the nine wayward and ungrateful colonies would be a massive undertaking that required an enormous military build-up on a scale never before seen in human history. The New Earth Commonwealth spent the ten years following WWIII preparing for the invasion. One major step involved creating a new military force on an unprecedented scale. This force would consist entirely of volunteers and would be supplied with the best equipment Earth could provide — as well as a massive stock of genetically engineered super-soldiers to do most of the grunt work during the coming invasions. While the new force's ground warfare units were busily training in Australia, its space branch worked fervently to restore the mothballed Gateships and military vessels to their former glory. New equipment — including GRELs — was manufactured in gargantuan factories on Mars, and old staging bases in orbit around Jupiter were brought up to date and expanded. Finally, in 6116, the Colonial Expeditionary Force was good to go.

The first phase of the invasion was to conquer the Gateworld, Caprice, from which invasions of the secondary nexus points — Utopia, Atlantis and Terra Nova — could be staged. Using resources captured on the second-tier worlds to replenish whatever losses it suffered during the second wave, the CEF would proceed on to Jotenheim, New Jerusalem, Eden, Home and Botany Bay, and humanity would finally be united under NEC rule. Things, however, did not go as planned.

Conquest of Caprice – 1.3.9

The nexus colony of Caprice nearly didn't survive the ensuing anarchy that followed the collapse of the Human Concordat. High-ranking officials abandoned their responsibilities and fled for Earth aboard the last ships. Nearly three-quarters of the city burnt to the ground before the remaining corporations had enough sense to come together to rebuild the great Trench City, Gomorrah. The economy of the planet, which had once been geared towards mass-production for off-world clientele, was forced to downsize for the immediate population during the crisis. It survived, however, under the auspices of the Coalition, the pro-temp government formed around the remaining corporations. Caprice did not give up on the idea of trade with the other colonies, but local needs and several setbacks severely limited its potential.

When the CEF's 3rd Fleet arrived in the Loki system, the city of Gomorrah filled the entire Cat's Eye Trench and blossomed upward. Hydroponic domes, farm arcologies, water reclamation systems and atmospheric purifiers surrounded the lip of the Trench. Caprice could hardly defend itself from the massive fleet, however, especially with the rapid loss of its space assets, and rumors that additional fleets were already en route to the Gateworld forced the Coalition's hand: rather than watch Gomorrah die beneath massdriver rounds and antimatter bombardment, it abdicated power. A brief outbreak of pocket resistance was all that the CEF faced on the planet's surface, and that ended within a few months of the landing of ground forces. Security garrisons marched through the city and soon occupied all key strategic points. Caprice had fallen under the protective wing of the New Earth Commonwealth with hardly a fight.

Ironically, the ease with which the CEF conquered Caprice formed the basis of one of the first major snafus of the invasion plan. Strategists had been counting on heavy resistance and had thus incorporated a huge number of GREL soldiers into the force — soldiers who were expected to die during a violent but ultimately victorious campaign. The lack of resistance thus caused a serious logistic problem for commanders, who suddenly had thousands of extra bodies to feed and house. As the years wore on in Gomorrah, a somewhat dissatisfying solution arose: those extra GRELs that could not be shipped off to other fronts were instead sent to the massive prison fortress known as Bastille Alpha for "reprocessing" — a euphemism for mass murder.

In practice the Party maintains a stronghold majority of votes in the NEC. The most powerful members — the Yakutian Federation, Allied Europe, the Brazilian Combine and the Yangze Protection Zone — form the basis of its power while the Manchurian Mineral Union forms most of the Opposition. A large number of smaller and less powerful nations form a second tier of votes that these five major members woo for their schemes.

Although the Party may seem united to outsiders, it is constantly fighting its own internal power struggles. Even when it comes to trying to eliminate opposition to its rule, the Party is rife with conflict. The YF and the YPF, for example, have tried unsuccessfully to coordinate political strategies to undermine and isolate the MMU for years. In 6118, Yakutian Foreign Affairs Minister Adu Stossel disrupted and set back several years of careful diplomacy by stubbornly insisting that Yakutians should lead the political alliance, despite the YF's overall poor track record in such delicate and subtle matters. Similar signs of instability have been growing within the Party and its member-states since the end of WWIII. Rumors abound that Allied Europe plans to defect to the Opposition, and the Brazilian Combine's newly elected Chief Director, Yin Richardson, is reportedly planning to usurp the YPF in its domination of ocean trade.

1.3.9 - The Terranovan Campaign

With Caprice and its massive production facilities serving as a forward staging base, the CEF formulated plans for the invasion of the second-tier worlds. Its first target was Terra Nova, the second largest colony world. Unbeknownst to the NEC, however, in 6118, the colony was in the final throes of a political phenomenon known as the "Judas Syndrome." Factions working for either of the main superpowers were ready to sell out their own — for money or for peace — and the two powers were on a crash course towards a catastrophic world war. Their militaries were at their peak in manpower, equipment and training, and Earth waded into the middle of this snake pit unaware of the extreme political instability present. Quickly, the same spies that had been prepared to sell out their allies secured a truce to fight the invaders. The War of the Alliance, as the colonists called it, had begun.

The CEF's basic plan had seemed simple enough. Establish a base of operations in an unchallenged region, the Western Desert, and then overrun the industrial cores of Terra Nova's poles: the Mekong Dominion and the United Mercantile Federation. In the local summer of 6118 (1913 by Terranovan calendars), the fleet landed over 400,000 troops near the equator and, lacking detailed information about Terranovan military installations, proceeded to bomb the planet's cities from orbit in an attempt to demoralize the colonists. This action only succeeded in enraging the planet's governments, resulting in the alliance of the Confederated Northern City-States and the Allied Southern Territories (the two planetary superpowers) and the launching of a massive counter-offensive against the fleet. They deployed thousands of killer satellites and tiny, well-armed drones, inflicting significant casualties and causing the fleet to vector away from Terra Nova towards Helios' more distant planets.

◆ Aerospace Assault

Military spacecraft are exceedingly expensive vessels, which often cannot be built for violent defensive maneuvers in atmospheric operations. A planetary defender can also use cheap drones and passive defensive systems, such as kinetic pellets, to make even orbital operations too dangerous to bulky and ponderous troop vessels. The CEF thus deploys its troops in large numbers of small landing crafts and drop pods from a safe distance, sometimes beyond a world's geostationary orbit. The smaller vessels are numerous and easier to hide behind jamming and decoy systems, and allow wider distribution of troops to multiple beachheads.

Disposable drop pods are the smallest of those craft and often house only a patrol or a single vehicle for a one-way trip. The pod is little more than a structural framework to which a de-orbit engine is attached along with an ablative heat shield. The landing pattern is programmed beforehand and course corrections are almost impossible once launched due to the limited fuel reserves. The next wave is usually made up of larger landing craft and shuttles that bring in their troops to secured zones, forming a virtual elevator between landing zone and troop transport vessels. These small maneuverable craft are true workhorses of the CEF, moving men and material non-stop from orbit to ground.

INTRODUCTION

Beachhead ◆
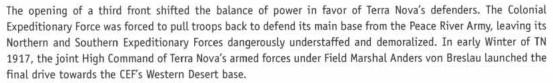
Despite the fleet's setback, the CEF's ground forces completed their base camp within one week of their arrival. A day later, it divided into two main attack forces. The Northern Expeditionary Force headed northwards towards Ashington, the nearest Mercantile city-state and the nation's primary energy production site. The Southern Expeditionary Force drove due south into the Mekong Dominion's petroleum-rich lowlands. Both confederations scrambled to assemble forces strong enough to resist the CEF offensive. While neither the CNCS nor the AST managed to prevent the invasion of their territory, they did manage to field enough troops to bog down the Earth advance completely by the end of TN 1914. For the next two Terranovan cycles, the fronts along the Ashington-Mekong corridor barely moved despite dozens of offensives by both the CEF and the Terranovan defenders.

Early in TN 1916, the Colonial Expeditionary Fleet returned to the planet after a long running battle with Terranovan drone ships among the distant reaches of the Helios system. Early sensors scans and communiqués with their ground forces led the fleet's commanders to believe that the CEF was making slow progress and needed additional troops. They decided to re-supply the Western Desert base camp and drop additional troops on the other side of Terra Nova, hoping to force the planet's defenders to fight a war on two fronts.

Late in the winter of TN 1916, the fleet landed an additional 80,000 troops near the small Badlands city of Baja before being chased out of orbit by a second wave of Terranovan drones. In less than three hours, the town's small defense force was eliminated and much of the town was laid waste. Three weeks later, a combined CNCS-AST army group assaulted the city, engaging the CEF forces for nearly an entire season before the commander of the Earth forces surrendered. Baja was a hollow victory, leaving nearly 100,000 dead and reducing the city to smoldering ruins.

By late TN 1916, many Badlands residents had rallied under the unlikely banner of Peace River, a corporate settlement near the Western Desert. The settlement's owner, Paxton Arms, had previously declared neutrality, but public sentiment among the residents of Peace River favored the Terranovan defenders. While the Baja Campaign distracted the war's belligerents, Paxton assembled and armed a huge army of mercenaries. In autumn of 1916, the Peace River Army moved westward towards the CEF's main supply base.

Turning Point ◆

The opening of a third front shifted the balance of power in favor of Terra Nova's defenders. The Colonial Expeditionary Force was forced to pull troops back to defend its main base from the Peace River Army, leaving its Northern and Southern Expeditionary Forces dangerously understaffed and demoralized. In early Winter of TN 1917, the joint High Command of Terra Nova's armed forces under Field Marshal Anders von Breslau launched the final drive towards the CEF's Western Desert base.

By the end of Winter, von Breslau had accepted the unconditional surrender of the Colonial Expeditionary Forces' ground troops. The war officially ended in 6120 (TN 1917) when the Earth fleet returned once again to Terra Nova and acknowledged the planet's independence in the Treaty of Westphalia. Having lost most of its troop transport vessels, the fleet was forced to abandon thousands of troops on Terra Nova when it left in late TN 1917. Earth lost due to unfamiliarity with the terrain, an inability to re-supply quickly and the colony's use of Heavy Gear infantry fighting vehicles. Earth commanders never thought that "converted mining and construction 'bots" would be of any danger — certainly Caprice's Mounts never posed any serious threat. Combining the latest in local military technology with ease-of-use and adaptability, however, the Heavy Gear was the perfect vehicle for combat in the Badlands and in the jungles and forests of Terra Nova. The CEF had been crushed in a war that had lasted two and a half grueling years.

◆ The Death Watch Company (6120)

Although the 8th Fleet officially admitted defeat and surrendered to Terra Nova in 6120, not every CEF officer, soldier or trooper was willing to accept the situation. While Vice Admiral Angela Mubatu and her staff were busy formalizing the Treaty of Westphalia that marked the end of the Terranovan Campaign, several of the CEF's best hovertank commanders abandoned their duties and posts to form the unofficial "Death Watch Company." This elite fighting force spent almost half of a Terranovan cycle harassing the colonists, refusing to surrender. No longer concerned with surviving or eventually returning home to Earth, the Death Watch Company performed dozens of daring and damaging raids during this time, until it was finally destroyed by a company of fire support and assault Heavy Gears from the Confederated Northern City-States' Northern Guard.

High Command does not officially recognize or condone the actions of the Death Watch Company. Although it is not particularly pleased with the outcome of the Terranovan campaign, and although the military leaders feel nothing but shame at the loss, the surrender was a legal action carried out by a legal representative of the New Earth Commonwealth, and the Death Watch Company's actions were officially deplorable. Unofficially, however, most survivors of the campaign — as well as many who had nothing to do with it — view the members of the Death Watch Company as true patriots and heroes.

1.2.11 - Victory over Utopia

Utopia exposed the CEF to weapons of mass destruction and showed the power of political action over purely military might. Like Terra Nova, Utopia was divided between disparate factions (three megapowers) locked in a cycle of violence when the CEF arrived. Instead of unifying these powers as they had on Terra Nova, however, the invaders wisely chose to seek an alliance with one power, thus tipping the balance of power and allowing the CEF and its local ally to conquer the planet. This decision was possible because Utopia was no longer desirable for colonization or resource exploitation, and the CEF could engage in practically unlimited warfare. Utopia fell within months of the union between the CEF and its ally, and the planet has become home to important developments in some of the CEF's strategies for dealing with its less successful campaigns.

1.2.12 - Stalemate on Atlantis

Unlike Utopia, Atlantis could not be conquered. Unlike Terra Nova, however, the CEF has not yet technically lost the war. Instead, it has become a curious stalemate that the CEF hopes soon to break. The primary reason for the stalemate is that most of Altantis' society lives underwater, and while the CEF has secured nearly all of the planet's landmasses, it has been unable to do much to the underwater cities. With its defeat on Terra Nova, the CEF has decided to consolidate its hold on the rest of the Atlantean system and keep its foothold on the planetary landmasses. It has momentarily stopped trying to conquer the seas, and the Atlan Corporate Hegemony seems satisfied with the situation — or at least has yet to strike.

Since its original colonization, submarine technology on Atlantis has developed to an astonishing degree and the CEF simply cannot compete. Atlantis has a blue-water navy since it occupies the oceans rather than the landmasses, and it relies on fusion power for its attack submarines. These subs are quite large compared to the CEF's minisubs, and their fusion reactors deliver extremely good speed, although their bulk precludes high maneuverability. They have large crew complements, are armed with long-range, multiple-role torpedoes, drones and missiles, and are quite stealthy. The CEF, on the other hand, has a brown-water (coastal or "littoral") navy because it is a short-range, non-nuclear force. It has an extreme transport problem with merely getting wet naval assets to Atlantis, and it cannot carry any surface ships or submarines large enough to use nuclear propulsion. The larger or heavier the seagoing vessel, the vastly more expensive the boost and transport per trip, and the CEF must currently rely on its Tarantula (AC-56) and Sleipnir (AT-33) transports.

Needless to say, the two forces' submarines have vastly different performance profiles and preferred fighting conditions. Since the CEF's SSK-41 is essentially tied to a supply base, either ashore or afloat, it cannot operate too far from base. Because Atlantean forces can easily destroy floating supply bases, the CEF is limited to shore depots. The relatively poor maneuverability of the Atlantean submarines makes them unsuited for littoral engagements where an unwary captain can unwittingly collide with the costal terrain. Thus, neither side is fully capable of taking the battle to the enemy, resulting in the current stalemate. This state of affairs essentially cedes the planet's few landmasses and the shallows around them to the CEF, while the remainder remains firmly under Atlantean control. Tshe CEF lacks the means and equipment necessary to seize control of the deep while the Atlanteans conversely lack the means and technology to project their power from sea to shore — amphibious and land warfare being quite alien to their experience. However, certain Terranovan-built water-operations Gears can potentially shift this delicate balance of power in favor of the Atlanteans — a situation the CEF wants to prevent at all costs.

The Missing Fleet – 1.2.13

The situations on Atlantis and Terra Nova have shaken the CEF to its core. A third potential setback seems to be rearing its ugly head, however, and it is one that High Command did not foresee. The 7th Fleet, tasked with the annexation of New Jerusalem, has apparently vanished without a trace. The fleet was supposed to keep in contact with High Command through the use of regular messenger Gatedrones; the stalemate on Atlantis and the expedition to Home should not have affected the operations, and yet the fleet has been out of contact for more than a year.

Sociological research suggests that the New Jerusalemites could not pose a serious threat, given their peaceful, agrarian society. While the possibility of armed resistance seems highly unlikely, it has not been ruled out entirely. Rather than send a search party out, however, which would detract from the operation on Atlantis, High Command has recently launched additional messenger probes. They have yet to return.

The Future – 1.2.14

The CEF has three priorities at the top of its list: resolve the stalemate on Atlantis, determine the fate of the missing 7th Fleet, and crush Terra Nova once and for all. Towards this third goal, the CEF has recently designed Operation Icarus. The goal of Operation Icarus is the destruction of the Terranovan space fleet and the colony's shipbuilding capabilities. The CEF has enough intelligence data from its spies in the Helios system to give it a clear picture of Terra Nova's space assets, including ships, stations and planetside facilities. As originally conceived, it was a somewhat daring measure in that it could potentially have weakened the 3rd Fleet, despite Vice Admiral Gresfield's assurances to the contrary. The operation involves a quick strike against Terra Nova's space assets; it will not engage in ground warfare. Ideally, this action will curtail the wayward colony's own strikes against CEF targets in the Loki system as well as prevent the otherwise inevitable and patently undesirable situation in which Terra Nova allies itself with other colonies. In addition, it will weaken the planet for the full-scale invasion to follow soon afterward.

With the recent promotion of Edith Mubatu to the rank of Vice Admiral, the 8th Fleet has reached one of the final milestones of its resurrection from its near-destruction during the Terranovan Campaign of 6118. Although its forces are not yet up to 100%, its leadership has reached the point where High Command and Admiral Winthrop feel it can be put to the test. Thus, Operation Icarus has been turned over to Vice Admiral Mubatu and the 8th Fleet.

In addition to Operation Icarus, the NEC has been working on improving its technological base. This research is largely being conducted on Caprice, which is turning into the NEC's war factory, and includes such projects as the new Battle Frames and the SLEDGE program. It also includes advances in Gatedrive technology.

◆ New Gatedrives

During the centuries following the Colonial Wars, Caprician and Terran engineers alike were hard at work trying to refine and advance the Tannhauser Gatedrive system, hoping to make Gateships more affordable as well as to make use of smaller Tannhauser anomalies. Neither group was completely successful in its endeavors, but the two projects were quite complementary, allowing Earth to develop the technology fully after conquering Caprice. In 6124 (LC 265 by the Caprician calendar), the two research teams created the first third-generation Gatedrive, which was finally able to achieve the "Holy Grail" of Tannhauser Discontinuity research: it was able to open micro-anomalies. The CEF and its Caprician "allies" put this new technology to work in a novel strategy for infiltrating and subverting targets for invasion. They built a Gatestation in an abandoned mining camp near a micro-anomaly that led to the Helios system and Terra Nova. Using the third-generation drive, the station began opening the Gate and sending equipment and personnel through. A mostly automated space station was constructed on the other side of the Gate and was used to receive agents in Gate coffins, one-man transports designed to slip through the small Gates. From 6125 on, spies (both Terran and Caprician) were inserted covertly into the Helios system, where they made allies with the stranded Earth forces as well as certain Terranovan turncoats.

A Question of Language ☐

The primary language spoken in the NEC (and by extent, the one used by the CEF) is Siberian. It is a mixture of Russian and other Slavic languages, combined with a fraction of Indo-Arabic vocabulary. Siberian finds its roots in the language of Greater Samarkand, dating back to the 30th Century. The old utopia was rich and powerful, and its local dialect, Samarkandian (a new language, mostly drawing on the ones spoken by Arabic and Russian immigrants), had a strong following in business and politics. The language was used across Eurasia for centuries following the collapse of New Samarkand, and the current Siberian is a Samarkandian offshoot that has Chinese words added to its original Arabic/Russian/Hindi roots.

◆ Present Situation

The NEC is the most powerful nation of humanity with its population, economic might and military power far surpassing combined strength of Colonies combined. At the same time NEC's grasp of power is getting increasingly shakier and its leadership more worried and nervous of its future.

The initial dreams of immediate conquest of colonies and their ruthless exploitation for rapid rebuilding of Earth have been shelved for more realistic assessment of the situation. NECA has decided to concentrate on emigration effort of Home at the risk of internal troubles in Earth and stalling a knockout blow to Terra Nova and New Jerusalem to deal with Colonial problems once and for all. The Expansion project is proceeding smoothly but the progress has come out with a cost.

Biggest problem to NEC are internal troubles, which remain worrisome. Manchuria's near open break-up with NEC has driven its nationalistic policies into direct opposition to Party. Yakutians are also making moves against Manchuria while loyalties of other major NEC member states remain open in case of internal warfare. No one wants a civil war but it is bubbling under as valuable time and resources are being spent to maintain a delicate balance. Latest challenger has been Equatorial League, which is challenging Party's supremacy in subtle and small ways but gaining confidence as Party tries to keep NEC pointed towards conquest of colonies.

Party's policies enjoy dwindling support amongst NEC population. Murmuring amongst citizens of delayed rebuilding of Earth is constantly growing as resources are being spent in Colonies quite opposite to initial promises. There have been questions of NEC future direction even amongst Party faithful and internal backstabbing is reaching new heights between Realists and Opportunists.

Corruption amongst NEC leadership has grown tremendously and CID's activities in colonies have been nothing short of scandalous. Corporate influence peddling amongst giant military-industrial complex in Earth and Martian aerospace companies has so far ensured continuation of current opportunistic and expansionist policies. This greed has cost NEC dearly and people are getting increasingly angry. The Party has tried to smooth thing over by shifting blame to colonials and subversives, but many agitators are working to undermine NEC by inciting strikes and riots. Slums are filled with refugees and desperate, many of which could be whipped into uprisings that are becoming more common.

Meanwhile in the colonies, the NECAF is turning its attention to the build-up in Home while letting other NEC forces hold the line against steadily increasing colonial guerrilla attacks and Terra Nova's skirmishes. The CEF now aggressively patrols occupied areas and is ever ready to take raids and battles deep into heart of enemy territory. Secretly its top leadership grumbles under cutback of supplies necessary for thrust towards final victory they still believe would be in grasp. once Terra Nova would be invaded again. At the same time in Earth Regular Army is wondering how it could control chaos if an uprising or a civil war would really break out and Territorial Army would split among warring factions.

Recent History ◆

Life is returning to normalcy in most cities, with post-war rebuilding offering plenty of jobs for those willing to work. Corporations are profiting greatly. Military tech, mining, agriculture, construction and health care are all experiencing employee shortages across the planet.

Some areas, particularly in poorer countries, are still hurting. Rebuilding and cleanup have not yet begun, and many still live in refugee camps. Government programs to ensure housing, health care and food are available to refugees still in the hardest hit areas are continuing, but given the huge amount of resources needed to rebuild and continue the campaign to retake the Colonies, things are going slowly. Tent neighborhoods are still around in many of the refugee cities. Weekly movie nights and media campaigns have been instituted to ensure good morale.

The areas hit hardest by the war are nothing more than toxic wastelands, where criminals and the dregs of society work to slow Earth's demise. Corporations, made fat by the war and political ties, keep the pristine areas of the planet for themselves. While most civilized areas are returning to some semblance of normalcy, lawlessness abounds in areas left untamed after the war.

The nations of Earth are fierce in the individuality, but they too have to live with the reality of the situation Earth is in. Each nation has it's own view on what should be done to delay the inevitable and so far only members of The Party have been able to work out compromises between the nations. It is this ability that allows members of The Party to keep getting elected, and to keep the New Earth Commonwealth functioning as a governing body.
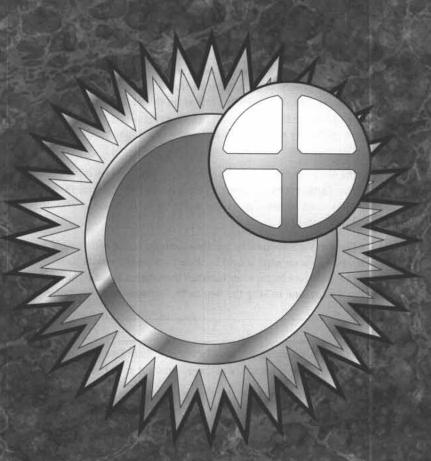
Current Concerns ◆

The repatriating of the Colonies is taking far too long for the New Earth Commonwealth's liking. Citizens in even the wealthiest of countries are growing worried, and the government seems unable to quell these concerns.

The Terranovan Black Talon program is proving to be both a blessing and a curse to The Party. The Black Talons' interference is causing problems on many colonies, granting even conquered colonies hope, and exposing the CEF to guerilla attacks on their own turf. On Earth, however, the Talons are proving to be a useful propaganda tool. The exploits of Black Talon teams are given coverage by the state news programs, with coverage concentrating on the number of Earth citizen and innocent lives lost by the ruthless and amoral actions of the Talons. State announcements concentrate on how the Talons could be infiltrating anywhere, encouraging people to turn in those who act suspiciously to the recently formed Department of Internal Security.

Chapter 2: Factions of Earth
Although it tries to present a unified face to the rest of the human worlds, the New Earth
Commonwealth is a political entity made up of many factions and groups, each with their
own goals and hopes.

THE NEW EARTH COMMONWEALTH - 2.1

The New Earth Commonwealth Administrative Principles were ratified in 6106. Based upon the original accords that shaped the New Eurasian Commonwealth, the Principles laid down the structure of the NEC's governing body. They also established the NEC's military arm, the New Earth Commonwealth Armed Forces (NECAF). Within a year, the NEC had revised the Principles to add a second military arm, the Colonial Expeditionary Force (CEF), which was charged with retaking the colonies.

The NEC concerns itself primarily with friction between member-nations and other items of planetary importance. This includes trade disputes, major crimes and general peacekeeping. The NECAF was charged with the latter, along with policing duties related to international crime and Earth security. The various member-nation armies were integrated under the NECAF administration, but retained most of their autonomy.

In the wake of delays in retaking the colonies, possible civil unrest and the threat of the Black Talons, the Commonwealth has recently created a new ministry called the Department of Internal Security (DIS). This department has taken over peacekeeping, policing and security matters that pertain directly to the NEC, and has been granted wide-ranging powers in order to complete its mandate.

Propaganda and Media Manipulation ◆

The New Earth Commonwealth is a very right-wing organization, even within the opposition. Given the delicate nature of Earth's biosphere and the colonial situation, the NEC is taking steps to protect its interests: information regarding military actions, colonial resistance, government actions, and anything else the NEC can get its hands on, is deliberately slanted. The bulk of this work is handled by the DIS as a matter of internal security. Often, not much is changed; omitting minor details or simply giving a news story a new direction is more common. Stories are hyped to play up potential security threats, and real world issues given less airtime. The end result is that the average person has a very pro-NEC viewpoint.

Governmental Power - 2.1.1

The General Manager and his cabinet hold executive power over the NEC. Each cabinet minister normally handles a single ministry, although some oversee numerous smaller or civilian ministries rather than a single large one. The NEC administrative style emphasizes concentration of power and management, as well as a very "hands-on" approach to governance. The largest ministries are currently the CEF, the NECAF and the new DIS. As the General Manager chooses all cabinet ministers and is a member of the Party, all cabinet ministers tend to also be members.

The NEC Parliament is made up of representatives from all member-nations who vote on laws and policies. The legislature is often bogged down in committees, focus groups, sub-councils and various administrative tasks. This often makes passing legislation take a year or more. In some cases, the General Manager and his cabinet have sped up the process to ensure laws get passed if they are needed, such as when voting in the Department of Internal Security. The Party currently holds the majority of seats within the NEC Parliament, and as such cabinet ministers and the General Manager almost always have their proposals passed, even with infighting amongst the various representatives.

In the case of a major catastrophe, invasion, or other serious threat to Earth, the NEC Parliament can institute the Emergency Measures Act. This is designed to allow an efficient operation of the Earth and its militaries during times of crisis, and grants the General Manager and his cabinet sweeping emergency powers. This effectively transfers power from Parliament to the cabinet and institutes martial law over the planet. In theory, the government would then be able to act with impunity to deal with the situation. Some cabinet ministers are concerned that if the Colonies are not taken soon, the act may need to be instituted to protect citizens from terrorist threats and possible global ecological collapse.

2.1.2 - The Party Now

The Party started out in 6011 as a loose coalition of civilians, industrialists and military officers united by a common goal: they wished to see the New Eurasian Commonwealth rule humanity. The reasons and rationalizations varied, but the central principle remained the same: the need to have a single unified body to guide the world. As World War III wore on, more countries were assimilated into the NEC, and more people were converted to the Party's ideals. After the war ended, the Party-controlled New Eurasian Commonwealth became the New Earth Commonwealth. This transformation strengthened the Party, and it evolved from a coalition of lobbyists to a more formal organization, with a clear direction and ideology, and a plan for the future of mankind.

The Party currently controls the majority of seats in the NEC Parliament and has held the majority of the seats since the inception of the New Earth Commonwealth in 6105. This has given the Party almost complete control of the NEC, ensuring that their goals are met.

◆ Ideology

The Party is, by definition, Fascist. They are extremely right-wing and claim that the NEC is a 'natural community,' formed from the ashes of the failed Human Concordat. This, of course, proves that the NEC is the rightful, predestined ruler of mankind. Loyalty to the Commonwealth (and hence, to the Party) is portrayed as transcending all other loyalties. As evidenced by their actions in WWIII and against the Colonies, the Party has no qualms about using whatever means are necessary to further what they see as a higher purpose. The outcome of World War III and the ongoing war against the colonies have furthered the acceptance of the Party's claims of predestined unity among the people of Earth. The Party's ideals of youth and virility have also caught on among the people, and most celebrities now embody these ideals. Much of this comes from the media image of the General Manager, who is portrayed as the pinnacle of both.

Externally, the Party is populist, almost to an extreme. They seek to provoke action in the people of Earth against perceived threats or enemies, real or invented. Currently, this is focused on the Colonies, Black Talon "terrorists," and "crimes against the people." Internally, however, the Party is elitist: members treat other Party members as a select group from which authority trickles downward to Party supporters, and then to the common people. They apply this principle when getting supporters to organize 'grassroots' movements and support groups to guide the actions and choices of the masses. The Party treats its enemies with contempt, using intimidation, and more recently, violence. It is slowly moving toward making the NEC a totalitarian state to fit its vision.

◆ Organization

The Party mostly remains a coalition of civilians, industrialists and military officers. Industrialists and those with military leanings now make up the majority of the Party's upper membership. The Party has a support organization separate from its political wing, which mainly deals with business matters such as fundraising or advertising. These are overseen by the CEO, along with his executive. The CEO of the Party is not involved in the political wing, and takes orders from Party members with the highest positions in Parliament. As they have controlled the Commonwealth since its inception, the General Manager and his cabinet also have supreme authority within the Party.

◆ Factions

Like any political movement, the Party has its share of fanatics, hangers-on, celebrities, businessmen, and fringe members. Those affiliated with corporations that profited from the war and those with direct military ties are currently the powerhouses in The Party.

Aran Wulf is the current General Manager of the NEC, and a self-made businessman. Aran started a small water purification business during the war and made millions off of it. He epitomizes the Party ideals of youth and virility, and is seen as a link to the common man, as he started as a refugee.

The Prime Templars Society

While Aran Wulf may have come from refugee stock, he considers himself far above the common people. He can trace his family back to Kir Arya and, apparently, one of the Prime Knights. Aran became obsessed with this minor detail in his family's history and began to see himself as better than the rest of humanity. He took the Knight's name for himself and soon found himself entangled within the newly formed Party. Their ideals molded the unstable young man, and reinforced the idea that he was somehow better than his peers.

As Aran rose through the ranks of the Party, he began surrounding himself with those who shared similar views: that they were somehow better, and were meant to rule all. They formed a secret society centered around these ideals and became obsessed with uncovering the secrets of the Prime project. The Prime Templars, as they now called themselves, became part of Aran's cabinet once he was chosen as General Manager. They will stop at nothing to rule humanity, and will leave Earth and its people behind if necessary.

NEC MILITARY COMMAND STRUCTURE - 2.2
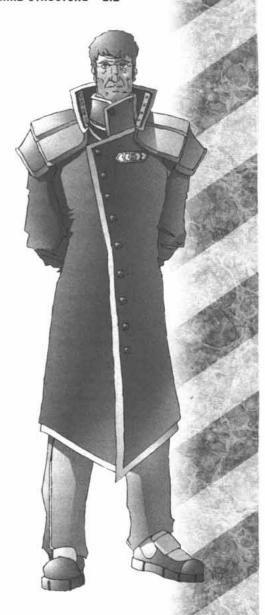
The New Earth Commonwealth military command structure has undergone two top-level organizational changes since 6105, when it was originally set up. The original structure had the New Earth Commonwealth Armed Forces under the auspices of the Ministry of Defense. Individual nations' armies were left to the local governments to handle. Peacekeeping and International Policing were handled by the same Ministry, with the NECAF handling those duties in the field. Intelligence and internal security was also covered by the NECAF at that time.

The first major change came once it was decided that the NEC would retake the former colonies. The Colonial Ministry was formed to handle the set-up and administration of the new Colonial Expeditionary Force. Personnel and equipment were shifted as required from the NECAF to the newly formed CEF. The NEC had concluded that allowing the member-nations to keep autonomous armies was problematic. These armies were integrated into NECAF command as semi-autonomous groups.

The NEC has recently changed the organizational setup once again. In response to internal security issues and the need to separate policing from the NECAF, the Department of Internal Security, or the Security Ministry, was formed. Now, the Department of Defense is responsible for the NECAF alone, the Colonial Ministry handles the CEF High Command, and the DIS handles all intelligence and policing tasks. The three ministries share information and co-ordinate closely, and their military forces all employ the same rank structure to ensure smooth joint operations. All three ministers responsible for these departments report directly to the General Manager.

The NEC Armed Forces - 2.2.1

NECAF is a very different military machine than the CEF, even though the NEC government directly controls both. Unlike the CEF, the NECAF is charged with occupying territory and peacekeeping in areas still not rebuilt or in uprising. These roles mean that human Troopers are the core of the NECAF. High-speed armor and air power cannot maintain a tangible presence in the same way as foot troops, and GRELs lack the "human touch" necessary for most peacekeeping duties.

◆ Commands

The NECAF is made up of three separate but interlinked commands: the Ground, Sea, and Aerospace Commands. Each Command follows the same rank structure as the CEF. Most Soldiers are assigned to the Aerospace and Sea Commands, which are less involved in peacekeeping duties than the Ground Command. A supreme commander oversees the operations of all three Commands, smoothing co-ordination and combined operations.

◆ Ground Command [the Army]

The Army's role is to neutralize potential threats to the NEC on land. Since the end of World War III, this has meant dealing with pockets of resistance, guerrilla armies, and rebels and freedom fighters, usually in and around cities. The Army is also responsible for planetary defense should the Earth be invaded.. This role also means that if Earth were to be attacked or invaded the Army would be responsible for defending the planet. All members of the Army are trained to survive for long periods without backup or support, and the organizational structure takes this into account. The bulk of the Army is made up of infantry, both Trooper and Soldier units, and many patrols are qualified to airdrop into any area, even during toxic storms. Any Aerospace assets based "ground-side" transfer to Army control.

The army also maintains a moderate number of hovertanks and mobile artillery. These are not normally of much use against guerillas, but have been deployed for certain larger operations, and maintain a constant state of readiness. The NECAF organizes its armor units along the same lines as the CEF.

◆ Sea Command [the Navy]

The Navy's role is similar to that of the Army's, but on (and in) water. Their training procedures are similar, but are geared towards survival on the hostile seas of Earth. The bulk of the Navy is made up of small, high-speed vessels, which are better suited to the patrols and rapid-deployment situations that are the Navy's stock in trade. Individual patrols are designed to be as self-sufficient as possible, much like the Army's patrols. Primary vessels include destroyers, frigates and small brown water submarines. Other vessels, including battleships and larger blue water submarines, exist but are reserved for specific missions where their abilities would be useful, such as deep water patrols. Aerospace assets based on Navy ships transfer to Navy control.

◆ Aerospace Command [the Aerospace Force]

The Aerospace Force has a different mandate than the first two Commands. Its role is to support both the Army and Navy, and to patrol the 'aerospace' around Earth and the various settlements in space, including Portal's Port Haven station. The Aerospace Command has responsibility for all Gateship assets assigned to the Sol and Portal systems, and for the defense of those systems' Tannhauser Gates.

Patrol wings are normally made up of groups of TAAF-54 and/or TAEF-54 fighters and a launch vessel. The launch vessel serves as a mobile base when on extended patrols, such as high Earth orbit and beyond. The Aerospace Force also maintains a fair number of conventional jet aircraft and VTOL vehicles for dropping in Army troops.

2.2.1 - Internal Security Forces

The recently formed Internal Security Forces, or ISF, are responsible for Intelligence gathering in matters related to Earth security (as opposed to the CEF's Intelligence forces like the MVD, which gather info on the colonies) and policing of international crimes. It has inherited these duties from the NECAF and the setup of the ISF is very similar. The new Department of Internal Security has been granted wide ranging powers to ensure security, and as the enforcement branch of the department, the ISF has also a great amount of power to deal with security threats.

Security Command (The Police) ◆

Security Command is responsible for policing NEC-wide crimes, and for providing assistance to local governments when dealing with civil unrest. The Security Command was originally part of the NECAF, under the name Military Police Command, but with the reorganization, it has been given a more publicly acceptable name. The Security Command was quite different from the rest of the Commands within the NEC's military arms. Weapons with non-lethal capabilities are standard issue, and members typically work in pairs, rather than in patrols. However, this is not to say that the Security Command operates as a standard police force. The Command still follows standard military rank, and still operates as a military arm of the NEC. Members are often heavy handed in their approach to policing, only partly due to need.

In case of severe rioting or trouble, Rapid Deployment Teams move in to take care of the situation. RDTs are high-speed threat response teams outfitted with military grade equipment such as automatic weapons and armored personnel carriers. While the weapons carried by the RDTs are (usually) loaded with non-lethal ammunition, the weapons are still quite capable of causing severe injury and death, especially when fired indiscriminately into a rioting crowd. Nearly all Soldiers assigned to the Police can be found in RDTs, but they are still rare. When RDTs are unable to regain control of a situation, the NECAF may be called on for additional support and the area will be reclassified as a combat zone.

Intelligence Command ◆
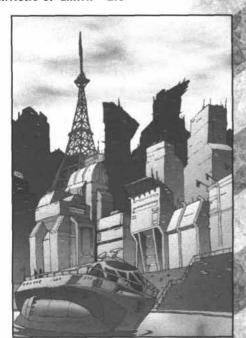
Intelligence Command concerns itself primarily with finding real and imagined threats to Earth's internal security. The newly instituted "Crimes Against the People" laws allow Intelligence Command personnel to tap communications on mere suspicions, make arrests based on hearsay, hold people without charges, and even use mental and physical torture, all in the name of ensuring Earth's security. The Intelligence Command often works hand in hand with the Security Command for many operations.

Ostensibly, the Intelligence Command is comprised of only humans, however the Command had a few Morgana-Class GRELS for "delicate" missions. No one knows what happened to these GRELs, but it is now rumored that the Intelligence Command is testing SLEDGEs in various roles. If they were, in fact, testing SLEDGEs out, very few would know, simply due to the fact that SLEDGEs look human and would be perfect for roles within the Command.

THE NATIONS OF EARTH - 2.3

Though the New Earth Commonwealth likes to present a monolithic face to the rest of Mankind, it is actually composed of several nations and factions working together toward a common goal — most of the time. Like all large human groups, internal frictions caused by differing ambitions flare up on a regular basis.

Most of the existing nations of Earth are survivors from the great war that led to the foundation of the Commonwealth, or were created by one of them as a client-state. Due to the damage incurred in the conflicts and the poor state of the biosphere, the nations tend to be either very large or very small. The larger coalitions can survive through sheer might, while the tiny ones either slip through the cracks or provide valuable services to their neighbors.

2.3.1 - Allied Europe

Allied Europe is the most powerful of the NEC's member-states. It was created in 6008 as an alliance of several small Central European city-states, who sought to maintain trade links to Rangstadt and the Black Sea in the face of aggressive expansion by the Western European Nations. The AE sought help from its trading partners in the East, and was a charter member of the NEC in 6011. The WEN threat was turned back in 6019, when the growing power of the AE caused many of the WEN's member-states to switch sides. The WEN was finally dissolved in 6023, and the last of its territories were absorbed by AE. AE now stretches from Iberia to the Black Sea, and has emerged as the first among equals within the NEC.

Allied Europe's might lies in a skillful application of economic and intellectual power. Its diplomatic muscle was the key to survival in many of the worst crises faced by the NEC during the Third World War. It is still the richest nation on Earth, with an extremely diversified economy, thanks partly to its control of the massive Rangstadt megopolis. This is mitigated by the fact that much of its economic might must be diverted to support poorer nations and to attempt to maintain the planet's ecology. AE's money also pays for the lion's share of the war against the colonies and other interstellar ventures, though it expects to recoup this investment once the colonies are subjugated.

Like the NEC, Allied Europe is a union of nominally independent member-states. The Alliance dictates its member-states' foreign and economic policies. A web of treaties between its member-states further binds the alliance together by making the supposedly-independent countries economically *dependant* on each other. The Alliance is governed by a 500-delegate Parliament, from which a 23-member Cabinet and a Prime Minister are chosen. Member-states receive a number of seats determined by their gross domestic product relative to the other members of the Alliance, a practice that encourages local development and competition. Successful delegates are almost always sponsored by large corporations or the Party's business wing. Those who manage to acquire an endorsement from the Party have very good chances of winning, which gives the Party in general and Aran Wulf in particular great influence over Allied Europe's Parliament.

The society of Allied Europe is quite stratified. Wealth is the primary factor that determines social rank, and the upper echelons of AE society guard their position jealously. While an excellent education is provided to the middle class, their cost of living is so high that most of what they earn goes into maintaining their lifestyle. Rising in station is even harder for the lower classes, who fill the slums in and around AE's massive cities. Although they do not have the same high cost of living as the middle class, they lack anything beyond the most rudimentary education.

The upper class of Allied Europe is quite satisfied with their situation. Not only do they have a great deal of power within the Alliance, but their wealth gives them an impressive amount of influence throughout the NEC. The middle and lower classes are somewhat less content. While they are largely kept pacified by a seemingly endless parade of technological gadgets and trideo shows, there are rumblings of discontent growing among them. Many are especially unhappy that so much of their wealth goes to support other countries, though the social stratification of the Alliance is also a hot topic. A common escape for dissatisfied citizens is service in the CEF, which not only gives them a *once-in-a-lifetime* chance to see other worlds, but gives them the opportunity to improve their social station by rising through the ranks."

Allied Europe Vital Statistics

Founding Date:	6008	Capital:	Rangstadt
Method of Government:	Representative Democracy	Population:	1.3 billion
Head of Government:	Chancellor Ina Aniek	Anthem:	Ode to Europe by Kemp

◆ President Ina Aniek

Aniek was born in 6087 to a rich corporate family in Rangstadt. She lived a comfortable and happy childhood and was groomed for the top from the start, receiving excellent private tutoring in Governmental Sciences at the elite Rangstadt Cyrenaica University. She served in the Foreign Ministry as a diplomat until 6130, when she was

nominated Central Banker of the European Treasury. She became Prime Minister of Allied Europe in 6136, and although she initially focused on strengthening Rangstadt's economy, her attention of late has been on the CEF. She feels that the CEF should abandon "lost cause" worlds like Terra Nova and focus its forces on securing colonies with better prospects.

Rangstadt ◆

Rangstadt is, without a doubt, one the largest construction projects ever attempted. Originally nothing more than a few shelters built to withstand the Ice Age, Rangstadt has since eclipsed any other city in sheer engineering brilliance.

The original shelters were self-sufficient habitats built on extendible stilts on the Mediterranean seabed. They were designed so that, when the ice did retreat, these underwater cities would rise to the surface, providing immediate access to the outside world. The stilts were capable of adjusting slightly to compensate for changes in the seabed or ice, for additional stability. When the ice finally began to retreat, the foresight of the designers kept the habitats safe from the rough seas. Many people flocked to the famous "cities on legs" and soon, more habitats were built, with large gantries and bridges connecting them together.

In the years following the Ice Age, these habitats grew into a larger collective, expanding to cover almost the entire Mediterranean Sea. By 4593, the collective had been named Rangstadt, in honour of the now-defunct corporation that designed the original habitats. Lanes between and under the habitat "islands" were opened, to ensure that seagoing vessels could still sail through the Mediterranean to reach the Black Sea and southern Europe from the Atlantic Ocean. The massive complex grew skyward, and soon Rangstadt was the single largest city on the planet, and one of the most populous.

At first, Rangstadt did not involve itself in the politics of the Human Concordat. But with the worst pollution of any region on Earth, it soon found itself entwined in politics, and became the seat of the Concordat's Senate in 5126. When the Concordat fell, Rangstadt's economic and social situation went with it. The city quickly became an urban combat zone, with dozens of gangs and would-be governments fighting for power. By 6007, when the Third World War broke out, Rangstadt had restored order and was working to rebuild from this chaotic nightmare. The war was not kind to the city, but the unique nature of its support structure and its cellular design allowed it to survive without irreparable damage or serious loss of life.

After the war, Rangstadt was chosen by the New Earth Commonwealth as its capital. The physical infrastructure once used by the Human Concordat still remained, and the city was soon transformed from a ragged remnant of greatness into a shining example of the NEC's power and dedication. The spires and towers have been rebuilt, but gone are the days of architectural beauty and artistic grace. Bland utilitarian structures now stand in place of works of art, and imposing anti-aircraft and ground-to-orbit weapon emplacements mar the skyline.

Rangstadt's economy is strong, but not exceptional. Most of its businesses are tied to the government, and outside investors and enterprises are hampered by this government involvement in the private sector. While Rangstadt is also the capital of Allied Europe, the NEC Parliament is located on its own "island" within the city, separate from the AE government complex. The recently formed Internal Security Forces have constructed a brand new headquarters on the same "island" as the NEC Parliament. Prisoners and suspects are brought here for questioning and other, more sinister, things. As it is not technically part of Allied Europe, nor any other country, the ISF can do things that would not be allowed in most other countries on Earth.

While the megacity of Rangstadt is a symbol of the power of the NEC and Allied Europe, there is, as always, a dark underside. The classes within the city are extremely stratified. The rich and powerful elite live in their luxurious fortified towers, protected from the elements and crime. The lower classes live in anything but splendour. Many are homeless, refugees, or living in squalid tenements in the lowest levels of the city. Gangs roam the tunnels beneath the platforms, and riots are common in the lower-class areas. Violence, from spousal abuse to police brutality, is epidemic and the incidents are growing more frequent every year. Social programs do not have enough funding to make much of a difference, and the elite live in intentional ignorance of what happens below them.

2.3.2 - Brazilian Combine

The Brazilian Combine is the youngest of the five major powers of the NEC. The Combine was created by devout Jerusalmites, fleeing persecution and conflict elsewhere on the planet. The weak and sparsely-populated Federated Republic of the Pacific welcomed these refugees with open arms, seeking to use them to bolster its flagging war machine. Unfortunately for the rulers of the FRP, they had underestimated the zeal and volume of refugees. Within a decade, by 6023, they had become the largest voting demographic and taken control of the country, transforming it into the Brazilian Combine, a pacifist Jerusalemite theocracy. Its dedication to pacifism didn't last long, and the country was drawn into World War III in 6030. Seventy-five years of war wore away further at the Combine's ideals, and by the time the war ended in 6105 the state had been further tarnished.

The Brazilian Combine is ruled by the First Church of Gideon. Founded by the refugees that created the Brazilian Combine, the Church was originally preached a strict interpretation of Jerusalemite doctrine. Priests were selected from among the virtuous and wise. The Church's teachings have changed over the decades, and now emphasize obedience and hard work over pacifism and self-improvement. A priesthood is available to anyone willing to purchase it, and there are stiff codes of secrecy to keep the Church's internal operations hidden from the masses. All decisions are made by councils of priests, who elect a Chief Director to manage both the Church's internal operations and its public facade. Despite its hostility towards organized religion, the Party tolerates the First Church, possibly because it recognizes that it is nothing more than another way to keep the masses under control. Almost all high-ranking priests, especially those that hold the BC's seats in the NEC Parliament, are members of the Party.

The life of the masses in the Brazilian Combine is centered around the Church. Worship and theology are major pastimes, and the most popular bands and trideo shows are religiously-oriented. Combine citizens go to their priests for advice on everything from personal relationships to finance. Discontent or heresy among the masses is snuffed out quickly or twisted to further the Church's ends. Military service is discouraged, especially as a means of escape, but small numbers young people with training in operating or repairing heavy machinery still join up with the CEF every year, to work as mechanics or transport pilots.

The Combine's economy is mostly industrial, based around manufacturing, recycling, refining, and extracting what little resources they can from the Earth. The Free Port of Cali, one of Earth's largest spaceports, brings raw resources in from space for the refineries, to supplement those reclaimed by recycling. The Church's doctrines, with their emphasis on obedience and hard work, make the Combine an ideal site for these industries. The masses are very devout, and won't object to long hours, low pay, or harsh working conditions as long as the Church tells them to endure. Products used throughout the NEC are manufactured here, especially low-quality knockoffs of products from Allied Europe.

Brasilian Combine Vital Statistics

Founding Date:	6023	Capital:	Brazilian Arc
Method of Government:	Corporate Theocracy	Population:	1.1 billion
Head of Government:	Chief Director Yin Richardson	Anthem:	Onward Gideon by Maatt

◆ Chief Director Yin Richardson

Newly elected to Chief Directorship of the Church of Gideon in 6137, Yin Richardson is an unknown quantity. Despite being from a long line of priests, he was a political nobody before assuming the Directorship. Since then, he has launched several programs to attempt to diversify the Combine's economy, while keeping these new enterprises under the direct control of the Church. He is known to have strong ties to the Party, and it is rumored that he's a personal friend of Aran Wulf.

Manchurian Mineral Union - 2.3.3

The Manchurian Mineral Union was formed by a group of landlocked nations in 6009, soon after the beginning of World War III. All these nations possessed great mineral wealth, which would have made them easy targets for the fast-growing Yakutian Federation or other Eastern Alliances. Instead of joining together in a Federation, the states chose to merge their governments into the MMU. Fortunately, their fears were unwarranted - instead of invading, the Yakutian Federation made an offer of alliance, and the MMU became one of the founding members of the New Eurasian Commonwealth in 6011. The MMU's extensive mineral resources gave them lots of political influence in the early days of the NEC, and were one of the factors that allowed it to win the war.

The MMU's resources are gone, drained dry by the long, brutal Third World War, but the political power it acquired in its early days still lingers. The MMU's delegates form the official opposition in the New Earth Commonwealth Parliament, as they are the only nation that feels confident enough to defy the Party. Internally, the MMU is governed by a senate of 45 members, five from each of the nine nations that merged together to form the MMU. All legislation is passed by simple majority vote, and subcommittees are formed to supervise the immediate business of the government. Each of the original nine nations is now an electoral district, and Senators are elected by simple majority vote within that district. Elections are staggered, so one of a district's five Senators is up for re-election each year.

The MMU's economy is focused around the extraction of raw materials. While its domestic resources were mined out during the war years, its government had the foresight to allocate what resources could be spared from the war effort to the development of its space program. Since the end of the war, its fleets have been busy mining the asteroid belt and other extraterrestrial bodies to feed Earth's demand for resources. Rather than weakening the Union's mining concerns, this has made them stronger: they can now easily deliver resources to wherever there is demand for them, such as the Brazilian Combine. Despite this virtual monopoly on mineral extraction, the MMU's economy is weak. Apart from the massive mining conglomerates, the only companies based in the MMU are small and focused on serving the domestic market.

Union society is quite open, especially compared to the other members of the CEF. Criticism of both the NEC Parliament and the MMU Senate is not only allowed, but encouraged, a practice that angers the Party greatly. Colonial sympathizers are common, and several peace movements have taken root in the Union. These movements advocate asking the colonies for aid instead of taking it by force. These views are not popular outside the MMU, and are censored or ridiculed. The threat posed by Black Talon operatives and the widespread colonial sympathy in the region has drawn the attention of the DIS, who fear that colonial operatives could exploit its sympathies and extensive space infrastructure to slip onto Earth unnoticed.

Manchurian Mineral Union Vital Statistics

Founding Date:	6009	Capital:	Harbin Metroplex
Method of Government:	Elected Senate	Population:	900 million
Head of Government:	None, all senators are equal	Anthem:	Manchuria the Free by Zhang

Senator Hsen Yue ◆

Senator Hsen is one of the MMU's representatives in the NEC Parliament. He is somewhat unusual among the opposition in that he recognizes the need for the CEF - Earth is dying, and her people must find another world at any cost, though he believes that it should be a last resort, not the first choice. Hsen is even more unusual because he comes from a lower-middle-class family of space-miners, and came into power through a "man of the people" campaign. While he finds the military objectives of the Black Talons just as abhorrent as the CEF, he is looking for a way to establish a channel for diplomatic communication with the colonies.

2.3.4 - Yakutian Federation

The Yakutian Federation has grown from its humble origins as a large complex of underground bunkers built in eastern Siberia in the 26th century as the glaciers swept south. During the Concordat years, the complex was transformed into a massive, fortified military and scientific research base. When the Concordat collapsed in 6003, this left the YF in an excellent position. It used its access to advanced technology and massive military to secure trading partners throughout southern Eurasia and expand their territory through Siberia. The Third World War broke out when Yakut's forces attempted to take the rich farmland of the African Sahara, to help feed their growing population. They were the driving force behind the formation of the New Eurasian Commonwealth and, later, the New Earth Commonwealth.

Since its inception, the Yakutian Federation has placed great import on its military. All citizens must serve in the Yakut Armed Forces for a minimum of one year, though service in the NECAF or CEF is an acceptable alternative. Most wind up serving in supply or staff roles, though others are shipped off to support the NECAF in peacekeeping and anti-insurgency operations throughout the Solar System. All citizens of the YF, no matter how young or old, track the activities of the YAF, and the NECAF and CEF, with great zeal. Building models of military vehicles, especially the new hovertanks and Frames; reading (or writing) military adventure novels; and watching military dramas are the most popular pastimes. Young children playing solider, or "CEF and Colonials," in the street are a common sight in any Yakut city. Fervent support for the Party and the NEC is the rule, and most citizens idolize General Manager Aran Wolf.

The Yakutian Federation is governed by its military. The High Command of the Yakut Armed Forces governs the state from its command center buried deep under the Yakutsk Capital Military Region. They are aided by a large civilian bureaucracy, which operates under significantly larger and less well-defended structures on the surface, but high-ranking YAF officers make any important decisions and hold all the positions of power. The military reinforces its position through constant propaganda broadcasts, which have been so effective that the average YF citizen sees democracy as not only confusing, but dangerous. The High Command has very tight ties to the Party, and all high-ranking officers are also Party members.

Yakut's economy, like the rest of the Federation, is built around its military. Arms manufacturing and development are Yakut's main industry, with several large contractors and innumerable smaller, more specialized firms making up the vast majority of the economic landscape. The executives of these companies are usually members of the Party, and non-members will find advancement difficult. High-tech companies and scientific research firms are also common, and are responsible for many of the breakthroughs that have made the NECAF and CEF such fearsome forces. Moscow Heavy Industries and Kadellie Weapon Systems are both based in Yakut, and manufacture most of the equipment used by the CEF.

Yakutian Federation Vital Statistics

Founding Date:	6003	Capital:	Yakutsk Capital Military Region
Method of Government:	Military Dictatorship	Population:	1.8 billion
Head of Government:	General Ivashko Nachimir	Anthem:	The March of Honor by Sabilov

◆ General Ivashko Nachimir

Ivashko Nachimir was born mere decades before the end of World War III, and served in the YAF Army during the final push into Yangze territory. His bravery and tactical excellence during these operations lead him to a peacekeeping assignment in the North American Waste Zone after the war ended. He quickly rose through the ranks, becoming a Brigadier and getting reassigned back to Yakutsk in 6120. He spent the next several years building up a political power base, and became a General and one of the leaders of the Federation in 6125.

General Nachimir is a master manipulator. He's responsible for managing Yakut's propaganda campaign, and a firm believer in the need to subjugate the colonies and take what Earth needs through military means. Rumor (outside of the YF) places him in Aran Wulf's inner circle, though there is, of course, no proof.

Yangtze Protection Zone - 2.3.5

Formed in 6005, the South-Asian Democratic Union was one of the New Eurasian Commonwealth's most determined enemies. The conflict between the two raged all along the SDU's borders with the Yakutian Federation and Manchurian Mineral Union during World War 3. The SDU was one of the last enemies to fall before the NECAF, only surrendering in 6104 as NECAF hovertanks crushed the last of its army and closed in on the Shanghai Metroplex. The NEC occupied the region for two years before creating the Yangze Protection Zone in 6105.

The YPZ is incredibly disorderly. Every few years, another popular uprising takes up arms against the government. The YPZ Self-Defense Force is strong enough to deal with smaller uprisings, but the NECAF must be called in to put down any that manage to gain force and spread beyond a city or two. The YPZ is composed of large coast cities or small townships scattered through what's left of the south Asian jungles, so the fighting is usually bloody and slow. Political philosophy, while officially strongly discouraged, is a favorite pastime in the YPZ, so these uprisings have a huge variety of justifications and motivations. Most citizens, however, are content to keep their heads down and toil away at their work.

Even now, over thirty years after its surrender, the NEC does not entirely trust the YPZ. It is governed by a five-member council, with all legislation passed by majority vote. Four of the councilors are appointed by the other four major members of the NEC, while the fifth, known as the Regional Supervisor, is appointed by the General Director of the NEC. The councilors serve at the pleasure of their sponsor, and may be removed at any time. Councilors are free to delegate their authority however they like, which has created a ripe environment for bribery and patronage. This is generally accepted by the citizens of the YPZ, and knowing who to bribe for what is seen as a vital skill.

Its massive coastal cities allow the YPZ to dominate sea trade. All the cities have deep artificial harbors, which are necessary to handle the massive cargo submarines. The cargo submarines allow the YPZ to ship large amounts of cargo cheaply by sea while avoiding the vicious storms that rage above the waves.

The conquest and subsequent rebellions have left the YPZ's domestic economy in shambles, and it is largely dependent on the income and cheap imports it gets from its domination of sea trade. The NEC has invested heavily in developing water purification and vat-food factories in the cities, which has helped somewhat. More plants are coming online every year, and the cities can now produce enough to feed themselves, with enough leftover food and other water to export to other nations. Agriculture is too inefficient, so the inland townships are dedicated to preserving what little jungle remains. This angers the NECAF greatly, as the jungle is a favorite hiding-place of rebels. The one exception is Shanghai. The city was relatively untouched by the war, and remains an economic powerhouse. Its level of education remains high and its economy strong, despite the decline of the rest of the country.

☐ Yangtze Protection Zone Vital Statistics

Founding Date:	6105	Capital:	Shanghai Metroplex
Method of Government:	Nominated Occupation Council	Population:	500 millions
Head of Government:	Regional Supervisor Melanie Jacobsen	Anthem:	Unity and Strength by Sabilov

Regional Supervisor Melanie Jacobsen ◆

Regional Supervisor Melanie Jacobsen was born in 6100 in the Shanghai Metroplex. Her family had lived in the region for centuries, and chose to stay despite being rich enough to move somewhere more stable. She grew up amidst the reconstruction effort, and came to appreciate the the NEC through her family's involvement with the rebuilding. She married Samuel Shang of Allied Europe, and was invited to join the Party as a junior member at 26. Jacobsen quickly fell in with the Party and soon caught the attention of General Manager Aran Wulf. When Aran grew displeased with the former Regional Supervisor's handling of a major uprising in 6130, he dismissed the man. Melanie has governed since, and has been a staunch supporter of Party policy.

2.3.6 - Minor Powers

While the five major powers of Earth may rule the roost, there are still many small nations, enclaves and city-states on Earth, as well as various orbital and planetary settlements. All of these are part of the NEC, whether they choose to or not. Some joined simply to survive, while others sought greater importance or influence. In total, the minor powers make up about thirteen percent of the total votes in the NEC Parliament. This means that no single minor nation has enough votes to make a large difference in most parliamentary debates. However, on hotly debated topics where the vote is very close, the various powers can make themselves heard, and occasionally barter their votes for favors.

For the most part, the minor powers tend to be smaller, underdeveloped nations with continually-changing borders and names. They are always in a state of unrest: coups, rebellions, and natural and manmade disasters mean that few regimes stay in power long. Many of these countries have very little infrastructure, and a great deal of NEC resources go into policing and maintaining what little order there is. Corruption is unusually high, and many leaders stay only long enough to get rich, or be assassinated. The continous shifting of power makes maintaining stability very difficult. The nations with the most stable governments are the Republic of Inault, Hita City, the Orbital Settlements, and Mars.

While the minor powers of Earth may be disorganized and unruly, the Orbital Settlements and Mars are quite the opposite. Both maintain relatively high standards of living and have a great deal of economic power. This, however, does not translate into political power, and neither nation has the political pull to ensure their wishes are met, and as such, must play diplomatic games. While economically tied with Earth, the two nations are increasing feeling alienated, both by the NEC and by minor powers that only seem to think in the short term.

The minor powers rarely agree on anything. Many of the minor powers on Earth are situated near the equator, and recently formed the Equatorial League in an attempt to challenge the dominance of the five major powers. So far, it has accomplished nothing except give the minor powers a new forum to argue in. It has also increased the rift between the Terrestrial minor powers and the space settlements to increase, as the settlements were not invited to join. Minor powers father from the equator are also upset.

The NEC is currently concerned with the potential security issues caused by the unrest in the smaller nations and is thinking about stepping in and placing the worst of these regions under its direct control. Most of the rebels and terrorists come from these smaller nations and it is quite possible that Colonial spies could infiltrate though these areas, including the settlements in the far reaches of the solar system.

◆ Hita City

Hita City is a single integrated urban sprawl that covers most of Kanto Plain of Honshu Island. The general level of lawlessness has attracted all kinds of criminals and lowlifes to the area and the fabled floating city area on Tokyo Bay. It is the unofficial center of all kinds of vices that most city-states would ruthlessly stamp out. Hita City is known for this worldwide. While there are occasionally demands from the public that the city be cleaned up, it remains the center of illegal activity, if only because no other country wants to risk the criminals moving there.

◆ The Republic of Inault

Inault is an independent country in what remains of the Hawaiian Islands. Named after its first president, Inault remains independant more due to its location than its economy. Many of the NEC's shipyard are located here, and the Equatorial League holds its meetings in the capital, New Hilo.

Inault's moderately prosperous economy is based around shipbuilding and giving tours of the smaller, relatively-untouched islands to visitors from other nations. Many larger corporations have executive getaways on the islands, and trips to Inault are regarded as a luxury only the elite can afford.

Black Sea Coalition ◆

The Black Sea Coalition forms a node between Yakutia and Allied Europe North of the Alps. Neither Allied Europe nor Yakutia truly want the Coalition as member due to the extensive pollution in and around the Black Sea. The polluted cesspool is now quite literally black, and no biological life remains within its dirtied depths. Locals refer to the place as Stink Sea.

The capital of the Coalition lies in the Sevastopol Harbor Independent Administrative Complex. There, the "president," a former military general, rules with an iron hand. This has led to many statues of the president, as well as many megalomaniacal building projects that rise above the Sevastopol cityscape. The president stays in power through the support of the military and by means of backroom deals with many politicians from around the globe, especially members of the Party, who have a vested interest in protecting its economy.

The economy is centered on trade and industry. The industry is concentrated in the heavily-developed Crimean region. Trade is brisk, thanks to its location between the Yakutian Federation and Allied Europe. Most of the major transportation routes and communication lines between the two pass within its borders, giving it rather impressive revenues from the tolls it charges.

Nile Zone ◆

The Nile Zone was set up in 6053 to administer Northeastern Africa after nuclear weapons were used on the region. The zone stretches along the Nile from the Mediterranian to the Ethiopian Plateau. A self-governing body is replacing the military administration, but the change is slow and arduous. The greatest holdup is the rebellious peoples descended from those who lived through the nuclear strikes. Living in the sparsely populated desert areas, they are quite adept at avoiding capture and detection.

The Northern areas, particularly Cairo Arcology and the Nile Delta Metroplex are normally more peaceful. Cairo serves as the capital of the Nile Zone, and is a member of the newly formed Equatorial League, although it does not have much power as of yet, due to the need for NECAF troops in the desert areas. The economy is surprisingly diverse. Many water purifiers and hydroponic farms are located in the Nile, and an industrial area is slowly developing near the Cairo Arcology.

Taiwan Collective ◆

The Taiwan collective is a small socialist state specializing in the production of marine equipment. While it was hurt during the war, it was able to recover quickly and remains the single largest supplier of marine technology. Many clients, from aqualogies in Southeast Asia to the NECAF and CEF rely on its expertise in building submarines and other naval eqipment. Experts from the Collective are often sought out as consultants and advisors in large marine projects and water purification plants.

This expertise has made the Collective's economy strong enough for it to remain independant. The NEC has been putting pressure on it to join the YPZ, in an attempt to bolster Yangze's flagging economy, but it has so far resisted. It has joined the Equatorial League, despite being an isolationist society, to attempt to escape this pressure.

Ulan Bator ◆

The central Mongolian plain was the site of many brutal conflicts during the war, forcing most of the inhabitants into heavy underground bunkers while the remaining urban areas were razed to the ground. After the war, the area became a nexus for trade passing overland between the YF and the MMU. The revenue gained from customs duties was used to rebuild. Now, gleaming new buildings stand next to the battered concrete bunkers, creating an odd dichotomy of architecture.

Unfortunately, not enough of this revenue was allocated to basic maintenance, and the roads and railways that brought this wealth are slowly crumbling. The degenerating environment is not helping, as Ulan Bator's transportation infrastructure was never designed for the conditions it faces now. Both the YF and the MMU have noticed the deterioration, and are beginning to take a greater interest in the region. Since neither wants the other to control its shipping lines, Ulan Bator remains independant — for now.

2.3.7 - Places of Note

The following is a rundown on a few of the most important or interesting places on Earth in the 62nd century. It is by no means all-inclusive, and is intentionally left open to allow Gamemasters to create their own stories. Remember, Earth had many milleniums to evolve, and no sourcebook could possibly cover all of the interesting places on the planet.

◆ Brazilian Arc

The Brazilian Arc is the capital of the Brazilian Combine. It serves as a spiritual center for the nation and houses the Second temple of Gideon. The Temple was erected with the aid of labor and money from believers, and duplicates the original Temple in Cuba that was destroyed in the Third World War. A large number of pilgrims flock to the city on a regular basis seeking spiritual solace and enlightenment.

The pilgrims have brought a large amount of business to the city, from simple restaurants, to the Theological University. The city also serves as a center of what little theological discussion occurs on Earth, and is often the location of many debates, both theological and political.

◆ Free Port of Cali

Cali serves as the most important port for the Brazilian Combine, and has one of the largest ports on Earth. Its location allows both space and sea vessels access, and as such is one of Earth's busiest ports. Trade is brisk, and the NEC makes good use of the facilities here, both for the NECAF Naval assets and for NECAF and CEF resources heading for space.

Cali also has a great deal of industry due to the incoming shipments of raw material from the space port, and serves as a major manufacturing center for all sorts of equipment.

◆ Tierra del Fuego Prison Colony

The Tierra del Fuego Prison Colony is located on the southernmost tip of South America. It is a bleak and unforgiving area constantly bombarded by harsh weather. A former military complex, it was badly damaged during the war, and the colony is now the single largest prison on Earth. Those who commit heinous crimes or violate NEC law are placed here to serve the rest of their lives.

The colony itself has very few guard towers or other typical prison infrastructure to prevent prisoners from escaping. The harsh weather, ocean, and radiation prevent most escapes, and often kill those who do manage to get outside the bounds of the prison.

Some politicians have called for the transport of prisoners to Botany Bay, however the cost to do so is prohibitively high, especially since the government has yet to transport citizens off planet. When immigration happens, the prisoners will most likely be left behind on Earth to die, rather than spend money on what the NEC sees as hopeless causes.

◆ Yakutsk Capital Military Region

The capital city of Yakutia was originally an underground burrow built during the Ice Age. It thus has some of the largest underground bunkers ever built.

There are rumors of secret bunker networks and tunnels that connect all large Yakutian cities but these have been dismissed as highly implausible. Years of living in bunkers has made the entire Region is quite prepared for almost any weather of natural phenomenons or hostile situations. The savage nature of Third World War forced the Capital Military Region to have additional fortifications from minefields to missile defense systems. The underground city is built for survival and survived many close nuclear strikes during the war.

Yakutia has the central administrative and communications centers of the Yakutian Federation as well as the main training and educational facilities. Industrially, Yakutsk is perhaps the largest military equipment production center on Earth and it is currently working to fulfill the needs of the CEF and NECAF. The administrative nature of the city is mixed with military-industrial areas that were expanded during the war. These areas are having problems converting to civilian production. The end result is a curious mixture of extremely well automated and effective military production facilities that can work sporadically right next to bewildering array of cottage industries springing up to deal with the peace time needs of the people.

Severnaya Zemlya Military District ◆

Severnaya is the most important seaport in the Yakutian Federation. Originally constructed during the Ice age as an underwater bunker city to deliver materials to other bunkers in Siberia, Severnaya's communication tower reached high enough to pierce the ice. It is now a giant warehouse facility. The underwater bunker area has been turned into a huge storage facility and the surface and underwater docks provide around the clock service for the Federation.

The NEC uses the facility for communications and as a staging ground for Naval vessels. In particular, the submarine pens are currently serving as training grounds for CEF personnel heading to Atlantis.

Shanghai Metroplex ◆

Shanghai is the biggest city-state of the Yangze Protection Zone in terms of economic power. It is also a highly important center of trade along the Yangtze River and the South China Sea. Its importance as a trading center and its location amongst an area relatively untouched by the war has caused the city to grow at an impressive rate, both economically and population-wise. Rebuilding has been going well and is all but finished.

Politically, the vast riches have brought a high standard of living for many. However, it has also brought a huge number of unemployed and homeless people searching for jobs. The economic growth has made corporate influence highly important in Shanghai and there are constant arguments about whether or not the workers are getting their share. Numerous strikes, lockouts and occasional street battles mar the seemingly perfect image of Shanghai The feverish hyper capitalism of Shanghai mixed with traditions of excellent education and human development have crated a burgeoning business of counterfeiting educational degrees and suitable backgrounds. Similarly the hacking and security industry has increased to counteract the runaway counterfeiting industry. Scandals, extortion and character assassinations are every day occurrences and put on display for all to see by the all-pervasive eye of the media.

The North American Waste Zone ◆
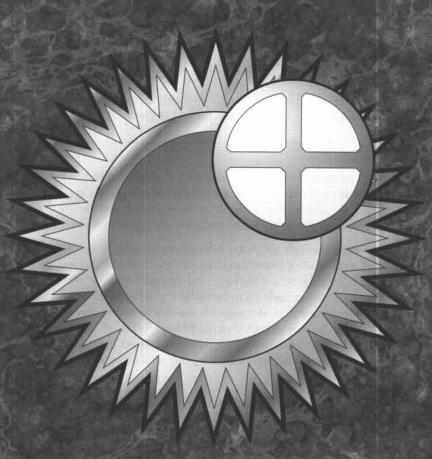
World War Three ravaged North America. It is now classified as a "Waste Zone," with very few actual inhabitants short of NECAF patrols and environmental scientists. The rest of the surviving inhabitants were shipped to new homes in less devastated areas. The Waste Zone still has usable areas, notably the Qu'Appelle Basin, but given the damage the continent took from NEC strikes during the middle of the war, these areas will soon be destroyed by latent radiation or environmental pollution. Scientists are looking at ways of harvesting and purifying the vast water resources of North America, but it looks to be a losing battle.

The Qu'Appelle Basin ◆

Situated in what used to be some of the richest farmland in North America, the Qu'Appelle Basin formed when the ice retreated, filling the lowlands with the runoff and forming one of the largest freshwater bodies on the planet. The Basin collects runoff from the Rocky Mountain range, and drains into the Hudson's Bay via the Saskatchewan River. Plants and aquatic animals were seeded into the area after it's formation, and continue to survive to this day. It is one of the few areas capable of producing food without the use of hydroponics, as it is only mildly polluted at this time. However, given the size of the Basin, and the amount of runoff it receives, it is only a matter of time before this area also becomes unusable.

Chapter 3: Life on Earth

The population of the motherworld, like many before them, are split between the haves and have-nots. Those that have resources, power or connections live in comparitively comfortable cities and arcologies, while the rest of the inhabitants must make do with what is available in the ruined zones outside the cities.

While each country has its own unique societal setups, two things are common all over the planet (and indeed, the solar system). The first is the huge difference between the "haves" and the "have nots"; corporation owners and politicians often live in splendor, while the working class gets very little, and refugees even less. The second is desperation; the whole of mankind on Earth is desperate, their home is dying, and without somewhere to go, they will too. Each year death comes closer, and no one is sure when things finally end.

This section is dedicated to giving an overview of what life is like on Earth in the 62nd Century.

Family - 3.1.1

Families were one of the hardest hit social groups in the war. The destruction, rapid evacuations, deaths, constant movement of those in the armies and even personal politics split families up, with devastating social repercussions. Starting early in the war, groups of those from broken families would bond together, often telling stories of their old families. After time, these people "adopted" each other, forming a new family. They chose new last names, and kept the histories of their ancestors alive in story, as well as the history of how they became a family together.

Many wealthy families were not devastated as much by the war and often keep accurate family trees. Those in positions of power often flaunt their family connections from before the war and look down at those who cannot trace their ancestry as beneath them. The attitudes help widen the rift between the upper class and the lower classes.

ReligionFamily - 3.1.2

With few exceptions, the people of Earth are not religious. While previously, war tended to increase religious feelings in the populous, 100 years of destruction combined with governmental interference, have left the populace without a clear religious direction.

The NEC, and The Party in particular, eschew religion, seeing it as a potential competitor for the following of the public. Most of the pre-war religions taught pacifism and compassion, two things the NEC does not want. The public also sees pre-war religions as leaving them behind. With the center of Jerusalemism being New Jerusalem and the inability of religious figures on Earth to do anything to ease the horrors of war, most citizens simply scoff at the idea of worshipping anything. The NEC's propaganda divisions play up the link between the colonies and religion. Those who still worship do it in secret, fearful of being dubbed "Colonial Sympathizers."

There is a small spiritual movement starting up amongst those in the worst hit areas of the planet. Whether it is a cult, mental illness, or simply guerillas, the Peacekeeping forces are unsure. Members of the movement are seemingly moved deeply by the destruction of the planet. They apparently worship animals that have died, taking the skins and wearing them while launching "vengeance" attacks on the Peacekeepers and others they see as causing the destruction. These attacks are often accompanied by graffiti declaring Earth's vengeance on those who devastated her. Members of this movement commit suicide before being captured, and do not refer to themselves by any particular name. The Peacekeepers are particularly concerned about "the shamans," as their attacks have recently been getting more organized and deadly.

3.1.3 - Prejudice

Prejudice is a hidden undercurrent on 62nd century Earth. As always, the "have nots" are envious of those who have more than them. This is especially true of those people still in refugee camps. Publicity campaigns are run on a regular basis to combat this. Social programs have been stepped up to provide more to the people still without their own homes, and worker reward programs have been instituted by the corporations boost worker morale.

This is not always enough. Riots have been getting more and more common, particularly in the areas affected the worst by the devastation. These areas have a higher number of people unable to work due to radiation sickness, mutations or injuries. Often these riots are stopped through violence, and the Peacekeepers covering it up as rogue guerillas, or more recently, "Colonial Sympathizers."

Prejudice against GRELs is common, but the average person does not normally meet one. The common perception is that "GRELs aren't people." This image is further aided by the media, who portray GRELs as nothing more than war machines.

3.1.4 - Justice

Individual nations have their own laws and police services. With little need for the Territorial Armies anymore, many of the divisions have been turned into local police forces. This does mean the policing is strict, however it is not normally brutal or abusive.

The Commonwealth has its own police force for dealing with crimes that violate Commonwealth Law. Commonwealth Law applies in all member nations, and covers many crimes that all nations feel should be enforced, such as murder. In case of a conflict between local laws and Commonwealth laws, commonwealth laws take precedence.

Crimes Against the People is a broad category of crimes now enforced by the ISF Security Command. This category does not have a clear definition beyond "acting against the NEC," and includes such crimes as being a "Colonial sympathizer." Human rights groups and certain member nations such as Allied Europe feel the powers granted while investigating these crimes violates the basic rights of citizens, but the NEC Government apparently feels it is necessary.

3.1.5 - Holidays

While religion is no longer a part of the general mindset of the government, the NEC still recognizes the need for ceremony and relaxation among the people. Each country has their own individual holidays, normally once or twice a year, but the NEC has instituted some of It's own. There are currently four planetwide holidays per year.

[[New Years]] is still observed on January 1st, but the holiday encompasses the day before and the day after. This is to give workers a break in the depths of winter, and is a state replacement for the standard midwinter holidays such as Christmas or Winter Solstice. Gifts are often given to family members and close friends during this time, ostensibly to celebrate the New Year.

[[Commonwealth Day]] is a celebration of the NEC and occurs early the second Friday in April. Parades are held in the rebuilt neighborhoods in cities complete with marching bands and as much pomp and circumstance as can be managed.

[[Hero's Day]] is observed the First Monday in August, and is a remembrance of those who fell in war to bring about the new society. This includes those who give their lives taking back the colonies, but not GRELs.

[[Workers' Day]] is celebrated the last Friday in October, and recognizes the effort and contributions the citizens make to the NEC.

LIFESTYLE - 3.2

The Ice age amalgamated a great deal of Earth's cultures. World War III changed that. Isolation, insecurity and destruction drove wedges into previously amalgamated cultures. By the end of the war, almost a full one sixth of the population of the planet had died. Very few families were left untouched. The rich got richer and the poor were driven from their homes in the destruction.

Each country has it's own traditions now, and very few people leave their hometowns, except to join the military. Regional isolationism has become commonplace; a reminder of the insecurity war creates.

Language - 3.2.1

Each country has its own official language, the most common being Concordat Anglic and Equatorial Spanish, although others are still used by families or in smaller countries. Siberian is taught as a second language in all schools and used as the official language in the NEC government and military. Many younger citizens, especially those of upper class families, are fluent in multiple languages. The CEF actively recruits those who are multilingual for translating and intelligence work.

Education - 3.2.2

Education is a haphazard affair. Those lucky enough to be from rich families are given the best education possible. Those who still are refugees get minimal education. Those in rebuilt cities have better education, but it is still lacking. The various governments do their best to endure people have access, but there is still so much rebuilding to do that it proves difficult. Almost all citizens have basic literacy and mathematics, as well as a smattering of history and science. Some people join the military just to get a better education. In all cases, the NEC supplies textbooks and learning materials ensuring the education children receive concentrates very much on a "united humanity", showcasing the Colonies as being rich and greedy.

Education that would normally be covered by Universities or other post secondary institutions is now a handled of corporations or the government, with people being hired based on ability and trained on the job.

Housing - 3.2.3

The basic housing complex is a gray concrete tower that stands a hundred stories tall. All housing complexes are sealed to protect against possible toxic storms with their own air purifiers. Each unit is equipped with a bedroom, Kitchen unit, bathroom, and a standard Trideo screen. Family units often have larger kitchens and more bedrooms. Common areas link living units within the complex. Families normally are grouped around a single common area. Rents wary depending on size of the unit and the location, but a standard 1-bedroom unit in a reasonable neighborhood costs 50,000 CEEs per month, including utilities.

Refugee camps are made as comfortable as possible, given that most of them are temporary military shelters pressed into longer use. Each refugee camp has safe areas to protect people in case of air or weather warnings. Every person is given a cot and a footlocker, but personal artifacts and family heirlooms often fill up areas around the cots, with families often erecting small enclosures for themselves within the structure. Each structure within the camp has a communal washroom and shower area, and each camp has a mess hall for eating.

In all cases, water conservation is key, and all waste water is collected to be purified, as are bodily wastes.

3.2.4 - Rites

With 100 years of war still in recent memory and religion frowned upon by the NEC government, most rituals on Earth revolve around very basic and family oriented things.

The war took so many lives and affected so many families that births are celebrated as a sign of hope. Births are celebrated with as many family members and friends as possible. Food and drink flow as freely as the family can afford.

Coming of age occurs at the age of 15, the age of majority in the NEC. This is a reminder of the damage the war did, forcing people to grow up much faster than they would otherwise. The actual ceremony is a solemn affair, as it means the child is now an adult and has to face the harsh world.

Funerals are a very different affair than in the past. For the most part, these are no longer religious and the horrors of war have made the rituals surrounding much different. Funerals are quick and very simple. In more rural areas, the body is buried quickly and without a coffin. In urban areas, governmental officials remove the body for the family. Often, the body's decomposition is sped up and the remains used in hydroponics farms as food. This may seem harsh, but to many, this is better than a graveyard being disturbed by war.

3.2.5 - Travel

Many of the lower class people do not travel outside of the area they were raised in. This is a result of so many people having to continually flee the ravages of war. With corporate employees and other upper class peoples, this attitude changes greatly.

The most popular forms of transport are ground and air, although air transport is occasionally dangerous with the weather changing in unpredictable ways. Ground travel between cities is usually by bus, unless you have the money for your own vehicle. Roadways are still being rebuilt, however, and many destinations simply cannot be reached via any method other than air transport.

The NEC has set up a series of magnetic railways for transport of troops and equipment. There is talk of opening these up to passenger travel in the near future, but the transport of military goods and humanitarian relief has higher priority at this point.

3.2.6 - Communication

The most common form of personal and business communication devices is the vidphone. However, reception in certain areas of the planet is still spotty at best. Satellite capable devices can get reception across the whole planet, but those are expensive, and users must have a license from the government.

The ISF has begun to do random surveillance on communication lines in order to root out threats to Earth security.

Clothing - 3.2.7

While the average temperature of the planet is increasing, people on Earth still need a wide variety of clothing based on the climate where they live. Some places have such large variances, that people often stock extra clothing at workplaces and homes just to avoid being caught unaware. Decoration and additions are rare, functionality being more important to the average citizen.

Business attire is more formal, with suits and jackets often being worn by executives. Again, functionality is important, but within the corporate towers decoration is more common.

Food and Drink - 3.2.8

With most of Earth's arable land useless, the NEC now relies on huge corporate hydroponics farms to grow the necessary food for the people. The knowledge and programs developed for growing food on extended space flights formed the basis of the food programs now forms the basis of agriculture on Earth. Plants have been genetically engineered to provide more food while requiring fewer resources. Bodily wastes from the cities are used for fertilizer and nutrients for these plants.

The standard food at most meals is preformed flavored soy-based patties. They contain all the essential proteins, vitamins and nutrients for survival. Almost every flavor exists, from "plain" to beef to vanilla and even turnip. Dessert is often a soy-pudding, again containing essential nutrients.

Breakfast is often a fortified cereal with reconstituted soymilk. Various flavors and textures of cereal are available under basic rations, with cereals made from grains being available for those who wish to purchase them.

Vegetables are available for those who have the CEEs to spend. All are genetically modified to provide more nutrition and to grow bigger. Meat is also available, but due to the lack of safe animals, and the huge resource investments needed to grow livestock, the most common "meat" is from plants engineered to grow flesh inside their fruit. The most popular of these is the Meatmelon line from AgroCare International. These products look much like watermelons, but inside the melon is the meat from the appropriate animal. The melons are colored based on the type. The line includes Beefmelon (brown), Porkmelon (pink), Chickenmelon (white), TurkeyMelon (beige) and even Lambmelon (red). The melon itself can be roasted in an oven without a pan or covering.

Purified water is the most common drink on Earth. The lack of clean water makes using water for anything other than essential services like drinking and bathing exceedingly expensive, and as such alcohol and soft drinks are not part of basic rations and also very expensive. Artificial flavorings are available for those who like to flavor their water, although premixed juices are not generally available. They are generally much less expensive than fruit juice. Workplaces often provide more expensive drinks such as artificial coffee to their workers to keep them happy and as an incentive for people to work for the company.

3.2.8 - Medicine

Basic health care is given to all citizens. While this does cost the government a great deal, the cramped conditions that most people live in mean that the costs of rampant illness would be much higher. Even then, this does not stop all epidemics, especially with certain biological agents released during the war. There simply isn't enough money to provide help to all people, especially in outlying areas. Basic health care currently covers emergency surgeries, other essential services and workplace injuries.

Waiting lists are still very long, due to the number of people needing treatment and a lack of qualified Medical Personnel. Priority is given to those in the most immediate need. Those with terminal illness are often placed lower on the lists. The government thinks it is better save the life someone capable of working for a long time, than the life of someone who will die anyway.

Non-essential services are still preformed, but only if there is an opening in a facility. These services often cost a great deal. Large Corporations often have their own private medical facilities for executive and employee use. These facilities are not part of the Governmental Health Care program, and as such, those who have the Ration Points may get services done there, effectively ignoring the waiting lists.

Years of pollution and enclosed spaces combined with repeated exposure to the same foods and environmental situations have led to a dramatic increase in the percentage of the population with allergies. Twenty percent of the population now has allergies that are severe enough to require medications such as daily antihistamines. Five percent have allergies severe enough to affect daily life, including instances of deadly allergies. These numbers appear to be growing. The most common allergies are to food products and environmental factors such as pollutants, dust, and mold. Due to such a high percentage of the population having severe allergies, allergy medications are covered under Basic Health Care. Treatments such as vaccines to stop reactions are available, but they sometimes do not work, sometimes even causing worse reactions. Wherever possible, the government has set up stations where people can get their free emergency packs and vaccines. These packs contain basic survival equipment in case of toxic storm or other such environmental hazard. With the lack of medical personnel, getting these vaccines administered and the packs out to all those who need them is impossible.

3.2.9 - Identification and Money

In theory, all citizens should carry a government ID Card that works as identification papers. Unfortunately, with nearly six billion residents on the planet, and more in space, getting the cards to all citizens is proving difficult, especially in the areas still devastated by the war. The government is publicizing the card, and reminding citizens that without it, they will not be able to immigrate to the Colonies. This has increased applications, but the NEC is still expecting a rush as soon as immigration actually begins.

Each country has it's own color and designs on the card, and the card itself has a photo of the person in question as well as the person's name, Citizenship Number, address information, and thumbprint verification. The card also allows those with bank account to make automated transactions. In order to use the card, the owner must place their thumb on the verification area and swipe, and enter in a secret code.

◆ The CEE

The Commonwealth Economic Exchange (CEE) functions something like a Standards of Weights and Measures institute of the government and a Stock Exchange in addition to minting the NEC's currency. The money itself is denominated in CEE (pronounced "see"). Money is denominated in units of 1, 5, 10, 50, 100, 500, 1000, 5000 and 10,000 CEEs. 1-500 denominations are coins, 1000-10000 denominations are polymer notes.

The 1 and 5 CEE coins are approximately the 2 cm in diameter. The 1 CEE coin has a milled edge while the 5 CEE coin has an smooth edge. This makes identification easier for people with sight problems.

The 10 and 50 CEE coins are the same size at the 1 and 5 coins, but also feature a circular hole in the center of the coin. 10 CEE coins have a milled edge and 50 CEE coins have a smooth edge.

100 and 500 CEE coins are approximately 2.5 cm in diameter. The 100 CEE coin features a milled edge while the 500 CEE coin remains smooth.

The 1000 CEE note is rectangular and features triangular bevel cut corners. The 5000 CEE note is rectangular and features rounded cut corners. The 10,000 CEE note is rectangular and features square cut corners, like most local currencies used on Earth. The differing shapes of the corners allow easy identification of note value by those with sight problems.

Individual countries still mint their own currencies, and some are even stronger than the NEC's CEE. However, since the various currencies are traded on the Commonwealth Economic Exchange, more and more countries are adopting the CEE as their currency. The most notable hold out is the Manchurian Merchant Union, whose Dollar weighs in at about 1.5 CEEs.

Sticker Shock

The CEE is not very strong when compared to the Terranovan Mark or Dinar. In fact, if they were to be traded on the open market 1 Mark/Dinar would be worth about 100 CEEs. Or to put things another way, to get costs of equipment and the wages on Earth, multiply everything by 100.

Arts and Entertainment ◆

Every new housing unit has a Trideo Screen. Various stations broadcast cutting edge dramas, variety shows and biting comedies 24 hours a day. News is broadcast on a regular basis from varying news outlets, each giving their take on what's happening. The screen is also used for emergency announcements and environmental warnings, and as such is never truly "off." Documentaries on the CEF are also popular, as they allow the people of Earth to feel more of a connection with their promised homes.

Nightclubs and bars stay open late most nights, simply so people can drown their sorrows and worries. Trideo games are kept in many bars, and team play events are always happening. Immersive military simulation games are quite popular among younger people who did not suffer through the war personally. The most common versions involve retaking the colonies or fighting against the Black Talon teams.

For those with families, group meals on weekends are popular, family being more important now. Sometimes entire housing complexes will form mini communities and share stories or organize dances on the weekends.

The Party and Entertainment.

Many corporations that produce entertainment materials and even Trideo stations are owned or influenced by members of The Party. While they do not produce blatantly obvious propaganda, many of their products have a pro-NEC or pro-Party slant. From Trideo games featuring the Black Talons as evil monsters killing innocents, to news specials about the valiant and hardworking CEF members, there is an undercurrent of indoctrination in many entertainment activities.

3.2.10 - Equipment

Everyday equipment is outwardly very simple. With the exception of military equipment, basic designs are favored over more complex ones. All equipment used on Earth is now designed to last as long as possible, and be easily repaired or recycled. Conservation is key. Vehicles are designed to withstand the worst conditions imaginable, and are sealed against the environment for passenger safety.

The following items are representative of standard Earth equipment. Individual corporations and nations often have their own variants, with cosmetic changes.

◆ Weapons
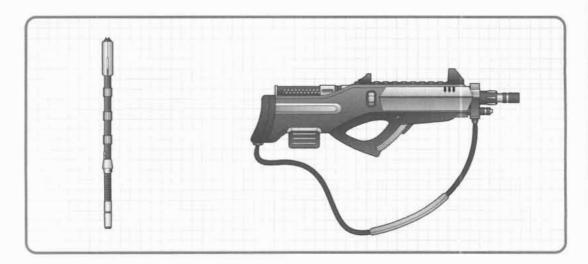
Anyone outside the military is forbidden to carry weapons. In reality the war has left a number of military issue weapons around for those who wish to scavenge, although not all in good working order. (Choose one or make up your own: -1 ACC, Range dropped by 1/2, jams on an odd attack roll) Those criminals who cannot scavenge a weapon, or afford one from someone who has, makeshift weaponry is often used.

Weapons ▢

Weapon	ACC	DM	BR	ROF	Ammo	Notes	Cost
Pacification Gun	0	x20	5	+1/+2	20/40	See description	-
Pacification Baton	0	AD+4	0	10	See description	-	
Molotov Cocktail	-1	x25	Throw	-	See Description		N/A

Pacification Guns are the standard issue sidearm for the ISF Security Division. The gun is roughly the same shape as a machine pistol, and has 2 modes of fire. Normal mode fires standard bullets, can do limited bursts and has an ammo capacity of 20. Pacification Mode fires gel rounds and can spray entire areas with a high rate of fire. This mode causes Bruise Damage to those hit, is used primarily to "pacify" crowds and has an ammo capacity of 40.

Pacification Batons are also standard issue for the ISF Security Division. They are shaped much like a billy club, and are designed to cause as little permanent damage as possible. If the wielder so chooses, the baton may also cause an Intensity 5 Electrical Attack on a successful hit. If the victim is hit, the baton uses 1 charge. Both the baton and the electrical attack cause Bruise Damage.

Molotov Cocktails are a common weapon used by rioting civilians in the worst parts of Earth. Various methods and mixtures exist to make these, but it always comes down to some form of flammable liquid in a bottle, and a lit rag or other fuse. After being thrown, the cocktail explodes on impact, spraying fire and fuel over a wide area. It has a radius of 7 meters, and has the Adhesive, Persistent and Incendiary Perks from the "System Perks" reference of the Silhouette CORE Rules.

Personal Equipment ◆

The various tools and equipment used on Earth have not changed much over the past few hundred years. Designs from before the war had been optimized, and only military technology had fallen behind. As such, most equipment on Earth is similar to those found on the colonies. Due to the need to use as few resources as is feasible, most equipment is designed to be used for as many roles as possible, and be easily recycled.

Citizens who have access to local health centers normally carry **emergency packs** outside of their sealed housing units. They consist of a small waist pouch filled with emergency water and food rations, a miniature call radio, a rebreather and a Protec Suit. The bag also has an embedded warning system, which relays warnings on air quality and weather from the government.

Rebreather ◆
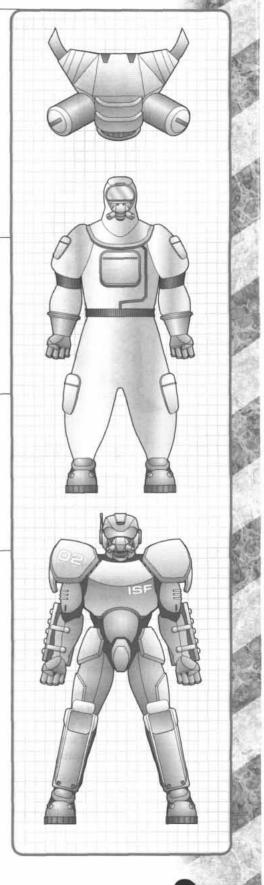
The rebreather is issued to citizens for when the air quality drops form barely safe to dangerous. It processes oxygen out of the surrounding air and from the CO2 exhaled. In an emergency, a person could survive for up to 2 hours without outside air while using a rebreather. The rebreather is good for about one year of normal use, and can be replaced free of charge at any health center any time it stops functioning. The rebreather covers both the nose and mouth. The entire unit is only 4.5cm x 10 cm x 2cm.

Protec Suits ◆

Protec Suits are made from heavy-duty polymers and function as a limited NBC suit. Citizens use these when the rain has hazardous levels of acids, or when toxic winds come over their areas. The suits are color coded based on the citizens living area, and is always a fluorescent color with reflective tape strips to aid in finding the person in case of emergency. Like rebreathers, these suits can be replaced any time they need to be. These suits can fold down into a very small area, and have a specific port for a rebreather.

ISF Police Armor ◆

ISF Police Armor consists of molded body panels and a visored helmet. The armor is black, with squad and rank markings on the shoulders. The ISF Police Badge is placed on the left breast, and "POLICE" is written in white across the back of the shoulders. The helmet contains the standard rebreather, radio, Heads up Display and the armor is designed to work as a Protec Suit. The armor has an Armor Value of 30, and the helmet has an Armor Value of 10.

3.2.11 - Designing an Earth Character

Earth might look at first glance to be a motley collection of semi-anarchic refugee camps trying to survive yet one more day after devastation of nuclear fire. In reality Earth has a higher population than all the Colonies put together and there is considerably higher level of scientific and technological knowledge. People still inhabit large cities surrounded by sparsely populated rural areas. There are areas of utter devastation but also of lush greenery of paradise. The rich live in their sky scraper fortresses while the lower classes try to make their ends meet in vast slums of the inner city areas.

The current situation is still very much "after the war, before the peace." There could be chaos and anarchy in few very bad areas or perhaps merely a loose collection of tribal leaders and clans with justice and law delivered on gunpoint. War has ended but there are still renegade soldiers, guerrillas, troublemakers and bandits roaming the wilderness. Armed peacekeepers and soldiers hold the line of civilization and allow reconstruction effort go on. Many families have guns and they keep them hidden in case something happens.

Life is grim and often bad, but the war is over and things do seem to get better, at least the places where NEC has arrived to help to put the end to chaos and aid to rebuilding. Fear and cautious hope rule the minds of Earth's people. At the same time they look at colonies with suspicion and paranoia. They see NEC protecting them from chaos and death of war and ponder why the Colonies cannot understand NEC is only trying to help them. People shake their heads and wonder why they hate us so much and go on for another day of making ends meet and trying to make headway.

◆ Concept, Background and Plots

National loyalties play important roles on Earth. The NEC is a massive collection of independent nations working together and question of loyalty towards NEC or nation should always be in mind. Goals and methods vary. Yakutians have reputation for toughness while Europeans strive for diplomatic solutions. However, don't feel restricted by stereotypes but use them as a starting point. Does your character share the stereotypical views or does he act differently?

Characters can also come from one of the various space settlements. Often this will color their background and views just as deeply as being from any particular nation on Earth, sometimes even more so. Settlements have far fewer people and tend to be close knit.

There is also a question of the direction the NEC is taking. The aggressive imperialism of The Party has met its match in colonies. People want their new homes and civil unrest is growing. Questioning The Party's views could lead to persecution but at the same time help could be received from unexpected places, perhaps even from Colonies themselves?

Rebuilding is a major theme. So much of Earth is still devastated and there is constant need to build, explore, study or repair something. People need help and nature, destruction, and political motivations stand in the way. Enormous profit and power grabs can be made in still shaky Earth if people are ruthless enough. Corruption is prevalent and works on all levels. Will characters fight it or enjoy its fruits? Sometimes sacrifices need to be made for the greater good.

Military service also plays a large role on Earth. Is your character a member of one of the military arms of the NEC? A member of a local army? Perhaps a rebel fighter? Does your character just follow orders, or does he question the direction the military is going?

Characters originating in one of the Earth Nations use the standard character creation rules found in Silhouette CORE Rules. There are no restrictions on Attribute and Skill selection, though Players should consider the characters intended concept carefully before making any purchases. Characters from war torn areas often have psychological problems (SilCORE: low Psyche), although they can be rather strong and wiry (SilCORE: high Fitness and Agility, D20: high Strength and Dexterity.) Those from wealthy families often have access to more education (SilCORE: high Knowledge, d20: high Intelligence).
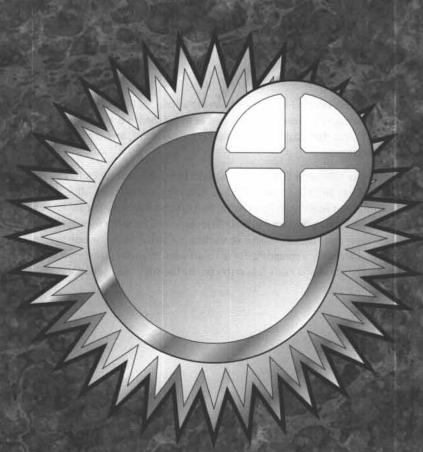
Characters originating from low gravity worlds often have better reflexes, but tend to have lower weights, better reflexes, and less muscle mass. (SilCORE: low Build, high Agility, and low Fitness. D20: Lower weight, lower Strength, higher Dexterity.)

Skill selections for Earth characters are at the discretion of players and Gamemasters. Earth's war torn culture ensures that many former and current refugees have Small Arms, Melee or Unarmed Combat skills at level 1/1. Those living in bad areas might have level 2/1 or 2/2.

Almost all Earth characters speak Human (or Concordat) Anglic as primary language but other languages such as Equatorial Spanish, Indo-Arabic and Indunal are widely used as well. Siberian is taught in most schools in the NEC as well. As such, most Earth characters have a language skill of at least 2/2, and know their primary language as well as Siberian or another language.

Several Perks and Flaws in the Silhouette CORE Rules may also be appropriate for Earth characters, though care should be taken to avoid them becoming overwhelming. Authority, Connections, Allies, Contacts, Influence, Property, Rank and Wealthy are all worthwhile Perk choices for those from wealthy or connected families. Common Sense, Fake Identities, Strong Immune System and Thick Skinned useful for those from lower class families. Many Flaws are appropriate for lower class and/or refugee characters, including Weak Immune System, Sick and Social Stigma. Goal and Obligation are fairly appropriate for more affluent characters. Feel free to come up with your own combination of Perks and Flaws and don't feel restricted by the suggested variations.

Chapter 4: Forces of Earth

Heavy Gear is a complete science fiction universe inspired by classic military science fiction and giant robot animation. This book will take you to a faraway future place where freedom and personal honor are values upheld, and numerous political entities wage conflicts between themselves, both overt and covert, using high tech war machines of all kind.

THE COLONIAL EXPEDITIONARY FORCE - 4.1

The New Earth Commonwealth (NEC) is fully committed to re-establishing Earth's dominion over the colony worlds and is prepared to use force to do so. The NEC's instrument in this conquest is the Colonial Expeditionary Force (CEF), a huge fleet-based armed force made up of a combination of veterans of the Third World War and large numbers of vat-grown supersoldiers known as GRELs. The CEF is equipped with many advanced weapon systems, most prominently assault hovertanks armed with particle accelerators and other advanced weapon systems.

The Colonial Expeditionary Force is a rapid invasion army, designed to be able to hit hard and fast on a wide variety of terrain types. They are very dangerous when on the offensive, but fare poorly once their speed advantage is taken away from them. Their setbacks in the Terranovan and Atlantean systems have forced them to seek subtler forms of warfare as well, uncharacteristic of the iron hammer of the NEC; the destruction of Peace River provides troubling proof of effective stealth and commando operations.

CEF battle groups are smaller than their opponents due to their need to be transported across interstellar distances and their incredibly heavy logistical burden in both fuel, spares and maintenance. Despite this actual numerical inferiority, CEF HT Formations are usually able to concentrate their firepower more effectively against a particular location and leverage their advantages in both lethality and mobility when dealing with Conventional Armor.

Utility - 4.1.1

In these pages, you will find guidelines for building your own "armies" of CEF forces, including both their traditional armored and infantry units and the newer Battle Frames and supersoldier types. Although the army list is intended largely as a tactical supplement, roleplayers will find some things for them. Indeed, the history of the Colonial Expeditionary Force, notes on awards, uniforms, personal weaponry and famous commanders can all help flesh out roleplaying campaign featuring the CEF or even spark an adventure idea or two.

The Colonial Expeditionary Force Army List is mainly a tool for building combined arms regiments of your own. Note that you can mix and match unit types (usually by replacing a company of one type by another).

The book continues to use the concept of special unit abilities for the Heavy Gear tactical game. These are added bonuses that experienced units have developed over time. These are listed with each patrol type (see the next two Chapters). The famous regiments listed in the last Chapter also have their own unique abilities (associated with unique patrol types).
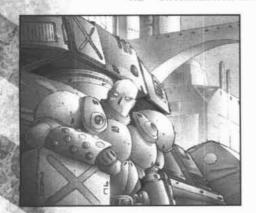
This opening chapter details the history, structure, unit types, policies, standard equipment, medals and uniforms of the Colonial Expeditionary Force. Due to space limitations, only an overview of each topic can be provided — describing a large fleet-based force like the CEF in more than broad detail would require a series of books in and of itself. This chapter will be most useful to roleplayers and tactical Players who wish to add flavor to their games, and sets the stage for the more tactical chapters that follow. Infantry Battle Groups and Armored Battle Groups list all the standard ground units that make up the fighting force of the New Earth Commonwealth expeditionary armed force. These chapters provide you with the guidelines for building your own battle groups and list special abilities and possible modifications for every patrol type. These chapters will let you field your own CEF forces for tactical play.

Support and Doctrines focuses on the units that aid the fighting men, from medical specialists to engineers and quartermasters and also examines how they are used in conjunction with the fighting units, explaining the typical tactics used by the CEF. Notable Battle Groups and Personnel details several famous (and infamous) CEF military units. These battle groups, complete with special abilities and unique patrol types, are ready to play, but can also provide inspiration for your own units.

4.2 - ORGANIZATION OF THE CEF

The CEF's structure is clearly divided into an administrative organization called High Command and several individual war-fighting organizations, the Fleets. High Command, which is based on the home world itself, is the guiding hand of the New Earth Commonwealth's military machine. It is divided into four subsidiary Combat Commands, each with its own area of expertise. The Chief of Staff, a post currently occupied by Fleet Admiral Veda, runs each of these elements on a day-to-day basis while his superior, the CEF Commander in Chief, carries the heavy responsibility of waging the colonial wars.

High Command oversees a number of Fleets, independent combat task forces that are assigned to a specific campaign or operation theater and customized for optimum performance in it. The Fleets are designed for operations far from the home system, and include their own support arms and command structure.

4.2.1 - High Command

The smooth interaction of all elements within the CEF is the responsibility of the CEF High Command, which orders inspections of all branches and broadly defines CEF objectives at the strategic and political levels. The second duty of High Command is to direct the awesome power of the Fleets in a direction consistent with those objectives. A small military council of admirals and generals advises the Commander-in-Chief; they are constantly reviewing the political, economic and strategic challenges facing the NEC and it is their duty to recommend actions the CEF can undertake to deal with these obstacles. Members of this elite think-tank are promoted from fleet commanders and a seat on the council is seen as the traditional route to becoming Chief of Staff or even the Commander-in-Chief CEF. Currently there are silent whispers circulating that the NEC General Manager is seeking a replacement to Fleet Admiral Veda, the current Chief of Staff, from outside the Military Council.

The various Commands below are administrative units that are dedicated to supporting the CEF's fighting readiness within their area of responsibility. It is the duty of the individual Commands to establish reserves, develop new weapon systems and equipment, bring combat troops up to strength and supply the necessary forces to the fleets fighting in the colonies. They also study combat reports, develop new tactics and doctrines, oversee training procedures and maintain the administrative apparatus. Dialogue between the civilian and military institutions as well as the as communication between the CEF and the public and private sectors are performed by the various Commands.

◆ Aerospace Command

Aerospace Command is responsible for anything that resides in space or flies into an atmosphere from space. Every aspect of the CEF aerospace is controlled from and reports to the administrative oversight of Aerospace Command. The primary duties of the command staff are air and space warfare fighting readiness, but they also have an important secondary role in the astronavigational mapping of Tanhauser Discontinuities and maintaining the CEF's fleet of Gateships. One of the main challenges facing Aerospace Command at this time are the security breaches that have allowed the Black Talons to enter the Loki star system undetected.

◆ Ground Command

Ground Command controls the activities of all land-based military assets, including aerospace forces based on a planetary surface. At present Ground Command is fully occupied with fulfilling treaty obligations on Utopia, securing the territorial gains made at Home as well as overseeing the rebuilding of the 3rd and 8th Fleets ground forces. The introduction of the Battle Frame programs has also increased the size and scope of Ground Command's authority and responsibilities. New combat doctrines based on the widespread use of Frames are still being founded and are in a constant state of revision as the CEF gains experience in their use and application.
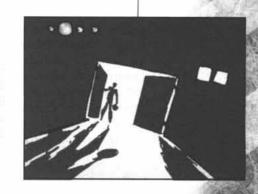
⊞ Genetic Discrimination

"They're only GRELs... it's not as if any human lives are being wasted."

— Rear Admiral Avon Sarkov, Ground Command, AD 6121

"It's amazing the sort of cruelty that we humans are capable of inflicting upon each other, especially when we hate someone's chromosomes. Never mind that we want to have plenty of gene-gineered soldiers to fight and die for us when there are enemies of the state in plenty all around trying to kill us. But once the guns fall silent we want to put the genie back in the bottle and toss it into a deep dark hole without so much as a thank you."

— Anonymous Trooper

Sea Command ◆

Sea Command covers every aspect of naval and amphibious operations and is the smallest of the Command branches. Control of the seas has proven to be a relatively simple task on Utopia and Home but at Atlantis the setbacks have been considerable. Sea Command is currently focused upon the development of a new generation of nuclear powered submersibles for use in the Atlantean seas to combat the colonial rebels there. These efforts are taking place at shipyards and in the oceans of Utopia rather than on Earth in order to conceal the scope and expense of the project from Party opposition among the People back on Earth. Sea Command is well aware of the fact that its new submarines equipped with fusion reactors are too large to fit within the cargo bays of the CEF's AC-56 and AT-33 orbital transports. To rectify this shortcoming Sea Command has been working closely with Support Command for some time on the specifications of their new class of heavy lift orbital transfer shuttle. Acceptance trials of any submersible simply must be conducted at sea and the CEF doesn't have the proper sort or quantity of secure bases on Atlantis to perform these necessary measures, thereby forcing them use off-world facilities to produce their submarines.

Support Command ◆

Everything that doesn't fall under the jurisdiction of the other Commands becomes the responsibility of Support Command. Whereas the other administrative branches of the CEF are concentrated on war-fighting capabilities, Support Command is tasked with the challenges of getting everything where it needs to be, on time and on budget. Because of this broad mandate the decisions and priorities of this branch of the CEF can have extremely far-ranging effects on the available options and capabilities of war fighters in every theater. The personnel of Support Command handle most low-level contacts between civilian suppliers and military personnel on a day-to-day basis. The complexities and challenges of managing the CEF's need for supplies, everything from power packs and food supplies to reaction mass for ships and payroll disbursement, have ensured that the number of personnel under the direct authority of this administrative branch is simply staggering — Support Command is sometimes jokingly referred to as the CEF's 9th Fleet.

It is important to note that while Aerospace, Ground and Sea Commands have somewhat regional jurisdictions based on the current disposition and needs of the fleets, Support Command is responsible for the CEF as an entire singular entity. This has introduced a certain measure of distance between the needs and priorities of the Command itself and the war fighters of the fleets on more than one occasion, yet from the perspective of many support personnel this is a necessary separation.

Support Command is currently investing itself heavily in the development of a new class of heavy lift orbital transport as a means of moving more supplies and personnel. The construction work is being carried out at Monolith Shipyards and is drawing heavily upon Caprician technical expertise in the mass transport of very large and high-density materials (such as water) into and out of planetary gravity wells. Publicly the program is being advertised as a way to replace a portion of the aging Caprician ice-fleet operation, thereby improving the security of planetary water shipments. Privately more than one corporate analyst has noticed that this move would increase the CEF's stranglehold over the civilian population since these transports would remain under military control, further restricting Caprician access to space. The project is also secretly being underwritten by Sea Command as a means of securing a suitable transport for their new submarines from Utopia to Atlantis.

Combat Command Structure - 4.2.2

The CEF is further divided into fleets of war fighters tasked with the conquest and occupation of colonial solar systems. Each fleet is a unique organization of assets and personnel drawn from each of the Command branches and is specifically tailored to meet the needs of its assigned theater of operations. The fleets themselves are almost completely autonomous in that their commanders are responsible for all aspects of their operations and the consequences of those operations. In the wake of a successful occupation the planetary administration of a captive population is transferred to the Commonwealth Integrity Directorate (CID). Security issues are often dealt with by the native security forces, CID investigators or in extreme cases by the NEC Ministry of Verification and Disposal (MVD). Local CEF Commandants may be called upon to provide local support in the event of particularly serious threats.

◆ 2nd Fleet

To date the 2nd Fleet has been the very image of success and CEF prowess. When faced with challenges that have defeated others, the officers and commanders of the 2nd Fleet find another approach to victory. Such was the case with the capture of Utopia in which political power backed by military might proved decisive, rather than the reverse.

With its survey of the Botany Bay system completed, the 2nd Fleet has dispatched its space transports to Caprice to pick up the population of Bastille Alpha for internment on the prison planet. The invasion of Jotenheim, however, is on hold until a sufficient supply of Battle Frames has been delivered.

◆ 3rd Fleet

The once proud conquerors of the Gateworld were always expected to be Earth's last line of defense against the colonies, not its first. Unfortunately that left the victorious Fleet with almost nothing to do other than preside over a populace that couldn't care less who actually gave the orders that controlled their lives. CID quickly moved in to take control of the situation and the CEF Commandants were only too willing to let them assert their authority over the People of Caprice. (Note that "People" — always capitalized — refers to a social class, i.e. non-military, and is in common usage back on Earth. In order of importance, it is Party, Trooper, Soldier, People.)

With the arrival of the Black Talons that all changed. The 3rd Fleet now finds itself in a position where it needs to fight a type of conflict it was never intended for or trained to fight, one of terrorist actions and raider attacks. Having now been bitten and had its pride stung, the 3rd Fleet is absolutely itching for a fight with someone... anyone. The lack of suitable targets, however, is producing its own strain on troopers and soldiers alike and there is considerable ongoing debate over how to respond to these developments.

◆ 5th Fleet
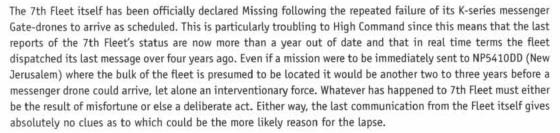
The 5th Fleet is a mixture in contrasts. While aerospace forces control the star system and patrol the space lanes with only limited resistance, the CEF's naval forces have been completely decimated in the Atlantean seas. Ground forces and the demoralized navy's remnants continue to maintain their beachheads on the surface of the planet but their area of control is extremely limited and poses little military threat to the vast majority of the Atlantean population.

One particularly troublesome problem is that the Atlantean Navy is able to deny control of low orbit to the CEF. Despite repeated deployment attempts, CEF satellites placed in low Atlantean orbit are subject to eventual destruction by anti-satellite weapons fired from sea level. This has severely restricted planetary operations in that it is nearly impossible to establish a functional Hermes Network for communications and navigation, let alone the placement of ortillery platforms. Consequently, CEF ships and satellites have been forced from low orbit into higher and higher orbits that place them farther and farther away from forces planetside, reducing the effectiveness of aerospace support as well as increasing the inefficiencies and overhead costs of orbital drops.

As punishment for its failure to capture Atlantis, the 5th Fleet has been explicitly forbidden to do so much as survey the Eden system. High Command wants every resource in the Fleet dedicated to the conquest of Atlantis, no matter how long it takes.

7th Fleet ◆

The 7th Fleet itself has been officially declared Missing following the repeated failure of its K-series messenger Gate-drones to arrive as scheduled. This is particularly troubling to High Command since this means that the last reports of the 7th Fleet's status are now more than a year out of date and that in real time terms the fleet dispatched its last message over four years ago. Even if a mission were to be immediately sent to NP5410DD (New Jerusalem) where the bulk of the fleet is presumed to be located it would be another two to three years before a messenger drone could arrive, let alone an interventionary force. Whatever has happened to 7th Fleet must either be the result of misfortune or else a deliberate act. Either way, the last communication from the Fleet itself gives absolutely no clues as to which could be the more likely reason for the lapse.

The garrison forces left behind at Home, both in system and planetside, are still in communication with the 5th Fleet at Atlantis and making regular reports. Communications from Home indicate that the 7th Fleet's garrison forces are completely unaware of the disposition of the rest of their fleet and have not been advised of their Missing status as of yet.

8th Fleet ◆

Following its defeat in the Terranovan campaign, the shattered remnants of the once proud 8th Fleet were forced to retreat back to Caprice. With its fuel supplies nearly exhausted, food stocks depleted and hundreds of thousands of troopers and soldiers left either dead, captured or stranded on the surface of Terra Nova, the NEC was faced with the first major defeat of its military forces in decades. It would take many years to restore the Fleet as a fighting force again since the CEF and NEC had other priorities and this particular setback had not been planned for. In the meantime, heads would roll for this failure.

Following an intensive purge by MVD the surviving officers of the 8th Fleet set about the Herculean task of rebuilding their commands. Unfortunately the purge has kept the rebuilding program behind schedule for far longer than could have been expected at the outset. Ultimately however, the delay may prove beneficial in the long run as the current crop of officers are extremely determined not to relive the mistakes of their predecessors. The coming of age of the CEF's Battle Frames also bodes well for being able to counter the threat of Gears possessed by the Terranovan rebels.

Currently the 8th Fleet is engaged in preparing for Operation Icarus, a daring plan involving a series of raids that could cripple Terra Nova's space fleet and shipbuilding facilities.

Political Oversight – 4.2.3

The NEC is a commonwealth of some 300 independent states, each choosing its own level of participation. For its part, each state receives a level of aid and cooperation from the NEC. NEC policies are decided by popular vote amongst the General Assembly; the General Manager and his cabinet are subject to its favor. The voting strength of each state is calculated with a Byzantine formula that accounts for the level of cooperation, wealth and population of the state. Ideally, voters within a state are determined by the state in question alone. In practice things are quite different. The Party, the ruling coalition in the NEC, has been in power ever since the birth of the Commonwealth and has no wish to give up its power. The Opposition is gathering strength, however, and the Party works daily to prevent it from getting ahead. At the same time, the Party is becoming more and more divided over policies of war in the colonies and dealing with the Opposition. CEF High Command knows quite well that potential troubles are simmering back on Earth but has stayed clear of it, siding firmly with official Party line — at least for the moment.

◆ New Earth Commonwealth

The New Earth Commonwealth Armed Forces, NECAF, is the NEC's military force. It has traditionally been divided into the Regular Army and the Territorial Army. The Regular Army (RA) is a professional fighting force that recruits its personnel from across the NEC. It is a true multinational army that was born in World War III. It matured in the killing fields of Earth and grew into the largest army in human history by the end of WWIII. The Territorial Army (TA) is composed of units from the Commonwealth's member states. All TA units have similar standards in training and full interoperability with the RA. These units are called into NEC service in case of trouble, such as rebellion or external attack. Furthermore, almost every member state has its own national army with a wide variety of training and effectiveness, but these armies remain under national command.

With the end of WWIII, the RA was gutted to the bone. Its size dropped to less than one tenth of its wartime strength and its equipment was reassigned to a new military force, the CEF. The RA's most experienced officers and men joined the CEF as well, giving the fledgling military force a solid core of war-experienced, highly professional troopers. The RA's quality has not recovered ever since and it remains the CEF's poor brother when aggressiveness, skill and fighting spirit are compared. The NEC now uses TA units extensively to deal with the various problems and small wars that spring up in the Solar System every once in a while. TA units from nations belonging to the Party are used in preference over the Opposition's forces and the Opposition sees this action as the Party's undeclared war against it.

◆ Commonwealth Integrity Directorate

The CID is the civilian oversight bureaucracy responsible for the rapid restarting, development and integration of Earth and colonial economies as well as policies. The CID was hastily put together following the quick surrender of Caprice that caught even most hopeful analysts off guard. The NEC General Assembly created the CID in less than a day and hastily moved occupied territories from the CEF's military oversight into civilian management. The end result has been a chaotic group with broad privileges (ranging from economic development to political and social "purity") and fuzzily defined responsibilities. A lot of original appointments were made by political connections to the Party and corruption by large corporations is rife.

Several CEF officers see the CID as an abysmal failure that should be removed immediately while less scrupulous officers see it as a splendid opportunity to milk fortunes. Officially the CEF has no jurisdiction over CID activities and can only complain through CEF High Command and Earth channels. Lack of influence as well as the CID's broad powers irritate CEF officers to no end. They complain that many of the CID's personnel are obviously unqualified for their duties and often act irresponsibly. Many, however, privately see the CID as a necessary evil that does all the dirty work, allowing CEF to concentrate on soldiering.

◆ Corporate Influence

Numerous Earth corporations have established themselves on the conquered colonies. This tendency is especially prevalent on Caprice, where GEMAG Industries has started to produce space station modules for civilian space industries and Elite Genome Labs has moved its primary research facilities. Other corporations have followed these examples and many have created strategic alliances with Caprician corporations ranging from cinema productions to toys, from military equipment to kitchen appliances. The CEF has stayed clear of these purely commercial ventures but the CID is responsible for fostering and developing colonial and Earth economies to work together. Thus most of the lobbying and corporate influence goes through the CID, whose officials are under pressure to produce results and who frequently receive large bribes. The CEF has its blind spots too. Continuous war provides a reason for its existence and military contractors lobby hard for continuing hostilities and point out threats to Earth that require large military spending — as well as a large CEF.

The Colonial Expeditionary Force operates on the founding concept of unified leadership in which all powers (and all responsibilities) are given to a single commander. This authority is based upon duty held, not seniority of service or military rank and requires that personnel in command positions are experienced, courageous and capable of coordination of diverse forces. It is therefore entirely possible for a commander of a junior rank to hold authority over other more senior leaders and officers holding higher rank. There are no shades of authority in the CEF, commanders either have full command and control authority and responsibility, regardless of affiliation or service, or they have none.

CEF personnel are routinely over-trained in their assigned duties to provide an extra measure of robustness to military units in the event of casualties. However, since there are only a fixed number of positions available for advancement a commander can choose the best replacements from a large pool of available candidates in which extremely promising troopers are given extra training and responsibilities earlier than others. All troopers are kept constantly training throughout their careers through a wide variety of courses designed as refreshers, to maintain old skills, and specialist programs for keeping pace with new duties and changing equipment. Most courses are relatively short and can vary from a few days to several weeks depending on the program. Multi-year military schools are also provided to those entering the CEF in a specialist capacity, such as medicine, engineering/ technical or legal, and for those selected to undergo officer training from which future company level leadership is chosen. A select few are able to qualify for general staff training for the very small percentage of officers eligible to fill the top military leadership positions.

The CEF tries to keep troopers and soldiers within the same unit over long periods of time, thereby increasing unit cohesion. Furthermore it is widely believed this practice encourages commanders to lead their units better since they are stuck with the results of their own leadership. Unit familiarity is also better psychologically for troopers and soldiers returning to active status from a training rotation or when receiving new duties. Replacements for open duties are therefore filled from the unit first with the commander making selections from the immediately lower duty level of all available candidates before looking outside the unit for candidates.

CEF units regularly follow an annual 3/3/6 rotation schedule. The first three months are an administrative period in which troopers go on annual leave or receive duty transfers and rotations. During this time incoming troopers are given an opportunity to work together with unit veterans and ensure a smooth transition period. Decisions concerning new duties, training course recommendations, rank promotions and/or demotions will be made after an annual review of past performance and a private interview with the unit commander. The following three months are reserved for the intensive retraining necessary to ensure that each company sized unit is again a cohesive fighting force ready for active duty. New equipment and environmental training for anticipated future battlefields are fully integrated into the operational skills of personnel at this time. Finally, after a successful training inspection review the unit will be declared battle-ready and placed on active duty rotation. Active duty rotations last for six months, during which time the unit will be either in combat or actively training for combat. Nominally only units that are battle-ready are put in the field since the CEF prefers to avoid deploying units during their training and administrative rotations if at all possible.

Ranking Structure - 4.3.1

The CEF's ranking system is devoted to duty and is used to describe "who" rather than "what" a particular person is within the force structure. Every duty position within the CEF has a duty level and maximum attainable rank level allowed. Ranks are therefore used primarily as a measure of personal worth and experience, with higher ranked personnel being chosen for new duties more often than those of lesser rank. Many commanders use promotions as a way to reward troopers who fight particularly well, but not well enough to receive medal decorations. The CEF places no limits on when a trooper (or soldier) can be promoted or demoted to another rank, although most promotions and demotions take place during a unit's administrative cycle.

The Bitter Cup of Command

"We really don't need ranks and duty levels to show us who's who in a company. When I look back on my pictures from my days in the service you could tell when the pic was taken. I smiled in my Recruit pic, then in my Trooper picture I was dead serious.

"It's the same way with our leaders. My team leader smiled a little, but when she became patrol leader she got that hard look of being married to her job. A few battles later she got fiercer and fiercer looking, both to the enemy and with us. She got moved up to troop leader on the next administrative phase and in the following campaign her eyes became vacant with that thousand meter stare you sometimes see on some of the veterans. It was almost as if her mind was already dead but believe me, she knew every trick in the book by that time. I got transferred into another company in the battle group after that but later on I saw her again after she made lieutenant. Now her eyes would just shine from this insane inner light, but she knew her business all the same.

"She was by no means an exception here in the CEF and as a matter of fact, I think most of my commanders during my career were like that. It was at that point I realized I had to bail out while I was still sane."

- Voices of the Troopers, Martial Press, AD 6135

Recruit

Civilians become recruits when they pass three entry tests. The following two years are spent in basic training during which they are familiarized with all the weapons of an infantry company as well as all the positions in an infantry troop. A recruit's life is typically very busy and is filled with endless training missions and combat scenarios. An under-performing recruit may be weeded out and discharged at any time if he does not meet the CEF's standards. Recruits become troopers after surviving the Long March, delivering their military oath and donning the red triangle on their uniform. As troopers they must serve a minimum of three years.

Duties: Recruit

Trooper

Some troopers leave after their first three years when they learn that military service is not for them. However most remain as lifers, career soldiers that will stay on for as long as the CEF wants to keep them. Trooper is the lowest regular position for humans and also comprises the largest group of personnel. A trooper's job is simply to carry out the orders given to him immediately and effectively, without hesitation or question.

Duties: Infantry specialist, vehicle crew, clerk, etc.

Soldier

The rank of soldier belongs exclusively to GRELs and SLEDGEs. Only genetically modified personnel are considered soldiers. Their task is to carry out the orders given to them by any officer, authorized trooper or commanding soldier immediately and effectively. Hesitation and/or questions are rarely (if ever) a problem among soldiers so long as their orders are clear and unambiguous.

Duties: Determined by genome type

Corporal, Senior Corporal

Those troopers who demonstrate dedication become team leaders sooner or later. They usually are placed in command of an individual vehicle or a small team of combat troopers or soldiers (usually from two to five personnel). Team leaders are typically highly independent, skilled and experienced troopers (or soldiers) who have shown initiative, preferably in combat. Their most important job is to share their knowledge, skill and experience with the rest of their unit.

Duties: Infantry team leader, vehicle crew leader, specialist, etc.

Junior Sergeant, Sergeant, Senior Sergeant ◆

Patrol leaders are usually selected from experienced team leaders. The CEF wants its patrol leaders be the first and best members of that patrol and to lead through personal example. This requires a higher level of professionalism as well as mental and physical fortitude than what is demanded from mere troopers and soldiers. An equally tough NCO training course ensures that this is true. Among soldiers Jan- or Kassandra-class GRELs most commonly holds this rank, although there are exceptions.

Troopers at this rank seem to be considerably more hard-bitten in demeanor than regular troopers and soldiers and many know all too well and personally the cruel sacrifices demanded by the gods of war. At this level most CEF troopers seldom leave military service and truly become lifers.

Duties: Patrol leader, aerospace wingleader

Junior Sergeant Major, Sergeant Major, Senior Sergeant Major ◆

Troop leaders still very much fight and live with their commands personally. The CEF divides its troop leaders into two distinct levels wherein the junior leaders are usually sergeant majors and the senior leaders are lieutenants. Everyone starts as a junior leader and must first pass a two-year training course. Most CEF leaders end their career at this level, having little ambition or skill to become ranking officers. They will usually get short refresher and retraining courses to keep their skills current and up to standard but they will always remain first and foremost fighting personnel.

Soldiers are never advanced in rank beyond Senior Sergeant Major. Even if they successfully complete the soldier equivalent to the lieutenant's course they will not be promoted to lieutenant rank. Even then such training is only open to extremely noteworthy Kassandra, Minerva, Jan and Morgana GRELs who have usually received more than one decoration for service above and beyond the call of duty. Those GRELs who do complete the soldier's equivalent to the lieutenant's course however are unofficially recognized as the most dangerous weapons in the CEF's arsenal, by both troopers and soldiers alike, and are given uncommon respect by their officers.

Duties: Troop junior commander, aerospace wing junior commander

Junior Lieutenant, Lieutenant, Senior Lieutenant ◆

Experienced troop leaders who have shown leadership potential may with the approval of their lieutenant apply to the one year long lieutenant training course. The primary intention of this program is to turn fierce fighting commanders into carefully thinking officers who will ultimately run the entire CEF military machine. The lieutenant's course gives troop leaders an understanding of the needs and capabilities of the other service arms so as to ensure that they can fight most effectively in combined arms battle groups. At this point a CEF trooper can expect to be the most senior of troop commanders, an assistant to a company commander or even serving as junior staff for the battle group.

The CEF maintains the lieutenant course as a breaking point in a trooper's career. Before this course one is seen as a fighter but afterwards the trooper is supposed to become a leader. Practical training is intertwined with equally intensive psychological coaching on the role and physical bearing expected of a CEF officer. At times things may go a bit overboard with an end result of a dangerous mixture of professionalism and fanaticism. This fanatical streak is often somewhat tolerated within the CEF as an expression of loyalty and dedication to duty.

Duties: Troop commander, aerospace wing commander

◆ Captain

At the company level, commanders have roughly a hundred or so troopers and soldiers under their direct authority and their position requires more judgement and careful thinking than that of troop leaders. A substantial portion of their time is also devoted to administrative details that often require seeing every trooper and soldier once a day. Even then a company leader is expected to lead personally those under his command while in the field. Qualification for the duty of company leadership requires the attendance of a year long training course that concentrates heavily upon tactics and the administration of logistical resources to maintain the fighting trim of a dozens of vehicles and a hundred or so personnel. The company is also the largest unit for which the CEF expects every leader to know the role and capabilities of his counterparts within the command structure well enough to switch places with other company leaders in the battle group on short notice should it become necessary. Training however is usually done within one's own company.

Company leadership is the next breaking point in the CEF officer career path. Beyond this point the units become so large and their leadership requirements so diverse that each officer needs to determine his own individual path to promotion, should he desire it. Junior officers may attempt to be accepted to the prestigious two-year training course for general staff that is required for the in-depth training necessary to become full-fledged combined arms commanders. General staff officers also study warfare from a political, economical and military perspective to gain a thorough understanding of military strategy and the operations necessary to fight and win wars. Graduates join the CEF's military elite on the fast track to higher responsibilities and the eventual command of the CEF itself.

The vast majority of junior officers cannot get into the general staff training course however and remain company level commanders, gaining experience until they can achieve recommendation for a junior staff position based on the merits of their accomplishments. For these officers, military life offers a comfortable life in the middle of the command structure. They are not just NCOs or enlisted troopers charged with doing the heavy lifting, nor do they need concern themselves with where the CEF is going. Some officers will eventually get promoted to higher status based on experience, perhaps even receiving general staff training, but most will continue their service until retirement as captains.

Duties: Company commander, junior staff officer

◆ Major

The demands of combined arms operations are so complex that at this level a commander can no longer be expected to master every nuance of meshing forces, systems and weapons ranging from space to sea, air to ground, night and day. Therefore the commander of a battle group relies more and more on the advice and expertise of his staff in terms of daily operations. Administrative and staff work also consumes a larger proportion of an officer's daily time and thus a battle group commander will only have contact with his personnel on an occasional basis, usually during inspections. However a commander's behavior and decisions still affect the lives of everyone under his authority and many commanders still try to remain close to the fighting wherever the enemy might engage, particularly during offensive operations.

The general staff officer training course prepares junior officers for this level of responsibility, however successful completion does not mean a graduate can relax on the laurels of his achievement. There follows a two year probationary period in which the newly minted general staff officer may lose his special status due to lack of performance and be demoted, in many ways permanently, back down to Captain. Consequently, battle group commanders have a tendency to vary anywhere from the highly cautious (to avoid trouble) to the excessively aggressive (to produce results) as a necessary measure to prove their worth. In general terms however most CEF battle groups are led by the more aggressive personality types who are looking for a fight.

Duties: Battle group commander, mid-level staff officers

Lieutenant Colonel, Colonel ◆

Leadership at the brigade level takes the commander farther and farther away from the battlefield. These officers often command the fate of thousands of personnel. Their command methods tend to be similar to those of battle group commanders although their considerably more senior position forces them to stay behind the lines in a position of relative safety. Rising from the ranks of the most seasoned battle group commanders, they have plenty of experience with which to temper their judgement and their orders are usually less drastic than those of their subordinates. Many officers at this duty level seriously study military and/or political history to further expand their education in the fundamental complexities of modern warfare.

The CEF does understand that its system of promoting leaders from the lowest ranks on upwards has its weaknesses as well in that many troopers are quite old when they finally reach the duties of brigade leadership. A large proportion of even those capable troopers cannot rise still further to become generals should they deserve it. There is a dearth of truly outstanding strategic leaders and thinkers as well. The CEF's training methods favor drastic action, decisive results and a mindset of fierce animalistic cunning rather than a broadminded approach. While everyone agrees that up to the brigade level the system produces outstanding fighters and commanders, it also tends to kill the imagination and academic thought necessary for real inspiration at the strategic level.

In order to retain as many skilled, imaginative and capable officers as possible, the CEF has removed any age caps from its generals. At the same time however there is an unofficial policy that senior staff officers serving at the Division and higher duty levels will be promoted to brigadier almost automatically. This in effect creates a glass ceiling at the brigade level and many senior officers constantly try to position themselves for any available opportunity at advancement.

Duties: Brigade commander, senior staff officers

Brigadier, Commodore ◆

The division is usually the largest CEF formation engaged in a particular battle, although force level offensives have been employed in various colonial wars. Division commanders are typically kept well away from any fighting and primarily concentrate on following and directing the actions of their subordinate commanders in addition to staying mindful of strategic concerns. Many division level commanders receive special training courses on the wide variety of subjects necessary for them to comprehend fully their awesome power and responsibility. They are usually well informed on planetary environmental concerns in addition to being extensively briefed on the political reasons behind their operations and often have considerable intelligence on enemy intentions and war-fighting capability at their disposal.

In the Colonial Expeditionary Force's Aerospace Command, these officers are known as commodores and are given responsibility for a substantial portion of a fleet.

Duties: Division commander, supreme HQ staff officers, junior fleet commander

Lieutenant General ◆

Force commander is the highest attainable staff position in the CEF Ground Command; there is no counterpart in the Aerospace Command. This posting is usually temporary in nature since many small planets do not warrant a staff at this level. During the battles to capture Terra Nova, however, the CEF activated three force commands, North Polar, South Polar and Western. Despite being a temporary posting, this position is highly sought after by officers in Ground Command because it can be a springboard to fleet-level duty.

Duties: Force commander, supreme HQ senior staff officers

◆ Vice Admiral, General, Rear Admiral

There are only a handful of CEF officers who wield this level of authority and their orders decide the fate of entire solar systems. There are only the five Fleet commands available (2nd, 3rd, 5th, 7th and 8th) to Vice Admirals and general staff positions in the HQs of the CEF's Commands (High, Aerospace, Ground, Sea and Support) for Rear Admirals and Generals.

Beyond this point there is no opportunity for advancement without the resignation of the Fleet Admiral or political action by the New Earth Commonwealth. Most officers are quite satisfied with their positions but there are rumors of some senior generals and rear admirals who are less than pleased with the handling of the current situation.

Duties: Fleet commander, Command HQ staff officers

◆ Fleet Admiral

The fleet admiral is the highest rank attainable within the CEF command structure and is responsible for all fleets and forces within the CEF. There is no maximum age for holding this rank although Fleet Admiral Veda Winthrop is being pressured to resign for failing to achieve promised results. Should the position of Fleet Admiral become vacant the NEC's political leadership would immediately name a replacement from the various fleet-level officers available.

Duties: CEF supreme military commander

4.4 - MEDALS & AWARDS

The CEF distributes awards to promote morale by recognizing the work and achievements of outstanding individuals. Other troopers and soldiers look up to these individuals as role models and the general People of the Commonwealth laud them as heroes. Although some acts of heroism can never be rewarded properly — if at all — medals and awards do well at boosting the spirits of the CEF's combatants or steeling them against tragedy. Broadly speaking, they are given to military personnel for three reasons: for valor and military prowess far beyond what is expected, for experiencing warfare itself, and for being wounded in the line of duty. Political machinations rarely enter into the receipt of a military award. In addition to the Force's formal awards, each level of military organization under the CEF has its own official and unofficial awards. These vary widely, from the 5th Fleet's Monthly Roll of Honor down to the "Hole in One" kill markers sported by some of the hovertank patrols stationed on Utopia.

4.4.1 - Medals of Valor

The CEF has one medal of valor, the Defender of the Commonwealth, and it is the highest military honor within the Force. Originally instituted during WWIII by the New Eurasian Commonwealth as a medal of honor for bravery in the face of an enemy, under the New Earth Commonwealth it can be awarded for any act of valor beyond the call of duty. There are three grades to the medal: Defender of the Commonwealth Second Class (D2), Defender of the Commonwealth First Class (D1) and the highest, Knight of the Commonwealth (DK). It is necessary to achieve the lower grades before receiving the higher grades, although there have been occasions in which all three were awarded to an individual at the same time. Only the highest is actually worn.

Receiving any grade of Defender immediately catapults the recipient into the public spotlight, and Knights of the Commonwealth are national heroes. All Defenders find open doors in high-class social circles, and those from humble backgrounds discover opportunities they may never have imagined. With the award comes responsibility, however, since the recipient's activities are widely publicized and exploited by the NEC's propaganda machine. Soldiers are ineligible for the Defender of the Commonwealth medal.

War Badges - 4.4.2
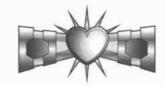
The War Badge is the CEF's method for recognizing hard combat experience and achievement. Ranked numerically as Rank 5, 10, 25, 50, 100, 250, 500 and 1000, the War Badge allows the casual observer to take in immediately a trooper or soldier's experience in the field. There are several different types of badge, each denoting the recipient's area of expertise. The most common War Badges are Infantry, Armor, Marine, Reconnaissance, Sniper and, most recently, Frame. The requirements for earning a particular rank vary according the individual badge and are determined by the Command in charge of that badge's overall duty. Sea Command, for example, determines the requirements for the Marine War Badge. Since the Badge represents actual experience, ranks can never be taken away from a trooper or soldier.

An individual's War Badge rank is often considered in preference over his command rank when a superior solicits advice. A grizzled Rank-250 Infantry Sergeant's opinions and take on a given situation are often more valuable than a Rank-50 Infantry Major's opinions during an operation.

Combat Injury Awards - 4.4.3

Combat injury awards honor the sacrifices troopers have made in the Commonwealth's name; by definition, they can only be earned with blood. The official CEF award is the Wound Medal, and it is awarded only for being seriously wounded while engaged in combat against the enemy. There are three grades of Wound Medal, and only the highest grade is carried: for a trooper's first injury, he receives the Wound Medal in Bronze (WMB). For his fifth injury, he receives the Wound Medal in Silver (WMS). The Wound Medal in Gold (WMG) is awarded after the tenth injury. The WMG is also awarded posthumously to those troopers who have made the ultimate sacrifice and is presented to their next of kin. Wound Medals are known colloquially as "Hearts," after their basic form. The WMB is thus the "Bronze Heart," the WMS is the "Silver Heart" and the WMG is the "Gold Heart." Soldiers are not eligible to receive the Heart.

Battle groups often have their own informal awards and ceremonies to honor their troopers and soldiers alike. Though they vary greatly, they always celebrate the injured member's valor and luck. The 3rd Fleet is an exception, however, with the fifth combat injury often being hailed with good-natured ridicule at the recipient having met so much personal disaster on a pacified colony.

Pioneer of the Commonwealth - 4.4.4

Many great deeds and achievements can be done in service to the NEC, outside the battlefield. Such deeds include skilful diplomacy, achievements in science and technology and recommendable administration in difficult circumstances. While it does not capture the public attention like heroism in battlefield, the Pioneers have made equal achievements in their particular fields. Because of the generally non-combat nature of this award it is mostly awarded to civilians, MVD personnel and of military merit not related to combat. Pioneer of Commonwealth comes in three levels like Defender and follows its standard. The Second Class (P2) first and it is followed by First Class (P1). The highest class is Pioneer of the Commonwealth (PP). The generally open award category of Pioneer has made it particularly sought after award amongst Party supporters and many prospective candidates are ready to do almost anything to gain this award. Soldiers are ineligible for the Pioneer of the Commonwealth Award.

4.5 - UNIFORMS

Combat Suits

The CEF combat suits are all variations of a single basic suit called a MPMG (Multi-Purpose Mission Garnment, though the actual Siberian acronym is more complex). This tough composite battle uniform is highly modular and can be adjusted to fit the wearer through internal straps and memory plastic inserts, greatly simplifying logistics. Camouflage patterns are added to the armor on a mission-by-mission basis, along with some unit designations. Helmets have basic identification markings: "enlisted" have nothing; "NCO" have one horizontal stripe; "officer" have one vertical stripe. These stripes cover only the back of helmet and do not go around so as not to form obvious sniper target. Dress uniforms are similar to those worn by command officers, including a red and blue dress coat over light gray fatigues.

Frame Troops ▼ Dress ▼ Combat

Soldiers and Troopers who pilot the new Battle Frames wear a sealed combat uniform identical to the one used by armored vehicles. Their dress uniforms is also similar but feature a black beret instead of the square cap.

Aerospace Crew ▼ Dress ▼ Combat
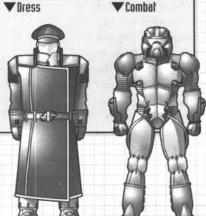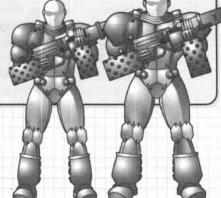
Soldiers and Troopers crewing aerospace vehicles wear a vacc-proof combat uniform featuring a sealed body suit, armored pads and a space helmet with integrated HUD. Their dress uniforms feature a long trench coat, black cap and armored shoulder pads.

GRELs ▼ Jan ▼ Mordred

The soldiers wear their own customized version of the standard MPMG. They can also wear the standard nightvision gear/ communicator skullcap, which fits under the combat helmet (see the Infantry trooper).

Armored Troops ▼ Dress ▼ Combat
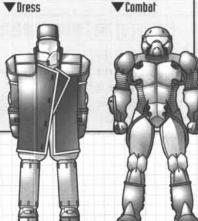
Soldiers and Troopers who work in armored vehicles wear a sealed combat uniform featuring an armored body suit, armored shoulder pads and a tough helmet with integrated HUD. Their dress uniforms feature a red jacket, black square cap and armored shoulder pads.

Infantry ▼ Dress ▼ Combat
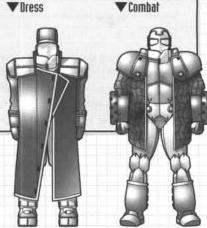
Infantry troopers wear a standard composite body suit. Both light and heavy trooper armor usually features a camouflaged thermal quilted coat for extra stealth. This coat can also be used by soldiers, but it is not standard procedure.

National Crest

Battle Group Insignia

Medals and Awards

Medals and Awards

Rank Pins

Branch or Corps Insignia

War Badge
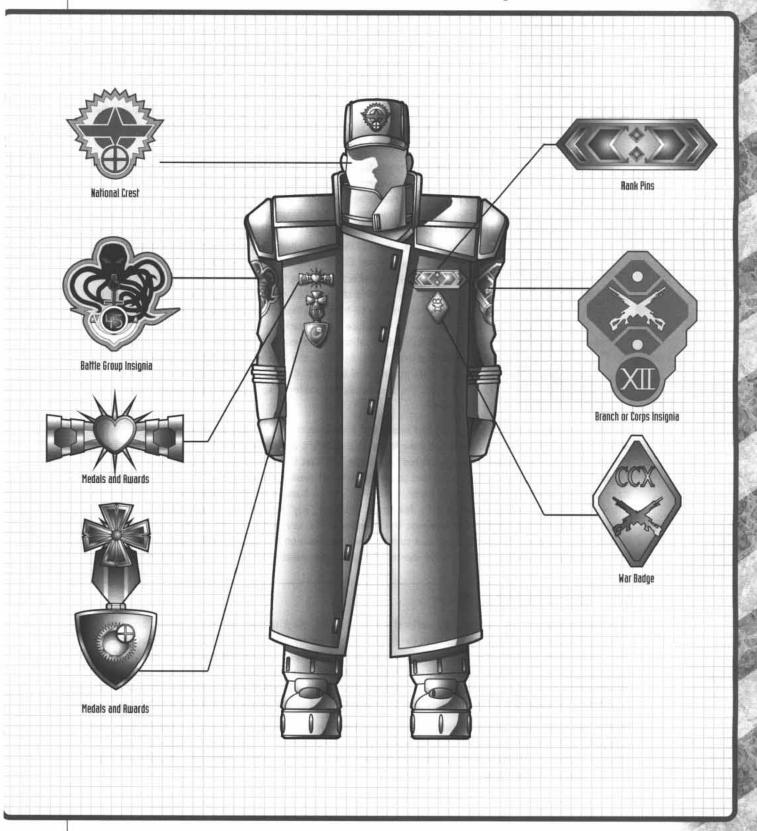
4.6 - THE GREL PROGRAM

Faced with a terrible attrition rate during WWIII, Earth's nations, desperate for seasoned combat veterans, began experimenting with human genetic engineering and neural downloading. In AD 6062, the first super-soldiers appeared, quickly altering the tide of battle in theaters in which they were deployed. By 6065, the New Eurasian Commonwealth had fielded its own super-soldier, the Vaween. The Vaween were massive mountains of muscle that required two hearts to keep blood supplied to their tissues, and they were trained to perform any and all battlefield tasks. The project suffered numerous setbacks, however, and the Vaween's performance on the battlefield was less than satisfactory.

In 6073, the NEC brought the fledgling Elite Genome Labs into the project. A company dedicated to the improvement of the quality of human life, EGL was initially horrified at the prospect of developing a weapon of war, but it had little choice other than to comply with the NEC's wishes. EGL scientists quickly recognized the shortcomings of the Vaween program and immediately worked to correct them. The most obvious problem was the structure of the Vaween body; although completely redesigning the human body for warfare was theoretically desirable, even minor changes had led to major, unpredictable side effects. Bringing the Vaween genome back in line with the human genome was the first step in EGL's effort to salvage the project — the new soldiers would essentially be human beings, as far as genetics was concerned. The second step was to introduce specialization into the programming and into the genome, enabling individual soldiers to excel in one or two particular fields rather than to be mediocre in all. By 6077, the first experimental EGL super-soldier was engaged in field-testing, and by 6081, the full production model was deployed on the front lines. The Genetically Recombined Experimental Legionnaire program was in full swing.

The GRELs were everything that the NEC had hoped for. They were technologically advanced fighting machines with almost unshakable morale. There was some fear that they might become as powerful as the legendary Prime Knights of Kir Arya — indeed, rumor persisted within the NEC that EGL had somehow incorporated lost Prime Knight DNA into the fearsome GRELs. In order to prevent such an event from transpiring, the NEC ordered EGL to make the new super-soldiers unable to breed, even with normal humans as the Primes could. It furthermore ordered the bioengineering corporation to develop a disabling "key" to eliminate rogue soldiers. The latter measure was eventually abandoned, however: the chances of the key mutating into uselessness or, worse, a liability were too great. EGL noted that, as a compromise, the strain on the body from the force-growing of the GRELs from embryo to adult resulted in far shorter lifespans than ordinary humans — at least hypothetically.

4.6.1 - GREL-Human Relations

GREL-human relations are quite rigidly defined within the NEC. Most natural humans (troopers and people alike) exhibit a sense of jealousy and envy over their capabilities — as well as a notable amount of fear. The Party deliberately discriminates against the soldiers in order to keep the natural humans at ease. NEC law specifically states that GRELs are not human beings and are not, therefore, deserving of the same basic rights. This treatment does not allow random violence against GRELs, however, since all are considered military property. Punishment for abusing a soldier is equivalent to that meted out for deliberately damaging a vehicle.

Soldiers are quite aware of the disparity in treatment between themselves and "normals." Official Party line maintains that it is not an issue. However, when noting how colonials — especially the Liberati nomads of Caprice — interact with GRELs, some members of the Party have voiced concern that the GREL situation may blow one day blow up in their faces.

Class, Model, Type, Name and Serial Number

GREL nomenclature is much more complicated that it first appears to the casual observer or even to the trained trooper. The eight broad classes are not the only distinguishing characteristics of the GREL species. Each class is divided into one of several production models. The model number corresponds directly to a particular range of years of manufacture and represents broad changes in the class. The changes in model were often due to advancements in science and technology; the model II Mordred, for example, was engineered specifically for work on the colonies, and it was developed during the period of build-up before the invasion of Caprice.

In addition to broad architectural changes in a GREL's physiology and training, each class has three specialized training packages. Type-b Kassandras, for example, are trained in the operation of aerospace electronic systems while the type a is trained for ground fieldwork. Minor changes in physiology and personality are denoted by a particular GREL's name: the Ganes series of Morgana is crueler than the Salam series and has green eyes instead of blue-gray. Finally, each series is grown in lots of 10,000 soldiers, with a unique serial number assigned to each. Series and serial number have little to do with a given soldier's training and assignment, however; although Proust-4365 was decanted immediately after Proust-4364, he was given different training (type a versus type c) and assigned to the invasion of Terra Nova instead of the invasion of Atlantis.

Anatomy & Training

GRELs are artificially created human clones, for which genotypes obtained from variety of sources are combined and manipulated to get the desired abilities. The recombinant DNA strands are formed from several traits based on previous samples and predictive models on interaction between various genes to achieve the desired physical and psychological effects. Numerous time-consuming simulations and protein-folding tests are constantly carried out in laboratories at enormous expense to design the more complicated specialist models. Much of this work is based on Eurasian studies from the war period.

All GREL clone lines lack expression of certain genes needed for normal development. These are replaced by complex biochemical keys supplied by the incubation tank during the embryos' growth phase. Other nations or competing corporations thus cannot clone their own GRELs by simply cloning acquired tissue samples. Theoratically, a GREL-human embryo of the first generation might survive if the human half of its genes can supply the necessary chemical keys. Subsequent generations are possible as long as there are enough human chromosomes retaining the right genes; fertility, which would be already low, would likely be even lover in subsequent generations.
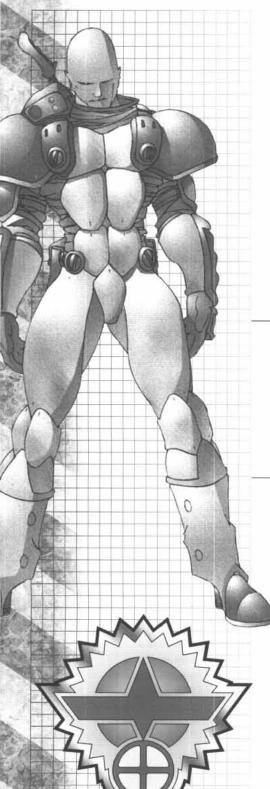
GREL training is interweaved into their biological construction. GRELs do not have a childhood period where basic behavior is learned, so they have to be programmed with the information. This is considered an asset since it optimizes the mental framework into the intended combat roles. This training starts at the embryo stage within incubation tank. The feedback system inserts certain stimulations, and rewards and punishes according to the responses. This forms the basic mind and nature of the GREL personality; the aim is to encourage innate discipline and duty, where a job well done equals personal well-being. At the end of the persona creation and body growth phase, the GREL is mentally equal to a 1-year old human. At that time, quality testing determines whether the process continues. If the results are positive, a neural network is overlaid on the cortex and allowed to grow there in preparation for skill training.

The military training comes afterward in a virtual reality "dream" induced through a kind of hypno-feedback programming. This is where the GREL learns its skills, and feels its duty to learn the given skills and abilities. The forced growth stage is perhaps a year long (depending on the model), during which relevant data is crammed into the mind: from basics, like bodily functions, to complex, like missile system uses. By the time of final quality testing and decanting, the clone is ready for deployment.

4.6.2 - Isaac-Class GREL

The Isaac-class GREL was part of the "Armor Operations Trio" EGL developed following the initial production of the Mordred shocktrooper. Intended to provide field service and maintenance to the finicky hovertanks operated by the Minerva and Maxwell soldiers, the Isaac class is sharp-witted, clever and extremely intelligent. Trained to fix nearly every piece of equipment the CEF uses in the field, the Issac class is programmed with several thousand person-hours of experience in maintaining hovertank turbofans, particle cannon beam guides, water filtration units, portable fusion reactors and so on. Such programming combined with their excellent minds tends to produce extremely quirky personalities in Isaac-class GRELs. Few are able to resist the urge to take apart any unfamiliar piece of equipment they come across, and some even develop obsessive-compulsive disorders.

The standard field technician programming is the most common found in Isaacs. The combat engineer is the second most common. Given an extensive education in earth sciences in addition to the physical science background that all Isaacs have, the combat engineer is just as quirky as the technician. The third type, the technical intelligence analyst, is responsible for reverse engineering captured enemy equipment. All three are fully capable of defending themselves in combat. Five percent of all GRELs are Isaacs.

Service Record ◆

The Isaac class, along with its Minerva and Maxwell kin, would have remained just as stable in development as the Mordred and Kassandra GRELs were it not for one factor: Terra Nova's Heavy Gears. When the CEF was finally able to capture enemy Gears, Isaacs were immediately assigned to the analysis of the novel equipment. The Model III Isaac was a direct development from that analysis. The Model IV was developed for the CEF's prototype Battle Frames, and the Model V revised to account for the final production versions.

Psychology ◆

The Isaac's technical training is based on an inner trait of attention to detail. Normally, this allows an Isaac to maintain and repair complicated modern military hardware in an efficient manner. They give a lot of attention to maintenance procedures and put extra effort to ensure that every little detail is fixed as necessary, often ignoring the world around them (including danger) completely while doing so. This trait has its drawbacks, however: Isaacs occasionally over-maintain equipment by taking preventive maintenance to its limit, systematically running through checklists and replacing parts that do not need to be. They sometimes repeatedly field-strip weapons because they are bored, and many get locked into the need to do something, anything, constantly.

Isaacs have a reputation of quick wit and speech, though only when directed towards equipment and technology in general. Outside their area of interest, they usually have very little to say, except to contribute the occasional (and generally irrelevant) bit of technical trivia.

⊞ Attributes

AGI	+1	APP	0	BLD	+2	CRE	+2	FIT	+2	INF	0	KNO	+2
PER	+1	PSY	0	WIL	0	STR	+2	HEA	+1	STA	40	UD/AD	8/7

Basic Character Costs:	48 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

⊞ A-Type: Field Technician [24 skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	1	1	Demolition	1	1	Defense	1	1	Survival	1	1	Medicine	1	1
Hand-to-Hand	1	1	Technical Sci.*1		1	Natural Sci. **1		1	Small Arms	1	1	Info. Warfare	1	1	Tech Sci. ***	2	1
Combat Sense	1	1	Tech. Sci.****2		1	Tinker	2	1	* (Computer)			**(Physical)			***(Mechanical)		
****(Electronics)																	

⊞ B-Type: Combat Engineer [26 Skill points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Tech Sci.*	2	1	Info. Warfare	1	1	Defense	1	1	Tinker	1	1	Natural Sci. **1		1
Hand-to-Hand	1	1	Combat Sense	1	1	Demolition	2	1	Survival	1	1	Tech Sci. ***	1	1	Medicine	1	1
Stealth	2	1	Notice	1	1	Small Arms	1	1	Nat. Sci. ****1		1	Tech Sci.*****1		1	*(Mechanical)		
(Physical)*(Electronic) ****(Earth)*****(Computer)																	

⊞ C-Type: Technical Intelligence Analyst [40 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Tech Sci.*	3	2	Demolitions	1	1	Defense	1	1	Small Arms	1	1	Medicine	1	1
Hand-to-Hand	1	1	Tech Sci. **	2	1	Notice	1	1	Nat. Sci. ***	1	1	Tech. Sci.****3		2	Combat Sense	1	1
Survival	1	1	*(Mechanical)			**(Computer)			***(Physical)			****(Electronics)					

OGL Statistics ◆

Isaac GREL (Smart Hero 2): CR 4; Medium-size humanoid; HD 2d6+6; hp 15; Mas 16; Init +2; Spd 30 ft.; Defense 13, touch 13, flat-footed 10 (+2 Dex, +1 Class); BAB +1; Grap +4; Atk +4 melee (1d4+3, unarmed strike) or +3 ranged (2d10, 9mm chaingun); Full Atk +4 melee (1d4+3, unarmed strike) or +3 ranged (2d10, 9mm chaingun); FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +3, Ref +2, Will +3; AP 1; Rep +1; Str 17, Dex 15, Con 16, Int 16, Wis 13, Cha 10.

Occupation: A-Type: Military (bonus class skills: Climb, Swim); B-Type: Military (bonus class skills: Hide, Move Silently); C-Type: Military (bonus class skills: Climb, Survival).

Skills: A-Type: Climb +5, Craft (electronics) +6, Craft (mechanical) +6, Computer Use +10, Demolitions +8, Disable Device +5, Jump +5, Knowledge (physical sciences) +8, Knowledge (tactics) +6, Knowledge (technology) +10, Repair +14, Search +6, Survival +3, Swim +5, Treat Injury +3

Skills: B-Type: Craft (electronics) +6, Craft (mechanical) +6, Craft (structural) +10, Computer Use +8, Demolitions +10, Disable Device +10, Hide +4, Knowledge (physical sciences) +8, Knowledge (tactics) +8, Knowledge (technology) +9, Move Silently +4, Repair +10, Search +5, Survival +2, Treat Injury +2

Skills: C-Type: Climb +5, Craft (electronics) +10, Craft (mechanical) +10, Computer Use +8, Demolitions +8, Disable Device +8, Knowledge (physical sciences) +8, Knowledge (tactics) +6, Knowledge (technology) +12, Research +8, Search +5, Survival +3, Treat Injury +2

Feats: A-Type: Armor Proficiency (light), Gearhead, Personal Firearms Proficiency, Simple Weapons Proficiency.
Feats: B-Type Armor Proficiency (light), Cautious, Personal Firearms Proficiency, Simple Weapons Proficiency.
Feats: C-Type Armor Proficiency (light), Builder, Personal Firearms Proficiency, Simple Weapons Proficiency.
Talents: Savant (A-Type: Repair; B-Type: Craft (structural); C-Type: Knowledge (technology)).
Skill Bonus: Isaac-class GRELs receive a +2 species bonus on Knowledge (technology) checks and Repair checks.
Special: Level Adjustment +3, Isaac-class GRELs count as three levels higher for CR and XP calculations. All Isaac-class GRELs start with the same ability scores, class levels, skills and feats.
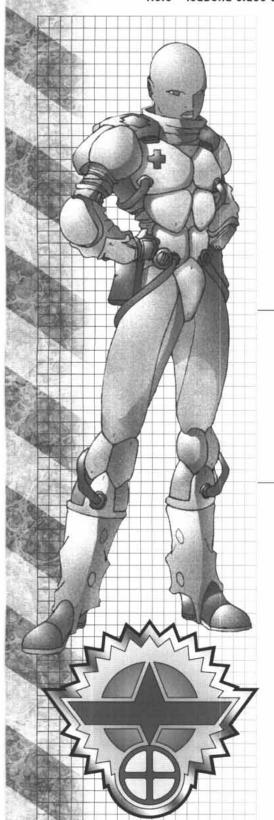
4.6.3 - Isabella Class GREL

An apparent contradiction in super-soldier philosophy, the Isabella-class GREL is designed to serve as a combat medic for injured soldiers. It was the final specialist to be developed under the GREL program, and it underwent initial testing in 6086. In 6088, the first Isabella medics arrived on the front lines in hover APCs that had been modified for MASH duty. Extremely intelligent and driven, Isabellas are adept at the healing arts. Being soldiers first and foremost, however, they are quite capable of defending themselves, and as a class, they do not hold life itself any more particularly dear than any other GREL does — at least not initially. Many Isabellas rapidly acquire a passion for life during their first few missions.

EGL developed the Isabella primarily to treat other GRELs, since normal humans tend to hold little respect for soldiers, and trooper combat medics are far more concerned with their fellow troopers. As a rule, Isabellas don't generally reciprocate the ill will. The medical surgeon variant came about shortly after the combat medic and normally operates far from the battlefield. Ironically, human and Isabella surgeons work well together; the humans often find the methodical GRELs refreshing to work with. A third type, the biomedical specialist, is designed chiefly for work in medical research labs.

Service Record ◆

Following the planned developmental stages of the GREL series, the Isabella was upgraded in 6112 in preparation for the invasion of the colonies. When the CEF captured Caprice's Liberty Station, it discovered the vast storage facilities of genetic samples and viral research specimens. Alarmed by the volume of knowledge therein that could be turned against the CEF, EGL began its "Isabella Crash Biowarfare Program," the result of which was the Model III Isabella and the biomedical specialist training in 6117. In 6122, the Isabella underwent an additional upgrade as part of the cross-GREL upgrade program following the failed invasion of Terra Nova.

Psychology ◆

Isabella functions as a medical professional who is familiar with every detail of both Soldier and Trooper physiology. They excel in treating the injured and work tirelessly on battlefield in even the most difficult circumstances. They have been designed for empathy, a trait that in practice brings out mixed results. Patients who have been dealing with Isabella's for a long time sometimes complain that the warm smiles are empty and that the GREL medic can only offer cliché reassurances. Often, this is caused by inexperienced Isabellas fresh out of training: not quite secure yet in their functions, they tend to rely too much on their pre-programmed training. Most of the time, however, the cause is plain human prejudice, which tends to color perception. Regardless, the Isabellas' dutifulness to patients' needs is beyond question, making them perhaps the most pleasant GRELs to face.

▦ Attributes

AGI	+1	APP	+1	BLD	+2	CRE	-1	FIT	+2	INF	0	KNO	+2
PER	+1	PSY	+1	WIL	+1	STR	+2	HEA	+1	STA	40	UD/AD	8/7

Basic Character Costs:	48 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

▦ A-Type: Combat Medic [34 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Medicine	2	3	Notice	2	2	Tech Sci.	1	1	Survival	1	1	Social Sci.**	1	1
Nat. Sci. ***	2	1	Tech Sci.****	1	1	Defense	1	1	Small Arms	1	1	Hand-to-Hand	1	1	Combat Sense	1	1
•(Electronics)			**(Psychology)			***(Life)			****(Computer)								

▦ B-Type: Medical Surgeon [29 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	1	1	Medicine	3	3	Defense	1	1	Nat. Sci. (Life)	2	1	Survival	1	1
Small Arms	1	1	Combat Sense	1	1	Hand-to-Hand	1	1									

▦ C-Type: Biomedical Specialist [29 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	1	1	Medicine	2	2	Defense	1	1	Nat. Sci. (Life)*	3	1	Survival	1	1
Small Arms	1	1	Combat Sense	1	1	Hand-to-Hand	1	1	• Choose a specialization for this skill.								

OGL Statistics ◆

Isabella GREL (Dedicated Hero 2): CR 4; Medium-size humanoid; HD 2d6+6; hp 15; Mas 17; Init +2; Spd 30 ft.; Defense 14, touch 14, flat-footed 10 (+2 Dex, +2 Class); BAB +1; Grap +4; Atk +4 melee (1d4+3, unarmed strike) or +3 ranged; Full Atk +4 melee (1d4+3, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +3, Ref +2, Will +3; AP 1; Rep +1; Str 17, Dex 15, Con 17, Int 14, Wis 12, Cha 10.

Occupation: A-Type: Emergency Services (bonus class skills: Climb, Computer Use); B-Type: Doctor (bonus class skills: Craft (pharmaceutical), Computer Use); C-Type: Doctor (bonus class skills: Computer Use, Knowledge (earth and life sciences))

Skills: A-Type: Climb +5, Craft (pharmaceutical) +7, Computer Use +3, Knowledge (behavioral sciences) +7, Knowledge (earth and life sciences) +9, Knowledge (tactics) +3, Listen +3, Sense Motive +3, Spot +3, Survival +3, Treat Injury +12

Skills: B-Type: Craft (pharmaceutical) +6, Computer Use +4, Knowledge (behavioral sciences) +7, Knowledge (earth and life sciences) +9, Listen +4, Sense Motive +4, Spot +4, Swim +4, Treat Injury +10

Skills: C-Type: Climb +4, Craft (pharmaceutical) +7, Computer Use +4, Knowledge (behavioral sciences) +9, Knowledge (earth and life sciences) +15, Listen +3, Sense Motive +3, Spot +3, Treat Injury +8

Feats: A-Type: Medical Expert, Personal Firearms Proficiency, Simple Weapons Proficiency.
Feats: B-Type: Personal Firearms Proficiency, Simple Weapons Proficiency, Surgery.
Feats: C-Type: Educated, Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: A-Type: Healing Knack; B-Type: Healing Knack; C-Type: Skill Focus (Knowledge (earth and life sciences))
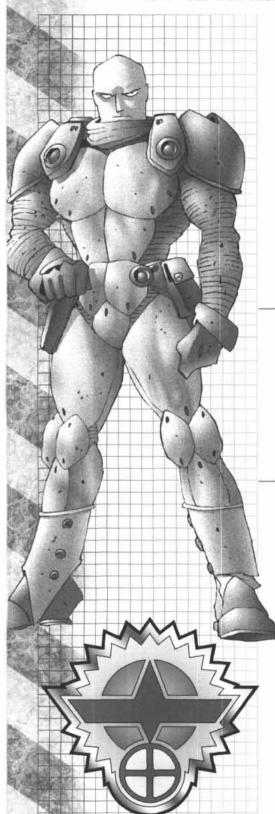
Skill Bonus: Isabella-class GRELs receive a +2 species bonus on Knowledge (earth and life sciences) checks and Treat Injury checks.

Special: Level Adjustment +3, Isabella-class GRELs count as three levels higher for CR and XP calculations. All Isabella-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.4 - Jan-Class GREL

Early on during WWIII, NECAF High Command observed a definite problem with the GREL program: even the best, most physically fit troopers had a terrible time keeping up with the practically tireless GRELs. While theoretically possible, leading any patrol from the rear is doomed to eventual failure, since most tactical decisions and leadership strategies require the leader's physical, on-site presence. The GREL program needed a dedicated leader class, but both the NEC and EGL were hesitant, fearful that giving leadership training and responsibilities to a superior being designed solely for combat was a bad combination. The Jan-class GREL is a compromise, being trained to lead but also being more strongly programmed for loyalty to the CEF than other GRELs are. Results have been somewhat mixed. Although carrying out their duties flawlessly, many Jans display an unfortunate trend toward megalomania. The periodic presence of a human superior officer is often enough to curtail this tendency — but not always.

Each Jan is trained to lead infantry, armor or naval forces, depending on the wetware package loaded in memory. Aerospace leadership roles are delegated to the Kassandra class, which often takes on the role of second-in-command in planetary missions. Jans make up roughly five percent of the CEF's soldiers.

Service Record ◆

The Jan-class GREL has proven to be the most difficult soldier model to manage. Although developed at the same time as the Morgana and the Kassandra, programming setbacks kept a viable Jan from the battlefields until 6088. Most of the problems with this class revolve around its tendency towards megalomania. In sharp contrast to most GREL classes, the Jan has undergone seven major revisions; each is a marked improvement over the previous, but the megalomania "bug" persists even in the Model VIII Jan. EGL scientists are cautiously optimistic about the Ra and Osiris SLEDGEs, the Jan's direct descendants, which have yet to show any signs of the flaw.

Psychology ◆

Any leader in combat needs courage, determination and the ability and willingness to take over command from superiors whenever necessary to fulfill the given tasks independently. Jans are confident in their abilities and quite able to ruthlessly lead their units to complete the mission. Troopers sometimes whisper rumors that human squad leaders are shot by Jans removing the weakest link of the unit, so that the mission can proceed smoothly, but this is only fear and prejudice talking. Jans are at times too good for their assigned tasks, and occasionally make their human commanders wonder what exactly is going on in their units.

☐ Attributes

AGI	+1	APP	0	BLD	+3	CRE	0	FIT	+3	INF	+2	KNO	0
PER	+1	PSY	+1	WIL	+1	STR	+3	HEA	+2	STA	50	UD/AD	10/10

Basic Character Costs:	60 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

☐ A-Type: Infantry Specialist [31 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	2	1	Defense	1	1	Medicine	1	1	Combat Sense	2	2	Melee	1	1
Nav. (Land)	1	1	Info. Warfare	1	1	Small Arms	1	1	Survival	1	1	Leadership	2	2	Pers. Fly Device	1	1
Hand-to-Hand	1	1	Zero-G	1	1												

☐ B-Type: Armor Specialist [31 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Nav. (Land)	1	1	Defense	1	1	Pilot (Ground)	1	1	Survival	1	1	Leadership	2	2
Melee	1	1	Info. Warfare	1	1	Tech Sci. •	1	1	Small Arms	1	1	Hand-to-Hand	1	1	Combat Sense	2	2
Notice	2	1	Medicine	1	1	• (Electronics)											

☐ C-Type: Naval Specialist [31 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Nav. (Sea)	1	1	Defense	1	1	Medicine	1	1	Athletics	1	1	Melee	1	1
Pilot (Naval)	1	1	Info. Warfare	1	1	Small Arms	1	1	Survival	1	1	Leadership	2	2	Combat Sense	2	2
Notice	2	1	Hand-to-Hand	1	1												

OGL Statistics ◆

Jan GREL (Charismatic Hero 2): CR 4; Medium-size humanoid; HD 2d6+10; hp 19; Mas 20; Init +3; Spd 30 ft.; Defense 14, touch 14, flat-footed 10 (+3 Dex, +1 Class); BAB +1; Grap +6; Atk +6 melee (1d4+5, unarmed strike) or +4 ranged; Full Atk +6 melee (1d4+5, unarmed strike) or +4 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +6, Ref +4, Will +3; AP 1; Rep +2; Str 20, Dex 16, Con 20, Int 11 Wis 11, Cha 13.

Occupation: A-Type: Military (bonus class skills: Knowledge (tactics), Navigate); B/C-Type: Military (bonus class skills: Drive, Knowledge (tactics)).

Skills: A-Type: Climb+6, Computer Use +1, Diplomacy +8, Intimidate +6, Jump +6, Knowledge (tactics) +5, Navigate + 5, Survival +1, Treat Injury +1

Skills: B-Type: Computer Use +1, Diplomacy +8, Drive +7, Intimidate +6, Knowledge (tactics) +5, Navigate + 2, Survival +1, Treat Injury +1

Skills: C-Type: Computer Use +1, Diplomacy +8, Intimidate +6, Knowledge (tactics) +5, Navigate + 2, Pilot (naval) +7, Survival +1, Treat Injury +1

Feats: A-Type: Armor Proficiency (light) *, Armor Proficiency (medium), Combat Martial Arts, Personal Firearms Proficiency*, Trustworthy, Simple Weapons Proficiency.
Feats: B-Type: Armor Proficiency (light) *, Combat Martial Arts, Personal Firearms Proficiency*, Simple Weapons Proficiency, Surface Vehicle Operation (hover), Trustworthy.
Feats: C-Type: Armor Proficiency (light) *, Combat Martial Arts, Personal Firearms Proficiency*, Simple Weapons Proficiency, Surface Vehicle Operation (ship), Trustworthy.

* Bonus feats provided by the GREL's intense hypno-training
Talents: Coordinate (all types)
Special: Level Adjustment +3, Jan-class GRELs count as three levels higher for CR and XP calculations. All Jan-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.5 - Kassandra-Class GREL

Developed in parallel with the Morgana class as a highly specialized combat soldier, the Kassandra-class GREL is a master of electronic systems and communications. The two were originally designed with combined operations in mind, forming small reconnaissance and infiltration teams of two or three soldiers, in addition to their standard functions. In such teams, the Kassandra would handle the electronics and surveillance while the Morganas would handle the majority of the combat. In addition to their skills with electronic systems, Kassandras are adept at interacting with "normals" as part of their general communication systems duties. EGL scientists incorporated this trait into the class with the recognition that Kassandras are more likely to interact with troopers than other soldiers are.

The default Kassandra programming is designed specifically for battlefield operations. These Kassandras operate a battle group's communications and electronic warfare equipment. The aerospace systems operator programming gives a Kassandra the ability to operate the CEF's TAEF-54 electronic fighter. In both instances, the Kassandra often serves as her group's second-in-command, having leadership abilities moderately comparable to those of a Jan — but without the megalomania. The C-Type Kassandra is trained for signals intelligence analysis duty, in which capacity she works to crack enemy encryption codes. As such, the C-Type often works well-behind friendly lines. Kassandras make up approximately five percent of all GRELs.

Service Record ◆

The Kassandra-class GREL has been as stable in its development as the Mordred class. First fielded in 6086, the class remained unchanged throughout WWIII. EGL modified it slightly in 6111 in preparation for the 6112 GREL build-up for the CEF's invasion of Caprice, adapting it for off-world service. The Kassandra Model III development occurred with the broad post-Terra Nova revisions to the entire GREL program in 6122.

Psychology ◆

Computer and communications systems require soldiers capable of carrying out routine tasks and talk clearly in a heat of battle, no matter the situation. Kassandra's voice is thus generally pleasant to listen to, and their intonation is even more polished and clear than GRELs in general. This "phone voice" has a tendency to irritate human veterans in the field, especially when denied support or backup. Kassandras are also tasked to evaluate intelligence and scouting data in the heat of battle, requiring an attention to detail matched only by Isaac GRELs. The end result of these requirements is a GREL design that has a fairly similar outlook to the Isabella class: they elicit pleasant but shallow empathy with dutiful attention to detail. The GRELs actually show little initiative for, or willingness to take over, command, and the Kassandra is better in management of resources than leadership. Outside combat, many keep their interest centered on equipment and computers.

Attributes

AGI	+1	APP	+1	BLD	+2	CRE	+1	FIT	+2	INF	+1	KNO	+2
PER	+1	PSY	0	WIL	0	STR	+2	HEA	+1	STA	40	UD/AD	8/7

Basic Character Costs:	49 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

A-Type: Field Electronics Specialist [38 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	2	2	Tech Sci	1	1	Tech Sci	2	1	Survival	1	1	Medicine	1	1
Hand-to-Hand	1	1	Info. Warfare	2	2	Small Arms	1	1	Ettiquette	1	1	Tinker	1	1	Combat Sense	1	1
Leadership	2	2	Defense	1	1	• (Computer)			•• (Electronics)								

B-Type: Aerospace Systems Operator [28 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Leadership	1	1	Tech Sci.	1	1	Tech Sci.	1	1	Tinker	1	1	Combat Sense	1	2
Hand-to-Hand	1	1	Info. Warfare	2	2	Perso. Fly Device	1	1	Survival	1	1	Medicine	1	1	Defense	1	1
Notice	2	1	• (Computer)			* (Electronics)											

C-Type: Signals Intelligence Analyst [36 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Medicine	1	1	Tech Sci. *	2	1	Defense	1	1	Small Arms	1	1	Info. Warfare	2	2
Etiquette	1	1	Notice	2	2	Tech Sci. **	2	2	Combat Sense	1	1	Hand-to-Hand	1	1	Survival	1	1
• (Computer)			•• (Electronics)														

OGL Statistics

Kassandra GREL (Smart Hero 2): CR 4; Medium-size humanoid; HD 2d6+6; hp 15; Mas 16; Init +2; Spd 30 ft.; Defense 13, touch 13, flat-footed 10 (+2 Dex, +1 Class); BAB +1; Grap +4; Atk +4 melee (1d4+3, unarmed strike) or +3 ranged; Full Atk +4 melee (1d4+3, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +3, Ref +2, Will +3; AP 1; Rep +1; Str 17, Dex 15, Con 16, Int 15 Wis 12, Cha 13.

Occupation: A/B-Type: Technician (bonus class skills: Computer Use, Knowledge (technology)); B/C-Type: Investigative (bonus class skills: Computer Use, Decipher Script).

Skills: A-Type: Climb+5, Computer Use +14, Decipher Script +9, Diplomacy +3, Knowledge (tactics) +7, Knowledge (technology) +8, Repair +9, Search +7, Sense Motive +3, Survival +3, Treat Injury +3

Skills: B-Type: Climb +5, Computer Use +14, Decipher Script +9, Diplomacy +3, Knowledge (tactics) +7, Knowledge (technology) +8, Repair +9, Search +3, Sense Motive +3, Spot +3, Survival +3, Treat Injury +3

Skills: C-Type: Climb +5, Computer Use +10, Craft (electronics) +6, Decipher Script +14, Diplomacy +3, Knowledge (tactics) +5, Knowledge (technology) +7, Repair +5, Research +8, Search +3, Sense Motive +3, Survival +3, Treat Injury +3

Feats: A-Type: Gearhead, Personal Firearms Proficiency, Simple Weapons Proficiency
Feats: B-Type: Gearhead, Personal Firearms Proficiency, Simple Weapons Proficiency.
Feats: C-Type: Armor Proficiency (light), Studious, Personal Firearms Proficiency, Simple Weapons Proficiency.
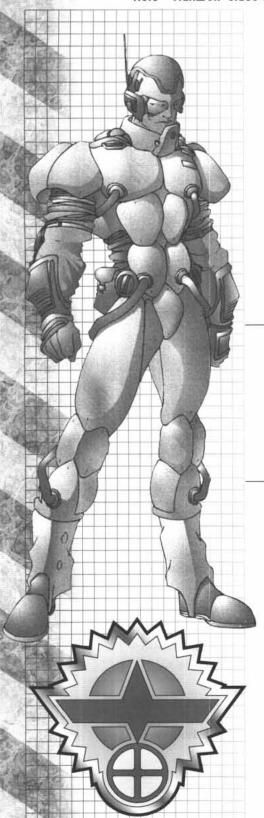
Talents: Savant (A-Type: Computer Use; B-Type: Computer Use; C-Type: Decipher Script.
Skill Bonus: Kassandra-class GRELs receive a +2 species bonus on Computer Use checks and Decipher Script checks.
Special: Level Adjustment +3, Kassandra-class GRELs count as three levels higher for CR and XP calculations. All Kassandra-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.6 - Maxwell-Class GREL

Immediately following the successful deployment of the Mordred-class GREL, Elite Genome Labs began work on the next series of super-soldiers: a trio of classes designed to work primarily with the CEF's hovertanks. Referred to as the "Armor Operations Trio," it consisted of the Minerva driver to control the tanks, the Maxwell gunner to operate the weapon systems and the Isaac technician to keep the expensive and somewhat delicate machines in working condition. On his own, a Maxwell-class GREL is a remarkable gunner. Combined with the CEF's advanced target acquisition systems, however, Maxwells are particularly deadly. Ironically, many Maxwells find handguns and infantry weapons cumbersome and feel moderately unprotected when away from their gunnery stations.

The original Maxwell programming covered tank-based weapons systems only. In later revisions, EGL added the complex training necessary to operate artillery weapons, such as the CEF's 90mm massdriver artillery cannon. The aerospace gunner variant exists alongside the aerospace pilot variant Minerva and has the training required to operate the TAAF-54's weapons both in an atmosphere and in the vacuum of space. The naval gunner can operate the SSK-41 minisub's remote-controlled torpedoes as well as a surface patrol boat's deck guns. Maxwells account for approximately 15 percent of all GRELs in service.

Service Record ◆

The development of the Maxwell has been perfectly in-step with that of the Minerva-class GREL. When the Minerva changes, the Maxwell changes. EGL scientists often refer to the two classes as "the twins" due to this nature of their production. Even with the Models IV and V of the Minerva, which were primarily designed to account for Battle Frames that Maxwells do not operate, EGL kept the two in synch in the unlikely event that either Moscow Heavy Industries or Kadellie Weapons Systems should produce a strider-like Battle Frame that requires more than one crewmember.

Psychology ◆

Despite automated weapon systems, modern gunners are still very much in need of excellent hand-eye coordination. Outside combat, this careful balance often makes Maxwells interested in playing games where balance and coordination are everything. Plucking flies and cockroaches from the air, occasional cheap card tricks and feats of coordination are seen. The most common pasttime, however, appears to be recreational console games, and a Maxwell can take this recreational activity very seriously. Maxwell and Minerva-class Soldiers usually get along very well: both have a keen interest towards vehicular combat, and thus they have common framework for discussion. The Maxwell is somewhat less outwardly aggressive, but this is made up with its ability to create results for the Minerva's efforts. Socially, both GREL types are often seen together for common discussion and activities that spread across the GREL community.

☐ Attributes

| AGI | +1 | APP | 0 | BLD | +2 | CRE | 0 | FIT | +3 | INF | 0 | KNO | +1 |
| PER | +2 | PSY | 0 | WIL | +1 | STR | +2 | HEA | +1 | STA | 40 | UD/AD | 8/7 |

Basic Character Costs:	50 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

☐ A-Type: Field Gunner [30 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Gun. (Ground)	2	2	Tech Sci. ***	1	1	Defense	1	1	Survival	1	1	Medicine	1	1	Info. Warfare	2	1
Tech Sci. ***	2	2	Small Arms	1	1	Demolition	1	1	Combat Sense	2	2	Hand-to-Hand	1	1	Tech Sci. ***	1	1
Notice	1	1	• (Computer)			** (Mechanics)			*** (Electronics)								

☐ B-Type: Aerospace Gunner [26 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Gun. (Space)	2	1	Tech Sci. *	1	1	Notice	1	1	Defense	1	1	Small Arms	1	1
Medicine	1	1	Zero-G	1	1	Gun. (Air)	2	1	Info Warfare	2	1	Tech Sci. **	1	1	Perso. Fly Device	1	1
Combat Sense	1	1	Hand-to-Hand	1	1	Demolition	1	1	Tech Sci.***	1	1	Survival	1	1	• (Computer)		
** (Mechanics)			*** (Electronics)														

☐ C-Type: Naval Gunner [29 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Gun. (Naval)	2	1	Pilot (Naval)	1	1	Defense	1	1	Tech Sci. *	1	1	Small Arms	1	1
Medicine	1	1	Gunnery (Air)	2	1	Info. Warfare	2	1	Tech Sci. ***	1	1	Athletics	1	1	Combat Sense	2	1
Hand-to-Hand	1	1	Demolition	1	1	Tech. Sci.***	1	1	Survival	1	1	Notice	1	1	* (Computer)		
** (Mechanical)			*** (Electronics)														

OGL Statistics ◆

Maxwell GREL (Dedicated Hero 2): CR 4; Medium-size humanoid; HD 2d6+6; hp 15; Mas 17; Init +3; Spd 30 ft.; Defense 13, touch 13, flat-footed 10 (+2 Dex, +1 Class); BAB +1; Grap +5; Atk +5 melee (1d4+4, unarmed strike) or +4 ranged; Full Atk +5 melee (1d4+4, unarmed strike) or +4 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +3, Ref +3, Will +4; AP 1; Rep +1; Str 19, Dex 17, Con 17, Int 13 Wis 14, Cha 10.

Occupation: A-Type: Military (bonus class skills: Climb, Demolitions), A-Type: Military (bonus class skills: Balance, Demolitions), C-Type: Military (bonus class skills: Demolitions, Swim)

Skills: A-Type: Climb +7, Computer Use +9, Demolitions +4, Knowledge (tactics) +4, Knowledge (technology) +5, Spot +5, Survival +4, Treat Injury +4

Skills: A-Type: Balance +6, Computer Use +9, Demolitions +4, Knowledge (tactics) +4, Knowledge (technology) +5, Spot +5, Survival +4, Treat Injury +4

Skills: A-Type: Computer Use +9, Demolitions +4, Knowledge (tactics) +4, Knowledge (technology) +5, Spot +5, Survival +4, Swim +7, Treat Injury +4

Feats: A/B/C-Type: Far Shot, Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: Skill Focus (Computer Use)
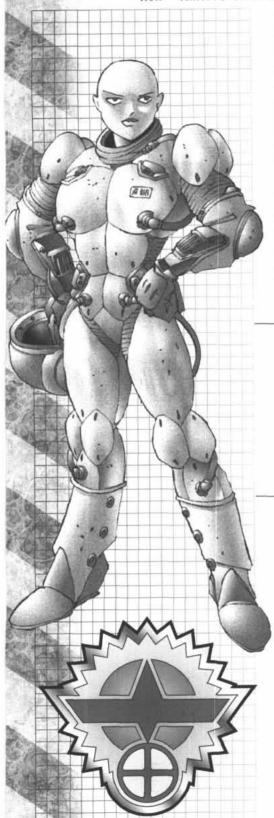
Species Bonus: Maxwell-class class GRELs receive a +2 species bonus to attack when using vehicle weaponry.

Special: Level Adjustment +3, Maxwell-class GRELs count as three levels higher for CR and XP calculations. All Maxwell-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.7 - Minerva-Class GREL

The Minerva forms the third element of EGL's second-wave "Armor Operations Trio" of GRELs. Developed in parallel with the Isaac and the Maxwell classes, Minervas are the drivers of the hovertanks. With sharp reflexes augmented by the tanks' artificial neural network computer guidance and stability systems, and with their unwavering morale and ability to fly — often literally — in the face of danger, Minervas rapidly became legends of the battlefield. Later revisions to the program added the ability to operate Sea Command's minisubs and surface boats, but the original incarnation was dedicated completely to the HT-68 hovertank. The B-Type Minerva is trained to operate the CEF's TAAF-54 trans-atmospheric fighters, in which capacity she also works with a Maxwell gunner. For the TAEF-54 electronic warfare fighters, she is most often paired with a Kassandra.

The defeat of the 8th Fleet at Terra Nova introduced a new class of vehicle to the CEF's arsenal: the walker. EGL developed the C-Type Minerva to pilot walkers, starting with captured Terranovan Heavy Gears and Caprician Combat Mounts but later graduating to the Battle Frame when Moscow Heavy Industries and Kadellie Weapons Systems introduced their designs. The Battle Frame creates a slight complication to the Minerva program: because there is only room for one crewmember, the C-Type Minerva had to become adept at gunnery.

Service Record ◆

The Minerva class has performed perfectly throughout its existence. Piloting hovertanks, trans-atmospheric fighters and Battle Frames, however, has given the class a marked taste for speed, and when off-duty, Minervas tend to drive as fast as they can. The Model I Minerva was produced from 6083 until the end of WWIII in 6105. The Model II went into production in 6112. In 6122, the Model III was introduced to add programming regimens for captured Heavy Gears. EGL developed the Model IV for the prototype Battle Frames, and the Model V is designed to operate with the production versions.

Psychology ●

Minervas have been designed for focused aggressiveness, which they express through piloting vehicles at reckless speed and maneuvering. This attitude is important in combat, where agility to avoid enemy fire and ability to maneuver for best position are vital. Minervas have a willingness to engage the enemy no matter the situation, pushing their vehicles well into their limits if need be. The Minerva's aggressiveness is tightly controlled and they do not really break rules outside combat (except maybe in grid locked traffic — Port Arthur's streets are renowned for their fast pace and unforgiveness to poor drivers).

☐ Attributes

AGI	+2	APP	+1	BLD	+2	CRE	0	FIT	+3	INF	0	KNO	0
PER	+1	PSY	+1	WIL	0	STR	+2	HEA	+1	STA	40	UD/AD	8/7

Basic Character Costs:	50 Character Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

☐ A-Type: Planetary Pilot [35 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	2	1	Nav. (Land)	1	1	Combat Sense	2	1	Defense	1	1	Pilot (Ground)	2	1	Gun. (Ground)	1	1
Hand-to-Hand	1	1	Pilot (Naval)	2	1	Stealth	1	1	Notice	1	1	Small Arms	1	1	Survival	1	1
Medicine	1	1	Info. Warfare	2	1	Nav. (Sea)	1	1	Gun. (Naval)	1	1	Perso. Fly Device	2	1			

☐ B-Type: Aerospace Pilot [28 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Pilot (Air)	2	1	Nav. (Air)	1	1	Info. Warfare	2	1	Small Arms	1	1	Survival	1	1	Gunnery (Air)	1	1
Hand-to-Hand	1	1	Combat Snese	2	1	Notice	1	1	Pilot (Space)	2	1	Zero-G	1	1	Athletics	1	1
Nav. (Space)	1	1	Defense	1	1	Gun. (Space)	1	1									

☐ C-Type: Frame Pilot [32 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Hand-to-Hand	1	1	Combat Snese	2	2	Nav. (Land)	1	1	Dodge	1	1			
Perso. Fly Device	1	1	Medicine	1	1	Gun. (Mecha)	2	1	Stealth	1	1	Leadership	1	1	Notice	1	1
Info. Warfare	2	1	Survival	1	1	Pilot (Mecha)	2	1	Pilot (Ground)	1	1	Small Arms	1	1			

OGL Statistics ☐

Minerva GREL (Fast Hero 2): CR 4; Medium-size humanoid; HD 2d8+8; hp 22; Mas 18; Init +5; Spd 30 ft.; Defense 19, touch 19, flat-footed 10 (+5 Dex, +4 Class); BAB +1; Grap +6; Atk +6 melee (1d4+5, unarmed strike) or +6 ranged; Full Atk +6 melee (1d4+5, unarmed strike) or +6 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +7, Will +0; AP 1; Rep +0; Str 20, Dex 20, Con 18, Int 10 Wis 11, Cha 13.

Occupation: Military (bonus class skills: Knowledge (tactics), Survival)

Skills: A-Type: Balance +7, Computer Use +2, Drive +10, Knowledge (tactics) +1, Navigate +5, Survival +3, Swim +6, Treat Injury +1, Tumble +8
Skills: B-Type: Balance +7, Computer Use +2, Knowledge (tactics) +1, Navigate +5, Pilot +10, Spot +2, Survival +2, Treat Injury +1, Tumble +7
Skills: C-Type: Balance +7, Computer Use +4, Drive +12, Knowledge (tactics) +1, Navigate +5, Survival +3, Treat Injury +1, Tumble +8

Feats: A-Type: Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency, Surface Vehicle Operation (hover)*, Surface Vehicle Operation (ship)*.
Feats: B-Type: Aircraft Operation (jet fighter)*, Aircraft Operation (spacecraft)*, Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency
Feats: C-Type: Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency, Surface Vehicle Operation (Frame)*, Vehicle Expert*.

* Bonus feats provided by the GREL's intense hypno-training / **Talents:** Evasion
Special: Level Adjustment +3, Minerva-class GRELs count as three levels higher for CR and XP calculations. All Minerva-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.8 - Mordred-Class GREL

Massive and powerful, Mordred GRELs are creatures designed for raw, brutal combat and little else. They are the bane of every foot soldier who must face them on the battlefield, and they are practically unstoppable by normal means. Bred for strength and loyalty, Mordreds are not terribly bright, but they have completely unshakable morale due to their hypno-programming, which is designed to keep them going while under heavy fire. Unfortunately, this programming does not serve them well in peacetime, when they have a hard time dealing with inactivity. In general, Mordreds have no personal initiative, although as with all living organisms, there are occasional exceptions. For the most part, however, they require the leadership of a trooper or another soldier to accomplish any remotely complex task.

Trained in all forms of personal-scale combat, the standard Mordreds function as the CEF's shocktroopers; they are the first of the Force's infantry to face the enemy in battle. In addition to the shocktrooper-type Mordred, the CEF fields a slightly modified paratrooper specialist. A space infantry type also exists, adapted to close-quarters battles aboard space vessels and stations, where massive collateral damage is undesirable. Mordreds are by far the most common GREL (35% of all soldiers), although the paratrooper and space infantryman varieties are somewhat rare.

Service Record ◆

The Mordred GREL is the direct descendant of the Vaween project, though adapted to a more human genotype and with dramatically reduced mental facilities. The first GRELs ever produced, the Mordreds almost immediately started turning WWIII around for the NEC when introduced by EGL in 6081. During nearly 60 years of service, the basic design has only been altered twice. The first was in 6112 during the massive build-up of GRELs prior to the invasion of Caprice, and the second (Model III) in 6122, shortly after the defeat of the 8th Fleet at Terra Nova. The Model III introduced the space infantry variant and specialized the shocktrooper for planet-based warfare.

Psychology ◆

Mordreds are the ultimate infantrymen. They are strong and robust to carry heavy loads, and have enough raw aggression to deal with any possible threat immediately and lethally. This aggression is tempered by built-in discipline and the satisfaction gained from following orders common to all GRELs. Mordreds have very direct personas: quite often their first idea is the proper choice and is followed immediately. Mordreds have reputation for being mentally slow, but this is more due their willingness to let humans and Jans take decisions. Without leaders, Mordreds are quite capable of taking actions, although these are often predictable. Generally, Mordreds dislike weakness (mental or physical), and a group will follow the strongest leader (not necessarily in physical way), usually a Jan-class.

Attributes

AGI	+1	APP	-1	BLD	+4	CRE	-2	FIT	+4	INF	-1	KNO	-2
PER	+1	PSY	-1	WIL	+1	STR	+4	HEA	+1	STA	50	UD/AD	13/13

Basic Character Costs:		60 Character Points
Special Rules:		GRELs get half XPs; new Skills cost double; they are not recommended as PC.

A-Type: Shocktrooper (30 Skill Points)

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	1	Defense	2	1	Hand-to-Hand	2	1	Heavy Weapons	2	1	Interrogation	1	1
Medicine	1	1	Melee	2	1	Notice	1	1	Small Arms	2	1	Surv. (Desert)	1	1	Throwing	1	1

B-Type: Airborne Infantry (30 Skill Points)

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Melee	2	1	Medicine	1	1	Small Arms*	1	1	Interrogation	1	1	Defense	2	1
Perso. Fly Device	2	1	Hvy Weapons*	1	1	Combat Sense	2	1	Notice	1	1	Hand-to-Hand	2	1	Survival	1	1

• Choose one of these skills at level 2

C-Type: Space Infantry (30 Skill Points)

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	1	1	Notice	2	1	Medicine	1	1	Melee	2	1	Defense	2	1	Survival	1	1
Interrogation	1	1	Combat Sense	2	1	Zero-G	1	1	Small Arms	2	1	Hand-to-Hand	2	1			

OGL Statistics ◆

Mordred GREL (Strong Hero 2): CR 5; Medium-size human; HD 2d8+10; hp 22; Mas 21; Init +3; Spd 30 ft.; Defense 23, touch 15, flat-footed 20 (+3 Dex, +2 Class, +8 heavy flak suit); BAB +2; Grap +8; Atk +8 melee (1d4+7, unarmed strike) or +5 ranged (2d10, 9mm chaingun); Full Atk +8 melee (1d4+7, unarmed strike) or +5 ranged (2d10, 9mm chaingun); FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +7, Ref +3, Will +0; AP 1; Rep +0; Str 23, Dex 17, Con 21, Int 6, Wis 11, Cha 7.

Occupation: GREL (bonus class skills: Spot, Survival).

Skills: Spot +1, Survival +1.

Feats: Advanced Firearms Proficiency, Armor Proficiency (light), Armor Proficiency (medium), Armor Proficiency (heavy), Combat Martial Arts, Exotic Firearms Proficiency (heavy machine guns), Personal Firearms Proficiency, Simple Weapons Proficiency.
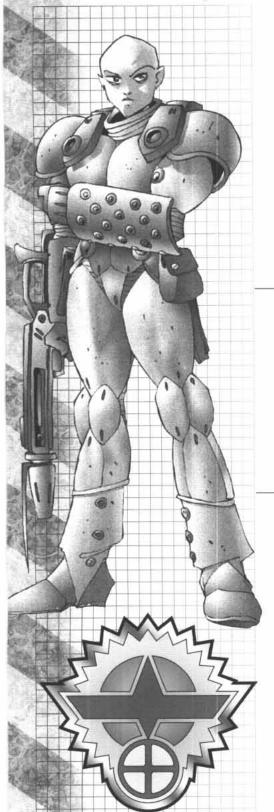
Talents: Melee Smash.

Special: Level Adjustment +3, Mordred-class GRELs count as three levels higher for CR and XP calculations. All Mordred-class GRELs start with the same ability scores, class levels, skills and feats.

4.6.9 - Morgana-Class GREL

Quite possibly the most feared GRELs in the CEF, the Morgana-class commandoes are hard-edged, stone-cold killers. When a Morgana performs a quick, clean kill, it is not mercy for her victim she feels; it is a simple calculation of efficiency that drives her. When a Morgana meets someone for the first time — trooper, soldier, commander, ally, enemy — her instinctive reaction is to perform a brief study of the individual and identify the swiftest way to kill him. Few normal humans can bear to work with a Morgana because of this trait, and many commanders use Jan go-betweens to issue orders and receive reports. Soldiers have no problems working with Morganas, however, and most find the discomfort of normals mildly amusing.

The A-Type Morgana is designed for small-group or solo operations in reconnaissance. She is often teamed up with a Kassandra to handle electronic security and surveillance systems as well as to provide reliable communications with headquarters. The B-Type is the commando that epitomizes the class. Commandoes operate in full tactical patrols. Finally, the C-Type Morgana is a variety few enemies ever see. Highly trained sharpshooters, the C-Types are snipers; working alone or in pairs, they are the deadliest of adversaries. The Morgana class accounts for 15 percent of all GRELs.

Service Record ◆

The Morgana class has undergone three major upgrades during its history. The first took place in 6095 and was primarily a precautionary measure based on work being performed simultaneously on the Jan class. The heavy emphasis on independent action in the Model I programming was a concern amongst EGL scientists and the NECAF military alike. The second and third revisions took place in step with the rest of the GREL program prior to the invasion of Caprice and following the return of the 8th Fleet from Terra Nova. The Model II Morgana has the distinction of being the only GREL manufactured in the years immediately following the formal end of WWIII and before the pre-Caprice build-up, when it was used for illicit operations against strategic targets during peacetime.

Psychology ◆

Morganas combine the Mordred's ruthless aggression with a more isolationist and calculative approach. Their true inner trait is essentially that of a hunter who gets enjoyment from catching prey. This makes Morganas somewhat socially colder towards others (including GRELs and humans); they often work best either alone or in small groups made up only of Morganas. The hunting trait is latent in all of the class, but can grow very strong in a few individuals, where it then express itself with near suicidal audacity or exaggerated behavior. Outside combat, Morganas are often loners and many keep on honing their skills whether they are relevant or not to the current situation. Many isolate themselves from human society if possible or choose activities of daring with Mordreds or other GRELs. Some Morganas stick together, forming a intensively loyal "sisterhood" group ready to face any outsiders together.

☐ Attributes

AGI	+2	APP	+1	BLD	+3	CRE	0	FIT	+3	INF	0	KNO	0
PER	+1	PSY	+1	WIL	+1	STR	+3	HEA	+2	STA	50	UD/AD	11/10

Basic Character Costs:	60 Character Points and 30 Skill Points
Special Rules:	GRELs get half XPs; new Skills cost double; they are not recommended as PC.

☐ A-Type: Recon [31 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	2	1	Nav. (Land)	1	1	Info. Warfare	1	1	Medicine	1	1	Heavy Weapons	1	1	Melee	1	1
Combat Sense	2	1	Small Arms	2	1	Survival	1	1	Hand-to-Hand	2	1	Defense	1	1	Stealth	2	1
Notice	2	1															

☐ B-Type: Commando [32 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	2	2	Notice	1	1	Combat Sense	2	1	Demolitions	1	1	Hand-to-Hand	2	1	Melee	1	1
Small Arms	2	1	Survival	1	1	Medicine	1	1	Info. Warfare	1	1	Perso. Fly device	1	1	Heavy Weapons	1	1
Stealth	2	1															

☐ C-Type: Sniper [32 Skill Points]

Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx	Skill	Lvl.	Cpx
Athletics	2	1	Small Arms	3	2	Melee	1	1	Medicine	1	1	Survival	1	1	Notice	1	1
Combat Snese	2	1	Heavy Weapons	1	1	Stealth	1	1	Hand-to-Hand	2	1	Defense	1	1			

Morgana GREL (Dedicated Hero 2): CR 4; Medium-size humanoid; HD 2d6+8; hp 17; Mas 18; Init +4; Spd 30 ft.; Defense 16, touch 16, flat-footed 10 (+4 Dex, +2 Class); BAB +1; Grap +6; Atk +6 melee (1d4+5, unarmed strike) or +5 ranged; Full Atk +6 melee (1d4+5, unarmed strike) or +5 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +7, Will +0; AP 1; Rep +0; Str 21, Dex 18, Con 20, Int 11 Wis 13, Cha 13.

Occupation: A-Type: Military (bonus class skills: Navigate, Swim); B-Type: Military (bonus class skills: Navigate, Swim); C-Type: Military (bonus class skills: Hide, Move Silently)

Skills: A-Type: Hide +7, Knowledge (tactics) +1, Listen +2, Move Silently +7, Navigate +7, Spot +3, Survival +10, Swim +6, Treat Injury +2

Skills: B-Type: Climb +6, Demolitions +5, Hide +7, Knowledge (tactics) +8, Listen +2, Move Silently +7, Spot +2, Survival +2, Treat Injury +2

Skills: C-Type: Climb +6, Hide +14, Knowledge (tactics) +1, Listen +4, Move Silently +11, Spot +4, Survival +2, Swim +6, Treat Injury +2

Feats: A-Type: Armor Proficiency (light), Guide*, Personal Firearms Proficiency, Simple Weapons Proficiency, Track.
Feats: B-Type: Advanced Firearms Proficiency, Armor Proficiency (light), Combat Martial Arts*, Personal Firearms Proficiency, Simple Weapons Proficiency.
Feats: C-Type: Alertness*, Armor Proficiency (light), Far Shot, Personal Firearms Proficiency, Simple Weapons Proficiency.

* Bonus feats provided by the GREL's intense hypno-training
Talents: A-Type: Skill Focus (Survival); B-Type: Skill Focus (Knowledge (tactics)); A-Type: Skill Focus (Hide).
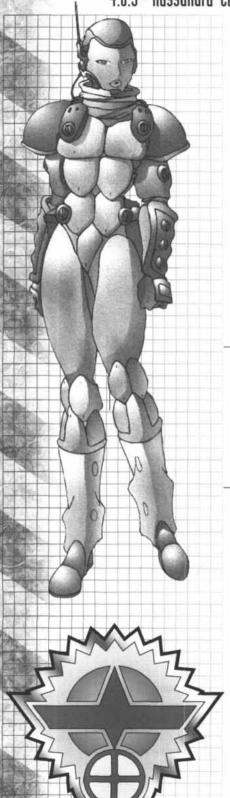Skill Bonus: Morgana-class GRELs receive a +2 species bonus on Hide and Move Silently checks.
Special: Level Adjustment +3, Morgana -class GRELs count as three levels higher for CR and XP calculations. All Morgana-class GRELs start with the same ability scores, class levels, skills and feats.
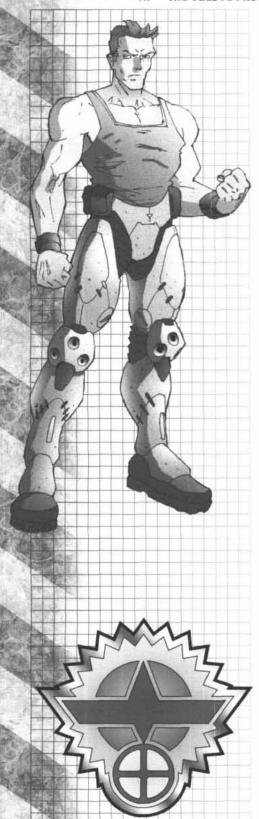
4.7 - THE SLEDGE PROGRAM

The CEF's victory over Caprice in 6116 occurred much faster than anyone expected and with far fewer casualties. Once the planet was secure, however, the NEC turned its attentions to the more-distant colonies and requested that EGL produce more soldiers for the assault. Seizing the Caprician medical facilities, EGL set about establishing a local GREL manufacturing program. By early 6118, the labs had produced sufficient clone troops for the assault operations to proceed. Manufacturing scaled back but R&D efforts continued apace, exploiting the vast resources of Caprice and seeking to improve the GREL program.

The shocking defeat on Terra Nova and the stalemate on Atlantis tarnished relations between EGL and the NEC. The military accused EGL of producing substandard equipment while EGL claimed there was no difference between the Caprician-manufactured warriors and those used in World War Three. The NEC considered canceling the entire cloned warrior project but, not wanting to lose its principal source of revenue, EGL managed to convince High Command that the problem lie not with the super-soldier program but with the current generation of GRELs, which lacked the flexibility to deal with the opponents on Atlantis and Terra Nova. The solution, EGL claimed, was a new generation of warriors that would use the latest engineering and educational techniques.

Discussion of the proposals continued for more than a decade, with the NEC hesitant to throw good money after bad. During this time, beginning in 6123, EGL outlined and conducted privately funded research into its new race of super-soldiers. Finally, in 6138, the NEC agreed to fund fully the Second-Line Elite Division GREL Experiments (SLEDGE) program. As part of the process, the NEC granted EGL the rights to Sartru Labs, a native corporation bankrupted by the occupation and located in the principal CEF cantonment on Caprice, Paladin Lots. Scheduled for full deployment in 6143, the first and second generations of SLEDGE warriors are currently being evaluated by the corporation and by the CEF. Production of GRELs actually stopped in 6133, and EGL has refitted most of the GREL facilities to handle the new race.

SLEDGEs are smaller, quicker and better trained in their field. They also appear completely human (externally, at least) and are meant to blend in with the populace as potential "sleeper" agents. Unlike GRELs, SLEDGEs of any classification can be either male or female. With the second-line GRELs, EGL placed more emphasis on imaginative tactics and survival rather than on obeying orders blindly. In addition, it trained SLEDGEs in multiple but related specializations.

Ra-Class SLEDGE - 4.7.1

As SLEDGE unit commanders, Ras are the best-trained second-line GRELs. They have the same basic combat training as the Bastet "grunts" as well as an advanced leadership-programming regimen that incorporates elements from the CEF's lieutenant-training course. Some early subjects have even undergone captain training, although there are no plans currently in the works to put a Ra at the head of an entire company of soldiers. In addition to leading troops into battle, Ras also strive to understand everything about their enemy. This knowledge includes history, culture, reactions and fears. Knowledge is the Ra's greatest weapon.

Specialized Leadership and Tactical Wetware ▶

Enhanced Cortex ▶

Improved Muscle and Vascular System ▶

☐ Attributes

AGI	+1	APP	0	BLD	+1	CRE	+1	FIT	+1
INF	+2	KNO	0	PER	+1	PSY	+1	WIL	+1
STR	+1	HEA	+1	STA	35	UD	7	AD	7

☐ Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	2	Defense	2	1	Medicine	1	1
Hand-to-Hand	2	1	Leadership	3	2	Melee	2	1	Notice	1	1
Small Arms	2	1									

☐ Character Costs

| Basic Character Costs: | 39 Character Points and 35 Skill Points (16 Skill Points remain for additional Skills) |
| Special Rules: | SLEDGEs get half XPs; they are not recommended as PC |

OGL Statistics ◆

Ra SLEDGE (Charismatic Hero 3): CR 4; Medium-size humanoid; HD 3d6+6; hp 19; Mas 14; Init +4; Spd 30 ft.; Defense 14, touch 14, flat-footed 10 (+2 Dex, +2 Class); BAB +1; Grap +3; Atk +3 melee (1d4+2, unarmed strike) or +3 ranged; Full Atk +3 melee (1d4+2, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +4, Will +2; AP 1; Rep +1; Str 14, Dex 14, Con 14, Int 13 Wis 13, Cha 15.

Occupation: Military (bonus class skills: Climb, Swim)

Skills: Bluff +5, Climb +5 Diplomacy +8, Intimidate +8, Knowledge (tactics) +7, Listen +4, Sense Motive +7, Spot +4, Swim +5, Treat Injury +4

Feats: Armor Proficiency (light), Combat Martial Arts, Dodge, Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: Coordinate, Inspiration

Special: Level Adjustment +2, Ra-class SLEDGEs count as three levels higher for CR and XP calculations. All Ra-class SLEDGEs start with the same ability scores, class levels, skills and feats.

4.7.2 - Bastet-Class SLEDGE

The Bastet SLEDGEs are designed to be able to use any type of hand-held weapon — from simple stone knives to complex infantry lasers. Many of the early test subjects of this class have even taken up archery, despite the apparent lack of need for it on a modern battlefield. In addition to the use of weapons, Bastet soldiers are adept at mechanical work and can repair or scratch-build most common field weapons. EGL chose to incorporate such programming into the Bastet regimen (and other SLEDGE training) in order to phase out the dedicated technician class. Not only does doing so reduce the number of specialists in the program, it also fosters a stronger appreciation in a soldier for his weapon. Even without their weapons, however, Bastet SLEDGEs are powerful unarmed fighters.

◀ Superior Hand/Eye Coordination

◀ Accelerated Nervous System

◀ Improved Muscle and Vascular System

Attributes

AGI	+2	APP	0	BLD	+1	CRE	0	FIT	+2
INF	0	KNO	+1	PER	+1	PSY	0	WIL	+1
STR	+1	HEA	+1	STA	35	UD	7	AD	7

Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	1	Defense	2	1	Medicine	1	1
Hand-toHand	2	1	Heavy Weapons	2	1	Tech Sci. •	2	1	Melee	2	1
Notice	1	1	Small Arms	3	1	Throwing	2	1	Tinker	1	1
*(Mechanics)											

Character Costs

Basic Character Costs:	38 Character Points and 41 Skill Points (11 Skill Points remain for additional Skills)
Special Rules:	SLEDGEs get half XPs; they are not recommended as PC

◆ OGL Statistics

Bastet SLEDGE (Strong Hero 3): CR 4; Medium-size humanoid; HD 3d8+6; hp 23; Mas 14; Init +2; Spd 30 ft.; Defense 14, touch 14, flat-footed 10 (+2 Dex, +2 Class); BAB +3; Grap +5; Atk +5 melee (1d4+2, unarmed strike) or +5 ranged; Full Atk +5 melee (1d4+2, unarmed strike) or +5 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +3, Will +2; AP 1; Rep +0; Str 17, Dex 17, Con 14, Int 13 Wis 13, Cha 12.

Occupation: Military (bonus class skills: Climb, Swim)

Skills: Climb +4, Jump +4, Knowledge (tactics) +4, Listen +2, Repair +4, Spot +2, Swim +6, Treat Injury +4

Feats: Advanced Firearms Proficiency, Armor Proficiency (light), Combat Martial Arts, Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: Coordinate, Inspiration

Special: Level Adjustment +2, Bastet-class SLEDGEs count as three levels higher for CR and XP calculations. All Baset-class SLEDGEs start with the same ability scores, class levels, skills and feats.

Isis-Class SLEDGE - 4.7.3

Isis-class soldiers handle counter-intelligence and information gathering. They are quintessential messengers, spies and saboteurs, and their skills complement those of the Set-class SLEDGE; most plans for Set deployment call for an Isis as the Set's "handler" and mission controller, working behind the scenes via remote commlinks. Isis SLEDGEs will also be deployed in the battlefield roles currently reserved for Kassandra-class GRELs: electronic warfare, signals intelligence and C3 operations. In a move consistent with next-generation programming, the Isis soldiers are fully capable of servicing and repairing their equipment, further obviating the need for a dedicated technician soldier.

◄ Communication Wetware

◄ Improved Muscle and Vascular System

▢ Attributes

AGI	+1	APP	0	BLD	0	CRE	+2	FIT	+1
INF	0	KNO	+2	PER	+1	PSY	0	WIL	+1
STR	0	HEA	+1	STA	30	UD	4	AD	4

▢ Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	1	Info. Warfare	3	2	Tech Sci. •	2	1
Tech Sci. **	2	1	Defense	2	1	Medicine	1	1	Hand-to-Hand	1	1
Notice	1	1	Small Arms	1	1	*(Computer)		**(Electronics)			

▢ Character Costs

Basic Character Costs:	38 Character Points and 34 Skill points (18 Skill Points remain for additional Skills)
Special Rules:	SLEDGEs get half XPs; they are not recommended as PC

Isis SLEDGE (Dedicated Hero 1/ Smart Hero 2): CR 4; Medium-size humanoid; HD 3d6+6; hp 23; Mas 14; Init +2; Spd 30 ft.; Defense 14, touch 14, flat-footed 10 (+2 Dex, +2 Class); BAB +1; Grap +2; Atk +2 melee (1d4+1, unarmed strike) or +3 ranged; Full Atk +2 melee (1d4+1, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +1, Ref +2, Will +4; AP 1; Rep +2; Str 13, Dex 14, Con 11, Int 17 Wis 15, Cha 10.
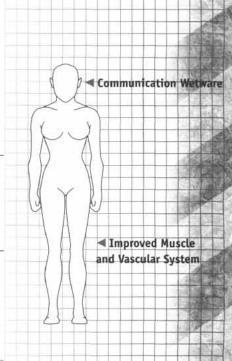
Occupation: Investigative (bonus class skills: Gather Information, Investigate)

Skills: Climb +2, Computer Use +11, Decipher Script +10, Gather Information +5, Jump +2, Investigate +7, Knowledge (tactics) +5, Knowledge (technology) +7, Listen +6, Repair +8, Sense Motive +6, Spot +6, Swim +2, Treat Injury +6

Feats: Armor Proficiency (light), Combat Expertise, Combat Martial Arts, Personal Firearms Proficiency, Simple Weapons Proficiency.
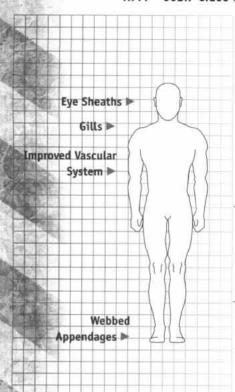
Talents: Savant (Decipher Script), Skill Emphasis (Computer Use)

Special: Level Adjustment +2, Isis-class SLEDGEs count as three levels higher for CR and XP calculations. All Isis-class SLEDGEs start with the same ability scores, class levels, skills and feats.

4.7.4 - Sobk-Class SLEDGE

The Sobk-class SLEDGE is a dramatic exception to EGL's efforts to make the new generation of super-soldier appear more human. Engineered to operate in an aquatic environment, the Sobk features gills, eye sheaths, webbed appendages and the ability to dive to depths of a few hundred meters without adverse physiological effects. In many ways, the Sobk represents a step backward to the Vaween super-soldier, and the radical physical modifications have resulted in a creature that is only cursorily human. It is otherwise a master of its environment, however. The urgency of the Atlantis campaign and the need to field a superior aquatic combatant are all that drive the continuing development of the Sobk; most project scientists have strong doubts regarding its success. The EGL is currently considering terminating the Sobk-Class development and redistributing any leftover funds to the development of the other SLEDGEs.

Eye Sheaths ▶

Gills ▶

Improved Vascular System ▶

Webbed Appendages ▶

Attributes

AGI	+1	APP	-2	BLD	0	CRE	+1	FIT	+3
INF	0	KNO	+1	PER	+1	PSY	-1	WIL	+1
STR	+1	HEA	+1	STA	30	UD	6	AD	6

Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	3	2	Stealth	2	1	Combat Sense	2	1	Demolition	1	1
Defense	2	1	Gunnery (Naval)	1	1	Hand-to-Hand	2	1	Heavy Weapons	2	1
Melee	2	1	Pilot (Naval)	1	1	Navigation (Sea)	1	1	Small Arms	2	1
Survival	2	1									

Character Costs

Basic Character Costs:	37 Character Points and 49 Skill Points (4 Skill Points remain for additional Skills)
Special Rules:	SLEDGEs get half XPs; they are not recommended as PC.

◆ OGL Statistics

Sobk SLEDGE (Strong Hero 2/ Tough Hero 1): CR 4; Medium-size humanoid (Aquatic); HD 3d6+3; hp 22; Mas 12; Init +3; Spd 30 ft., Swim 40 ft.; Defense 16, touch 16, flat-footed 10 (+3 Dex, +3 Class); BAB +2; Grap +5; Atk +5 melee (1d4+4, unarmed strike) or +5 ranged; Full Atk +5 melee (1d4+4, unarmed strike) or +5 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +5, Ref +3, Will +2; AP 1; Rep +0; Str 17, Dex 16, Con 12, Int 14 Wis 14, Cha 8.

Occupation: Military (bonus class skills: Demolitions, Navigate)

Skills: Climb +5, Demolitions +5, Drive +5, Jump +5, Knowledge (tactics) +7, Navigate +5, Swim +16, Survival +4

Feats: Armor Proficiency (light), Combat Martial Arts, Personal Firearms Proficiency, Simple Weapons Proficiency, Surface Vehicle Operations (ship).

Talents: Robust, Melee Smash

Amphibious: Although Sobk-class SLEDGEs are aquatic, they can survive indefinitely on land.

Species Bonus: A Sobk-class SLEDGE has a +8 racial bonus on any Swim check to perform some special action or avoid a hazard. It can always choose to take 10 on a Swim check, even if distracted or endangered. It can use the run action while swimming, provided it swims in a straight line.

Special: Level Adjustment +2, Sobk-class SLEDGEs count as three levels higher for CR and XP calculations. All Sobk-class SLEDGEs start with the same ability scores, class levels, skills and feats.

Bes-Class SLEDGE - 4.5.5

Combining the best features of the Minerva-, Maxwell- and Isaac-class GRELs, the Bes-class SLEDGE is a master of vehicular combat. Not only can it pilot nearly any vehicle the CEF fields, it has the ability to perform field repairs and routine maintenance as well. By integrating the maintenance and operation of a vehicle into the neural programming of a single soldier, EGL has created a fighter that is, in many ways, "one with its machine." Current Bes programming focuses strongly on the NEC's new Battle Frames, but later regimens will include hovertank, aerospace fighter and submarine operations variants.

Superior Hand/Eye Coordination ▶

Accelerated Nervous System ▶

Improved Muscle and Vascular System ▶

▢ Attributes

AGI	+2	APP	0	BLD	0	CRE	+1	FIT	+1
INF	0	KNO	+1	PER	+2	PSY	0	WIL	+1
STR	0	HEA	+1	STA	30	UD	4	AD	4

▢ Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	1	Defense	2	1	Info. Warfare	1	1
Tech Sci. *	1	1	Medicine	1	1	Gunnery (mecha)	2	1	Hand-to-Hand	1	1
Pilot (mecha)	3	1	Tech Sci.	1	1	Notice	1	1	Small Arms	1	1
• (Electronics)			** (Mechanics)								

▢ Character Costs

Basic Character Costs:	38 Character Points and 29 Skill Points (23 Skill Points remain for additional Skills)
Special Rules:	SLEDGEs get half XPs; they are not recommended as PC.

OGL Statistics ●

Bes SLEDGE (Fast Hero 3): CR 4; Medium-size humanoid; HD 3d8; hp 17; Mas 12; Init +3; Spd 30 ft.; Defense 17, touch 17, flat-footed 10 (+3 Dex, +4 Class); BAB +2; Grap +4; Atk +4 melee (1d4+2, unarmed strike) or +5 ranged; Full Atk +4 melee (1d4+2, unarmed strike) or +5 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +1, Ref +5, Will +3; AP 1; Rep +1; Str 14, Dex 17, Con 11, Int 13 Wis 15, Cha 10.

Occupation: Military (bonus class skills: Knowledge (tactics), Investigate)

Skills: Computer Use +3, Craft (mechanical) +5, Drive +9, Knowledge (tactics) +5, Spot +4, Survival +4, Treat Injury +3, Tumble +9

Feats: Advanced Firearms Proficiency, Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency, Surface Vehicle Operation (frame)

Talents: Evasion, Uncanny Dodge 1
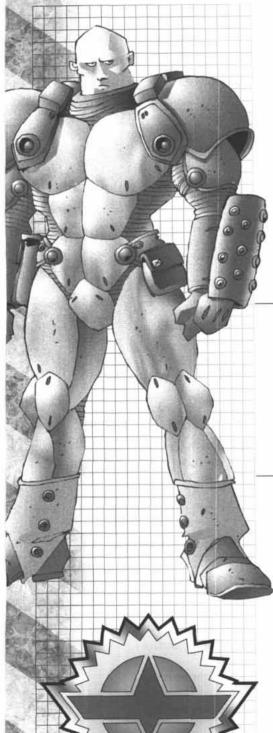
Special: Level Adjustment +2, Bes-class SLEDGEs count as three levels higher for CR and XP calculations. All Bes-class SLEDGEs start with the same ability scores, class levels, skills and feats.

4.7.6 - Osiris Class SLEDGE

The Osiris SLEDGEs are the second-best trained of the new generation of soldiers. They are jacks-of-all-trades, designed not to be as specialized as any one member of their teams, but knowledgeable enough to cover another SLEDGE's duties if the need arises. The CEF refers to them as wild cards since they are highly adaptive and imaginative. They are the ones most likely to come up with non-linear solutions to problems in the field, and their uncanny insights into tactical challenges surprises most conventional strategists. An Osiris SLEDGE's tactical skills paired with a Ra SLEDGE's leadership skills is proving to be a powerful combination.

◀ Improved Hand/Eye Coordination

◀ Accelerated Nervous System

◀ Improved Muscle and Vascular System

Attributes

AGI	+1	APP	0	BLD	+1	CRE	+2	FIT	+1
INF	+1	KNO	0	PER	+1	PSY	+1	WIL	+1
STR	+1	HEA	+1	STA	35	UD	7	AD	7

Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	3	2	Defense	2	1	Medicine	1	1
Hand-to-hand	2	1	Leadership	2	1	Melee	2	1	Notice	1	1
Small Arms	2	1									

Character Costs

| Basic Character Costs: | 39 Character Points and 32 Skill Points (19 Skill Points remain for additional Skills) |
| Special Rules: | SLEDGEs get half XPs; they are not recommended as PC |

◆ OGL Statistics

Osiris SLEDGE (Smart Hero 3): CR 4; Medium-size humanoid; HD 3d6+6; hp 23; Mas 14; Init +2; Spd 30 ft.; Defense 13, touch 13, flat-footed 10 (+2 Dex, +1 Class); BAB +1; Grap +3; Atk +3 melee (1d4+2, unarmed strike) or +3 ranged; Full +3 melee (1d4+2, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +3, Ref +3, Will +4; AP 1; Rep +2; Str 14, Dex 14, Con 14, Int 15 Wis 15, Cha 13.

Occupation: Military (bonus class skills: Climb, Swim)

Skills: Climb +4, Computer Use +8, Decipher Script +8, Diplomacy +4, Knowledge (physical sciences) +10, Knowledge (tactics) +13, Navigate +8, Repair +8, Spot +5, Survival +4, Swim +4, Treat Injury +4

Feats: Armor Proficiency (light), Dodge, Educated, Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: Savant (Knowledge (tactics)), Plan

Special: Level Adjustment +2, Osiris-class SLEDGEs count as three levels higher for CR and XP calculations. All Osiris-class SLEDGEs start with the same ability scores, class levels, skills and feats.

Set-Class SLEDGE - 4.7.7

Set-class soldiers are infiltrators and quiet assassins. They are adept at handling most social situations, with strong emphasis on seduction and body language, a characteristic at sharp odds with most preconceived notions of the CEF's super-soldiers. Sets are well versed in a broad field of "mundane" knowledge, and EGL's engineers refer to them as "masters of interesting small-talk." Although neither the CEF nor EGL has ever admitted to the existence of a Jezebel-class GREL, the Set will be perfectly capable of taking on the roles associated with the mythical soldiers. Rumor even suggests the Set-class SLEDGE is the Jezebel-class GREL finally made public.

◄ Enhanced Social Cervical Centers

◄ Improved Appearance

◄ Improved Muscle and Vascular System

Attributes

AGI	+1	APP	+1	BLD	0	CRE	+1	FIT	+1
INF	+1	KNO	+1	PER	+1	PSY	+2	WIL	+1
STR	0	HEA	+1	STA	30	UD	4	AD	4

Skills

Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx	Skill	Level	Cpx
Athletics	1	1	Combat Sense	2	1	Defense	2	1	Etiquette	2	1
Medicine	1	1	Hand-to-hand	1	1	Notice	3	2	Seduction	2	1
Small Arms	1	1	Performance Art *2	1		*(theatrics)					

Character Costs

Basic Character Costs:	42 Character Points and 37 Skill Points (11 Skill Points remain for additional Skills)
Special Rules:	SLEDGEs get half XPs; they are not recommended as PC

OGL Statistics ◆

Set SLEDGE (Charismatic Hero 3): CR 4; Medium-size humanoid; HD 3d6+6; hp 19; Mas 14; Init +2; Spd 30 ft.; Defense 13, touch 13, flat-footed 10 (+2 Dex, +1 Class); BAB +1; Grap +3; Atk +3 melee (1d4+2, unarmed strike) or +3 ranged; Full Atk +3 melee (1d4+2, unarmed strike) or +3 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +4, Will +3; AP 1; Rep +2; Str 13, Dex 14, Con 13, Int 14 Wis 14 Cha 15.

Occupation: Investigative (bonus class skills: Forgery, Sense Motive)
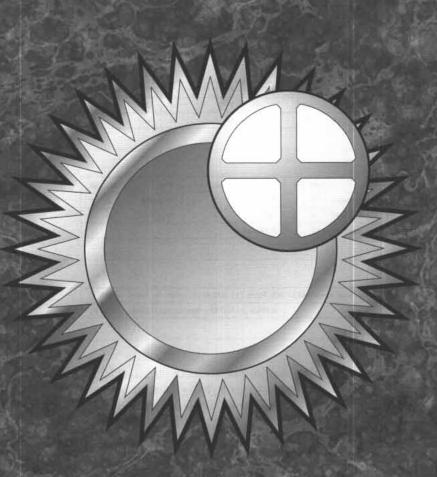
Skills: Bluff +10, Climb +2, Diplomacy +8, Disguise +10, Forgery +8, Gather Information +8, Knowledge (streetwise) +8, Sense Motive +8, Spot +4.

Feats: Armor Proficiency (light), Combat Martial Arts, Deceptive, Personal Firearms Proficiency, Simple Weapons Proficiency.

Talents: Charm, Fast-Talk

Special: Level Adjustment +2, Set-class SLEDGEs count as three levels higher for CR and XP calculations. All Set-class SLEDGEs start with the same ability scores, class levels, skills and feats.

Chapter 5: Earth Infantry

This chapter provides a detailed listing and description of all the typical infantry formations fielded by the CEF and other Earth armed forces. There are a few other types that may be specific to individual battle groups but most will follow the standard listings seen here.

STRUCTURE OF INFANTRY BATTLE GROUPS - 5.1

The structure of CEF battle groups is pyramidal with the "weaker" and more inexperienced units supporting the more powerful units above them. This structure allows Players and Gamemasters to create their own unique infantry battle groups while maintaining a modicum of realism and believability. Troopers with exceptional abilities and the highly advanced training required to use them to their best advantage are still a relative rarity, even among the hardened veterans of WWIII, and the army listing reflects this by restricting their numbers.

Patrol types are further broken down by type into Standard, Senior and Prime patrols (or their equivalents). There are always more Standard patrols than Senior ones, just as there are more Seniors than Primes. Standard patrols are self-explanatory, since they are the basics common to most any battle group. Senior patrols are mostly composed of veterans who have seen combat and have developed good battle reflexes. Prime patrols have the best personnel the CEF has to offer, the best training, the best equipment, the best support and so on. Most Standard patrols will not have developed any Special Ability yet, whereas most Senior and Prime patrols will have the advantages of some special training that is listed for each patrol.

Building Infantry Battle Groups - 5.1.1

PATROL	10 x Troopers or Soldiers
TROOP	3 x Patrols (30 personnel)
COMPANY	4 x Troops (120 personnel)
BATTLE GROUP	3 x Companies (360 personnel) + 1 x Support Company (120 personnel) + 1 x Command Troop (30 personnel) = 510 personnel total
BRIGADE	3 x Battle Groups + 1 x Support Groups + 1 x Command Company
DIVISION	3 x Brigades

Many patrol types have requirements that must be met before the patrol can be added to the roster. Standard Basic patrols have a requirement of "None" meaning that there is no limit to the number of these patrols in a formation. A Standard Heavy Weapons patrol, however, has a basic requirement of "Any Basic x 2," which means that there needs to be two Basic patrols (of any type) on the roster before the Standard Heavy Weapons patrol can be added. If enough patrols of a given type are on the roster, then a higher-level patrol may be added. If for instance a Prime Basic Patrol were desired the basic requirements are "Any Basic x 2" and the upgrade requirements are "Senior Basic x 2." This would necessitate the inclusion on the roster of six Standard Basic patrols, four of which would be supporting the two Senior Basic patrols while the remaining two Standard Basic patrols and the two Senior Basic patrols support the Prime Basic patrol. Of these nine patrols, only the Prime Basic patrol would be available for supporting the requirements of any other patrols in the formation, although they need not be grouped in the same troop or company of a battle group.

Some patrols may only be available in very limited numbers for any given formation. For instance there can only be three Commando patrols per battle group. If the formation being built is smaller than the required size (in this case a Battle Group) then the patrols are simply not available to be put on the roster. Finally, for convenience the patrol leader is listed first even though he may be placed anywhere within the patrol's damage track.

GRELs as Infantry - 5.1.2

GRELs are more like biological machines than modified humans and some special rules need to be applied in their case. They have little regard for their own existence at first and many have a highly fanatical approach to warfare. They will sacrifice themselves if needed and it takes many years of independent living for them to break their hypnotraining. GRELs are immune to the effects of fear and doubt, and will not be pinned down in combat if they fumble their Combat Sense tests.

Mordred Class GRELs are strong and loyal but lacking in personal initiative. If the Jan commanding a Mordred patrol becomes a casualty, the surviving Mordred soldiers will automatically fail to win initiative each combat round unless an active leader takes over. Their other infantry skills remain unaffected, however.
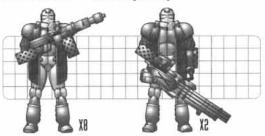
5.2 - BASIC

Basic patrols are the core units in any infantry battle group. They are the troopers who take and hold ground from the enemy, while the armor groups get all the glory and aerospace takes all the credit. A CEF infantry trooper carries more firepower than most any other comparable trooper in human history and benefits from reliable communications with other members of the patrol. Protection is provided through the use of high tech body armor with a wide variety of built in sensory enhancing devices possible. All infantry troopers start their military careers in basic patrols until they have proven themselves, often in combat. With the exception of Trainee patrols, all Basic patrols have nightvision gear at no cost.
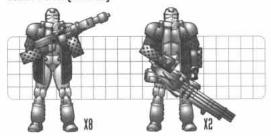
Special Abilities & Variations

Senior Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Prime Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard Patrol - Trainee	None	N/A
Standard Patrol	None	N/A
Senior Patrol	None	Standard Basic x 2
Prime Patrol	Any Basic x 2	Senior Basic x 2

Standard Patrol — Trainee (Rookie)

X8   X2
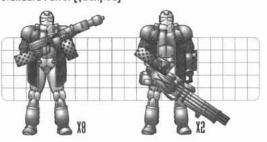
- 8x Lvl 1 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 1 Trooper, w/Light Flak, 10mm Machinegun

Standard Patrol (Qualified)

X8   X2

- 8x Lvl 2 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 2 Trooper, w/Light Flak, 10mm Machinegun

Senior Patrol (Veteran)

X8   X2

- 8x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Heavy Flak, 10mm Machinegun

Prime Patrol (Veteran)

X8   X2

- 8x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Heavy Flak, 45mm Rocket Launcher

HEAVY WEAPONS - 5.3

Heavy weapons patrols provide the common infantry trooper with the sort of firepower needed to seize control of a battlefield from a hostile force. Armed with heavier weapons than their Basic counterparts, these troopers have proven themselves in combat before and will not shy away easily in the face of determined opposition. In fact, most of their armament is quite capable of disabling and or destroying lightly armored combat vehicles. Heavy Weapons patrols are typically deployed in either an offensive or defensive posture depending on whether they are being tasked with an assault or a holding action. All Heavy Weapon patrols may use nightvision gear at no cost.
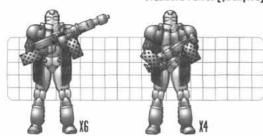
☐ Special Abilities & Variations

Assault Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Marksmen Patrol Ability:	*Deadeye Marksmanship:* Once per combat, the patrol may reroll one attack roll and take the best result
Marksmen Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Prime Patrol Ability:	*Heavy Bombardment:* The patrol may add +1 to the ROF of its mortar attack for purposes of Walking Fire only in any combat round the patrol remains stationary
Prime Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)

☐ Patrol Composition Rules
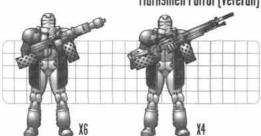
	Basic Requirement	Upgrade Requirement
Standard Patrol	Any Basic x 2	N/A
Assault Patrol	Any Basic x 2	N/A
Marksmen Patrol	Any Basic x 2	Standard Heavy Weapons x 2
Prime Patrol	N/A	Any Heavy Weapons x 3

Standard Patrol (Qualified)

X6   X4
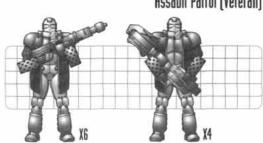
- 6x Lvl 2 Trooper, w/Light Flak, Infantry Laser
- 4x Lvl 2 Trooper, w/Light Flak, 55mm Infantry Mortar

Assault Patrol (Veteran)

X6   X4

- 6x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 4x Lvl 3 Trooper, w/Heavy Flak, 45mm Rocket Launcher

Marksmen Patrol (Veteran)
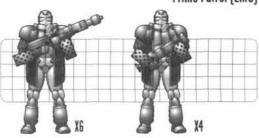
X6   X4

- 6x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 4x Lvl 3 Trooper, w/Heavy Flak, 23mm anti-Material Rifle

Prime Patrol (Elite)

X6   X4

- 6x Lvl 4 Trooper, w/Heavy Flak, Infantry Laser
- 4x Lvl 4 Trooper, w/Heavy Flak, 55mm Infantry Mortar
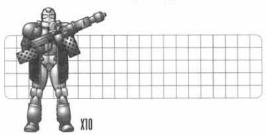
5.4 - RECON

Being able to get reliable field intelligence is absolutely vital to a CEF commander. Recon patrols are teams of lightly armed and armored troopers whose job is to scout areas away from the main body of a battle group and report back to base. Recon patrols are not expected to fight heavy battles and it is preferred that they not engage enemy forces that they may encounter. All Recon patrols except Trainees may use nightvision gear at no cost (trainees are not provided with extra equipment until they have completed their initiation and field training period). Furthermore, all Recon patrols may also be split into two five-trooper (or two five-soldier) fireteams for Skirmish games, before the game begins.

Special Abilities & Variations

Standard Patrol:	*Camouflage Training:* Add +1 to Concealment of patrol while in terrain with an Obscurement of 1 or more
Senior Patrol:	*Stealth Training:* Add +1 to Concealment of patrol at all times
Senior Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Prime Patrol:	*Advanced Stealth Training:* Add +1 to Obscurement of patrol at all times
Prime Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
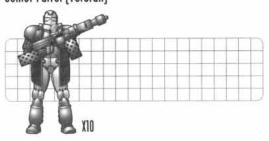
Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard Patrol - Trainee	None	N/A
Standard Patrol	None	N/A
Senior Patrol	None	Standard Recon x 2
Prime Patrol	Any Recon x 2	Senior Recon x 2

Standard Patrol — Trainee (Rookie)

X10
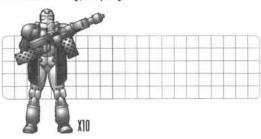
- 10x Lvl 1 Trooper, w/Light Flak, Infantry Laser
- No Heavy Weapon

Standard Patrol (Qualified)

X10

- 10x Lvl 2 Trooper, w/Light Flak, Infantry Laser
- No Heavy Weapon

Senior Patrol (Veteran)

X10

- 10x Lvl 3 Trooper, w/Light Flak, Infantry Laser
- No Heavy Weapon

Prime Patrol (Elite)

X10

- 10x Lvl 4 Trooper, w/Light Flak , Infantry Laser
- No Heavy Weapon

ARMED RECON - 5.5
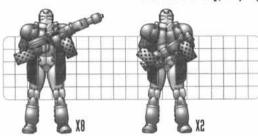
Armed Recon patrols have a similar mission profile as their Recon brethren, but are sent into areas where enemy contact is expected. They are therefore tasked with scouting areas that may easily prove too hazardous for a more lightly armed Recon patrol. Their primary duty however is to report any contacts back to base and if necessary keep harassing an enemy until reinforcements can arrive. Armed Recon patrols are often deployed as skirmishers along an enemy's flank to keep them pinned in position while the rest of the battle group moves in force against any weak points. All Armed Recon patrols may use nightvision gear at no cost and may also be split into two five-trooper (or two five-soldier) teams for Skirmish games, before the game begins.

☐ Special Abilities & Variations

Marine Variations:	Patrol uses Diving Equipment (Submarine movement: 6 MP)
Senior Patrol:	*Satellite Uplink:* Patrol may access orbital communications when stationary.
Senior Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Senior Marine Patrol:	*Satellite Uplink:* Patrol may access orbital communications when stationary.
Senior Marine Variations:	Patrol uses Diving Equipment (Submarine movement: 6 MP)

☐ Patrol Composition Rules
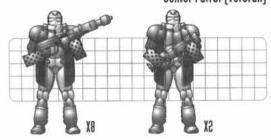
	Basic Requirement	Upgrade Requirement
Standard Patrol	Any Recon x 2	N/A
Marine Patrol	Any Recon x 2	N/A
Senior Patrol	Any Recon x 2	Standard Armed Recon x 2
Senior Marine Patrol	Any Recon x 2	Marine Armed Recon x 2

Standard Patrol (Qualified)
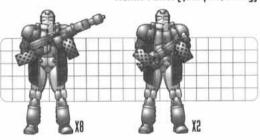
X8   X2

- 8x Lvl 2 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 2 Trooper, w/Light Flak, 55mm Infantry Mortar

Marine Patrol (Qualified, Diving)

X8   X2

- 8x Lvl 2 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 2 Trooper, w/Light Flak, 55mm Infantry Mortar

Senior Patrol (Veteran)

X8   X2

- 8x Lvl 2 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 2 Trooper, w/Heavy Flak, 55mm Infantry Mortar

Senior Marine Patrol (Veteran, Diving)

X8   X2

- 8x Lvl 2 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 2 Trooper, w/Heavy Flak, 55mm Infantry Mortar

EARTH INFANTRY
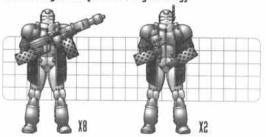
5.6 - FIELD SPECIALISTS

Field Specialists are dedicated individuals who have received additional training in one particular field of specialty. These troopers are comparatively rare because of this and are usually found only at the Company level and higher. Unlike other infantry patrols, these troopers are not expected to engage the enemy directly; instead they use their training and specialized equipment to benefit friendly forces indirectly. Many specialists are regular line troopers who have received training in field engineering techniques. Spotters are brave individuals who get into the fiercest fighting to designate targets for destruction by friendly armor and aerospace assets.

Special Abilities & Variations

Combat Engineers Variations:	Patrol may field Minesweeper Drones
NBC Specialists Ability:	*Advanced NBC Training:* May use Environment Suits without penalty
NBC Specialists Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Demolition Ability:	Patrol may use Satchel and Demolition Charges
Demolition Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Spotters Ability:	*Stealth Training:* Add +1 to Concealment of patrol at all times
Spotters Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)

Patrol Composition Rules
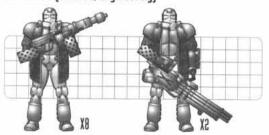
	Basic Requirement	Upgrade Requirement
Combat Engineers	Any Basic x 5	N/A
NBC Specialists	1 per Company max	N/A
Demolition	1 per Company max	N/A
Spotters	Senior Recon x 2	N/A

Combat Engineers (Veteran, Engineering)

X8   X2
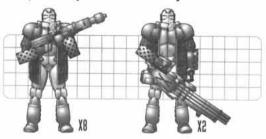
- 8x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Heavy Flak, Mine Sensors

NBC Specialists (Veteran, Environment)

X8   X2

- 8x Lvl 3 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Heavy Flak, 10mm Machinegun

Demolition (Veteran, Engineering)

X8   X2

- 8x Lvl 3 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Light Flak, 10mm Machinegun

Spotters (Veteran)

X8   X2

- 8x Lvl 3 Trooper, w/Light Flak, Infantry Laser
- 2x Lvl 3 Trooper, w/Light Flak, Target Designator

SPECIAL FORCES - 5.7

Special Forces patrols are given that name because they tend to be either so specialized or so rare that one or two at most will be assigned to a given battle group. Under no circumstances are they found below the Company level. The rarest of all CEF infantry, and probably the most powerful, are the elite Valkyries. The men and women called to the Valkyries are taken from the cream of the troops and submitted to an extensive training program. They wear advanced polymer/ceramic flak suits to which jump packs may be attached, and they are unshakable in their loyalty and service to the Commonwealth. Rumors abound that the Valkyries have undergone genetic engineering themselves, outside of Elite Genome Labs' GREL program.

☐ Special Abilities & Variations

Snipers Ability:	*Camouflage Training:* Add an additional +1 to Concealment at all times
Snipers Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Bunker Busters Ability:	*Anti-Structure:* All attacks directed at static structures (not vehicles) do double damage
Bunker Busters Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Commandos Ability:	*Stealth Training:* Add +1 to Concealment of patrol at all times
Commandos Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Valkyries Ability:	*Total Warriors:* Troopers are Fanatics, pass all WIL or PSY tests
Valkyries Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)

☐ Patrol Composition Rules
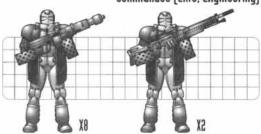
	Basic Requirement	Upgrade Requirement
Snipers	3 per Battle Group max	N/A
Bunker Busters	Demolition Field Specialist	N/A
Commandos	3 per Battle Group max	N/A
Valkyries	1 per Brigade max	N/A

Snipers [Elite, Sniper]

X1   X1
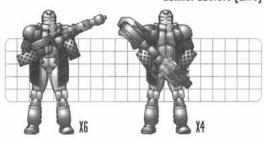
- 1x Lvl 4 Trooper, w/Heavy Flak, Infantry Laser
- 1x Lvl 4 Trooper, w/Heavy Flak, 23mm anti-Material Rifle

Bunker Busters [Elite]

X6   X4

- 6x Lvl 4 Trooper, w/Heavy Flak, Infantry Laser
- 4x Lvl 4 Trooper, w/Heavy Flak, 45mm Rocket Launcher

Commandos [Elite, Engineering]

X8   X2
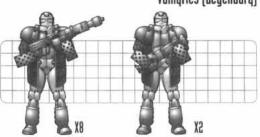
- 8x Lvl 4 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 4 Trooper, w/Heavy Flak, 23mm anti-Material Rifle

Valkyries [Legendary]

X8   X2

- 8x Lvl 5 Trooper, w/Heavy Flak, Infantry Laser
- 2x Lvl 5 Trooper, w/Heavy Flak and 55mm Infantry Mortar
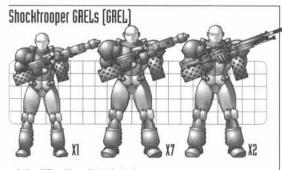
5.8 - MORDRED GRELS
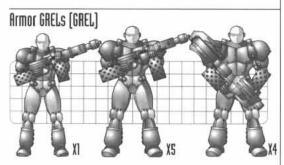
Mordred GRELs are the both the backbone and crust of every offensive by CEF infantry. They are the soldiers who hold the frontlines against the enemy and are the first to be thrown into any breach. Mordreds are the ones an approaching force can first expect to encounter when advancing upon a CEF position. With their almost inhuman strength and hypnotraining, Mordreds can be expected to fight to the bitter end. Mordreds unfortunately require a Jan GREL or a human trooper to issue orders to them as their personal initiative is quite poor. All GREL patrols are issued nightvision gear at no extra cost.

Special Abilities & Variations

Shocktrooper GRELs Ability:	*Unstoppable Force:* Non-CEF personnel confronted by Shocktrooper GRELs must make a WIL test vs. 4 whenever two or more GRELs are hit in a combat round but do not become casualties
Shocktrooper GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Airborne GRELs:	*Veteran Jumpers:* Add a +1 modifier to Parachuting Skill tests for landing in a specific locations
Airborne GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Panzer GRELs:	*Uncanny Accuracy:* Once per scenario, an enemy vehicle must reroll a defensive Piloting test and take the low result
Panzer GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Pacification GRELs:	*Intimidating Appearance:* Opponents faced ed by Pacification GRELs must make an immediate WIL test vs. 4
Pacification GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
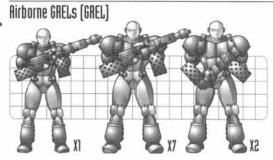
Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
All GRELs Units	GREL-only company	None

Shocktrooper GRELs [GREL]

X1   X7   X2

- 1x Jan GREL w/Heavy Flak, Infantry Laser
- 7x Mordred GREL w/Heavy Flak, Infantry Laser
- 2x Mordred GREL w/Heavy Flak . 23mm anti-Material Rifle

Airborne GRELs [GREL]

X1   X7   X2

- 1x Jan GREL w/Heavy Flak, Infantry Laser
- 7x Mordred GREL w/Heavy Flak, Infantry Laser
- 2x Mordred GREL w/Heavy Flak, 55mm Infantry Mortar

Armor GRELs [GREL]

X1   X5   X4
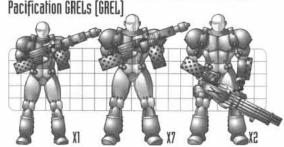
- 1x Jan GREL w/Heavy Flak, Infantry Laser
- 5x Mordred GREL w/Heavy Flak and Infantry Laser
- 4x Mordred GREL w/Heavy Flak and 45mm Rocket Launcher

Pacification GRELs [GREL]

X1   X7   X2

- 1x Jan GREL w/Heavy Flak, Infantry Laser
- 7x Mordred GREL w/Heavy Flak and Infantry Laser
- 2x Mordred GREL w/Heavy Flak and 10mm Machinegun

MORGANA GRELS - 5.9

Morgana GRELs are the scouts, snipers and commandos of the Colonial Expeditionary Forces. Their job is to spot the enemy, harass the flanks and disrupt smooth operations. Morganas pride themselves on their efficiency and independence, most notable in the fact that very few Jans are ever assigned to oversee their missions, except in a liaison capacity. Where Mordreds are all about brute force and unstoppable momentum, Morgana GRELs are the lost shadows that roam the battlefield as a force of swift, silent and sudden death. All GREL patrols are issued nightvision gear at no extra cost. All Morgana GREL patrols except Snipers can be divided into two five-soldier groups for smaller interventions.
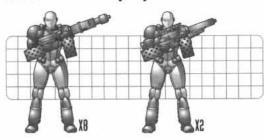
⊞ Special Abilities & Variations

Forward Observer GRELs Ability:	*Satellite Uplink:* Patrol may access orbital communications when stationary
Forward Observer GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Commando GRELs Ability:	*Stealth Training:* Add +1 to Concealment at all times; Patrol may also purchase Satchel Charges
Commando GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)
Aquatic Assault GRELs Ability:	*Advanced Demolitions:* The patrol can place charges in two rounds instead of the usual four. Patrol may also purchase Satchel Charges
Aquatic Assault GRELs Variations:	Patrol uses Diving Equipment (Submarine movement: 6 MP)
Sniper GRELs Ability:	*Camouflage Training:* Add an additional +1 to Concealment at all times
Sniper GRELs Variations:	Patrol may use Jump Packs (Hover movement: 6 MP)

⊞ Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
All GRELs Units	GREL-only company	None
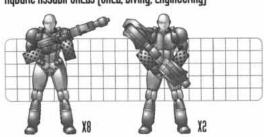
Forward Observer GRELs [GREL]

X8   X2
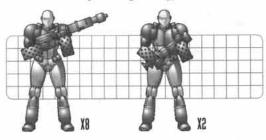
- 8x Morgana GREL w/Heavy Flak, Infantry Laser
- 2x Morgana GREL w/Heavy Flak, Target Designator

Commando GRELs [GREL, Engineering]

X8   X2

- 8x Morgana GREL w/Heavy Flak, Infantry Laser
- 2x Morgana GREL w/Heavy Flak and 55mm Infantry Mortar

Aquatic Assault GRELs [GREL, Diving, Engineering]

X8   X2

- 8x Morgana GREL w/Heavy Flak, Infantry Laser
- 2x Morgana GREL w/Heavy Flak and 45mm Rocket Launcher
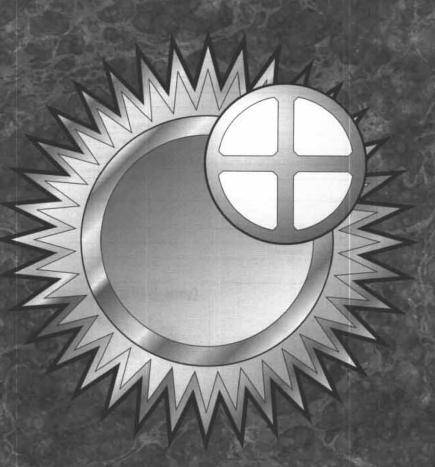
Sniper GRELs [GREL, Sniper]

X1   X1

- 1x Morgana GREL w/Heavy Flak, Infantry Laser
- 1x Morgana GREL w/Heavy Flak and 23mm anti-Material Rifle

Chapter 6: Earth Armor

This chapter provides a detailed listing and description of the armored forces typically found in the CEF and other armies of Earth. There are a few other types that may be specific to individual battle groups but most will follow the standard listings seen here.

STRUCTURE OF ARMOR BATTLE GROUPS - 6.1

The structure of armored CEF battle groups is also pyramidal with the "weaker" and more inexperienced units supporting the more powerful units above them. This structure allows Gamemasters to create their own unique armored battle groups while maintaining a modicum of realism and believability. The composition of armored groups however depends greatly upon their assigned duties and mission role, with most being a combination of armored assault units, mechanized infantry and artillery support. In general all armored battle groups are expected to be able to perform one centrally important task, break enemy lines and seize ground.

The CEF is also undergoing a major cycle of rearming and reequipping its forces with the newly developed Battle Frames. This process is far from complete and at present only the 3rd and 8th Fleets, both presently stationed in the Caprice system, are currently able to take advantage of this rebuilding program.

Building Armor Battle Groups - 6.1.1

PATROL	4 x Vehicles (usually, some may vary)
TROOP	3 x Patrols (12 vehicles)
COMPANY	4 x Troops (48 vehicles)
BATTLE GROUP	3 x Companies (144 Vehicles) + 1 x Support Company + 1 x Command Troop
BRIGADE	3 x Battle Groups + 1 x Support Groups + 1 x Command Company
DIVISION	3 x Brigades

Many patrol types have requirements that must be met before the patrol can be added to the roster. Standard Garrison patrols have a requirement of "None" meaning that there is no limit to the number of these patrols in a formation. A Standard Artillery patrol, however, has a basic requirement of "Any Assault x 2," which means that there needs to be two Assault patrols (of any type) on the roster before the Standard Artillery patrol can be added. If enough patrols of a given type are on the roster, then a higher-level patrol may be added. If for instance a Prime Scout patrol were desired the basic requirements are "Any Scout x 2" and the upgrade requirements are "Senior Scout x 2." This would necessitate the inclusion on the roster of six Standard Scout patrols, four of which would be supporting the two Senior Scout patrols while the remaining two Standard Scout patrols and the two Senior Scout patrols support the Prime Scout patrol. Of these nine patrols, only the Prime Scout patrol would be available for supporting the requirements of any other patrols in the formation, although they need not be grouped in the same troop or company of a battle group.

Some patrols may only be available in very limited numbers for any given formation. For instance the number of Standard Assault patrols cannot exceed half a battle group's strength. If the formation being built is smaller than the required size (in this case a single Battle Group) then the patrols are simply not available to be put on the roster. Finally, for convenience the patrol leader is listed first.

GRELs as Crew - 6.1.2

GRELs are more like biological machines than modified humans and some special rules need to be applied in their case. All GRELs have a particular area of specialty, whether it be in piloting, gunnery or something else. Vehicle crews are assembled to maximize the vehicle's combat capability and although each crewmember has a separate specialty they can all be averaged into a single crew rating to speed up gameplay. For simplicity, GREL vehicle crews are assumed to have 2/+2 skill in Piloting, Gunnery and Electronic Warfare. Jan-class GRELs typically serve as patrol leaders; vehicles with Jan GRELs in the crew replace their Electronic Warfare skill with the Leadership skill. In the event that the patrol leader is disabled, the Leadership and Tactics skill level of the patrol drops to 1/+0. For a more precise listing of GREL Skill levels, see *Section 2.7 The GREL Program*.

GRELs have little regard for their own existence at first and many have a highly fanatical approach to warfare. They will sacrifice themselves if needed and it takes many years of independent living for them to break their hypnotraining. This means that attacks that would result in the destruction of the vehicle, such as high speed ramming, are sometimes observed if the situation demands it.
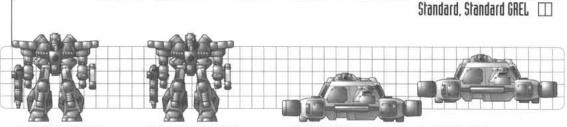
6.2 - GENERAL PURPOSE

The General Purpose patrol is currently experimental and the CEF is still trying to find the best mix of Frames and mechanized infantry for use in combat. At present there are insufficient numbers of Type 55 Frames available to follow the widespread Terranovan practice of walker-only units. So far however the patrols have proven themselves to be extremely versatile, particularly with the inclusion of Octopus Packs. Each HPC-64 may have an attached infantry patrol; see *Chapter 5: Infantry Battle Groups* for limitations on available patrols. Sometimes soldier crews are assigned to transport trooper infantry patrols, or vice-versa, and both groups consider this to be a sort of "punishment duty" for some past transgression or failure.

Special Abilities & Variations

Standard Variations:	Type 55 Frames add Utility Octopus or Support Octopus
Standard GREL Variations:	Type 55 Frames add Utility Octopus or Support Octopus
Senior Ability:	*Veteran Strategy:* Patrol has an additional Tactical Command Point every battle
Senior Variations:	Type 55 Frames add Utility, Support or Assault Octopus
Prime Ability:	*Elite Teamwork:* Once per round, one crew may ignore the effects of ECM in order to use a Tactical Command Point only
Prime Variations:	Type 55 Frames add Utility Octopus, Support Octopus or Assault Octopus

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	AD 6138 3rd and 8th Fleets	N/A
Standard GREL	AD 6138 3rd and 8th Fleets, GREL-only company	N/A
Senior	None	Standard General Purpose x 3
Prime	Any General Purpose x 2	Senior General Purpose x 3

Standard, Standard GREL
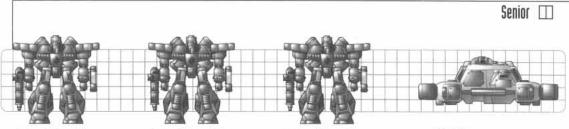
▲ Type 55 Frame Qualified   ▲ Type 55 Frame Qualified   ▲ HPC-64 Qualified   ▲ HPC-64 Qualified

Senior
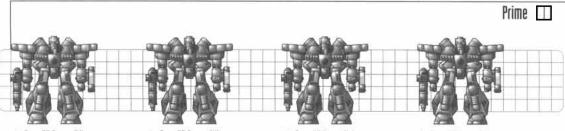
▲ Type 55 Frame Veteran   ▲ Type 55 Frame Veteran   ▲ Type 55 Frame Veteran   ▲ HPC-64 Veteran

Prime

▲ Type 55 Frame Elite   ▲ Type 55 Frame Elite   ▲ Type 55 Frame Veteran   ▲ Type 55 Frame Veteran

FIRE SUPPORT - 6.3
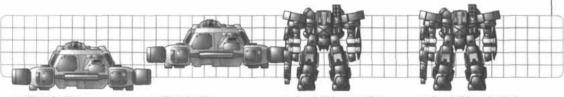
Frame-based fire support is a concept still in its infancy in the CEF, but as the captured factories of Caprice churn out more machines there has been a subtle shift in tactical thinking. The availability of sufficient Frames has been an acute problem however and at present most of the lack is being made up for with mechanized infantry as a stopgap measure. Despite these deficiencies the Type 2-07 Frame has demonstrated its ability to supply desperately needed firepower in areas normally inaccessible to the CEF's hover artillery. Each HPC-64 may have an attached infantry patrol; see *Chapter 5: Infantry Battle Groups* for limitations on available patrols. Sometimes soldier crews are assigned to transport trooper infantry patrols, or vice-versa, and both groups consider this to be a sort of "punishment duty" for some past transgression or failure.

Special Abilities & Variations

Senior Ability:	*Counter-Battery Reflexes:* Once per combat one Type 2-07 Frame pilot may use his Counter-Battery Sensor without action cost to detect the source of incoming indirect fire
Senior Variations:	Type 55 Frames add Utility Octopus or Support Octopus
Prime Ability:	*Tactical Feints:* Each Frame may once per combat spontaneously shift speeds from Combat to Top Speed or vice-versa
Prime Variations:	Type 55 Frames add Utility Octopus, Support Octopus or Assault Octopus

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	AD 6138 3rd and 8th Fleets	N/A
Standard GREL	AD 6138 3rd and 8th Fleets, GREL-only company	N/A
Senior	None	Standard Fire Support x 3
Prime	Any Fire Support x 2	Senior Fire Support x 3

Standard GREL, Standard
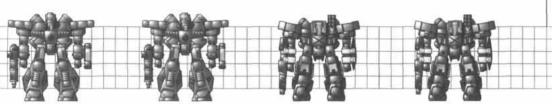
▲ HPC-64 Qualified   ▲ HPC-64 Qualified   ▲ Type 2-07 Frame Qualified   ▲ Type 2-07 Frame Qualified

Senior

▲ Type 55 Frame Qualified   ▲ Type 55 Frame Qualified   ▲ Type 2-07 Frame Veteran   ▲ Type 2-07 Frame Veteran

Prime

▲ Type 55 Frame Veteran   ▲ Type 55 Frame Veteran   ▲ Type 2-07 Frame Elite   ▲ Type 2-07 Frame Elite
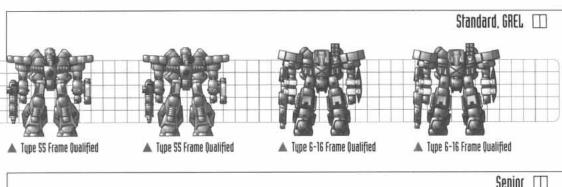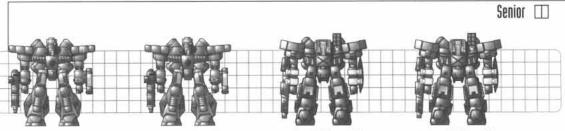
6.4 – BLITZ

Blitz patrols are essentially upgraded General Purpose patrols with a heavier focus on firepower and the assault role at the expense of some flexibility. This change gives the CEF a comfortable midrange anti-armor capability between its mechanized infantry and hovertank forces. Designed to hit hard and fast, Blitz patrols have some ability to hold onto the ground they have gained although they will need to be reinforced by friendly infantry if they are to repulse a determined counterattack. Tactics and doctrine are still being developed for this revolutionary new development and are far from perfected.

Special Abilities & Variations

Standard Variations:	All Frames add Support Octopus Packs or Assault Octopus Packs
Standard GREL Variations:	All Frames add Support Octopus Packs or Assault Octopus Packs
Senior Ability:	*Deadeye Designators:* Increase accuracy of patrol's Target Designators to +1
Senior Variations:	All Frames add Support Octopus Packs or Assault Octopus Packs
Prime Ability:	*Elite Teamwork:* Once per round, one crew may ignore the effects of ECM in order to use a Tactical Command Point only.
Prime Variations:	All Frames add Support Octopus Packs or Assault Octopus Packs

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	AD 6138 3rd and 8th Fleets	N/A
Standard GREL	AD 6138 3rd and 8th Fleets, GREL-only company	N/A
Senior	None	Standard Blitz x 3
Prime	Any Blitz x 2	Senior Blitz x 3

Standard, GREL

▲ Type SS Frame Qualified ▲ Type SS Frame Qualified ▲ Type 6-16 Frame Qualified ▲ Type 6-16 Frame Qualified

Senior

▲ Type SS Frame Veteran ▲ Type 6-16 Frame Veteran ▲ Type 6-16 Frame Veteran ▲ Type 6-16 Frame Veteran

Prime
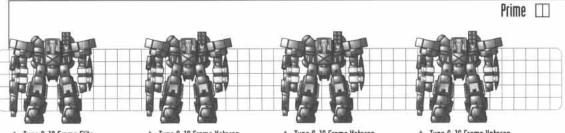
▲ Type 6-16 Frame Elite ▲ Type 6-16 Frame Veteran ▲ Type 6-16 Frame Veteran ▲ Type 6-16 Frame Veteran

GARRISON - 6.5
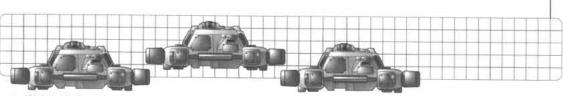
Garrison patrols are one of the mechanized infantry components of the CEF's combined arms strategy. They are often assigned to fixed positions of either strategic or tactical importance, such as population centers, military bases or field supply dumps. Troopers and soldiers alike look down upon garrison duty as being the "easy work" of simply holding the ground that everyone else has fought for. Each HPC-64 may have an attached Basic, Heavy Weapons or Mordred GREL infantry patrol; see *Chapter 5: Infantry Battle Groups* for limitations on available patrols.

Special Abilities & Variations

Standard Variations:	AD 6138: 3rd and 8th Fleets add Type 6-16 Frame Qualified to patrol
Standard GREL Variations:	AD 6138: 3rd and 8th Fleets add Type 6-16 Frame GREL to patrol
Senior Ability:	*Accurate Saturation:* Once per combat, each HPC-64 may reroll a Gunnery test in which ROF +1 or more was used
Senior Variations:	AD 6138: 3rd and 8th Fleets add two Type 55 Frame Qualified to patrol
Prime Ability:	*Lethal Saturation:* All Saturation Fire attacks by the patrol using HGLC weapons add full ROF to Gunnery tests instead of half ROF (round down) as normal
Prime Variations:	AD 6138: 3rd and 8th Fleets add two Type 55 Frame Veterans to patrol

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	None	N/A
Standard GREL	GREL-only company	N/A
Senior	None	Standard Garrison x 2
Prime	Any Garrison x 2	Senior Garrison x 2

Standard, Standard GREL
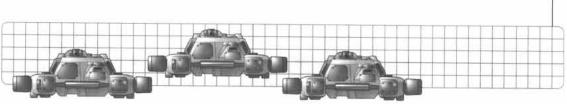
▲ HPC-64 Qualified   ▲ HPC-64 Qualified   ▲ HPC-64 Qualified

Senior
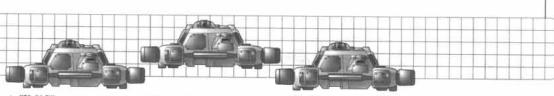
▲ HPC-64 Veteran   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran

Prime

▲ HPC-64 Elite   ▲ HPC-64 Elite   ▲ HPC-64 Elite
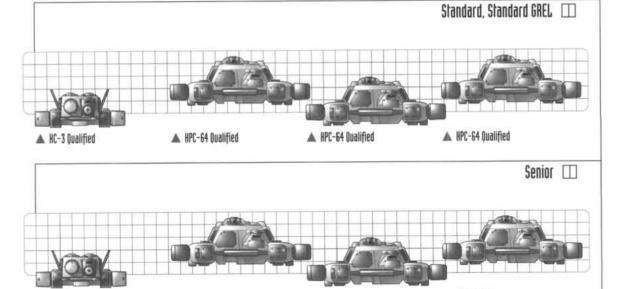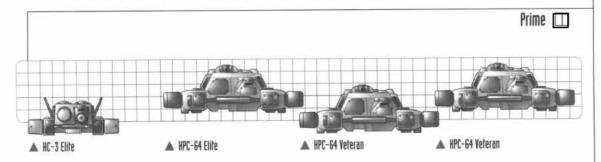
6.6 - SCOUT

Scout patrols operate as the eyes and ears of a battle group. Ranging in advance of friendly forces, they relay information about terrain as well as the strengths and disposition of any enemy forces they encounter back to their superiors. Scout patrols often have attached infantry patrols for both additional self-protection and as additional eyes on site. Sometimes soldier crews are assigned to transport trooper infantry patrols, or vice-versa. Each HPC-64 may have an attached infantry patrol; see *Chapter 5: Infantry Battle Groups* for limitations on available patrols.

Special Abilities & Variations

Standard Variations:	*AD 6138:* 3rd and 8th Fleets add Type 6-16 Frame Qualified to patrol
Standard GREL Variations:	*AD 6138:* 3rd and 8th Fleets add Type 6-16 Frame GREL to patrol
Senior Ability:	*Artillery Priority:* The Artillery Delay Time for fire mission requests from the HC-3 are improved by one step (Unassigned becomes Attached, Attached becomes Reserved)
Senior Variations:	*AD 6138:* 3rd/8th Fleets add Type 11-22 Frame Qualified w/Utility Octopus and Minesweeper Drone to patrol
Prime Ability:	*Ortillery Observers:* Extra time spent by the HC-3 crew add +2 to hit per round (+7 max)
Prime Variations:	*AD 6138:* 3rd/8th Fleets add Type 11-22 Frame Veteran w/Support Octopus and Minesweeper Drone

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	None	N/A
Standard GREL	GREL-only company	N/A
Senior	None	Standard Scout x 2
Prime	Any Scout x 2	Senior Scout x 2

Standard, Standard GREL

▲ HC-3 Qualified   ▲ HPC-64 Qualified   ▲ HPC-64 Qualified   ▲ HPC-64 Qualified

Senior

▲ HC-3 Veteran   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran

Prime

▲ HC-3 Elite   ▲ HPC-64 Elite   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran

STRIKE - 6.7

Built around the concept of the airborne strike package, CEF Strike patrols can literally seem to appear from nowhere, without warning, to take enemy positions and eliminate opposing forces. Rigorously trained in the handling of their machines, Strike patrols are capable of inflicting severe damage to enemy personnel, material and most importantly morale. The *esprit de corps* in Strike patrols is unusually high, and many of the subtle social frictions between troopers and soldiers have largely vanished as a result. Each HPC-64 may have an attached infantry patrol; see *Chapter 5: Infantry Battle Groups* for limitations on available patrols.

Special Abilities & Variations

Standard Variations:	AD 6138: 3rd and 8th Fleets may replace HT-68 Veteran and HT-68 Qualified with two HT-72 Qualified
Standard GREL Variations:	AD 6138: 3rd and 8th Fleets may replace both HT-68 GREL with two HT-72 GREL
Senior Ability:	Airdrop Veterans: Add a +1 modifier to Parachuting Skill tests for landing in a specific location
Senior Variations:	AD 6130: 3rd and 8th Fleets may replace both HT-68 Veteran with two HT-72 Veteran
Prime Ability:	Airdrop Mastery: Parachuting Skill tests are made against a Threshold of one-third the drop altitude (fractions rounded off) rather than one-half
Prime Variations:	AD 6130: 3rd and 8th Fleets upgrade both HT-72 Veteran to HT-72 Elite

Patrol Composition Rules
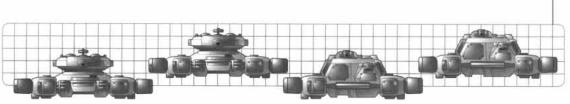
	Basic Requirement	Upgrade Requirement
Standard	Any Scout x 1	N/A
Standard GREL	Any Scout x 1	N/A
Senior	None	Standard Strike x 2
Prime	Any Strike x 2	Senior Strike x 3

Standard GREL, Standard

▲ HT-68 Veteran   ▲ HT-68 Qualified   ▲ HPC-64 Veteran   ▲ HPC-64 Qualified

Senior

▲ HT-68 Veteran   ▲ HT-68 Veteran   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran

Prime

▲ HT-72 Veteran   ▲ HT-72 Veteran   ▲ HPC-64 Veteran   ▲ HPC-64 Veteran
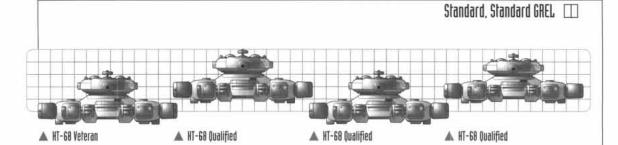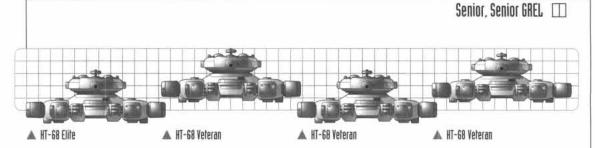
6.8 - ASSAULT
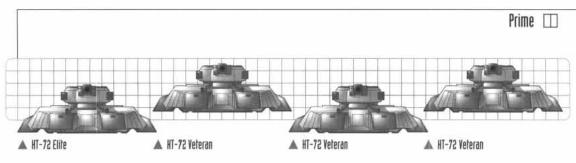
The most easily recognized and highly visible part of the CEF's armored forces, nothing compares to the sudden havoc that can be wrought by hovertanks. Using their superior mobility, Assault patrols can easily bypass heavily defended positions or densely packed formations of conventional armor to strike from unexpected directions. This allows the CEF to exploit nearly any weakness in an opponent's order of battle swiftly and decisively. Hovertanks are hungry and thirsty beasts however and due to their incredible maintenance demands, not to mention cost, it is rare for Assault patrols to form more than half a battle group's standing force.

Special Abilities & Variations

Standard/GREL Variations:	AD 6138: 3rd and 8th Fleets may reequip entire patrol with HT-72 Qualified/GREL.
Senior:	Deadeye Designators: Increase accuracy of patrol's Target Designators to +1.
Senior Variations:	AD 6130: 3rd and 8th Fleets may reequip entire patrol with HT-72 Veteran.
Senior GREL:	Withering Assault: Once per combat each hovertank crew may reroll a single HPA Gunnery test and take the best result.
Senior GREL Variations:	AD 6130: 3rd and 8th Fleets may reequip entire patrol with HT-72 GREL.
Prime:	Deathwatch: Once per combat each crew may force their target to make two defensive Piloting tests and take the low result.
Prime Variations:	Anti-Radiation Configuration: All HT-72 hovertanks are equipped with Sensor Homing ABMs, 2nd Edition Technical Manual p. 143.

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	Basic Requirement: No more than 50% of the battle group's patrols	Upgrade Requirement: N/A
Standard GREL	Basic Requirement: GREL-only company	Upgrade Requirement: N/A
Senior	Basic Requirement: None	Upgrade Requirement: Standard Assault x 2
Senior GREL	Basic Requirement: None	Upgrade Requirement: Standard GREL Assault x 2
Prime	Basic Requirement: Any Assault x 2	Upgrade Requirement: Senior Assault x 3

Standard, Standard GREL

▲ HT-68 Veteran   ▲ HT-68 Qualified   ▲ HT-68 Qualified   ▲ HT-68 Qualified

Senior, Senior GREL

▲ HT-68 Elite   ▲ HT-68 Veteran   ▲ HT-68 Veteran   ▲ HT-68 Veteran

Prime

▲ HT-72 Elite   ▲ HT-72 Veteran   ▲ HT-72 Veteran   ▲ HT-72 Veteran

ARTILLERY - 6.9
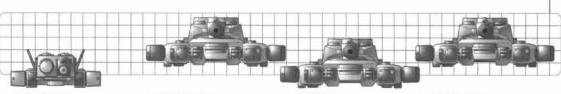
CEF hover artillery is quite unlike any conventional parallel in that it can operate both near and far from the frontlines in relative safety while possessing the mobility to keep up with the lightning speed of friendly hovertanks. A supply train of trucks and modified HPC-64 ammo carriers is usually attached at the Brigade level to provide the reserves of ammunition and extra battery packs needed by the massdrivers to sustain prolonged bombardments. Because of their unusual mobility, Artillery patrols rarely have other armored patrols assigned to protect them full-time, although Garrison patrols will often take up "bodyguard duty" while the battle group is advancing.

Special Abilities & Variations

Senior Ability:	*Veteran Crews:* Reduce the Artillery Delay Time for responding to requests by one-third (minimum one round)
Senior Variations:	*AD 6138:* 3rd and 8th Fleets may replace all HRT-68 Veteran with HRT-72 Qualified
Senior GRELs Ability:	*Deadeye Shots:* Reduce the scatter distance of indirect fire by one hex
Senior GRELs Variations:	*AD 6138:* 3rd and 8th Fleets may replace all HRT-68 GREL with HRT-72 GREL
Prime Ability:	*Crack Crews:* Reduce the Artillery Delay Time for responding to requests by two-thirds (minimum one round)

Patrol Composition Rules

	Basic Requirement	Upgrade Requirement
Standard	Any Assault x 2	N/A
Standard GREL	Any GREL Assault x 2	N/A
Senior	None	Standard Artillery x 2
Senior GREL	None	Standard GREL Artillery x 2
Prime	Any Artillery x 2	Senior Artillery x 3

Standard GREL, Standard
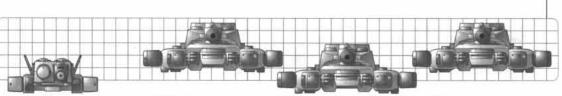
▲ HC-3 Qualified   ▲ HRT-68 Qualified   ▲ HRT-68 Qualified   ▲ HRT-68 Qualified

Senior GREL, Senior
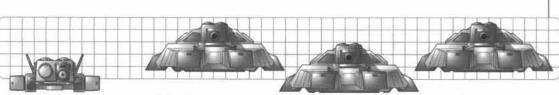
▲ HC-3 Veteran   ▲ HRT-68 Veteran   ▲ HRT-68 Veteran   ▲ HRT-68 Veteran

Prime
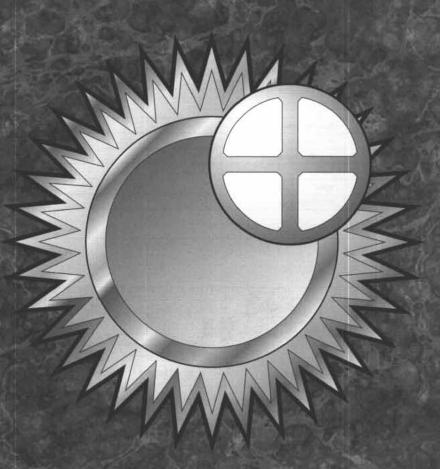
▲ HC-3 Elite   ▲ HRT-72 Veteran   ▲ HRT-72 Veteran   ▲ HRT-72 Veteran

Chapter 7: Logistics

No job role in the CEF more desperately needs talented individuals than the supporting arms, which ensure that supplies are available and ready for the soldiers and troops on the front lines.

Without experienced quartermasters and loadmasters, everything from the fleets on down to the troopers and soldiers of the CEF would not only be without spares, ammunition and fuel but also food, power, water and in many cases even life support. As nearly every veteran supply officer is fond of quoting, amateurs study tactics while the professionals learn logistics.

The almost absurdly byzantine nature of the CEF's Support Command is either a petty bureaucrat's dream or a sane thinking man's nightmare. Unlike some of the colonial militaries that they have encountered, the CEF not only has to have everything on hand, right now, but they also need to bring everything with them over interstellar distances. While some degrees of forecasting future supply demands are made and evaluated, they are at best a rough guess simply because the operational tempo of forces in the field is incredibly high relative to the shipping time from "rear areas" that in some cases may be several months travel and a Gate jump away if not on the ground or in orbit.

Many of the CEF's supply problems would be completely insurmountable were it not for the widespread use of Caprician autofacs, advanced automated machine shops that take in the appropriate raw materials in one end and churn out the desired components through the other, given the correct file templates. Most CEF autofacs are either the size of a small building, and can be delivered in a few shipments to a static base, or are of the portable variety and can be carried on the back of a supply truck into forward areas. While the use of autofacs does simplify many of the CEF's supply problems for machined parts and tools, it does nothing to help keep track of the nearly infinite web and variety of raw materials that need to be shipped around to various locations, either on planet or off planet, in order to keep entire fleets operating at peak efficiency.

Most troopers and practically all soldiers have no idea of just how demanding a job it is to work under Support Command. Usually all they see is a store clerk who just happens to have whatever they need on hand whenever they need it. CEF officers however usually have a better inkling of the scope and magnitude of Support Command's contributions and tend to ignore calls for giving the non-combatant quartermasters something to do (besides juggle inventory) in their combat zone.

Support Company Organization - 7.1.1

In the CEF, Support Command is the one arm of the military almost entirely focused upon getting combatants into a war zone. During WWIII back on Earth it was discovered that supplies ran smoother if the logistical personnel were not expected to contribute directly to the fighting but rather focused their time and energies on enabling the soldiers and troopers who actually were in combat to execute their missions with greater support. This then led to the development of an entire military arm and a career of service for conscript troopers who couldn't handle the stress and strain of actual combat conditions.

Support companies operate under their own command and report to both the battle group commander they are associated with as well as their "higher ups" who usually are literally higher up (in orbit and sometimes beyond). Their job is primarily concerned with moving supplies around and seeing that they get to where they are actually needed, on time. This often requires the services of a half dozen quartermasters headed by a senior quartermaster who oversees the centralized administration of supplies, budget, communications and other duties of a battle group. The remaining quartermasters oversee the distribution of supplies to the support auxiliaries (mechanics, medics, cooks, military police, etc.) who actually are assigned to particular battle groups and are a part of the command and organizational structure but are usually managed by Support Command personnel so as to relieve the battle group's commander of many non-combat related administrative duties.

7.1.2 - Special Circumstances

The standard CEF deployment doctrine calls for ground units to (if possible) make lightning advances, secure the area and await the arrival of fresh supplies before the next offensive advance. There have been circumstances under which frontline ground forces have found themselves cut off from their supplies, which can force one of three possible outcomes. If the unit has sufficient reserves it will attempt to retreat and rejoin with friendly forces in a secure rear area. In the absence of sufficient reserves the unit will either require rescue by other friendly forces in the area, including orbital re-supply drops, or it will immediately attack and attempt to capture any source of supplies in the area, military or civilian, in order to extend its operational life.

7.2 - TROOP MOVEMENTS

In spite of the CEF's remarkable level of technology, it does not advance across continents at incredible speed. This is because supply lines must be established as the frontline units move forward lest they become cut off, immobilized and starve for lack of supplies. Although capable of making lightning fast blitzkrieg strikes, units in forward areas must always operate with sufficient reserves to draw back without overextending themselves. Because of this simple fact, the CEF can realistically only move as fast as its supply lines. Furthermore, these supply lines must be defended from hostile forces lest they be cut and the forces that should be supported left with insufficient reserves to break out of an entrapped position.

Support Command is responsible for maintaining the assets of the CEF's supply lines, but it is the duty of Ground Command, Sea Command or Aerospace Command to defend those lines in their respective areas. Most supplies are delivered from rear areas by an organized network of trucks, although aerospace assets can make emergency drops. Aerospace re-supply is considered a rather extreme option due to the vulnerability of orbital transports to enemy air defenses and/or hostile environmental conditions (a lesson learned the hard way on Terra Nova).

Even with all of the experience of WWIII and its technological advances for the NECAF, the CEF's ground forces cannot realistically advance much more than 100-150 kilometers per day, with the lower number being a much more reliable figure and the higher more dependent on terrain and opposition. Although capable of unbelievably fast sprints while advancing, the CEF's hovertanks are very short-range machines with an operational deployment radius of approximately fifty to eighty kilometers. Most armor battle groups will attempt to make at least two such advances per day.

7.2.1 - Portable Suns

The CEF faces one problem that no other standing planetary army has to deal with: how to supply energy to combat forces in a theater in which they have no energy supply infrastructure to begin with. Whatever fuel demands are made by vehicles and equipment simply must be supplied locally since interstellar fuel supply lines are completely unworkable, not only due to timing considerations but also volume and mass constraints. These factors alone rule out the sort of hydrocarbon combustion used in most colonial vehicular powertrains. The CEF simply hasn't got the time or the resources to dedicate towards prospecting for hydrocarbon sources, mining and refining them and then transporting said fuels, all the while trying to engage in world conquest. It simply won't work. Fortunately the CEF is a space-based army and consequently was designed and built with invasion from space particularly in mind. This means that practically all CEF equipment is powered using a hydrogen fuel economy rather than a hydrocarbon based one.

The first order of business when invading a new world is to set up a secure base camp in a largely undisputed area of the planet. A "portable" fusion reactor — portable in the sense that its components can be transported in multiple sections by several AC-56 assault landers — is brought down from orbit and reassembled on the surface. More transport shipments are required to bring down the fuel cells, hydrogen fuel storage tanks, superconductor banks and drilling equipment needed to reach the water table and secure a reliable source of water and fusion fuel for the building-sized reactor. Once the reactor is brought on-line it is used to electrolytically crack water ($H2O$) for hydrogen ($H2$) and oxygen ($O2$) using fuel cells and also to power the base camp's defense grid. Hydrogen is primarily stockpiled for groundside operations although oxygen is either released back into the planetary atmosphere or liquefied and transported back to the fleet aboard returning shuttles.
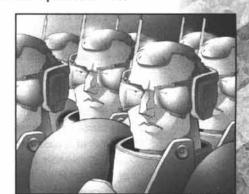
The other major problem facing the CEF is the delivery of potable water to personnel in the field, but it has been largely solved through the use of the hydrogen fuel economy. The process begins at the central base camp where hydrogen is produced and loaded into supply trucks headed for the frontlines. Once reaching a supply dump or forward firebase, the hydrogen fuel is transferred to local storage facilities that can convert it back into electrical power and distilled water through the use of fuel cells and superconductor battery banks.

The use of a hydrogen fuel economy has therefore solved some logistical headaches in that fuel and water supplies can all be delivered to the frontlines through the use of a single commodity. This in effect streamlines the CEF's delivery systems and greatly reduces the necessary transported mass since the heaviest component, water, is manufactured at a place local to the end user. The high demand for hydrogen fuel placed on supply lines through the widespread use of energy weapons, both personal and vehicular, ensures that there is sufficient "waste" water being produced to meet the needs of frontline fighting personnel regardless of the environment.

FOOD AND EQUIPMENT - 7.3

Food, water, fuel, ammunition as well as spares and equipment are absolutely vital to the CEF, just as they are with any other military force. Any unit that runs out of these necessities will be unable to perform its duties and perhaps even be unable to engage in combat. Fortunately water, fuel and ammunition share a somewhat common supply, fresh drinking water being a particularly valuable resource for personnel operating in a hostile and uncharted planetary environment. Food, physical ammunition, medical supplies and equipment spares therefore form the rest of the bulk cargo shipped to frontline units.

Every trooper requires at least three meals a day and soldiers typically require a minimum of four meals per day to keep their supercharged metabolisms properly fed with sufficient calories. Support Command does make an attempt to supply the best food it can to frontline fighters, a policy adopted by the NECAF during WWIII, the rationale being that well fed war fighters will be in better physical shape than their opponents (and less likely to feel resentment towards the state). This stands in stark contrast to the lot of People under NEC governance, both during and after WWIII.

Food Supply - 7.3.1

The CEF has three reliable sources for food supplies: local, packaged and emergency combat rations. Local food sources are essentially whatever is within easy reach and includes both friendly (purchase) and hostile (confiscation) means of acquisition. Battle group commanders prefer to rely upon local food sources whenever practical since it can free up transport assets for the delivery of other needed supplies depending on the situation, without disrupting Support Command's careful planning schemes. Supply hoarding by unit commanders usually begins with finding a local food source.

Packaged food supplies are often complete meals delivered in a single package. A semblance of variety can be achieved through the mixing and matching of various packs. One of the more common food packs is a combination of nutritionally fortified corn flakes and dehydrated milk, the later being easy to reconstitute using a portion of the daily water ration (it is interesting to note that cornflake packages were a war prize for the defenders during the Terranovan campaign, since corn does not grow well on Terra Nova). Packaged food is meant to be simple enough that any common trooper or soldier can prepare his own meals without the need for a centralized cooking service. Many food packs are meant to be eaten cold while some are designed to be prepared hot and have small one-use sealed exothermic chemical packs for heating.

Emergency combat rations, known among troopers by various unflattering Siberian expressions involving excrement, are essentially dehydrated nutrition bricks. Rich in fats, calories as well as essential vitamins and minerals, emergency rations contain everything that a human body needs (except for flavor, texture or an appetizing smell) to keep going while fighting in a warzone. Soldiers have actually been known to gain weight while eating nothing but combat rations for weeks during heavy combat.

The last food source is known as the "primitive appetite" option and involves stealing supplies from the enemy, be they military or civilian. This is often the last resort of individual troopers and soldiers who have been cut off from their units and find themselves behind enemy lines, although it is sometimes necessary for entire battle groups after their supply lines have been cut.
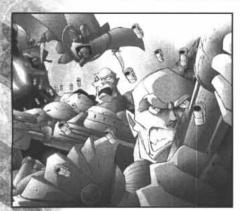
7.3.2 - Fuel and Ammunition

For the CEF fuel and ammunition come from largely the same source, hydrogen, and the demand for it is always high. An armor battle group consumes nearly a million liters of fuel per week while on standby status and that amount can be expected to double or triple easily during active duty, more if extremely heavy fighting is expected. Physical ammunition demands can also be heavy with demands starting at approximately ten tons per hour of combat (or training) and going up from there.

Infantry battle groups require less support in some ways and substantially more in others. So while their demand for equipment spares and fuel costs may be less than those of armor, their need for food, physical ammunition and medical supplies is much greater. Battle groups with a substantial mechanized infantry component combine the challenges of vehicular and personnel supply together, further increasing demands on support.

The monumental task of keeping everything in order falls onto the chief quartermaster, who has several subordinate quartermasters working under him. Quartermasters operating at the brigade level are only answerable to the dictates of Support Command while at the battle group level they are under the nominal authority of the battle group commander. In practice, however, even the battle group's quartermasters are more receptive to the dictates of their higher ups in Support Command, a lesson that some commanding officers have learned at some cost to their careers after learning that their supplies can't just be ordered into existence.

7.4 - SPECIALIZED PERSONNEL

Like many armed forces before it, the CEF has its share of specialized military personnel. Their contributions to victory may not be as loudly heralded as those of the frontline fighting units, but the missions they undertake are not meant for the ordinary rank-and-file trooper or soldier either.

Field specialists may be either troopers or soldiers, although the latter group is effectively limited to particular genotypes specifically designed for the job (Isaac, Isabella and Kassandra). During their time spent as recruits, troopers undergo extensive mental and physical aptitude and ability testing. These batteries of standardized tests are designed to locate the more promising individuals from the current crop of recruits. Guidance counselors (typically junior staff officers) interview these troopers and encourage those who are truly fit for specialist duty to enroll in one of the many specialist programs. The length of each program depends on the particular field, and the program may have prerequisites the CEF cannot provide, such as medical or law school — although in rare cases, neural programming similar to that received by GRELs may be employed. Enrollment in a specialist program generally guarantees that a trooper will draw a slightly higher salary than another of a comparable rank, and those who retire from the CEF often find jobs as independent practitioners.

Medical Staff - 7.4.1

All soldiers and troopers receive minimal training in first aid, but only medics can perform surgery and other life-saving medical acts in the field. Typically deployed in hover APCs that have been converted into MASH units (mobile army surgical hospitals), most field medics are Isabella-class GRELs placed under the command of human surgeons. The majority of the medical corps' efforts and training is centered on preserving human life in the field. GREL physiology is (deliberately) similar enough to that of a standard human that the medics can treat wounded soldiers as well. However, CEF doctrine demands that humans receive priority and that gravely wounded GRELs receive treatment only if there is a manpower shortage or if the group is isolated from the supply chains. In order to euthanize non-recoverable GRELs, human medics are issued small quantities of Shinine-X, a potent neurotoxin capable of humanely killing even a Mordred in a matter of minutes.

Field Engineers and Mechanics - 7.4.2

Field engineers are responsible for the design and construction of all earthworks, shelters, roads, runways and fortifications that the CEF requires, whether it be on land, beneath the water or on the surface of an airless moon or asteroid. Field mechanics service and repair the CEF's delicate and complex equipment. Both specialists tend to be tough, rugged individuals who can handle such jobs under the intense pressure of battlefield conditions without being overwhelmed. Like most support personnel within the CEF, human field engineers and mechanics generally have few problems working side-by-side with their GREL counterparts and vice-versa. Not only is there very little friction between the human personnel and the Isaac-class GRELs, the two groups often form a strange camaraderie based on their ironic observations that they're rarely appreciated until a cocky infantry patrol has to take cover behind one of their earthworks or the drive coil power booster of a hovertank's particle cannon cracks in half.

Political Officers - 7.4.3

Every CEF battle group has at least one political officer. His primary duty is to keep the troops in top mental and psychological condition. His role is thus similar to that of a chaplain as a counselor, although the political officer's methodology is founded largely in psychology rather than in faith. In addition, the political officer serves as a mechanism for information control, seeking to keep the troops as best informed about their duties and current missions as the NEC government will allow and restricting their access to potentially confusing outside dissent. A political officer's secondary duty is to ferret-out subversive troops or officers within his own unit; he generally will make the effort to counsel the individual before reluctantly summoning the military police for a full evaluation and probable court martial.

GREL Field Service Personnel - 7.4.4

Occasionally, a military force must employ civilian contractors to perform tasks in which the military cannot afford to specialize. Such is the case with Elite Genome Labs' GREL field service personnel, one of the few categories of non-military personnel to accompany the CEF in the field. These men and women are trained to ensure that EGL's primary product lines are performing satisfactorily, and they are thus highly trained individuals possessing advanced medical degrees specializing in GREL physiology and psychology. They are assigned at the brigade level, from which they conduct routine evaluations on a rotational schedule amongst the brigade's battle groups during the administrative period of the duty cycle. They may also be called upon for ad hoc work during a battle group's period of active duty, although this situation is rare and may place the personnel in immediate danger.

7.5 - SURFACE-TO-ORBIT SUPPLY

Logistics is more important than fancy weapons and equipment, and it is the lifeblood of a military force. It involves elements as diverse as food, water, ammunition, medical supplies, mail, medical treatment, communication, transportation, information, rest and recuperation, replacements, and more. All these things are needed on a daily basis by units on the forward line.

The Colonial Expeditionary Force is faced with a difficult problem: its supply lines essentially stretch from the ground to orbit and beyond, past the Tannhauser Gates and into the Sol system. For this reason, the fleet has been designed as a mostly self-contained unit capable of using local resources to replenish itself — provided, of course, that the initial assault is decisive enough to acquire control of said resources.

The remoteness of the main supply dumps (in this case, a series of fleet tenders) is both an advantage and a disadvantage. It means that the supplies are safer, and in many cases that they can be slowly reconstituted over time (such as when the 3rd fleet hid in the Helios system's Oort Cloud to prepare for a second landing). Supply craft, such as the fusion-powered AC-56 assault lander, can drop directly to any location on the target planet, enabling them to re-supply even far-ranging armored trusts.

The downsides are more numerous and problematic, however. Beyond the additional delays imposed by the distance, re-entering shuttles must also face a gauntlet of surface-to-orbit defenses ranging from emplaced laser cannons to shoulder-launched hypervelocity missiles that track their glowing heat shield. Limited space in the cargo holds forces quartermasters to make difficult (and sometimes disastrous) decisions, with little means of correction should they be proven wrong in their choices.

7.5.1 - Field Camps

It is not always possible (or practical) to rotate vehicles back to their unit's base for repair and check-ups during extended campaigns, so a series of portable maintenance facilities has been designed. Each firebase is a self-contained field maintenance workshop that can be broken down into a series of standardized packages that can fit the cargo holds of all the orbital transport assets of the CEF. The various plates are assembled into a sturdy boxy structure that is then filled with equipment in prepared positions inside the shell. An experienced team can assemble a firebase in little less than a day.

A CEF firebase is a series of square bunkers made up of bland ferroplastic plates and surrounded by a low wall. Everything is painted a dull army gray, which is sometimes covered with whatever local paint color is available. A distinct module stores explosive material such as ammunition. It is separated from the rest of the firebase by sturdy blast walls designed to deflect any explosion away. Likewise, hydrogen fuel is stored in armored fireproof sponge cylinder outside the hangars.

Transport Assets - 7.5.2

The bulk of the CEF supplies is carried into the invaded system by fleet tenders, which are little more than a sturdy framework mated to a cluster of powerful fusion tubes. The entire design is modular, with cargo modules carried piggy-back styles using Gateship-like mounting clamps. The tenders are very vulnerable and always kept well out of harm's way, even if doing so lengthens the supplies lines. They are not equipped with weapons other than comm lasers or a Gatedrive, and such are very dependent on the rest of the fleet for both travel and protection.

CEF forces use a large variety of ground-to-orbit spacecraft to move both supplies and troops. Most of the aerospace transport assets used by the CEF are New Eurasian Commonwealth designs that were first fielded during World War III. Foremost among them is the AC-56 assault lander, code-named "Tarantula." This versatile shuttle can be fitted with a variety of mission specific modules, though only the transport version is widely distributed. It is backed up by the AT-33 Fast Deployment Craft, a sleeker vehicle used mostly to ferry important personnel and supplies down to the surface and between base camps. They are few in number and generally kept out of battle, since they are poor assault vehicles.

The CEF fields a number of utilitarian designs for the more menial cargo duties on the ground, though these are never seen unless a beachhead is established. They are fairly unremarkable designs similar in performance to the trucks and jeeps that have been in service with other armies for centuries.

OFFENSIVE DOCTRINE - 7.6

The CEF as a military force is almost entirely focused upon offensive operations and this singular focus is thoroughly enshrined in its military doctrine. The purpose of military force is therefore always to press the enemy on his own ground and to take advantage of any weakness. Defensive operations have historically been few and far between, although now that the CEF is evolving into more of an occupation force with the capture of a few colony worlds this lack is becoming more and more apparent.

CEF Ground Command is composed of mixed forces of armor, infantry and in many cases mechanized infantry. All are vital to success and when used properly can ensure victory, particularly when combined with aerospace and ortillery support. The Battle Frame is a relatively recent development and CEF commanders are still in the process of experimentation with using this new weapon system that promises to bridge the narrow operational gap between infantry and armor. Air support is provided by aerospace assets that can be based either in orbit or on the ground. Aerospace fighters based planetside fall under the jurisdiction of Ground Command and as such are tasked with missions at the discretion of warfighters on the ground and with maintaining local air superiority. Aerospace fighters based aboard ships in orbit and beyond are the responsibility of Aerospace Command and are correspondingly tasked with global space superiority and reconnaissance in addition to fleet patrol duties. Strategic level fire support is provided by ortillery.

By its very nature the CEF is a blitzkrieg type force that cannot undertake long drawn out meat-grinder attrition campaigns without risking total disaster. With limited supplies and personnel as well as no established infrastructure on the worlds it invades, every campaign is a race against time to capture a colony world once the landings begin. In this regard the CEF faces numerous challenges and obstacles in its task to retake the colonies of mankind. Its first major setback came at the end of the Terranovan campaign and the second arrived in the open seas of Atlantis. Presently there is a sense of unease with renewed terrorist activity in and around Caprice, and a slowly building sense of frustration is growing back on Earth because the CEF has not delivered on its promises of colonial paradise worlds.

7.6.1 - Command Structure

The relative density of combat units to battlefield area is incredibly sparse by historical standards, mainly because combat is extremely lethal through the use of high-energy weaponry, precision munitions, advanced communications technologies and superior battle commanders. In many respects there simply aren't the sort of clashes between massed rank-and-file forces that has characterized so many previous conflicts. Instead the successful commander must now be able to concentrate firepower rapidly on select targets in critical places and times in order to weaken an enemy force in such a way as to cripple its ability to fight without having to destroy the entire force.

The principle of unified leadership is deeply ingrained in the way the CEF moves and fights. At the higher levels the commanders specify the objectives and it is up to their subordinates to carry out the necessary steps to achieve those objectives. It is precisely through this steady delegation of duty that mission commands reach the lower levels, although by this time the orders are specifically tailored for each and every unit by its immediate superior who is well familiar with the strengths, weaknesses and capabilities of everyone under his command.

A select few people do the planning, usually the commanding officer (CO) plus a few operational staff officers. The CO knows very well what he wants and he makes the decision alone. He then tells staff what is to be done and the staff carries it out. CEF command staffs are thus much smaller than other, more democratic armies, since their job is to carry out orders (and hone them), not formulate their own.

7.6.2 - Fire Policy

CEF fire policy essentially boils down to a simple dictum of using the right tool for the job at hand. Targets must therefore be attacked using the most suitable weapon system for destroying, disabling or dispersing the enemy. The use of expensive anti-tank missiles is thus limited to the engagement of main battle tanks and other hardened targets because of limited supplies. Lighter armored vehicles are supposed to be engaged using energy weaponry as a means of conserving non-reusable ammunition stocks. Area saturation attacks, such as artillery, are intended to break up dense enemy formations, and so on.

Because of the need to conserve its expendable firepower, particularly when faced with numerically superior yet qualitatively inferior opposition, the CEF has trained its personnel to direct their fire as effectively as possible. This includes flanking enemy positions and where possible attempting to make one-shot kills against particularly valuable enemy assets. When dealing with close formations an attempt often is made to scatter or break the enemy in order to prevent them from massing fire against friendly CEF units.

7.6.3 - Deployment

The CEF's basic offensive doctrine is one of overwhelming force being brought against key elements of an enemy's formation. What makes the operational tactics of the CEF unique is that its personnel are so well trained that sometimes entire companies and battle groups will respond to changing situations even before command personnel have been notified of the current situation. In this respect operational field units may seem to be slightly amorphous in their response to contact with enemy forces since they will seem to support each other automatically as the battle progresses. This is largely an evolved response to the fact that the operational tempo at which CEF units are capable of may require intervention faster than command decisions can be made at the highest levels. It is therefore the duty and responsibility of commanders at the most immediate and lower levels is to act first and report back up the command food chain second.

It has been repeatedly said that no battle plan survives contact with the enemy, but for the CEF this is only partially true since it does not fight following an explicit pre-formulated plan of attack per se. Instead the CEF tends to seize upon opportunities wherever they may be found, exploiting those opportunities before an opponent can react.

Given the opportunity to spearhead an attack against a defender, the CEF will usually employ one of two basic tactical methods. The first involves making a quick sprint past any enemy positions at high speed while undertaking evasive maneuvers to get past any potential ambush or kill zones. Once behind the enemy's lines the CEF units will wheel about and attack the enemy's unprepared rear. The second basic maneuver involves units breaking into pairs to flank and pincer an enemy position such that opposing forces have no choice but to expose their rear or flank to one of the attacking pincers. Hovertank assault patrols will usually employ this latter tactic against heavy armor since the hovertanks in the defender's forward arc can employ their target designators to the benefit of their pair-mates attacking from the defender's less well protected flank or rear, resulting in a high probability one-shot kill.

Battlefield Support - 7.6.4

Battlefield support units are tasked with eliminating enemy indirect fire systems along with air defenses and tactical air capabilities. In the CEF, this task falls mainly on their aerospace fighters and the more mobile artillery batteries, with orbital support brought in as needed. During the Terranovan campaign, this proved to be a major shortcoming as air assets could not be brought to bear on entrenched Terranovan defenders. The battle of Notehill, near Baja, typifies this: a single artillery battery and its squad of Gears held up a sizable CEF patrol for nearly a week when a tempest grounded all the CEF fighters.

The exact use of the support assets depends mainly upon three factors: the speed of the enemy movement, the presence of enemy counter-battery units and the lay of the land. The guns batteries have to be given enough time to do their work properly and are thus placed far back in the formation when the enemy is advancing rapidly. Friendly batteries keep on the move as a matter of policies to keep up with the assault and armor units, and are thus relatively safe from enemy counter-battery measures.

CEF on Offense in Tactical Play

Being a highly mobile and offensive fighting force, the CEF prefers to attack an enemy's weak points. The usual method for balancing Threat Values in tactical scenarios (where quantity can make up for quality) does not correctly reflect the nature of how the CEF operates. When on the offensive, unit commanders will tend to engage in a series of running battles that take them progressively towards their objective and will therefore tend to engage opposing forces with numbers roughly equal to their own in a sequential manner rather than all at once.
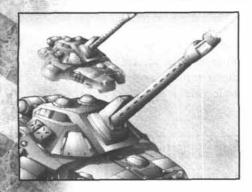
For example, although a patrol of hovertanks far exceeds the Threat Value of a single squadron of Terranovan Gears the CEF patrol would offensively engage a series of Gear squadrons in separate sequential battles, each on slightly different terrain and with unique objectives, until the combined Threat Values of the Terranovan squadrons encountered roughly equals that of the CEF patrol (or the patrol is destroyed). A CEF armor troop would sequentially engage Terranovan vehicle sections in the same fashion, and so on.

CEF unit(s) may not repair any damage, rearm any weapons or reload ammunition between these running battles. Furthermore the defender need not be limited to a single unit type (Gears, tanks, infantry, etc.) so long as the total Threat Values of all opposing forces in the scenario combined are roughly equal to one another. This forces the CEF Player to make careful choices as to how the limited resources at his disposal are spent.

7.7 - DEFENSIVE DOCTRINE

The CEF's defensive doctrine is, when viewed in contrast with its offensive doctrine, poorly developed. It relies mostly on Standard Operating Procedures (SOPs) laid down well in advance. The planning factors that are used are guidelines, not actual orders. Nevertheless, the SOPs and giant battle formation maneuvers mean that the CEF can move relatively large troop formations very quickly once the order has been given. GRELs in particular are quite versed in the 'immediate action drills' (IAD) that infantry uses. A single word from the CO can get the entire force moving immediately without hesitation (and probably overrunning the enemy force if given half a chance).

The CEF cannot afford to throw away units in combat; each and every vehicle and trooper is a vital asset to the invasion force. The entire defensive doctrine of the CEF is based around this principle, and it includes several strategies that slowly grind down the enemy's strength in order to reduce the final friendly casualties. Most of the tactics are based on the assumption that long range fire and air assets will take care of most of the enemy's strength before it comes within range of any important objectives.

7.7.1 - Command Structure

Command and control assets are critical in defensive actions. Standard Operating Procedures (SOPs) and Immediate Action Drills (IAD) form the core of the command procedures for retreat and defense. Though they are not as flexible as actual, detailed orders, they do present the advantage of getting units to react quickly. Following Siberian traditions, the command units are often located with the main force, sometimes within engagement range, which helps react faster but also makes it a necessity to protect the chain of command from harm. This does not mean that the commander takes unnecessary risks. If the terrain and defended objective allow it, the command staff is often found aboard a vehicle to avoid being pinned down by enemy support fire. In all cases, the use of electronic equipment is strictly controlled to avoid detection and destruction at the hands of enemy "headhunter" units.

7.7.2 - Deployment

When deploying for a defensive action, the CEF uses a skirmishing approach to break down the enemy thrust. Its armored assets continually probe the enemy line, looking to drag individual units out of the main force to destroy it piecemeal. The purpose of this tactic is to grind down the enemy forces progressively as they come toward their objectives, exploiting the hovertanks' mobility advantage. At the same time, attacks along the flanks and the rear (both provided by either flankers or camouflaged units) will seek to deny the enemy the use of his reserves, if any. This "staggered" approach is the only realistic means to deal with a numerically superior force, which is the case of most of the battles the CEF finds itself in.

The mobile artillery pieces are normally tasked to reduce enemy fortifications and counter-battery; in this case, they are used to wear down the enemy force while always remaining out of reach. Like their front line companions, they will make a staggered retreat if need be, and progress along an ambush/claw encirclement position if possible. Aerospace assets provide precision strikes and aerial/orbital recon in support of the ground forces. Use of orbital support is problematic during fast retreats, since the shots often do not have time to make it to the coordinates! The entire CEF army must always get back on the offensive rapidly since its supply lines often cannot be retracted as fast as the rest of the forces.

Fire Policy - 7.7.3

The defensive fire policy has two main objectives: one, break up the enemy's coordination and momentum by luring away selected units to deal with them separately, and two, eradicate dangerous enemy assets before they come close enough to become a threat. Thus, any armored lance trying to breach the defensive line is treated as a high priority target and will likely face severe firepower. Other squads may lay down covering fire to slow down the assault and give more attack time to the other defenders. Other targets marked for high priority are high mobility units which might flank the CEF defenders and cut their supply lines.

If both an assault force and some possible flankers are at the same distance and pose similar threat, the defenders will concentrate their fire on the weakest one (weakest being defined both in terms of armor and current fighting condition). The choice of targets is left to the individual patrol commander, though all vehicles in the patrol will fire at the same target.

CEF on Defense in Tactical Play

The CEF fares poorly on defense since it is not able to bring its superior mobility to bear before the battle begins. In these situations, the CEF will most often be defending a static position or otherwise low mobility asset that has allowed the attacker to bring sufficient force to bear upon its objective. Under these circumstances, the usual method for balancing Threat Values in tactical scenarios, in which quantity can make up for discrepancies in quality, is highly appropriate. Given the fairly high Threat Values of most of its units, the CEF defenders will typically find themselves seriously outnumbered by lower quality hostile forces in defensive situations.

FLEET ENGAGEMENT DOCTRINE - 7.8

The CEF is an "amphibious" army except that it crosses space instead of oceans. This means that it needs to establish space superiority before landing on a planetary surface. Once on the ground, it will continue to need air and space support/dominance to give ground forces reliable intelligence concerning enemy movements and to allow a larger freedom of movement for friendly forces. Strategic assets are pretty much entirely space based while tactical assets are confined to the use of trans-atmospheric fighter craft.

Back on Earth during WWIII, the "major powers" of the world all had access to space. There were brush wars raging all over the planet for most of the century, but all of the major powers that emerged from the collapse of the New Earth Concordat in 6007 did so in part because they had access to space based resources. This access also meant that the conflicts were not limited to the surface of Earth but also spread out across the Solar System. In response to this change in the situation, space became militarized although many of the same strictures seen in Terranovan spacers also apply in the Sol system.

It was the development of the trans-atmospheric fighter, however, that tipped the (military) balance in favor of the New Eurasian Commonwealth. First deployed in 6054, these fighters were military attack craft capable of repeated suborbital flights, allowing the NEC military to base their fighters safely in Siberia and yet still strike any target on the planet within an hour of going wheels up. The transatmospheric fighters saw action everywhere from the orbits of Mercury to Saturn and were called upon to strike targets on Earth, on the near and far sides of Luna and on Mars. It was the "Go Anywhere, Hit Anything" machine for the NEC and provided vital support for the war effort.

7.8.4 - Ortillery

The advantages of an orbiting weapon platform, such as the various ships of the fleet, are enormous. A powerful attack can be launched from anywhere, on any front on the planet below, given that the orbital mechanics are worked out. The incoming attack can destroy pinpoint targets or devastate large tracts of land. Massive area-saturation attacks can break up dense enemy formations and destroy expansive fortifications that hold little or no capture value for the fleet (such as the Baja firebase on Terra Nova). When dealing with the former, an attempt often is made to scatter or break the enemy in order to prevent it from massing fire against friendly CEF units, while the latter are simply pounded into submission as fast as the waste heat from the weapon batteries can be radiated away from the hull.

Because orbital fire support must punch through the atmosphere and face severe targeting difficulties, fire support missions will force ships into lower orbits. This, however, means that the spacecraft will only fly over the battlefield for a short time before going over the horizon. It also makes the weapon platform highly susceptible to return fire from the surface (see the sidebar below). Ortillery also has other limitations. It is much too slow to react to the changes of direction of a mobile unit, and can thus only reasonably target ground features. It may not function well under cloud cover or during sandstorms when the launching vehicle cannot see its target or communicate reliably with the forward observer. Ortillery requires a ground targeting system or it will fire so blindly as to be equally dangerous to its own side and the enemy (especially with the fluid battlefields preferred by the ground forces).

This means that orbital fire support can only be reasonably expected when the fleet has complete control of the airspace around the target world, a harsh task under the best of conditions and one that is often impossible (as demonstrated by the Terranovan campaign).

7.8.5 - Tannhauser Security

Tannhauser Gates, despite being natural choke points in space, represent a constant source of tactical headaches. Controlling traffic passing through them presents a number of difficulties, most of which are related to the speed and distances involved.

Static mines are the most obvious response, but mining a Gate presents its own set of problems. Mines are single use, so anything that detonates them, such as a decoy, clears a path. If the decoy (or first enemy vessel) emerges at high velocity, it need not be sophisticated. Since the bomb has to explode before the invading ship has gone past, a few microseconds at best, there is little time for IFF (Identification Friend/Foe) procedures. Safety needs dictate a long reaction time, which in turn requires an ever-expanding field of mines. Before long, economic and maintenance factors make it impossible. The alternate solution is to deploy self-propelled drones and ships, both of which can cover a large volume of space and thus more emergence vectors. Before long, though, the same factors that crippled the minefield idea come into play, and most modern military forces must content themselves with the most likely approach routes.

The one good tactical element is that it is impossible to sneak through a Gate. The spectacular energy display makes it plain that a local wormhole has been opened, leaving plenty of time for the defender to muster its fleet or dig in. The discovery of the lower energy level "micro-Gates," however, brings a new set of variables in the equation. While they cannot handle a fleet like a normal Gate would, they allow the stealthy insertion of small ships that can carry raiding forces, leading to a new kind of interstellar warfare.
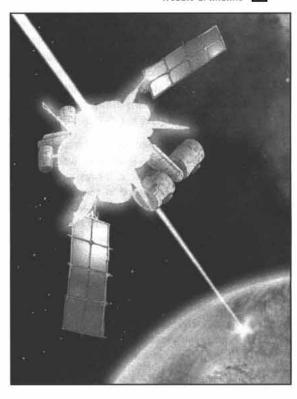
To: Vice-Admiral Isoroku, 5th Fleet
Cc: CEF Aerospace Command
From: Commodore Rengei, 5th Fleet
Re: Repeated satellite deployement failures

We finally captured an image of what has been destroying our satellites, Admiral. It appears to be some sort of high-energy anti-satellite weapon fired from the ocean surface, presumably from a submarine. Most distressing, Admiral, is that our electronic fighters have detected no active scanning of the EM bands prior to the event shown here, meaning that we must be dealing with an entirely passive target acquisition system. This supposition is borne out by the fact that none of our transport shuttles or aerospace fighters have been attacked yet, probably because they do not remain on station long enough to be tracked.

I therefore strongly recommend that we relocate all Fleet assets to well above low orbit as a protective precautionary measure. We are still not sure how the colonials were able to detect our stealthed communications and ortillery satellites, but it is clear that they have the capability to do so and the means to counter any long-term deployments in those orbits.

BATTLEFIELD CONTINGENCIES - 7.9

Thanks to its experience during World War III, the CEF high command is well aware that anything that can go wrong into combat, will. The army has prepared a number of set responses to the most common emergency battlefield situations such as supply reduction or elimination, and loss of command and control. Basic CEF strategies almost always require constant movement to avoid giving the enemy anything to shoot at. This is not always possible, however, either because of supply problems or impassable ground.

A certain amount of 'Cossack tradition', such as leading from the front, is appreciated from CEF officers. Personal example is also valued. The officers are not expected to be the first man in the enemy trenches but should lead by putting the HQ in the center of the battlefield. This raises troop morale and also makes sure that the fluid, fast-moving battles preferred by the CEF go according to plan. A major downside to this is that it tends to make the lives of commanders short.

7.9.1 - Chain of Command

The CEF command system is quite fast but fuzzy on the details (these are often improvised on the spot). The obvious weakness of this system is its dependability to very good commanders. If the CO goes, so goes the leadership and the unit is then really stopped. If the CO is bad, then unrealistic orders may be carried out fruitlessly. Protection from this is built-in by naming deputy commanders who take over when CO is killed/out of picture. This system gives room to ambitious officers to rise to high positions very rapidly. The leader-based command system makes staffs smaller and units move faster. This is both an asset (it improves army aggressiveness) and an Achilles heel (take out the CO and the unit needs to regroup or retreat).

A strong chain of command is vital to ensure the continued efficiency of the troops. When a patrol enters battle, the commander has already assigned a second in command that will automatically take over should he be incapacitated (defined here as the loss of one or more of the following: crew's ability to function, mobility or communications). The second in command will automatically take over and guide the patrol to a protected position (assuming one is available) and attempt to determine the status of the command unit. If unresponsive, temporary command is passed on to the designated second in command. Should he be taken out as well, the patrol is instructed to join the nearest friendly unit and place itself under its leader's command.

7.9.2 - Morale and the Supersoldier s

One of the most disconcerting aspects of the Genetically Recombined Experimental Legionaires (GRELs) is their seeming immunity to and all aspects of morale. As products of genetic manipulation and extensive hypnotraining, soldiers are programmed with the belief that all missions are critical and that their individual lives are expendable in the larger picture. In many ways they are all fanatics.

This has been proven to be a great asset on the battlefields of WWIII on Earth and out amongst the colonies. The psychological advantage of having soldiers physically designed for warfare combined with a willingness to charge into enemy fire without batting an eye is extremely disconcerting. Given their already impressive stature and stamina, soldiers can easily appear to be indestructible automatons to the uninitiated. Unfortunately, this fanatical loyalty does have a tendency to wear off in the absence of repeated "refresher" sessions with the hypnotrainers. Furthermore, the hypnotraining that GRELs receive does not teach them how to survive, only how to keep on fighting. This has created a race of suicidal and, for the most part, unimaginative warriors. The SLEDGE program is attempting to rectify these deficiencies without undermining the requisite loyalty base of the soldiers.

Poker-Face

"There was this massive Mordred from the neighboring barrack, see. One of the guys taught the damn thing to play poker so we would have a full table during downtime. It wasn't easy to do, but once we pointed out the military parallels it took to the game. I mean, how do you read that purple noggin of his?
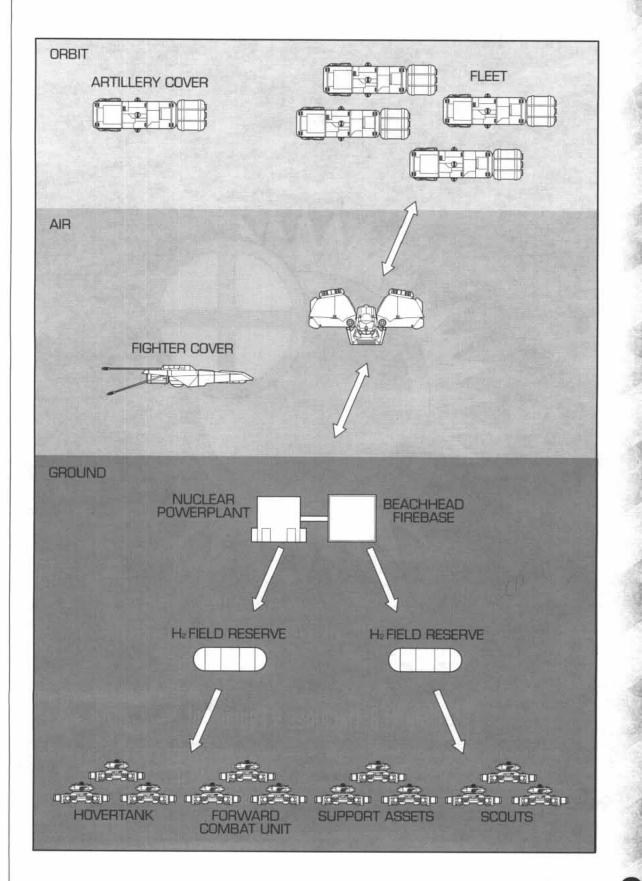
"Things went a bit too far, I think. We were assigned to take this hill in the middle of nowhere, and we hit this nest of supply dumps that wasn't anywhere on the intel map. Well, people start to go down left and right, and suddenly, through the smoke, I see the Mordred. It just stood its ground, firing like a madman, mowing down Novies. Dammest thing I ever saw!

"Believe it or not, but it made it through pretty much okay. I asked the obvious later, and he carefully explained the tactical concept of 'bluff' — you believe it?! Guess it never crossed its single-track mind that it could get killed. But hey, it worked, so who am I to complain?"

ORBIT

ARTILLERY COVER

FLEET

AIR

FIGHTER COVER

GROUND

NUCLEAR
POWERPLANT

BEACHHEAD
FIREBASE

H₂ FIELD RESERVE

H₂ FIELD RESERVE

HOVERTANK

FORWARD
COMBAT UNIT

SUPPORT ASSETS

SCOUTS
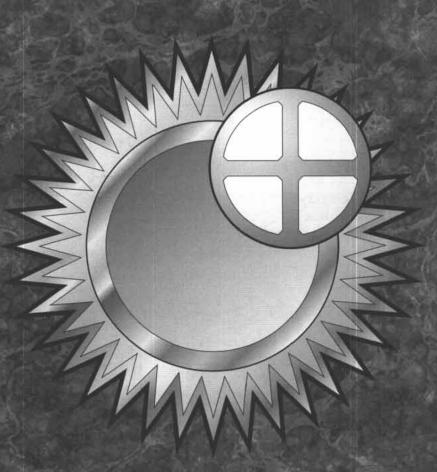
Chapter 8: Machines & Equipment

Heavy Gear is a complete science fiction universe inspired by classic military science fiction and giant robot animation. This book will take you to a faraway future place where freedom and personal honor are values upheld, and numerous political entities wage conflicts between themselves, both overt and covert, using high tech war machines of all kind.
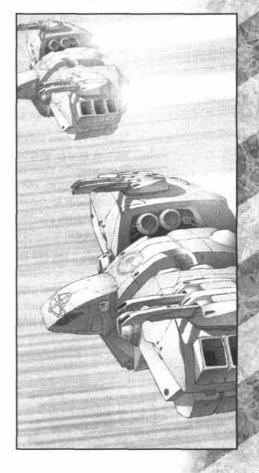
The Colonial Expeditionary Force is a military machine unparalleled in human history. It must navigate the most hostile environment ever to face any army, the vast empty reaches of space, and it must do so on a routine daily basis. No other military force has ever attempted to achieve what the CEF's High Command was ordered to do, conquer worlds from beyond the stars.

The troopers and soldiers of the CEF are the most technologically advanced that humanity has ever produced, and they are the most technologically dependent. High tech pervades the lives of the CEF's personnel so completely that there is almost nothing "low tech" left. Advanced closed cycle life support systems, zero-gee manufacturing, nuclear fusion reactors, personal energy weapons, hydrogen cycle energy economy, superconductors, mass drivers, holographic displays, genetically engineered soldiers, tissue regeneration by cloning, centrifugal gravity, advanced metallurgy and neural network computing systems are all everyday sights for the average trooper or soldier. Even the lowly infantryman is wrapped in a cocoon of high tech armor, weapons, tools and food supplies.

Being a space-based army brings its own problems too. Everything a trooper needs in the field has to be brought from literally light-years away. The entire supply "food chain" simply could not exist without the sort of high technology that would seem absolutely extravagant to a planet-bound army supply sergeant. Without its technology the CEF would be worse than immobilized: in many cases it would simply be dead.

The major constraint on any CEF activity then is the "Getting There" part of the equation. Since there is only a finite amount of volume/mass payload space available aboard the transport ships in their fleets, the CEF's equipment and supplies must perform to very high standards to be worth the investment. It therefore needs the maximum amount of capability from any given embarked unit, regardless of its type, be it infantry, armor, artillery or aerospace support. Given that the common mantra is "Get There With More" the CEF has to settle for a compromise of "Get There With Better" since it will almost never be able to fulfill the "More" requirement.

The CEF is therefore an army focused upon Quality rather than Quantity, simply because it can't transport assets across interstellar distances the way a planetary army can ship troops and equipment across a hemisphere. This has brought about a focus on Force Multiplier type weapons and systems, leading to a "Lighter Yet Harder" philosophy of deploying personnel and equipment. All of this in turn increases the dependence on high performance tools and equipment to service and manufacture the high tech supplies needed to maintain combat readiness.

8.2 - STANDARD-ISSUE WEAPONS

Most standard issue weapons that equip the CEF forces have been chosen for one overriding reason: mass. Where a terrestrial army might select its weapons based on the primary criteria of cost, reliability and/or durability, the fleets of the CEF have to contend with mass transport constraints first and foremost. Adding as little as a single kilogram to the weight of a common and widely fielded infantry weapon can increase the transport weight of a single infantry division by over three tons. Those are three tons of transported mass that cannot otherwise be allocated to food rations, spare parts and equipment or medical supplies for use in keeping the division combat ready.

To solve its mass transport problems, the CEF has been forced to rely more heavily on advanced weapon systems such as energy weapons, both personal and vehicular, massdrivers and precision guided missile technologies. These weapons place lower demands on the space transport infrastructure, although at the price of more frequent field maintenance and an increased focus on the training regimen for proper care of equipment by personnel. An added benefit for the energy weapons in particular is that they can be recharged using power reserves manufactured and stockpiled planetside rather than depending upon a supply line that could potentially stretch all the way back to Earth for ammunition stocks.

In addition, the CEF cannot support the myriad numbers of specialized weapon systems that tend to proliferate within most terrestrial armies. Instead it has become dependent on a few multi-purpose systems that can perform more than one mission role so as to streamline the logistical "food chain" between the war fighters and the suppliers as much as possible. So where a planetary army might field multiple calibers of rifle ammunition, the CEF has only a single caliber available to its forces.

Battlefield Infantry Laser
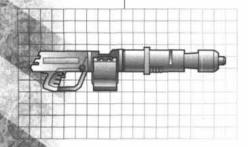
The Battlefield Infantry Laser is the standard weapon carried by CEF infantry troopers and soldiers alike. The adoption of the "BIL" by CEF Ground Command solved numerous logistical headaches by giving the infantry forces a weapon that merely needs its backpack of superconductor batteries to be recharged rather than physically reloaded. This allows troopers and soldiers in the field to replenish their "ammo stocks" from the same central energy sources that refuel their vehicles.

Battlefield Infantry Laser	+1 accuracy	x40 DMG	200/400/800/1600 meters	+0 ROF	3 kg
Superconductor Battery Backpack		15 shots			4 kg

10mm DS Caseless Machinegun

Surplus warstock left over from WWIII, the 10mm Machinegun is still valued by troopers and soldiers who recognize the need for a weapon that can't be defeated by adverse environmental conditions. With its discarding sabot projectiles, caseless ammo design and advanced materials construction a single trooper or soldier can carry enough ammunition to lay down a sustained curtain of covering fire for an incredible amount of time. The only real drawback to the weapon is the problem of securing fresh ammunition supplies.

10mm DS Caseless Machinegun	+0 accuracy	x30 DMG	100/200/400/800 meters	+2 ROF	8 kg
(100 shot clip)					3 kg

23mm anti-Material Rifle

In a class by itself, the CEF's anti-Material Rifle is a man-portable railgun capable of delivering a punishing amount of kinetic energy with a single armor piercing slug projectile, to both the target and the gunner. Although constructed with ultralight high performance materials the rifle still requires a strong infantry trooper (BLD and STR at +1 or better) or soldier trained in its use to prevent self-inflicted injuries, and even then the weapon is most often fired from a stationary braced position. The anti-Material Rifle is energized by the same superconductor battery backpack used by the Battlefield Infantry Laser.

23mm anti-Materièl Rifle	+1 accuracy	x70 DMG	150/300/600/1200 meters	+0 ROF	12 kg
(5 projectile clip)					1.5 kg
Superconductor Battery Backpack			15 shots		4 kg

55mm Infantry Mortar
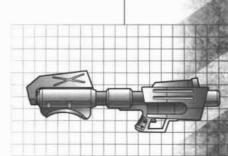
Another relic of WWIII, the venerable Infantry Mortar has received another new lease on life with its deployment on Frames. Already light and portable enough to be carried and deployed in seconds by a single trooper or soldier, this simple mortar weapon undergoes an impressive transformation when tied into a Battle Frame's sensor arrays and fire control computers. There are several types of mortar shells to choose from including concussion, flash, fragmentation, gas and incendiary.

55mm Inf. Mortar	-1 accuracy	x120 DMG	100-150/300/600/1200 m.+0 ROF 10 meter AE	2 kg
(1 shell)				1 kg

45mm Rocket Launcher

Essentially a lightweight, shoulder-fired recoilless rifle tube, the Rocker Launcher is still the main weapon the CEF's infantry forces use to deal with enemy light tanks and other armored fighting vehicles. Troopers and soldiers need to be judicious in the use of this weapon, however, as ammunition stocks of its armor piercing explosive rockets are jealously guarded and distributed in a somewhat miserly fashion by Support Command.

45mm Rocket Launcher	+0 accuracy	x140 DMG	50/100/200/400 meters	+0 ROF	5 meter AE 0.5 kg

8.3 – ARMOR

For millennia there has been a constant battle going on between weapons and armor. Each new development in armor demands a response in firepower and vice-versa. In this never ending struggle between measure and counter-measure, stopping the weapons of the 62nd century requires no less protection than that afforded by the most advanced composites of Earth's materials sciences. The problem is that as the layers and levels of armor increase, mobility and therefore freedom of movement decreases, potentially to the point of being life threatening. Armor composites are also very costly, particularly some of the zero-gravity-manufactured ones, which can lead to problem issues when the armor inevitably gets damaged. Something as simple as a tiny hairline fracture or a minute separation of sandwiched composite layers can cause the catastrophic failure of an armored plate, necessitating its removal and replacement.

The basic rule of armor used by the CEF is not to have personnel wear (or use) anything that isn't actually helping keep them alive. This philosophy has far-ranging effects: although heavier and more protective armors could be worn by troopers (and soldiers especially), the extra mass spent on armor could easily be applied to other equipment and supplies more useful in keeping forces alive and fighting, such as food supplies, spare parts and equipment or even additional weapons and ammunition.

8.3.1 – Personal Armor
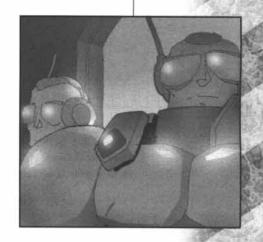
Despite the CEF's access to space manufacturing facilities, most personal armor is not constructed from the sort of advanced composite materials that go into hovertanks and other extremely high tech weapon systems. Instead CEF personal armor is designed for simplicity and ease of maintenance in an attempt to "soldier-proof" it against the casual mistreatment and neglect that was common among Siberian NECAF troops during the early years of WWIII. Most CEF armor types can be classified along the same lines as Terranovan armor, with Light Flak and Heavy Flak equivalents. "Turtleshell" type armor does exist but is exceedingly rare in the CEF since it is considered "too heavy" logistically speaking to support in wide distribution.

8.3.2 – Vehicular Armor
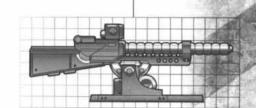
Vehicluar grade armor in the CEF is somewhat more diversified, although special attention is still paid to strength-to-weight ratios. At the low end, ballistic plastics tend to be the norm with many featuring composite fiber reinforcement. The CEF's minesweeper drone is actually built entirely from disposable memory plastics with almost no reinforcements whatsoever since it is entirely possible for the machines to be destroyed by the very minefields they seek to neutralize. On the high end, frontline fighting vehicles in the inventory require the maximum of protection for minimum weight. Machines such as the CEF's hovertanks and aerospace fighters, however, are armored with the best advanced-composite materials that modern zero gravity manufacturing has to offer. Some of these advanced armor types can achieve a strength-to-weight ratio eight times better than that of armor-grade steel, allowing for very strong yet lightweight protection. Spacecraft armor features additional composite layers of very specialized foamed materials rich in fullerenes designed to prevent cascading radiation effects and absorb micrometeorite impacts. Most aerospace armor has more types of ceramics and polymer layers than that used for other applications.

Life in the Army

"Welcome to the Halberds, soldiers!" Soldier Ingres-9037 addressed the twenty new transfers into the 25th from a podium in the briefing room of the battle group's headquarters in the heart of Hauser Trench. The Jan-class GREL smiled briefly at the transfers and then proceeded. "I have the honor of presenting your new commanding officer, Major Garth Traut. Sir!" He backed away from the podium and saluted as the grizzled and somewhat harried-looking commander stepped forward.

"Soldiers," Traut began, "this is your new home, your new family. These—" He gestured at the 25th's standard. "These are your new colors. Here in Hauser Trench, you will do the Force proud by protecting her strategic interests. You will do me proud. Before we get into the particulars of your assignments, I want to tell you a little story about a GREL, such as yourselves, who put everything on the line during the early occupation of this city. Soldier Kunst-1316, a Mordred, big and tough, like Horst-9971 over there, though not quite as ugly..."

Heavy Particle Acceleratora
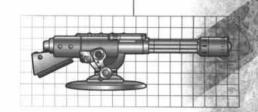
Purpose:	Anti-Vehicle
Effective Range:	1200 meters
Average Penetration:	225 mm at 150 m
Accuracy:	good
Usual Energy Charge:	60 shots (180,000 EP)
Standard Maintenance (per week):	375 man-minutes

Kadellie Weapon Systems' 60 MW Particle Cannon is the CEF's mainstay anti-vehicular weapon and is carried by its hovertanks and aerospace fighters alike. Capable of producing a powerful stream of relativistic charged ions, the discharge from these weapons breaks chemical bonds at the molecular level and induces massive thermal disruptions in solid structures. Additional secondary radiation effects and electrostatic discharges can still propagate well past any armor plating not penetrated by the initial surface vaporization and resulting plasma splash damage, sometimes burning out everything aboard the target vehicle — including the crew.

Gatling Laser Cannon

Purpose:	Anti-Vehicle, Area Suppression
Effective Range:	800 meters
Average Penetration:	255 mm at 100 m
Accuracy:	good
Usual Energy Charge:	150 shots (540,000 EP)
Standard Maintenance (per week):	425 man-minutes

First developed as a global point defense and ground-strafing weapon for its aerospace fighters, Kadellie Weapon Systems continues to manufacture its battle proven gatling laser arrays for the CEF's fleet of hover armored personnel carriers and Type 55 Frames. Built with six laser chambers and redundant cooling systems for rapid cycling and a "deep magazine" capacity, this weapon can create a veritable curtain of laser fire with which to saturate a target area for sustained periods of time. The laser is also safer to use in proximity to friendly forces than particle accelerators due to the lack of secondary radiation effects.
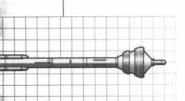
Airburst Missile

Purpose:	Area Saturation
Effective Range:	1200 meters (Area Effect: 45 meters)
Average Penetration:	100 mm
Accuracy:	average
Usual Ammo Magazine:	3 missiles
Standard Maintenance (per week):	50 man-minutes
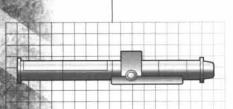
Little more than a cluster munition with a rocket motor and guidance fins, the Airburst Missile is a devastating weapon that both Aerospace Command and Ground Command deploy for use as an area-saturation weapon. Alexander Defense, Ltd., currently manufactures most of the CEF's stock of these weapons in its facilities back on Earth and has a venture corporation set to begin producing them on Caprice in the near future.

Anti-Tank Missile

Purpose:	Anti-Armor
Effective Range:	1200 meters (Area Effect: 15 meters)
Average Penetration:	625 mm
Accuracy:	good
Usual Ammo Magazine:	4, 6 or 8 missiles
Standard Maintenance (per week):	250 man-minutes

Reserved exclusively for use against main battle tanks and other "hard" targets, Kadellie Weapon Systems' anti-tank missiles are extremely effective weapons that are hoarded by vehicle crews and Support Command alike. The missiles use a laser guidance system with a redundant fiber optic system that allows gunners to make mid-course corrections if necessary in the event of a sensor malfunction. Although these weapons can be fired ballistically without a target lock, their relative scarcity and potential resupply problems tend to discourage the practice. Hovertank crews affectionately refer to these missiles as "Tennyo," their unofficial Siberian slang name.
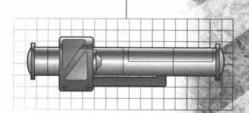
55mm Infantry Mortar

Purpose:	Anti-Infantry
Effective Range:	800 meters (Area Effect: 15 meters)
Average Penetration:	15 mm
Accuracy:	average
Usual Ammo Magazine:	12 shells
Standard Maintenance (per week):	20 man-minutes
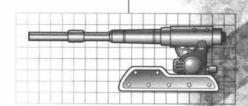
Adapted for vehicular use from the nearly ubiquitous infantry mortar, this weapon provides excellent fire support to besieged infantry units. Nearly unchanged from its humble origins, this weapon system uses the same mortar shells as its man-portable counterpart, although the addition of computerized fire control has improved the airburst coverage at the expense of direct explosive impact damage. This change in performance was found particularly desirable for eliminating enemy infantry units sheltering in cover.

Heavy Field Mortar

Purpose:	Bombardment
Effective Range:	2400 meters (Area Effect: 15 meters)
Average Penetration:	625 mm
Accuracy:	poor
Usual Ammo Magazine:	8 shells
Standard Maintenance (per week):	125 man-minutes
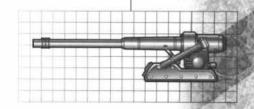
Brought out of retirement to equip the Type 2-07 Frames, the Moscow Heavy Industries' 152mm Heavy Mortar is a massive weapon system known to older veteran troopers and soldiers simply as "The Thump." Capable of delivering a variety of warhead payloads farther than 2000 meters with enough accuracy to hit a moving tank, the 152mm mortar shares more in common with tube artillery than most other weapons in the CEF inventory. At present, new mortar systems are being manufactured on Caprice with old surplus warstocks of ammunition from Earth meeting demand until a new munitions production facility can be built on the Gateworld.

Light Artillery Gun

Purpose:	Artillery/Fire Support
Effective Range:	10,000 meters (Area Effect: 15 meters)
Average Penetration:	145 mm
Accuracy:	average
Usual Ammo Magazine:	60 salvos (3,240,000 EP)
Standard Maintenance (per week):	325 man-minutes

Something of a compromise of necessities, the 90mm Massdriver Artillery Gun has served the armored forces of CEF Ground Command well in many theaters. Its use by the HRT-68 is especially critical as the torque forces applied by the exhaust gas blowback and recoil of a conventional or electrothermal cannon system would undoubtedly cause severe stability and control challenges when combined with a "frictionless" hover suspension system, particularly if fired while moving. Additionally, the massdriver cannon merely needs projectiles and power supplies, reducing the transport mass requirements relative to other forms of tube artillery.

Medium Artillery Gun

Purpose:	Artillery/Fire Support
Effective Range:	12,000 meters (Area Effect: 45 meters)
Average Penetration:	325 mm
Accuracy:	average
Usual Ammo Magazine:	9 salvos (1,575,000 EP)
Standard Maintenance (per week):	475 man-minutes

Moscow Heavy Industries builds the CEF's largest mobile tube artillery piece, the 152mm Massdriver. The shells fired from this weapon are actually densely packed clusters of smaller projectiles fused to airburst over the target for better area saturation. Rapid cycle firing times and computer controlled variable ballistics ensure the Time-On-Target simultaneous arrival of an entire salvo at the target area with little to no warning. As with its smaller sibling, the 90mm Massdriver, the 152mm Massriver was chosen by the CEF for its reduced transported mass requirements in relation to other comparable cannon technologies.

HT-68 HOVERTANK

Still a mainstay for most of the Colonial Expeditionary Force, the HT-68 is a tank chassis mounted on two powerful electrically driven turbofans similar to those used in VTOL-capable jets. Brief bursts from its engines allow it to jump over obstacles it cannot cross using the air-cushion ground effect alone. This gives unprecedented mobility over all types of terrain, a definite plus for the invading Earth army. The hovertank is designed to strike hard and strike fast, exploiting weaknesses in the enemy's defense at a moment's notice.
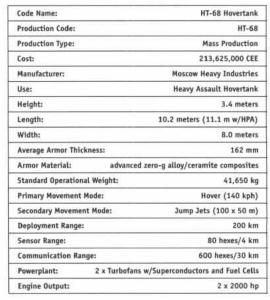
Despite its imposing size, being slightly larger than a conventional main battle tank, the HT-68 is relatively light to save as much wear and tear as possible on the lift fans. It is built out of ultra-light alloys, ceramites and other costly space manufactured materials. Only the NEC can viably afford an army of such machines. The thrust generated by the vehicle's turbofans is channeled through articulated nozzles placed around the hull of the tank, making it more maneuverable than standard ground-effect vehicles. The control surfaces and exhausts are prominently placed and somewhat exposed to hostile fire, especially the two large airflow controllers, and constitute the hovertank's primary weakness.

The turret-mounted particle accelerator is the main armament and is used to defeat light tanks and other lightly armored vehicles. Guided missile racks for engaging main battle tanks and other hardened targets designated by forward observers, Frames, other hovertanks or aerospace assets can be mounted on the sides of the turret.

◆ Service Record
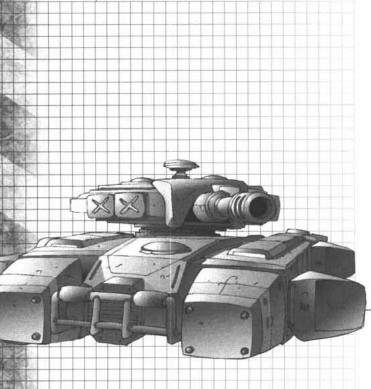
In reclaiming the colonies, the HT-68's performance has been mixed. At Caprice and Atlantis it has practically never been used in a warfare capacity due to a lack of combatants. On Utopia it is a tremendous asset to maintaining the CEF's treaty agreements, and at Home it was decisive in securing the planet's surrender and capture. In the Terranovan campaign, it proved invaluable in the equatorial desert regions.

Vehicle Specifications

Code Name:	HT-68 Hovertank
Production Code:	HT-68
Production Type:	Mass Production
Cost:	213,625,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	Heavy Assault Hovertank
Height:	3.4 meters
Length:	10.2 meters (11.1 m w/HPA)
Width:	8.0 meters
Average Armor Thickness:	162 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	41,650 kg
Primary Movement Mode:	Hover (140 kph)
Secondary Movement Mode:	Jump Jets (100 x 50 m)
Deployment Range:	200 km
Sensor Range:	80 hexes/4 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 2000 hp

Weapon Payload

Name	Ammunition Payload
60 MW Particle Cannon	60 shots
Guided Missile Delivery System	8 missiles

SilCORE Stats
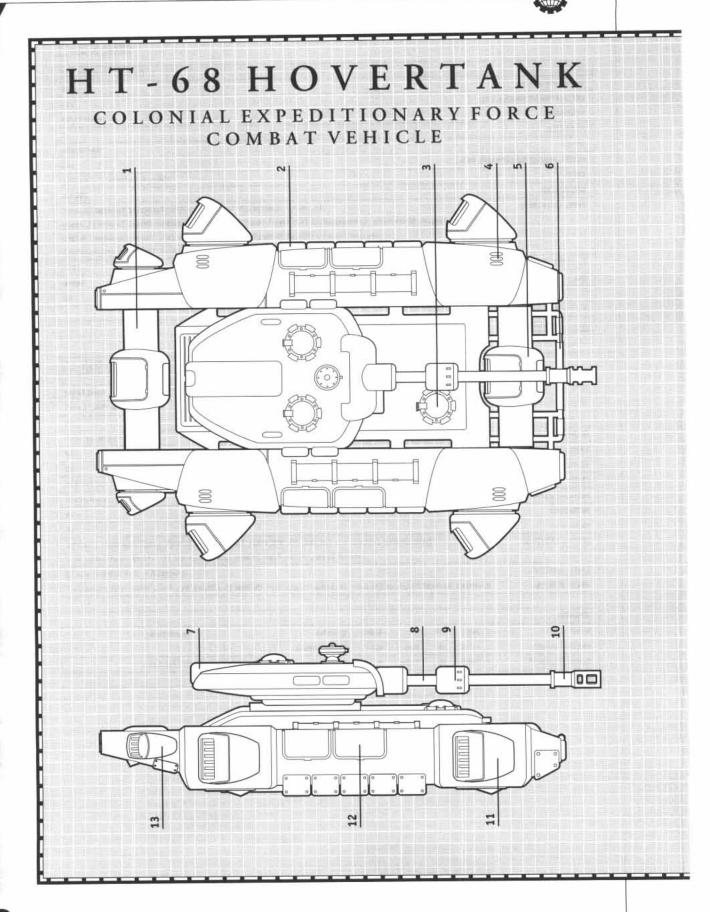
SIZE:	12 (Vehicle, Length 10.2m)
THREAT VALUE (TV):	3485
DEFENSE THREAT VALUE (DTV):	913
MOVEMENT:	Hover 12/23
MANEUVER:	-2
ARMOR:	36/72/108
MISCELLANEOUS THREAT VALUE (MTV):	345
CREW:	Living 3, Computer 1 (Dumb 2)
DEPLOYMENT:	200 km
PERKS AND FLAWS:	Accessories: Limited Life Support, Ram Plate; Reinforced Systems: Backups; Feature: Airdroppable; Communications (+2, 30km); Hostile Environment Protection: Desert; Sensors (0, 4km); Negative Features: Difficult to Modify, Large Sensor Profile (R3), Sensor Dependent; Defect: Weak Point (R8, Movement), Weak Point (R8, Auxiliary)
OFFENSIVE THREAT VALUE (OTV):	9197

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Hvy Particle Cannon	T	+2	x15	3	0	Haywire, AD1, Sniper	60
1	Anti-tank Missiles	T	+2	x25	3	0	G, IF, HEAT	8
1	Target Designator	T	+0	x0	3	0	TD	-

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 3.4 m)
HIT POINTS:	71
OCCUPANCY:	3 operators, no cargo
ARMOR HARDNESS:	30
DEFENSE:	10
SPEED:	Land 140 kph
TACTICAL SPEED:	Land 235 m
INITIATIVE:	-4
MANEUVER:	-5
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2 km), Hi-Rez Radar (4 km), Laser Designator (RI: 150m), Stabilization Gear
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Hovercraft, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute), Very Noisy, Weak Point (Movement)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Particle Cannon*	6d10	SS	90m	60	2x Extra Ammo	-
Guided Missiles**	10d10	SS	150m	6	Blast, Indirect, Guided (LG, SARH)	2x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons.

HT-68 HOVERTANK

COLONIAL EXPEDITIONARY FORCE
COMBAT VEHICLE

1 2 3 4 5 6

7 8 9 10

13 12 11

LEGEND

1	Aft airflow controller
2	Starboard lift skirt armor
3	Pilot hatch
4	Airflow sensors
5	Front airflow controller
6	Crash bar
7	Armored ring capacitor banks
8	Particle accelerator
9	Drive coil power booster
10	Radiation shield emitter
11	Port front thrust nozzle
12	Turbine maintenance hatch
13	Port aft control nozzle
14	Starboard front thrust nozzle
15	Starboard EM sensor array
16	Commander hatch
17	Optical sensor pod
18	Tactical officer hatch
19	Main gun targeting sensors
20	Flight sensor and avionics array
21	Starboard front lift fan

SPECIFICATIONS

Code Name:	Lead Sled
Production code:	HT-68
Production Type:	Mass Production
Cost:	unknown
Manufacturer:	Colonial Expeditionary Force
Use:	all terrain combat vehicle
Length:	10.4 meters
Width:	8.0 meters
Average armor thickness:	85 mm (estimated)
Armor material:	alloy w/ceramite
Standard operational weight:	40,000 kg (estimated)
Primary Movement Mode:	Hover (120 kph)
Deployment Range:	150 km (estimated)
Sensor Range:	4 km (estimated)
Communication Range:	15 km (estimated)
Powerplant:	2 x high thrust turbofans
Horsepower:	2 x 2000 Hp
Weapon Payload:	
Particle Accelerator	50 shots
Missile Hardpoints	8 missiles

HT-72 HOVERTANK

The HT-72 is in the process of replacing the HT-68 in the ranks of the Colonial Expeditionary Force. During the Terranovan campaign, the 8th Fleet fielded a few of these vehicles in very limited numbers for field-testing. Although using the same basic technology as the HT-68, the HT-72 is strikingly different both visually and in terms of engineering. The hull is more compact and streamlined while the turret is longer and thinner.

The HT-72 is a much more advanced combat vehicle than the older HT-68 model, the entire fleet of which was produced back on Earth. The HT-72's turbines are more powerful, allowing the vehicle to lift additional armor mass, make better controlled jumps and attain higher speeds overall. The exhaust is distributed through six main articulated vents located around the lower hull. The HT-72 suffers the same problems as its predecessor however, although not to the same degree. It also has smaller airflow controllers that make it even more dependent on precise computer control at high speeds.
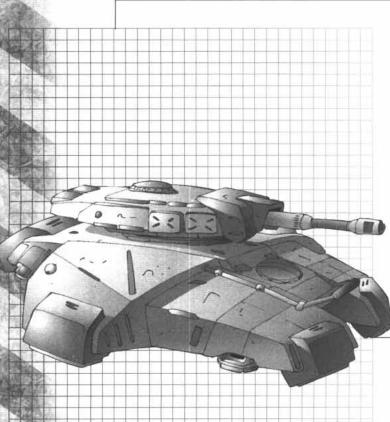
The HT-72 is based around the same type of armament layout as its older sibling although with minor improvements. The turret-mounted particle accelerator remains the primary offensive weapon, capable of disabling targets by impact or electrical surges generated by the charged particle stream. The missile racks are now internal to the turret and open up only briefly for vertical launch.

◆ Service Record

The Colonial Expeditionary Force is in the slow process of phasing out its older HT-68 models and replacing them with the HT-72. Unfortunately production rates have been abysmal due to acts of industrial espionage, sabotage, terrorist action and a quagmire of other security and quality control concerns on Caprice. So far only the 3rd Fleet has completely upgraded to the HT-72 and the 8th Fleet is still years away from completion of rebuilding their armored forces.

Vehicle Specifications

Code Name:	HT-72 Hovertank
Production Code:	HT-72
Production Type:	Mass Production
Cost:	232,500,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	Heavy Assault Hovertank
Height:	3.0 meters
Length:	10.7 meters
Width:	8.0 meters
Average Armor Thickness:	162 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	49,450 kg
Primary Movement Mode:	Hover (150 kph)
Secondary Movement Mode:	Jump Jets (100 m x 50 m)
Deployment Range:	200 km
Sensor Range:	80 hexes/4 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 2200 hp

Weapon Payload

Name	Ammunition Payload
60 MW Particle Cannon	60 shots
Guided Missile Delivery System	6 missiles
Airburst Missile Delivery System	4 missiles
Option - Add Sensor Homing to ABMs	Modified TV: 3875

SilCORE Stats
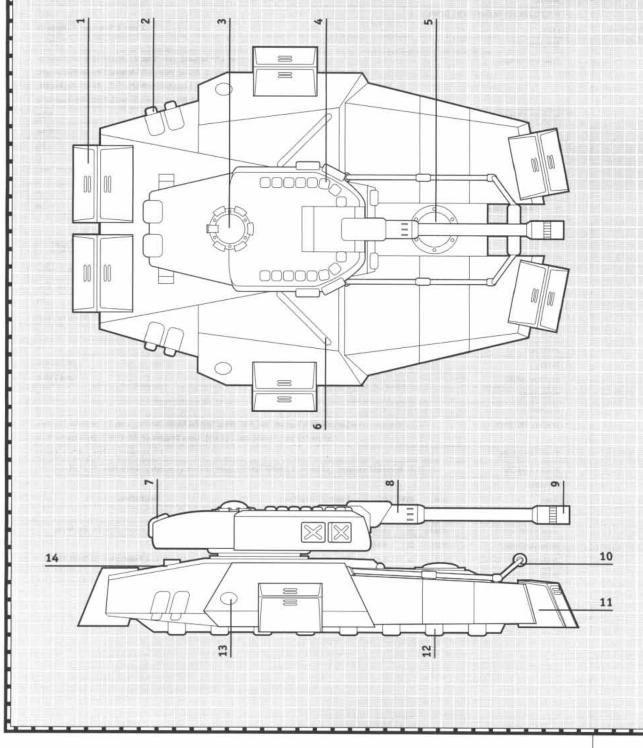
SIZE:	12 (Vehicle, Length 10.7m)
THREAT VALUE (TV):	2825
DEFENSE THREAT VALUE (DTV):	913
MOVEMENT:	Hover 13/25
MANEUVER:	-2
ARMOR:	36/72/108
MISCELLANEOUS THREAT VALUE (MTV):	540
CREW:	Living 2, Computer 2 (Dumb 2)
DEPLOYMENT:	200 km
Perks and Flaws:	Accessories: Limited Life Support, Ram Plate; Reinforced Systems: Backups; Feature: Airdroppable; Communications (+2, 30km); Hostile Environment Protection: Desert; Sensors (0, 4km); Negative Features: Difficult to Modify, Large Sensor Profile (R2), Sensor Dependent; Defect: Weak Point (R6, Movement), Weak Point (R6, Auxiliary)
OFFENSIVE THREAT VALUE (OTV):	7021

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Hvy Particle Cannon	T	+2	x15	3	0	Haywire, AD1, Sniper	60
1	Anti-tank Missiles	FF	+2	x25	3	0	G, IF, HEAT	6
1	Target Designator	FF	+0	x0	3	0	TD	-
1	Airburst Missiles	T	+1	x10	3	0	AE1	4
1	Anti-Personnel Charges	T	+1	x3	0	+1	AI, Smart-2	30

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 3 m)
HIT POINTS:	71
OCCUPANCY:	2 operators, no cargo
ARMOR HARDNESS:	30
DEFENSE:	10
SPEED:	Land 150 kph
TACTICAL SPEED:	Land 250 m
INITIATIVE:	-4
MANEUVER:	-4
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2 km), Hi-Rez Radar (4 km), Laser Designator (RI: 150m), Stabilization Gear
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Hovercraft, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute), Noisy, Weak Point (Movement)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Particle Cannon*	6d10	SS	90m	60	2x Extra Ammo	-
Guided Missiles**	10d10	SS	150m	6	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo
Airburst Missiles**	3d10	SS	90m	3x Blast	2x Less Ammo	
Anti-Personnel Charges**	2d8	SA	5m	30	Extra Ammo, 2x Blast, Volley	Low Penetration, 2x Short Range

NOTE: *Energy Weapon; **Blast Weapons.

HT-72 HOVERTANK

COLONIAL EXPEDITIONARY FORCE
ASSAULT VEHICLE

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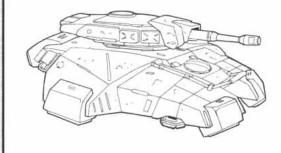
LEGEND
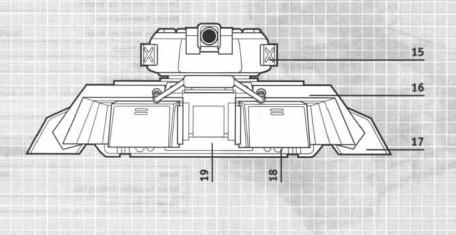
1 .... Starboard Aft Thrust Nozzle
2 .... Starboard Aft Control Nozzle
3 .... Commander Hatch
4 .... Starboard EM Sensor Array
5 .... Pilot Hatch
6 .... Sensor Strip
7 .... Missile Ports (hypothesized)
8 .... Drive Coil Power Booster
9 .... Radiation Shield Emitter
10 .... Crashbar
11 .... Starboard front lift fan
12 .... Reinforced Rib
13 .... Flight Sensor and Avionics Array
14 .... Rear Heatsink
15 .... Anti-personnel Charges
16 .... Ceramite/Composite Armor
17 .... Starboard Lift Fan
18 .... Airflow Sensors
19 .... Front Airflow Controller

SPECIFICATIONS

Code Name: .... Lead Sled
Production code: HT-72
Production Type: .... Mass Production
Cost: .... unknown
Manufacturer: .... Colonial Expeditionary Force
Use: .... all terrain combat vehicle
Length: .... 11.0 meters
Width: .... 8.0 meters
Average armor thickness: .... 90 mm (estimated)
Armor material: .... alloy w/ceramite
Standard operational weight: ..... 41,000 kg (estimated)
Primary Movement Mode: .... Hover (130 kph)
Deployment Range: .... 150 km (estimated)
Sensor Range: .... 4 km (estimated)
Communication Range: .... 15 km (estimated)
Powerplant: .... 2 x high thrust turbofans
Horsepower: .... 2 x 2200 Hp
Weapon Payload:
Particle Accelerator .... 50 shots
Missile Hardpoints .... 10 missiles

15

16

17

19   18

HRT-68 SELF-PROPELLED ARTILLERY

Built to overcome a critical shortfall in capability, the HRT-68 is an artillery system completely unlike any other. Designed as an extremely mobile fire support, it is primarily tasked with counter-battery duty in addition to softening up static defenses and breaking up enemy formations.

The principle objective of the HRT-68's design is to work in close concert with other high-mobility friendly forces without itself becoming a liability. To this end the successful HT-68 chassis was used as a basis for what would prove to be one of the few light artillery systems capable of firing while moving. The firing sequence itself is almost completely automated, with the entire vehicle first entering a computer-controlled jump maneuver that brings the massdriver around to the correct bearing. While temporarily airborne the fire control system rapidly cycles the gun repeatedly as the front end of the vehicle pitches up and down through the necessary ballistic declinations under automatic computer control. Once the entire salvo is away, the turbofans wind up to full power for a controlled "landing" back on the ground, after which pilot authority is restored to the crew who can then resume maneuvering. Individual shells in a salvo are programmed to arrive automatically on target simultaneously through slight variation in ballistic trajectories for best area saturation despite having been fired sequentially.

◆ Service Record

By far the most common form of artillery in the Colonial Expeditionary Force, the HRT-68 can provide rapid fire support in situations that would be impossible for conventional artillery. Quite often HRT-68 batteries are positioned as close to a battle as possible rather than as far away as possible to improve responsiveness and tasking flexibility.

Vehicle Specifications

Code Name:	HRT-68 Self-Propelled Artillery
Production Code:	HRT-68
Production Type:	Mass Production
Cost:	168,525,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	light self-propelled gun
Height:	3.4 meters
Length:	10.2 meters (11.1 m w/LAG)
Width:	8.0 meters
Average Armor Thickness:	162 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	41,650 kg
Primary Movement Mode:	Hover (140 kph)
Secondary Movement Mode:	Jump Jets (100 x 50 m)
Deployment Range:	200 km
Sensor Range:	80 hexes/4 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 2000 hp

Weapon Payload

Name	Ammunition Payload
90mm Massdriver Artillery Gun	60 salvos
Counter Battery Sensor	n/a

SilCORE Stats

SIZE:	12 (Vehicle, Length 10.2m)
THREAT VALUE (TV):	3785
DEFENSE THREAT VALUE (DTV):	913
MOVEMENT:	Hover 12/23
MANEUVER:	-2
ARMOR:	36/72/108
MISCELLANEOUS THREAT VALUE (MTV):	729
CREW:	Living 3, Computer 1 (Dumb 2)
DEPLOYMENT:	200 km
PERKS AND FLAWS:	Accessories: Limited Life Support, Ram Plate; Reinforced Systems: Backups; Feature: Airdroppable; Communications (+2, 30km); Hostile Environment Protection: Desert; Sensors (0, 4km); Negative Features: Difficult to Modify, Large Sensor Profile (R3), Sensor Dependent; Defect: Weak Point (R8, Movement), Weak Point (R8, Auxiliary)
OFFENSIVE THREAT VALUE (OTV):	9714

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Lt. Artillery Gun	FF	+0	x12	25	0	AEO, IF, MR, Sniper	10

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Large (Tall, 3.4 m)
HIT POINTS:	71
OCCUPANCY:	3 operators, no cargo
ARMOR HARDNESS:	30
DEFENSE:	10
SPEED:	Land 140 kph
TACTICAL SPEED:	Land 235 m
INITIATIVE:	-4
MANEUVER:	-5
SPECIAL ABILITIES:	Environmental Controls: Life Support, Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2 km), Hi-Rez Radar (4 km)
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Hovercraft, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute), Very Noisy, Weak Point (Movement)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Lt. Artillery Gun*	4d10	750m	4x Blast, Indirect		Arc of Fire (Fr), Less Ammo	

NOTE: *Blast Weapons.

HRT-72 SELF-PROPELLED ARTILLERY

Developed experimentally as a heavier adjunct to the older HRT-68 model, the HRT-72 is a fearsome weapon system. Yet despite the improvements made in the HT-72 chassis, the HRT-72 lacks many of the advantages of its lighter predecessor.

Armed with a massive 152mm massdriver, the HRT-72 is much closer to being a conventional artillery platform in that it must deploy stabilizers and fire from a prepared position. In this respect it is extremely different from its counterpart in that deployment too close to a battlefield may be extremely hazardous. Fortunately overrun situations are relatively rare due to the high mobility potential of the basic chassis, a necessary consideration since a formation of hovertanks can easily move beyond the reach of a HRT-72 within only a few minutes.

Although the HRT-72 is able to engage in counter-battery fire, the lighter, faster and almost invariably closer HRT-68 patrols most often handle the task. The primary role for the HRT-72 tends to be in reducing static defenses in addition to breaking up close formations of troops and heavier armor.
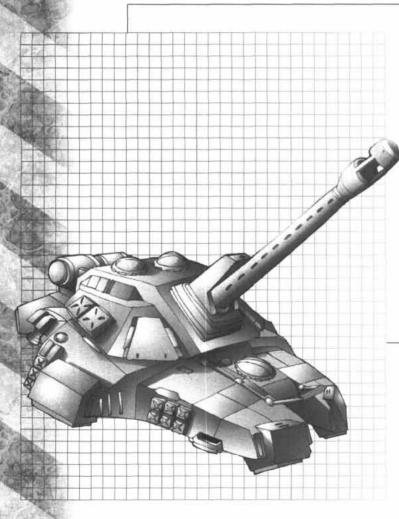
◆ Service Record

Available only in extremely limited numbers before AD 6120, the HRT-72 proved itself as a decisive asset when it could be deployed. At present only the 3rd and 8th Fleets possess any in significant quantities, although 2nd Fleet has requisitioned a substantial number for use on Utopia.

Vehicle Specifications

Code Name:	HRT-72 Self-Propelled Artillery
Production Code:	HRT-72
Production Type:	Mass Production
Cost:	168,058,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	medium self-propelled gun
Height:	3.0 meters
Length:	10.7 meters (12 meters w/ MAG)
Width:	8.0 meters
Average Armor Thickness:	162 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	49,450 kg
Primary Movement Mode:	Hover (150 kph)
Secondary Movement Mode:	Jump Jets (100 x 50 m)
Deployment Range:	200 km
Sensor Range:	80 hexes/4 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 2200 hp

Weapon Payload

Name	Ammunition Payload
152mm Massdriver Artillery Gun	9 salvos
Counter Battery Sensor	n/a

SilCORE Stats

SIZE:	12 (Vehicle, Length 10.7m)
THREAT VALUE (TV):	4708
DEFENSE THREAT VALUE (DTV):	913
MOVEMENT:	Hover 12/23
MANEUVER:	-2
ARMOR:	36/72/108
MISCELLANEOUS THREAT VALUE (MTV):	912
CREW:	Living 2, Computer 2 (Dumb 2)
DEPLOYMENT:	200 km
PERKS AND FLAWS:	Accessories: Limited Life Support, Ram Plate; Reinforced Systems: Backups; Feature: Airdroppable; Communications (+2, 30km); Hostile Environment Protection: Desert; Sensors (0, 4km); Negative Features: Difficult to Modify, Large Sensor Profile (R2), Sensor Dependent; Defect: Weak Point (R6, Movement), Weak Point (R6, Auxiliary)
OFFENSIVE THREAT VALUE (OTV):	12299

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Med. Artillery Gun	FF	-1	x18	30	0	AE1, IF, MR, Sniper	9
1	Anti-Personnel Charges	T	+1	x3	0	+1	AI, Smart-2	30

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Large (Tall, 3 m)
HIT POINTS:	71
OCCUPANCY:	2 operators, no cargo
ARMOR HARDNESS:	30
DEFENSE:	10
SPEED:	Land 150 kph
TACTICAL SPEED:	Land 250 m
INITIATIVE:	-4
MANEUVER:	-4
SPECIAL ABILITIES:	Environmental Controls: Life Support, Communications ( ), Sensors ( )
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Hovercraft, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute), Very Noisy, Weak Point (Movement)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Med. Artillery Gun*	5d12	900m	6x Blast, Indirect		Arc of Fire (Fr), Less Ammo	
Anti-Personnel Charges*	2d8	SA	5m	30	Extra Ammo, 2x Blast, Volley	Low Penetration, 2x Short Range

NOTE: *Blast Weapons.

HPC-64 HOVER APC

There is no point in having armored forces capable of making blitzkrieg strikes into an enemy's weak points if the soldiers and troopers aren't able to move in and take possession of the ground. With the potential lightning speed of hovertanks about to arrive in its arsenal of weapons the New Eurasian Commonwealth needed an armored personnel carrier capable of keeping pace and going anywhere its hovertanks could.

Developed concurrently with the HT-68 hovertank, the HPC-64 draws heavily upon the same technological base that made the hovertanks possible. The most obvious difference lies in the turret armament, which comprises a gatling laser system essentially transplanted from the NEC's transatmospheric aerospace fighters. Using the laser's rapid-fire capability, the vehicle's crew could saturate an area with sustained suppression fire before driving up and rapidly unloading the troopers (and later, soldiers) within who could quickly deploy and mop up with their own firepower.

Prior to the development of the HPC-64, most armored personnel carriers carried essentially defensive armament meant to protect the vehicle. When acting in concert with hovertanks however, the HPC-64 rapidly evolved into a highly offensive weapon system capable of delivering surprise attacks right into an enemy formation with devastating speed.

◆ Service Record

The standard armored personnel carrier in every Fleet, the HPC-64 has proven to be a very enduring. From the battlefields of WWIII on Earth to the remote firezones among the colonies, the HPC-64 has a sustained record that few other machines can match, particularly considering that it doesn't demand anywhere near the amount of tender loving care required by the CEF's hovertanks.

Vehicle Specifications

Code Name:	HPC-64 Hover APC
Production Code:	HPC-64
Production Type:	Mass Production
Cost:	21,000,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	hover armored personnel carrier
Height:	3.4 meters
Length:	10.2 meters
Width:	8.0 meters
Average Armor Thickness:	34 mm
Armor Material:	alloy/ceramite
Standard Operational Weight:	9921 kg
Primary Movement Mode:	Hover (140 kph)
Secondary Movement Mode:	Jump Jets (50 x 25 meters)
Deployment Range:	300 km
Sensor Range:	40 hexes/2 km
Communication Range:	200 hexes/10 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 800 hp

Weapon Payload

Name	Ammunition Payload
Gatling Laser Turret	150 shots

SilCORE Stats

SIZE:							7 (Vehicle, Length 10.2m)
THREAT VALUE (TV):							493
DEFENSE THREAT VALUE (DTV):							349
MOVEMENT:							Hover 12/23
MANEUVER:							-2
ARMOR:							13/26/39
MISCELLANEOUS THREAT VALUE (MTV):							382
CREW:							Living 2
DEPLOYMENT:							300 km
PERKS AND FLAWS:						Accessories: Emergency Medical, Large Doors, Limited Life Support; Reinforced Systems: Crew; Feature: Airdroppable; Communications (+1, 10km); Hostile Environment Protection: Desert; Sensors (+1, 2km); Negative Features: Large Sensor Profile (R1); Defect: Weak Point (R5, Movement), Weak Point (R5, Auxiliary)	
OFFENSIVE THREAT VALUE (OTV):							749

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Gatling Laser Cannon	T	+1	x16	3	+1	AD3, HEAT	150

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Large (Tall, 3.4 m)
HIT POINTS:	35
OCCUPANCY:	2 operators, ? passengers
ARMOR HARDNESS:	13
DEFENSE:	10
SPEED:	Land 140 kph
TACTICAL SPEED:	Land 235 m
INITIATIVE:	-4
MANEUVER:	-4
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2 km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hovercraft, Reduced Endurance (20 hours at combat speed), Start-Up Time (1 minute), Noisy, Weak Point (Movement)

WEAPONS						
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Gatling Laser Cannon*	4d12	SA	90m	150	2x Extra Ammo	-

NOTE: *Energy Weapon

HC-3 HOVER COMMAND CAR

Artillery batteries without command, control and communications (C3) are worse than useless, they are a potential liability. To combat potential problems with answering requests for fire support from frontline units each CEF artillery battery has its own local C3 node for coordinating fire missions.

The HC-3 comes equipped with a satellite uplink for reporting field conditions to HQ and directing Ortillery strikes. A powerful electronic warfare suite ensures that a battery's guns can send and receive communications while remaining relatively safe from enemy forward observers. A defensive laser cannon is mounted for self-protection, although HC-3 crews are strongly discouraged from taking offensive action. Time spent engaging an enemy with weaponry is time not spent on keeping the EM spectrum clear for friendlies and jammed for enemies. Most often the HC-3 will freely range somewhere between the frontline fighters and its artillery battery so as to provide EW support forward.

HC-3 crews can be made up of either troopers or soldiers, the latter most often being a Jan and Kassandra GREL team, and are often the most battlefield-experienced personnel in the entire battery.

◆ Service Record

The HC-3 is a crucial link in the CEF's ability to coordinate its forces during an engagement. Usually once an enemy has located a command car it will become a priority target for a hostile force. On Terra Nova, Gear pilots were reportedly paid bounties for the destruction of command cars in the later stages campaign.

Vehicle Specifications

Code Name:	HC-3 Hover Command Car
Production Code:	HC-3
Production Type:	Mass Production
Cost:	36,750,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	mobile artillery command and control
Height:	2 meters
Length:	3.5 meters
Width:	2.8 meters
Average Armor Thickness:	16 mm
Armor Material:	alloy/ceramite
Standard Operational Weight:	1980 kg
Primary Movement Mode:	Hover (150 kph)
Secondary Movement Mode:	Jump Jets (50 x 25 meters)
Deployment Range:	300 km
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x Turbofans w/Superconductors and Fuel Cells
Engine Output:	2 x 100 hp

Weapon Payload

Name	Ammunition Payload
Defensive Laser Cannon	10 shots

SilCORE Stats

SIZE:	4 (Vehicle, Length 3.5m)
THREAT VALUE (TV):	1188
DEFENSE THREAT VALUE (DTV):	1059
MOVEMENT:	Hover 13/25
MANEUVER:	+1
ARMOR:	9/18/27
MISCELLANEOUS THREAT VALUE (MTV):	2402
CREW:	Living 2
DEPLOYMENT:	250 km
PERKS AND FLAWS:	Accessories: Limited Life Support; Feature: Airdroppable; Communications (+2, 30km, Satellite Uplink); Hostile Environment Protection: Desert; Information Warfare (ECM +3/6km, ECCM +3/6km), Sensors (+1, 6km); Negative Features: Vulnerable to Haywire Effects; Defect: Weak Point (R2, Movement), Weak Point (R3, Auxiliary)
OFFENSIVE THREAT VALUE (OTV):	103

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Sniper Laser Cannon	FF	+1	x12	5	0	AD1, HEAT	10

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Large (Tall, 2 m)
HIT POINTS:	39
OCCUPANCY:	2 operators, no cargo
ARMOR HARDNESS:	9
DEFENSE:	12
SPEED:	Land 150 kph
TACTICAL SPEED:	Land 250 m
INITIATIVE:	+2
MANEUVER:	+1
SPECIAL ABILITIES:	ECM (Comm +3, Radar +3), Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2 km), Hi-Rez Radar (5 km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hovercraft, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute), Weak Point (Movement)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Sniper Laser Cannon*	4d10	SS	160m	20	Long Range	Arc of Fire (Fr)

NOTE: *Energy Weapon

TYPE 11-22 FRAME

Built as an alternative to the heavier Frames developed by Moscow Heavy Industries, the Type 11-22 proved too fragile for the sort of frontline assault duties that Ground Command had in mind. Unwilling to accept failure, KWS executives decided to pursue an independent schedule for the development of something the Colonial Expeditionary Force needed but hadn't asked for, a scout.
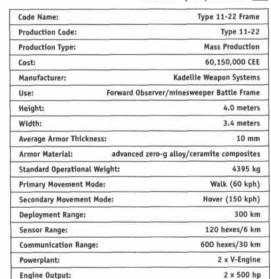
Beginning with the lighter frame and chassis, the project eventually evolved into a multipurpose forward observer/ minesweeper machine. Lightly armed and armored, the 11-22 is capable of being inserted into a firezone by airdrop from an AC-56 or AT-33 transport. Once on the ground, any potential resistance can be rapidly identified and designated for attack by aerospace assets such as the TAAF-54. In this capacity, the 11-22 can act as a pathfinder for securing drop zones for following troopers, soldiers and equipment. A standard CEF minesweeper drone is also often carried as standard equipment for neutralizing any minefield that may be discovered during a search.

Kadellie Weapons Systems arranged for a surprise demonstration of their specialist Frame for Ground Command. Following the event, the CEF placed an order for mass production to begin immediately.
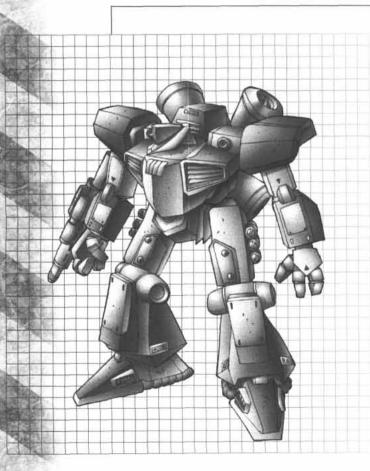
◆ Service Record

The Type 11-22 is definitely not a frontline fighting Frame, although it is armed for self-protection. KWS has also notably subcontracted significant portions of the Frame's systems to native Caprician corporations in an effort to gain better leverage in the Caprician financial markets. Unfortunately the program's image has been tarnished by numerous minuscule errors of management and engineering, leading to a poor reputation among troopers and soldiers assigned to work with the Frame.

Vehicle Specifications

Code Name:	Type 11-22 Frame
Production Code:	Type 11-22
Production Type:	Mass Production
Cost:	60,150,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	Forward Observer/minesweeper Battle Frame
Height:	4.0 meters
Width:	3.4 meters
Average Armor Thickness:	10 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	4395 kg
Primary Movement Mode:	Walk (60 kph)
Secondary Movement Mode:	Hover (150 kph)
Deployment Range:	300 km
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x V-Engine
Engine Output:	2 x 500 hp

Weapon Payload

Name	Ammunition Payload
Defensive Laser Cannon	10 shots
Hand Grenades	3 grenades
Haywire Grenades	3 grenades
Minesweeper Drone	1 (+1 TV)
Option - Add Utility Octopus	Modified TV: 749
Option - Add Support Octopus	Modified TV: 1018

SilCORE Stats

SIZE:	5 (Vehicle, Height 4.0 m)
THREAT VALUE (TV):	1070
DEFENSE THREAT VALUE (DTV):	1209
MOVEMENT:	Walker 5/10
	Hover 13/25
MANEUVER:	+1
ARMOR:	9/18/27
MISCELLANEOUS THREAT VALUE (MTV):	1369
CREW:	Living 1
DEPLOYMENT:	300 km
PERKS AND FLAWS:	Armor Quality: Reinforced (R3, Front); Arms: Manipulator Arms x2 (R5); Communications (+2, 30 km, Satellite Uplink); Feature: Airdroppable, Cargo Bay (enclosed, Minesweeper drone); Hostile Environment Protection: Desert; Sensors (+1, 6 km); Negative Features: Difficult to Modify, Vulnerable to Haywire Effects; Movement Flaws: Decreased Maneuver (R2, Hover)
OFFENSIVE THREAT VALUE (OTV):	631

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Sniper Laser Cannon	F	+1	x12	5	0	AD1, Hardpoint. HEAT	10
3	Hand Grenade	F	-1	x15	0	0	Hand-held, AI	-
3	Haywire Grenade	F	-1	x10	0	0	Hand-held, HW	-
1	Target Designator	F	+0	x0	3	0	TD	Inf.

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4 m)
HIT POINTS:	39
OCCUPANCY:	1 operator, cargo: minesweeper drone
ARMOR HARDNESS:	9
DEFENSE:	9
STRENGTH:	30
SPEED:	Land 225 kph
TACTICAL SPEED:	Land 375 m
INITIATIVE:	+1
MANEUVER:	+2
SPECIAL ABILITIES:	INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2km), Hi-Rez Radar (5km), Laser Designator (RI: 150m)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Noisy, Reduced Endurance (20 hours at combat speed), Start-Up Time (1 minute)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Laser Cannon*	4d10	SS	160m	10	Long Range	Arc of Fire (Fr), Less Ammo
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Haywire Grenade**	8d10	SS	12m	3	1x Blast, EMP	Arc of Fire (Fr), 3x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons. All weapons are Hardpoint-mounted.

TYPE 55 FRAME

The Type 55 has been developed as a general all purpose Battle Frame. Its primary duties include area suppression and anti-infantry support and in these roles it is seen as bridging the gap between traditional CEF armor and infantry forces. It is also designed to be airdropped in theater to extend its operational range and increase strategic flexibility.

While all the other Frames developed for the CEF have been designed to counter a particular mission threat, the Type 55 has been deliberately generalized. Of all the machines derived from captured Terranovan designs the Type 55 most closely matches the Hunter/Jäger Gears from which it was derived, albeit with significant differences. The primary weapon is a deep magazine gatling laser, the same type as is used by the HPC-64, mounted on a forearm hardpoint. The opposing forearm hardpoint mounts a quick-change triple tube disposable missile rack loaded with airburst missiles. Two extra sets of missile tubes are carried in an armored pack fitted with a dedicated internal storage compartment located below the V-Engine. When used together, these two weapon systems can quickly disperse concentrated opposition through repeated area saturation or inflict severe damage on static defenses.

Secondary weapons include a standard CEF infantry 55mm anti-personnel mortar mounted vertically behind one shoulder and an assortment of anti-personnel and anti-vehicular grenades. A stock Caprician vibroblade is standard issue for close combat situations. The Type 55 can also make use of any Octopus Pack currently in production.
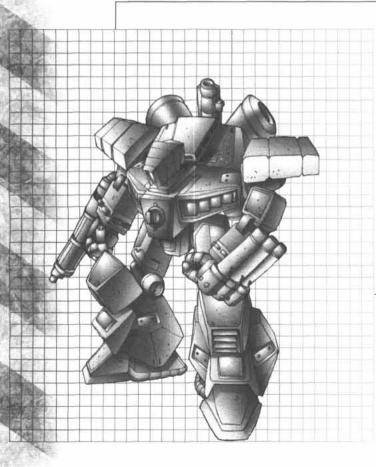
● Service Record

In simulated combat situations the Type 55 has excelled, particularly when used in conjunction with hovertanks. A few live fire exercises have been conducted against known terrorist cells operating in the Caprician Highlands, but without contacting any Black Talon opposition as of yet. A decision for full-scale mass production has already been made, however, with most of the first machines to roll off the line earmarked for rebuilding the 8th Fleet.

Vehicle Specifications

Production Code:	Type 55
Production Type:	Mass Production
Cost:	50,175,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	General Purpose Battle Frame
Height/Width:	4.4 meters/3.5 meters
Average Armor Thickness:	15 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	5952 kg
Primary Movement Mode:	Walk (55 kph)
Secondary Movement Mode:	Hover (140 kph)
Deployment Range:	250 km
Sensor Range:	40 hexes/2 km
Communication Range:	200 hexes/10 km
Powerplant:	2 x V-Engine
Engine Output:	2 x 650 hp

Weapon Payload

Name	Ammunition Payload
Gatling Laser Cannon	150 shots
Airburst Missiles	3 clips of 3 missiles
55mm Infantry Mortar	12 shells
Hand Grenades + Vibroblade	6 grenades, mixed
Option - Add Utility Octopus	Modified TV: 758
Option - Add Support Octopus	Modified TV: 1027
Option - Add Assault Octopus	Modified TV: 1294

SilCORE Stats

SIZE:	6 (Vehicle, Height 4.4 m)
THREAT VALUE (TV):	1953
DEFENSE THREAT VALUE (DTV):	750
MOVEMENT:	Walker 5/10
	Hover 12/23
MANEUVER:	0
ARMOR:	11/22/33
MISCELLANEOUS THREAT VALUE (MTV):	313
CREW:	Living 1
DEPLOYMENT:	250 km
PERKS AND FLAWS:	Armor Quality: Reinforced (R3, Front); Arms: Manipulator Arms x2 (R6); Communications (+1, 10 km); Feature: Airdroppable, Cargo Bay (enclosed, 6 ABM ammo); Hostile Environment Protection: Desert; Sensors (+1, 2 km); Negative Features: Difficult to Modify; Movement Flaws: Decreased Maneuver (R2, Hover)

OFFENSIVE THREAT VALUE (OTV):							4796
Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Gatling Laser Cannon	F	+1	x16	3	+1	AD3, HEAT	150
1	Airburst Missiles	F	+1	x10	3	0	AE1, E-Homing	2
1	Anti-Personnel Mortar	F	-1	x4	2	0	AE0, AI, IF, MR	12
3	Hand Grenade	F	-1	x15	0	0	Hand-held, AI	-
3	Heavy Hand Grenade	F	-1	x25	0	0	Hand-held	-
1	Vibroblade	F	0	x8	0	0	Hand-held	Inf.

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4.4 m)
HIT POINTS:	41
OCCUPANCY:	1 operator, no cargo
ARMOR HARDNESS:	11
DEFENSE:	9
STRENGTH:	35
SPEED:	Land 140 kph
TACTICAL SPEED:	Land ?
INITIATIVE:	+0
MANEUVER:	+0
SPECIAL ABILITIES:	INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (1km), Radar (2km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Noisy, Reduced Endurance (18 hours at combat speed), Start-Up Time (1 minute)

WEAPONS						
Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Gatling Laser Cannon*	4d12	SA	90m	150	2x Extra Ammo	Arc of Fire (Fr)
Guided Missiles**	10d10	SS	150m	8	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Heavy Hand Grenades**	10d10	SS	10m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Vibroblade***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee

NOTE: *Energy Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hand-held or Hardpoint-mounted.

MACHINES & EQUIPMENT

TYPE 2-07 FRAME

The difficulties encountered during the Terranovan campaign highlighted a serious shortcoming for Ground Command: their equipment was poorly suited to fighting in jungle terrain. In attempting to penetrate the dense vegetation of the Mekong lowlands many of the CEF's most important assets had to be left behind, including hovertanks, artillery and personnel carriers. This limited the amount of firepower that could be brought to bear in theater and greatly favored the rebellious colonists with their well armed and armored Gears.
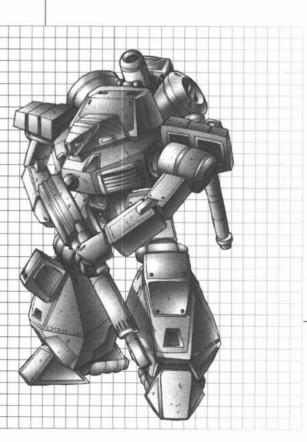
The Type 2-07 redresses that shortfall with a dedicated fire support weapons payload intended to destroy enemy vehicles and personnel alike. A massive 152mm mortar is the primary weapon system and is firmly mounted behind the center of the V-Engine. Even with a 1.5m screw recoil traverse system the Frame cannot fire this weapon from a standing position and must assume a braced kneeling posture in which hydraulic interlocks engage to hold the entire machine rigid. Ballistic declination is controlled by pitching the entire torso forward at the correct angle prior to firing. A counter-battery sensor is also fitted and can detect the location of incoming fire from anywhere within the mortar's range.

An arm-mounted 55mm anti-personnel mortar comes as standard issue for use against enemy infantry and to support friendly infantry. The laser cannon carried by the Type 6-16 is used for direct fire engagements, although these should usually be avoided when possible.

◆ Service Record

The Type 2-07 is actually an outgrowth of development on the Type 6-16 Assault Frame. Not knowing if the 6-16 would be found acceptable, MHI experimented with several possible weapons loadouts and mission profiles. After years of testing and experience, Moscow Heavy Industries presented its best two prospects to fulfill the assault role envisioned by Ground Command. To its surprise both were accepted, although for very different reasons.

Vehicle Specifications

Code Name:	Type 2-07 Frame
Production Code:	Type 2-07
Production Type:	Mass Production
Cost:	62,400,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	fire support Frame
Height:	4.6 meters (5.1 meters w/ HFM)
Width:	3.5 meters
Average Armor Thickness:	21 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	6786 kg
Primary Movement Mode:	Walk (50 kph)
Secondary Movement Mode:	Hover (120 kph)
Deployment Range:	200 km
Sensor Range:	80 hexes/4 km
Communication Range:	600 hexes/30 km
Powerplant:	2 x V-Engine
Engine Output:	2 x 700 hp

Weapon Payload

Name	Ammunition Payload
Light Laser Cannon	20 shots
152mm Heavy Field Mortar	8 shells
55mm Infantry Mortar	12 shells
Hand Grenades	3 grenades

SilCORE Stats

SIZE:	6 (Vehicle, Height 4.6 m)
THREAT VALUE (TV):	598
DEFENSE THREAT VALUE (DTV):	633
MOVEMENT:	Walker 4/8
	Hover 10/20
MANEUVER:	0
ARMOR:	13/26/39
MISCELLANEOUS THREAT VALUE (MTV):	384
Crew:	Living 1
DEPLOYMENT:	200 km
PERKS AND FLAWS:	Armor Quality: Reinforced (R3, Front); Arms: Manipulator Arms x2 (R6); Communications (+2, 10 km); Hostile Environment Protection: Desert; Sensors (+0, 4 km, Counter-Battery); Negative Features: Difficult to Modify; Movement Flaws: Decreased Maneuver (R2, Hover)
OFFENSIVE THREAT VALUE (OTV):	776

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Light Laser Cannon	F	+1	x16	5	0	AD2, Hand-held, HEAT	20
1	Heavy Field Mortar	FF	-1	x25	6	0	AEO, IF, MR	8
1	Anti-Personnel Mortar	F	-1	x4	2	0	AEO, AI, IF, MR	12
3	Hand Grenade	F	-1	x15	0	0	Hand-held, AI	-

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4.6 m)
HIT POINTS:	43
OCCUPANCY:	1 operator, no cargo
ARMOR HARDNESS:	13
DEFENSE:	9
STRENGTH:	35
SPEED:	Land 180 kph
TACTICAL SPEED:	Land 300 m
INITIATIVE:	+0
MANEUVER:	+0
SPECIAL ABILITIES:	INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (1km), Radar (4km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Noisy, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Laser Cannon*	4d12	SS	160m	20	Long Range	Arc of Fire (Fr)
Heavy Field Mortar**	10d10	SS	300m	8	4x Blast, Indirect, Long Range	Arc of Fire (Fr), 2x Less Ammo, Slow Firing
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons. All weapons are Hardpoint-mounted.

TYPE 6-16 FRAME

The Type 6-16 was the first Battle Frame successfully produced by CEF engineers. Reverse engineered and extensively modified from captured Terranovan machines and plans, the design and testing took the better part of a decade to complete. Battle Frames were already entering into low rate initial production runs in preparation for full-scale mass production when the 1st Black Talon strike team arrived on Caprice, disrupting the CEF's timetable.
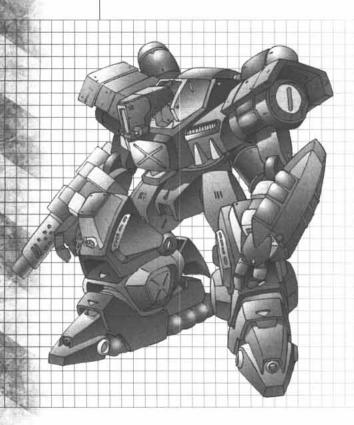
Built to broadly similar specifications as a Terranovan Gear, the Type 6-16 is first and foremost a weapons platform built to carry heavy weapons into battle. Many of the machine's components would be familiar to a Terranovan military technician: V-Engines, hydraulic powertrain, neural net control systems and a torso cockpit. What would not be familiar is the advanced armor materials, the hover SMS, advanced superconductors and hydrogen fuel systems, among other things. Terran technical expertise cannot yet match the centuries of experience in ruggedized Gear manufacturing possessed by the Terranovans and consequently the Frame is not as solidly constructed as its colonial counterparts. The Type 6-16 does however have a much higher power-to-mass ratio due to the expertise of Terran and Caprician engineers in ceramic engines and high performance turbine systems.

Like all Frames the 6-16 doesn't have any built-in weapons and all armament is carried on forearm and shoulder hardpoints. The standard layout of energy weaponry and guided missiles is intended to complement that of the hovertanks with which it will most often be associated. Furthermore, the Frame is cleared to use any of the Octopus Packs already in production for even more firepower.

◆ Service Record

To date the Type 6-16 has fared very well in skirmishes with irregular resistance groups in the Caprician Highlands but less well when confronting Black Talon Teams. 3rd Fleet's Ground Command is at a loss to explain this disparity of performance and is coming under increasing pressure to solve problem. Current thinking is that a complete review of pilot training procedures for both troopers and soldiers may rectify these deficiencies.

Vehicle Specifications

Production Code:	Type 6-16
Production Type:	Mass Production
Cost:	57,825,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	Heavy Assault Battle Frame
Height/Width:	4.6 meters/3.5 meters
Average Armor Thickness:	21 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	6429 kg
Primary Movement Mode:	Walk (50 kph)
Secondary Movement Mode:	Hover (120 kph)
Deployment Range:	200 km
Sensor Range:	40 hexes/2 km
Communication Range:	200 hexes/10 km
Powerplant:	2 x V-Engine
Engine Output:	2 x 700 hp

Weapon Payload

Name	Ammunition Payload
Light Laser Cannon	20 shots
Missile Delivery System	6 missiles
Hand Grenades + Vibroblade	3 grenades
Option - Add Utility Octopus	Modified TV: 860
Option - Add Support Octopus	Modified TV: 1129
Option - Add Assault Octopus	Modified TV: 1396

SilCORE Stats

SIZE:	6 (Vehicle, Height 4.6 m)
THREAT VALUE (TV):	638
DEFENSE THREAT VALUE (DTV):	633
MOVEMENT:	Walker 4/8
	Hover 10/20
MANEUVER:	0
ARMOR:	13/26/39
MISCELLANEOUS THREAT VALUE (MTV):	168
CREW:	Living 1
DEPLOYMENT:	200 km
PERKS AND FLAWS:	Armor Quality: Reinforced (R4, Front); Arms: Manipulator Arms x2 (R6); Communications (+1, 10 km); Hostile Environment Protection: Desert; Sensors (+1, 2 km); Negative Features: Difficult to Modify; Movement Flaws: Decreased Maneuver (R2, Hover)

OFFENSIVE THREAT VALUE (OTV):							1112

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Light Laser Cannon	F	+1	x16	5	0	AD2, Hardpoint, HEAT	20
1	Anti-Gear Missile	F	+1	x15	3	0	Hardpoint, G, IF	6
3	Hand Grenade	F	-1	x15	0	0	Hand-held, AI	-
1	Vibroblade	F	0	x8	0	0	Hand-held	Inf.
1	Target Designator	F	+0	x0	3	0	TD	Inf.

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4.6 m)
HIT POINTS:	43
OCCUPANCY:	1 operator, no cargo
ARMOR HARDNESS:	13
DEFENSE:	15
STRENGTH:	35
SPEED:	Land 180 kph
TACTICAL SPEED:	Land 300 m
INITIATIVE:	-1
MANEUVER:	-1
SPECIAL ABILITIES:	INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (1km), Radar (2km), Laser Designator (RI: 150m)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Noisy, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Laser Cannon*	4d12	SS	160m	20	Long Range	Arc of Fire (Fr)
Guided Missiles**	10d10	SS	150m	6	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Vibroblade***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee

NOTE: *Energy Weapon; **Blast Weapons. All weapons are Hardpoint-mounted.

TYPE 81-12 FRAME

Following the 2nd Fleet's success at Utopia it became clear that if the CEF encountered any significant resistance at Jotenheim, it would be seriously outclassed militarily. The battle reports from the 8th Fleet's engagement of colonial rebels in the mountainous regions of Terra Nova, however, pointed to a possible solution. KWS was contracted to produce an alpine environment Frame specifically capable of dealing with the naturally formidable terrain.

Kadellie Weapon Systems actually developed the Type 81-12 and Type 99 Frames concurrently since there was a great deal of crossover between the two Frames in terms of requirements, particularly weight. Kadellie engineers determined that primary requirement for the 81-12 would be mobility rather than armor or firepower, their rationale being that their Frame would need to get to advantageous locations fast and that many such locations would not be easy to reach by walking. Additionally, extra weight could be extremely hazardous in areas of poor ground stability. Thus a lighter machine would be able to survive natural hazards better than a heavy one.

In keeping with this philosophy the 81-12 is lightly armed with a defensive laser and a pair of mortars, one for defeating light armor or creating rockslides and one for anti-personnel work. Hand grenades are standard issue for demolitions and traps. The climbing claws have been specially reinforced for use in close quarters as weapons if need be, although a vibroblade is carried for use in melee and general tool use.
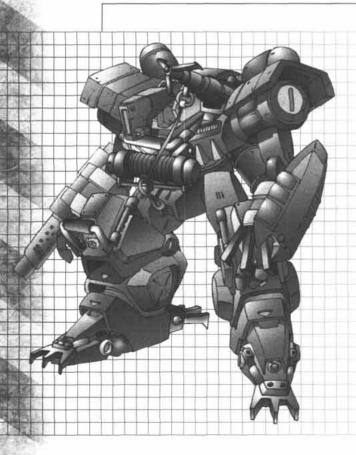
◆ Service Record

With its combination of jump jets, grappling lines and climbing apparatus there is almost nowhere that a Type 81-12 cannot go. With its powerful sensors and communications array, an 81-12 can survey a tremendous area from a high vantage point and rarely suffers from the sort of return echoes common in rough mountainous terrain. The Frame does run "hot" sometimes, however, due to its small size and high power output, although these conditions can be avoided through careful control.

Vehicle Specifications

Production Code:	Type 81-12
Production Type:	Mass Production
Cost:	74,880,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	Alpine Environment Battle Frame
Height/Width:	4.0 meters/3.4 meters
Average Armor Thickness:	10 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	2750 kg
Primary Movement Mode:	Walk (60 kph)
Secondary Movement Mode:	Jump Jets (50 x 25 m)
Deployment Range:	300 km
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	Ceramic Gas Turbines
Engine Output:	600 hp

Weapon Payload

Name	Ammunition Payload
Defensive Laser Cannon	10 shots
90mm Light Field Mortar	5 shells
55mm Infantry Mortar	12 shells
Hand Grenades + Vibroblade	6 grenades, mixed
2 x Reinforced Climbing Claws	-
Option - Add Utility Octopus	Modified TV: 921
Option - Add Support Octopus	Modified TV: 1190

SilCORE Stats

SIZE:	5 (Vehicle, Height 4.0 m)
THREAT VALUE (TV):	2154
DEFENSE THREAT VALUE (DTV):	272
MOVEMENT:	Walker 5/10
MANEUVER:	+1
ARMOR:	9/18/27
MISCELLANEOUS THREAT VALUE (MTV):	1544
CREW:	Living 1
DEPLOYMENT:	300 km
Perks and Flaws:	Accessories: Autopilot; Armor Quality: Reinforced (R3, Front); Arms: Manipulator Arms x2 (R5); Communications (+2, 30 km); Feature: Off-Road Ability; Hostile Environment Protection: Desert, Extreme Cold; Sensors (+1, 6km); Negative Features: Difficult to Modify, Overheating
Offensive Threat Value (OTV):	4645

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Defensive Laser Cannon	F	+1	x12	5	0	AD1, Hardpoint. HEAT	10
1	Light Field Mortar	FF	-1	x15	4	0	AEO, IF, MR	32
1	Anti-Personnel Mortar	F	-1	x4	2	0	AEO, AI, IF, MR	12
3	Hand Grenade	F	-1	x15	0	0	Hand-held, AI	-
3	Heavy Hand Grenade	F	-1	x25	0	0	Hand-held	-
1	Vibroblade	F	0	x8	0	0	Hand-held	Inf.
1	Grapple Launcher	F	0	x6	1	0	Hardpoint, Winch	8

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4.0m)
HIT POINTS:	39
OCCUPANCY:	1 operator, no cargo
ARMOR HARDNESS:	9
DEFENSE:	9
STRENGTH:	32
SPEED:	Land 90 kph
TACTICAL SPEED:	Land 150 m
INITIATIVE:	+0
MANEUVER:	+0
SPECIAL ABILITIES:	INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (2km), Radar (6km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Reduced Endurance (21 hours at combat speed), Start-Up Time (1 minute)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Defensive Laser Cannon*	4d10	SS	160m	10	Long Range	Arc of Fire (Fr), Less Ammo
Light Field Mortar**	8d10	SS	300m	32	4x Blast, Indirect, Long Range	Arc of Fire (Fr), Less Ammo, Slow Firing
Hand Grenades**	8d10	SS	12m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Heavy Hand Grenades**	10d10	SS	10m	3	3x Blast	Arc of Fire (Fr), 3x Less Ammo
Vibroblade***	4d6	SS	n/a	n/a	Muscle Powered	Arc of Fire (Fr), Melee

NOTE: *Energy Weapon; **Blast Weapons; ***Slashing Weapon. All weapons are Hardpoint-mounted.

TYPE 99 FRAME

The Type 99 Frame is poised to fulfill a small but important niche in the Colonial Expeditionary Force: patrolling the local space around space facilities and supporting boarding actions. One particularly troubling trend in the past couple of years has been the intrusion of Black Talon Teams into Caprican space and their somewhat successful use of Gears in penetrating and/or neutralizing the defenses in and around critical CEF assets, particularly Gateships.
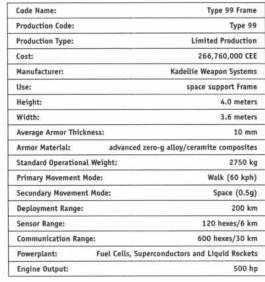
To counter this threat, Aerospace Command has placed an order for 200 Frames to be distributed among the Fleets. Since these Frames would be deployed in a primarily defensive posture, the use of explosive weapons payloads has been completely ruled out since they would likely inflict more damage on the spacecraft being defended than is desirable. Instead, the Type 99 is intended to close into melee range where it will engage in hand-to-hand combat with any intruder, preferably disabling it for capture, analysis and later interrogation of the crew. A defensive laser cannon is also issued for sniping at retreating enemies.
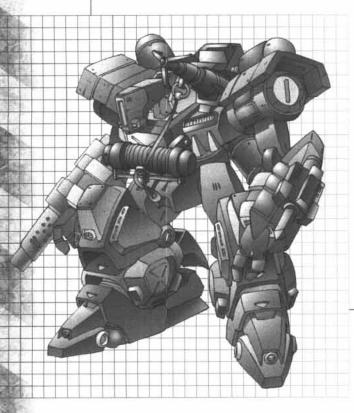
The Type 99 benefited greatly from the concurrent development of the Type 81-12, particularly in the use of the grapple launcher system that can be used while in proximity to a surface feature to maneuver without expending precious reaction mass.

◆ Service Record

To date only a handful of Frames have been delivered and none of them have seen combat. Aerospace Command is confident however that once more are deployed it will become much harder for terrorists and Black Talons alike to cause any further damage to the Colonial Expeditionary Force's space infrastructure. The 5th Fleet has also requested that its order be expedited to counter security threats in the Atlantean system.

Vehicle Specifications

Code Name:	Type 99 Frame
Production Code:	Type 99
Production Type:	Limited Production
Cost:	266,760,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	space support Frame
Height:	4.0 meters
Width:	3.6 meters
Average Armor Thickness:	10 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	2750 kg
Primary Movement Mode:	Walk (60 kph)
Secondary Movement Mode:	Space (0.5g)
Deployment Range:	200 km
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	Fuel Cells, Superconductors and Liquid Rockets
Engine Output:	500 hp

Weapon Payload

Name	Ammunition Payload
Defensive Laser Cannon	10 shots
Hull Spiker	10 shots
Chain Sword (not shown)	-

SilCORE Stats

SIZE:	5 (Vehicle, Height 4.0 m)
THREAT VALUE (TV):	796
DEFENSE THREAT VALUE (DTV):	309
MOVEMENT:	Walker 5/10
	Space 3/5
MANEUVER:	+1
ARMOR:	9/18/27
MISCELLANEOUS THREAT VALUE (MTV):	1344
CREW:	Living 1
DEPLOYMENT:	200 km
BURN POINTS:	60 BP
PERKS AND FLAWS:	Accessories: Autopilot, Limited Life Support; Armor Quality: Reinforced (R3, Front); Arms: Manipulator Arms x2 (R5); Communications (+1, 30 km); Hostile Environment Protection: Extreme Cold, Extreme Heat, Vacuum, Radiation (R3); Sensors (+1, 6 km, Space); Reinforced Systems: Backups; Negative Features: Difficult to Modify; Movement Flaws: Decreased Maneuver (R1, Walker)
OFFENSIVE THREAT VALUE (OTV):	735

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Defensive Laser Cannon	F	+1	x12	5	0	AD1, Hardpoint. HEAT	10
1	Heavy Spike Gun	F	-1	x14	0	0	AP, Hardpoint	10
1	Chain Sword	F	x9	0	0	0	Hardpoint	Inf.
1	Grapple Launcher	F	0	x6	1	0	Hardpoint, Winch	8

Open Gaming Stats

TYPE:	Giant Robot
SIZE:	Large (Tall, 4.0 m)
HIT POINTS:	39
OCCUPANCY:	1 operator, no cargo
ARMOR HARDNESS:	9
DEFENSE:	9
STRENGTH:	32
SPEED:	Land 90 kph, Realistic Space Flight (Thrust 0.3g, G-Round 10)
TACTICAL SPEED:	Land 150 m
INITIATIVE:	+1
MANEUVER:	+1
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, NBC Filter, Tactical Radio (Secure), Long Range Radio (Secure), Infrared (3km), Hi-Rez Radar (6km)
EXOTIC ABILITIES:	None
MECHA DEFECTS:	Hangar Queen, Reduced Endurance (14 hours at combat speed), Start-Up Time (1 minute)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Defensive Laser Cannon*	4d10	SS	160m	10	Long Range	Arc of Fire (Fr), Less Ammo
Spike Gun**	4d8	SS	n/a	10	Armor Piercing	Arc of Fire (Fr), Less Ammo, Melee
Chain Sword***	4d6	SS	n/a	n/a	Unlimited Shots	Arc of Fire (Fr), Melee

NOTE: *Energy Weapon; **Piercing Weapon; ***Slashing Weapon. All weapons are Hand-held or Hardpoint-mounted.

SSK-41 MINI-SUBMARINE

Another relic of Earth's war of reunification, the SSK-41 is currently the only submersible capable of being transported through space. As such it is the only weapon the CEF has to combat the colonial rebels in the seas of Atlantis. With the capture of Utopia however, this situation may soon change.

Originally the SSK-41 was primarily a brown water littoral attack submarine used to patrol the shorelines and continental shelf around the New Eurasian Commonwealth, although it was capable of limited blue water open ocean activity. Armed with up to 12 torpedo drones, it could be depended upon to protect the ports and shipping lanes of the Commonwealth from marauding warships, both above and below the waves. The only real drawback was that a fusion reactor could not be fitted within the three-meter diameter of the pressure hull; a fusion reactor would have given the boat an almost unlimited range. This has proven to be a critical shortcoming in the Atlantean ocean.

Despite this fact, the SSK-41 has successfully defended the CEF garrisons on Atlantis' islands for nearly 20 years. The boats are beginning to show their age however and it is only a matter of time before they will have to be retired from service. Most SSK-41s are now crewed by soldiers since submarine troopers have been reaching the end of their terms of military service faster than the boats themselves.

◆ Service Record

As a littoral submarine, the SSK-41 excels at its job since in shallow water the boat has better maneuverability than its nuclear powered counterparts. Out in the open ocean however the situation is reversed since the fusion powered submarines can dive deeper and stay deep longer than the SSK-41 can remain on station. It is precisely this disparity that has maintained the stalemate at Atlantis for so long.

Vehicle Specifications

Code Name:	Patrol/Hunter Sub
Production Code:	SSK-41
Production Type:	Mass Production
Cost:	33,344,000 CEE
Manufacturer:	Moscow Heavy Industries
Use:	Mini-submarine
Height:	4 meters (5 meters w/ sail)
Length:	40 meters
Beam:	4 meters
Average Armor Thickness:	115 mm
Armor Material:	alloy/ceramic composites
Standard Operational Weight:	400 tons submerged
Primary Movement Mode:	Submarine (37 kph)
Secondary Movement Mode:	Naval (30 kph)
Deployment Range:	2000 km
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	Fuel Cells and Superconductors
Engine Output:	1200 hp

Weapon Payload

Name	Ammunition Payload
Submarine Torpedo Drones	12 Drones (+1356 TV)

SilCORE Stats

SIZE:	24 (Vehicle, Length 40 m)
THREAT VALUE (TV):	6220
DEFENSE THREAT VALUE (DTV):	255
MOVEMENT:	Submarine 3/6
	Naval 3/5
MANEUVER:	-3
ARMOR:	24/48/72
MISCELLANEOUS THREAT VALUE (MTV):	17206
CREW:	Living 4, Computer 4 (Dumb 2)
DEPLOYMENT:	2000 km
PERKS AND FLAWS:	Accessories: Autopilot, Emergency Medical, Limited Life Support; Features: Accommodations (Military), Fuel Efficient (x3), Low Profile, Cargo Bay (enclosed, 12 drones); Communications (+1, 30 km, Satellite Uplink); Hostile Environment Protection: High Pressure; Information Warfare (Stealth R2); Reinforced Systems: Backups; Sensors (+1, 6 km, Aquatic); Negative Features: Difficult to Modify, Sensor Dependent; Movement Flaw: Decreased Maneuver (R1, Naval)
OFFENSIVE THREAT VALUE (OTV):	1200

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
12	Sub. Torpedo Drones	-	-	-	-	-	-	-

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Colossal (Long, 40 m)
HIT POINTS:	54
OCCUPANCY:	4 operators, cargo: 12 torpedo drones
ARMOR HARDNESS:	24
DEFENSE:	4
SPEED:	Underwater 55 kph
TACTICAL SPEED:	Underwater 90 m
INITIATIVE:	-6
MANEUVER:	-6
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, Long Range Radio (Secure), Rooms, Sonar (6 km), Stealth (Sonar)
EXOTIC ABILITIES:	Limited A.I. (Dex 2, Wis 2, Cha 1)
MECHA DEFECTS:	Hangar Queen, Start-Up Time (1 hour), Reduce Endurance (14 days)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Torpedo Drones (see page XX)						

TAAF-54 TRANSATMOSPHERIC ATTACK FIGHTER

On Earth, military historians point to the development of the TAAF-54 as the turning point of the New Eurasian Commonwealth in WWIII. The first true transatmospheric fighter built during the war, it was unique in that it could provide complete fire support from mud to orbit. Operating from remote bases in Siberia, a wing of 54's could strike any target, anywhere in the world within one hour of going wheels up. Able to achieve orbital escape velocity not only once but twice meant that the attacking 54's could return to base without needing to be refueled.
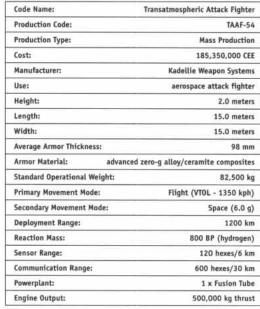
Simply put, the TAAF-54 is a marvel of 61st century Siberian engineering. Designed to fly and fight almost anywhere, the fighter could be stationed from Mercury to Saturn and was absolutely critical in securing the NEC's space assets from attack. This soon became necessary as the conflicts of WWIII spilled outwards from Earth to engulf the entire system. At first the fighters were used in a defensive role but later as the expansionist tendencies of the NEC grew the 54's were increasingly used in the attack role.

The fighter is equipped with a fixed chin mount particle cannon, which later was adapted for use by Moscow Heavy Industries in its hovertank program. Buried deep in the fuselage is a gatling laser cannon, the output of which is routed through a unique laser periscope system to one of several conformal blister turret emitters located at strategic points on the spaceframe to achieve a complete 360-by-360 defensive sphere of engagement. Guided anti-tank/anti-ship missiles are carried in internal bays along the sides of the fuselage.

◆ Service Record
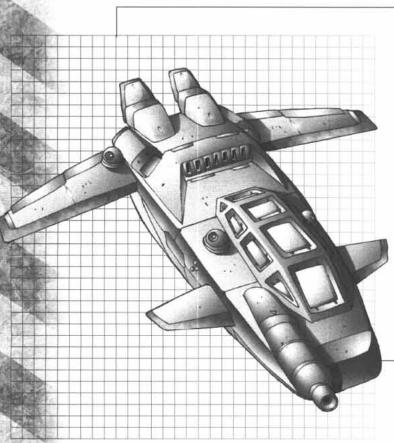
The smallest spacecraft ever built to carry a fusion tube, the TAAF-54 is ultimately the source of a lot of the CEF's ground vehicular weapons technologies. Although slightly modified since its inception, the production code itself has never been changed in any of the successive upgrades. The fighter is known universally among CEF troopers and soldiers by its unofficial Siberian name "Vasarahai."

Vehicle Specifications

Code Name:	Transatmospheric Attack Fighter
Production Code:	TAAF-54
Production Type:	Mass Production
Cost:	185,350,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	aerospace attack fighter
Height:	2.0 meters
Length:	15.0 meters
Width:	15.0 meters
Average Armor Thickness:	98 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	82,500 kg
Primary Movement Mode:	Flight (VTOL - 1350 kph)
Secondary Movement Mode:	Space (6.0 g)
Deployment Range:	1200 km
Reaction Mass:	800 BP (hydrogen)
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	1 x Fusion Tube
Engine Output:	500,000 kg thrust

Weapon Payload

Name	Ammunition Payload
Particle Cannon	60 shots
Gatling Laser Array	150 shots
Guided Missiles	4 missiles

SilCORE Stats

SIZE:	15 (Vehicle, Length 15.0 m)
THREAT VALUE (TV):	5000
DEFENSE THREAT VALUE (DTV):	4294
MOVEMENT:	Flight 23/45 (Stall 0)
	Space 30/60
MANEUVER:	-1
ARMOR:	28/56/84
MISCELLANEOUS THREAT VALUE (MTV):	7270
CREW:	Living 2
DEPLOYMENT:	1200 km
BURN POINTS:	800 BP
PERKS AND FLAWS:	Accessories: Acceleration Protection, Autopilot, Limited Life Support, Escape System; Communications (+2, 30 km); Features: NOE Flyer, Permanent Reentry System, Stratospheric Flight; Hostile Environment Protection: Desert, Extreme Cold, Extreme Heat, Vacuum, Radiation (R4); Information Warfare (Stealth R2); Reinforced Systems: Backups; Sensors (+1, 2 km, Airborne, Space); Movement Flaws: Cannot Glide, Poor Towing Capacity, Requires Airstrip
OFFENSIVE THREAT VALUE (OTV):	3437

Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Heavy Particle Cannon	FF	+2	x15	3	0	Haywire, AD1	60
1	Gatling Laser Cannon	T	+1	x16	3	+1	AD3, HEAT	150
1	Anti-tank Missiles	FF	+2	x25	3	0	G, IF, HEAT	4
1	Target Designator	T	+0	x0	3	0	TD	-

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Gargantuan (15 m)
HIT POINTS:	58
OCCUPANCY:	2 operators, no cargo
ARMOR HARDNESS:	28
DEFENSE:	8
SPEED:	Realistic Space Flight (3.0 g, G-Round 500)
TACTICAL SPEED:	n/a
INITIATIVE:	-2
MANEUVER:	-2
SPECIAL ABILITIES:	Environmental Controls: Life Support, INS, Tactical Radio (Secure), Long Range Radio (Secure), Re-entry Shield, Infrared (20km), Radar (40km)
EXOTIC ABILITIES:	Limited A.I. (Dex 2, Wis 2, Cha 1)
MECHA DEFECTS:	Start-Up Time (1 minute), Reduced Endurance (1 day)
WEAPONS	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Particle Cannon*	6d10	SS	90m	60	2x Extra Ammo	Arc of Fire (Fr)
Gatling Laser Cannon*	4d12	SA	90m	150	2x Extra Ammo	-
Guided Missiles**	10d10	SS	150m	6	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons.

TAEF-54 TRANSATMOSPHERIC ELECTRONIC FIGHTER

Following the success of the TAAF-54 program, there was a push for an electronic warfare variant of the fighter. Changes to the basic spaceframe would be minimal, with the exception of a triangular "hump" stretching along the fuselage from behind the crew cockpit. This additional volume was necessary for housing the advanced electronics suite with which the craft would be fitted.

Ultimately the TAEF-54 became something of an electronic sandbox for engineers to test out their ideas and the program became riddled with Creeping Featurism. Management finally stepped in and took control again, but only after several mission profiles were firmly rejected. The final product became a very versatile aerospace platform for recording and analyzing enormous quantities of signals intelligence. With one of these fighters in the sky any broadcast communications could (theoretically) be detected while maintaining electronic superiority. An even greater area coverage can be achieved from orbit, although orbital mechanics dictate an extremely limited loiter time.

Once deployed, the TAEF-54 became an integral part of the NEC's military forces. It was decided in later years that a secondary suppression role should be added and the standard guided missile load was replaced with a cluster bomblet missile system that could be directed to saturate any electromagnetic radiation source. These anti-radiation missiles are now sometimes used by HT-72 hovertanks for dealing with enemy electronic warfare.
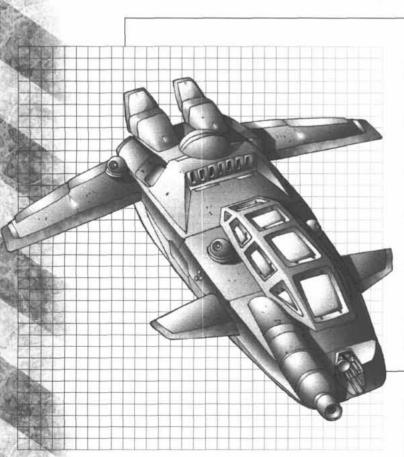
◆ Service Record

The bane of every enemy commander who has had to deal with one, the TAEF-54 has been extremely successful in providing needed intelligence on enemy intentions. With one of these fighters overhead, there is very little that a CEF ground commander cannot discover about his enemy. The fighters have also proven invaluable in patrolling fleet-controlled areas since they provide a necessary early warning zone that any enemy has to cross.

Vehicle Specifications

Code Name:	Transatmospheric Electronic Fighter
Production Code:	TEAF-54
Production Type:	Limited Production
Cost:	740,200,000 CEE
Manufacturer:	Kadellie Weapon Systems
Use:	aerospace electronic warfare/recon
Height:	2.0 meters
Length:	15.0 meters
Width:	15.0 meters
Average Armor Thickness:	98 mm
Armor Material:	advanced zero-g alloy/ceramite composites
Standard Operational Weight:	82,700 kg
Primary Movement Mode:	Flight (VTOL - 1350 kph)
Secondary Movement Mode:	Space (6.0 g)
Deployment Range:	1200 km
Reaction Mass:	800 BP (hydrogen)
Sensor Range:	120 hexes/6 km
Communication Range:	600 hexes/30 km
Powerplant:	1 x Fusion Tube
Engine Output:	1 x 500,000 kg

Weapon Payload

Name	Ammunition Payload
Particle Cannon	60 shots
Gatling Laser Array	150 shots
Anti-Radiation Missiles	4 missiles

SilCORE Stats

SIZE:	15 (Vehicle, Length 15.0 m)
THREAT VALUE (TV):	5856
DEFENSE THREAT VALUE (DTV):	4294
MOVEMENT:	Flight 23/45 (Stall 0)
	Space 30/60
MANEUVER:	-1
ARMOR:	28/56/84
MISCELLANEOUS THREAT VALUE (MTV):	10815
CREW:	Living 2
DEPLOYMENT:	1200 km
BURN POINTS:	800 BP
PERKS AND FLAWS:	Accessories: Acceleration Protection, Autopilot, Limited Life Support, Escape System; Communications (+2, 30 km, Satellite Uplink); Features: NOE Flyer, Permanent Reentry System, Stratospheric Flight; Hostile Environment Protection: Desert, Extreme Cold, Extreme Heat, Vacuum, Radiation (R4); Information Warfare (ECM +3/2 km, ECCM +3/2 km, Stealth R2); Reinforced Systems: Backups; Sensors (+1, 2 km, Airborne, Space); Negative Features: Vulnerable to Haywire Effects; Movement Flaws: Cannot Glide, Poor Towing Capacity, Requires Airstrip
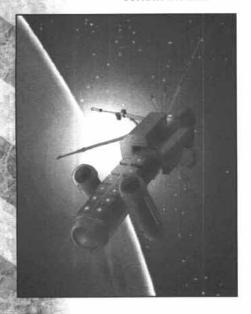
OFFENSIVE THREAT VALUE (OTV):								2458
Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Heavy Particle Cannon	FF	+2	x15	3	0	Haywire, AD1	60
1	Gatling Laser Cannon	T	+1	x16	3	+1	AD3, HEAT	150
1	Airburst Missiles	FF	+1	x10	3	0	AE1, E-Homing	4

Open Gaming Stats

TYPE:	Vehicle
SIZE:	Gargantuan (Long, 15.0 m)
HIT POINTS:	58
OCCUPANCY:	2 operators, no cargo
ARMOR HARDNESS:	28
DEFENSE:	8
SPEED:	Realistic Space Flight (3.0 g, G-Round 500)
TACTICAL SPEED:	n/a
INITIATIVE:	-2
MANEUVER:	-2
SPECIAL ABILITIES:	ECM (Comm +3, Radar +3), Environmental Controls: Life Support, INS, Tactical Radio (Secure), Long Range Radio (Secure), Re-entry Shield, Infrared (20km), Radar (40km)
EXOTIC ABILITIES:	Limited A.I. (Dex 2, Wis 2, Cha 1)
MECHA DEFECTS:	Start-Up Time (1 minute), Reduced Endurance (1 day)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Particle Cannon*	6d10	SS	90m	60	2x Extra Ammo	Arc of Fire (Fr)
Gatling Laser Cannon*	4d12	SA	90m	150	2x Extra Ammo	.
Guided Missiles**	10d10	SS	150m	4	Blast, Indirect, Guided (LG, EH)	Arc of Fire (Fr), 3x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons. All weapons are Hardpoint-mounted.

COMBAT DRONES

Remote controlled vehicles — also known as "drones" — are very useful in situations where a human life might be needlessly put at risk. Unfortunately, they are neither as responsive nor as flexible as a manned vehicle, which restricts them to simple operations. Drones are often equipped with specialized equipment relevant to the task at hand.

Reconnaissance is probably the most common mission entrusted to drones. Small and inexpensive drones have been used for ages as communication relays, forward observers and general bait and cannon fodder material. Modern drones often carry a laser designator as well, allowing them to "paint" targets for incoming guided ordinance. Although most recon drones are flyers, ground and submarine drones are also very common.

Hunter/Killer drones are dedicated combat vehicles. They are most often used to bear the brunt of the initial attack and help clear the field before the real assault starts. Hunter drones actively seek out enemy units to attack them with built-in weaponry. Killer drones are also attack vehicles, but use a different strategy: once they find their target, they detonate the explosives they are carrying. Cruise missiles are one type of killer drones, though they most often operate in autopilot mode.

◆ Minesweeper Drone

The ultimate in disposable battlefield technology, the CEF's minesweeper drone is uniquely suited to its task. Designed to vaguely resemble a spider, the drone can navigate the roughest battlefield with ease and agility, even the churned and cratered earth left in the wake of a sustained artillery barrage. The drone itself doesn't even carry its own power supply; rather the superconductor batteries are safely located with the remote operator who controls the drone by wire guidance. The drone is unable to disable a minefield itself; once one has been detected, a minesweeper can be deployed from a safe distance to clear and mark a path through the mines.

Production Type:	Mass Production	Cost:	50,000 CEE	Manufacturer: Kadellie Weapon Systems	Armor Material: memory plastics

◆ Utility Octopus

An outgrowth of the Octopus Program, it was decided that there should be at least one general purpose Octopus for general field engineering duties, such as construction and ordnance handling. The tool arms are highly modular and can be swapped out with those of a Support Octopus relatively quickly. The Octopus can be operated as a remote drone to get into areas that a Frame would normally be unable (or unwilling) to reach. It can also be "worn" by some Frames in a backpack arrangement, in which case there is no remote operation penalty. The Octopus Pack does have sufficient power to lift both itself and its Frame using its Jump Jets, although there is not enough power to achieve true flight. Not all Frames can use a Utility Octopus.

Production Type:	Mass Production	Cost: 4,450,000 CEE	Manufacturer: Kadellie Weapon Systems	Armor Material: alloy/ceramite

◆ Support Octopus

The basis of the lighter Octopus Pack types, the Support Octopus was designed to provide additional firepower for those frames that might find themselves operating in uncertain territory. The weapon arms are highly modular and can be swapped out with those of a Utility Octopus with relative ease. The Octopus can be operated as a remote drone to get into areas that a Frame would normally be unable (or unwilling) to reach. It can also be "worn" by some Frames in a backpack arrangement, in which case there is no remote operation penalty. The Octopus Pack does have sufficient power to lift both itself and its Frame using its Jump Jets, although there is not enough power to achieve true flight. Not all Frames can use a Support Octopus.

Production Type:	Mass Production	Cost:31,325,000 CEE	Manufacturer: Kadellie Weapon Systems	Armor Material: alloy/ceramite

◆ Assault Octopus
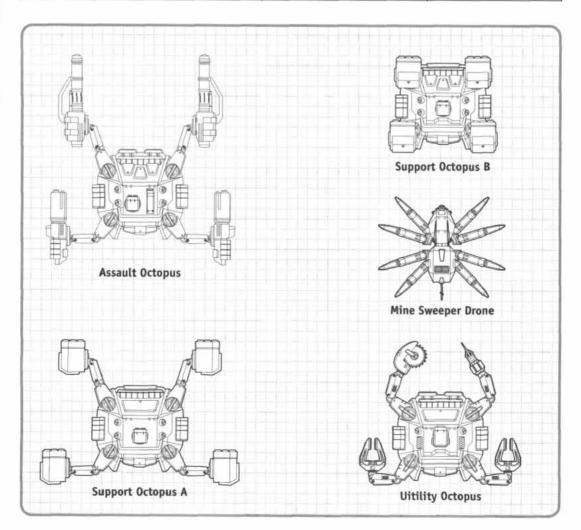
A much heavier version of the Support Octopus, the Assault Octopus is intended for use in situations where heavy opposition is expected. The weapons load is optimized for the rapid destruction of medium and light armor, fortifications and enemy personnel. The weapon arms are highly modular and must be removed in order to reload/recharge the weapons they contain, unlike the Support Octopus. The Octopus can be operated as a remote drone to get into areas that a Frame would normally be unable (or unwilling) to reach. It can also be "worn" by some Frames in a backpack arrangement, in which case there is no remote operation penalty. The Octopus Pack does have sufficient power to lift both itself and its Frame using its Jump Jets, although there is not enough power to achieve true flight. Few Frames can use an Assault Octopus.

Production Type:	Mass Production	Cost: 56,250,000 CEE	Manufacturer:	Kadellie Weapon Systems	Armor Material:	alloy/ceramite

◆ Submarine Torpedo

The basic torpedo used by the submarine forces of the CEF, the torpedo has a crush depth of 600 meters. It is armed with a simple explosive warhead and the torpedo will be destroyed by its detonation. The drone is wire guided from its launcher and can be operated as a remote sensing platform although its lack of stealthy features tends to discourage this practice. It is possible for a SSK-41 to recover a torpedo after it has been launched, but only if its wire guidance has not been severed.

Production Type:	Mass Production	Cost: 14,125,000 CEE	Manufacturer:	Moscow Heavy Industries	Armor Material:	alloy/ceramite

Assault Octopus

Support Octopus B

Mine Sweeper Drone

Support Octopus A

Uitility Octopus

MACHINES & EQUIPMENT

▶ MINESWEEPER DRONE: SILCORE STATS

SIZE:	1 (Vehicle, Height 1 m)	ARMOR:	1/2/3
THREAT VALUE (TV):	5	MISCELLANEOUS THREAT VALUE (MTV):	0
DEFENSE THREAT VALUE (DTV):	15	CREW:	Computer 1 (Dumb 2)
MOVEMENT:	Walker 2/3	DEPLOYMENT:	50 km
MANEUVER:	+1		

PERKS AND FLAWS: Accessory: Minesweeping Equipment; Communications (-5, 5 km); Features: Off-Road Ability; Sensors (-4, 1 km), Mine Sensors (+2, 0 km); Movement Flaws: External Power; Negative Features: Inefficient Controls, Sensor Dependent; Weaknesses: Exposed AUX, Exposed Movement, Fragile Chassis

▶ UTILITY OCTOPUS: SILCORE STATS

SIZE:	4 (Vehicle, Height 2.5 m)	ARMOR:	7/14/21
THREAT VALUE (TV):	22	MISCELLANEOUS THREAT VALUE (MTV):	0
DEFENSE THREAT VALUE (DTV):	65	CREW:	Computer 2 (Dumb 2)
MOVEMENT:	Flight 2/4 (Stall 0)	DEPLOYMENT:	50 km
MANEUVER:	+0		

PERKS AND FLAWS: Armor Quality: All-Around; Arms: Tool Arms x4 (R7); Communications (+1, 10 km); Features: High Towing Capacity (x3), NOE Flyer; Hostile Environment Protection: Desert; Sensors (+1, 2km); Movement Flaws: Cannot Glide, Maximum Ceiling (R10); Negative Features: Inefficient Controls, Overheating (Extreme), Sensor Dependent; Weaknesses: Exposed Systems

▶ SUPPORT OCTOPUS: SILCORE STATS

SIZE:	4 (Vehicle, Height 2.5 m)	ARMOR:	7/14/21
THREAT VALUE (TV):	344/102*	MISCELLANEOUS THREAT VALUE (MTV):	0
DEFENSE THREAT VALUE (DTV):	65	CREW:	Computer 2 (Dumb 2)
MOVEMENT:	Flight 2/4 (Stall 0)	DEPLOYMENT:	50 km
MANEUVER:	+0		

PERKS AND FLAWS: Armor Quality: All-Around; Arms: Battle Arms x4 (R5); Communications (+1, 10 km); Features: High Towing Capacity (x3), NOE Flyer; Hostile Environment Protection: Desert; Sensors (+1, 2km); Movement Flaws: Cannot Glide, Maximum Ceiling (R10); Negative Features: Inefficient Controls, Overheating (Extreme), Sensor Dependent; Weaknesses: Exposed Systems

OFFENSIVE THREAT VALUE (OTV):							968/240
Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
8*	Self-Destruct Grenades	F	-1	x30	0	0	AEO	-
8*	Hand Grenades	F	-1	x15	0	0	AI	-

NOTE: *Choose one set of weapons.

▶ ASSAULT OCTOPUS SILCORE STATS

SIZE:	5 (Vehicle, Height 2.5 m)	ARMOR:	7/14/21
THREAT VALUE (TV):	321/122*	MISCELLANEOUS THREAT VALUE (MTV):	0
DEFENSE THREAT VALUE (DTV):	65	CREW:	Computer 2 (Dumb 2)
MOVEMENT:	Flight 2/4 (Stall 0)	DEPLOYMENT:	50 km
MANEUVER:	+0		

Perks and Flaws: Armor Quality: All-Around; Arms: Battle Arms x4 (R5); Communications (+1, 10 km); Features: High Towing Capacity (x3), NOE Flyer; Hostile Environment Protection: Desert; Sensors (+1, 2km); Movement Flaws: Cannot Glide, Maximum Ceiling (R10); Negative Features: Inefficient Controls, Overheating (Extreme), Sensor Dependent; Weaknesses: Exposed Systems

Offensive Threat Value (OTV):							898/302
Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1/1*	Heavy Pulse Laser	R/L	+1	x25	3	0	AD4, Hardpoint, HEAT	10
1/1*	Frag Cannon	R/L	+1	x7	1	0	AD1, AI, Hardpoint, WA10	20

NOTE: *Choose one set of weapons.

▶ SUBMARINE TORPEDO SILCORE STATS

SIZE:	2 (Vehicle, Length 2 m)	ARMOR:	6/12/18
THREAT VALUE (TV):	100	MISCELLANEOUS THREAT VALUE (MTV):	0
DEFENSE THREAT VALUE (DTV):	175	CREW:	Computer 1 (Dumb 2)
MOVEMENT:	Submarine 8/15	DEPLOYMENT:	50 km
MANEUVER:	-1		

Perks and Flaws: Accessories: Autopilot; Communications (-4, 30 km); HEP: Extreme Pressure, Sensors (+1, 2 km, Aquatic); Negative Features: Inefficient Controls, Sensor Dependent; Weaknesses: Exposed Auxiliaries, Exposed Movement, Exposed Systems, Fragile Chassis.

Offensive Threat Value (OTV):							125
Qty.	Name	Arc	Acc	DM	BR	ROF	Perks & Flaws	Ammo
1	Warhead	F	0	x25	0	0	AEO	-

▶ MINESWEEPER DRONE: OPEN GAMING STATS

TYPE:	Giant Robot	SPEED:	Land 28 kph	SIZE:	Small (Tall, 1 m)
TACTICAL SPEED:	Land 46 m	HIT POINTS:	31	INITIATIVE:	+1
OCCUPANCY:	None	MANEUVER:	+2	STRENGTH:	15
ARMOR HARDNESS:	1	DEFENSE:	12		

SPECIAL ABILITIES: Remote Control (Advanced), Meta-Scanner (0.5 km)	EXOTIC ABILITIES: Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Poor Visibility, Reduced Endurance (4 hours at combat speed), Start-Up Time (1 minute)

▶ UTILITY OCTOPUS: OPEN GAMING STATS

TYPE:	Giant Robot	STRENGTH:	25	SIZE:	Large (Tall, 2.5 m)
SPEED:	Air 1000 kph	HIT POINTS:	37	TACTICAL SPEED:	Air 1670 m
OCCUPANCY:	None	INITIATIVE:	-1	ARMOR HARDNESS:	7
MANEUVER:	+0	DEFENSE:	9		

SPECIAL ABILITIES:	Extra Arms (2, Str 25), INS, Tactical Radio (Secure), Infrared (1 km), Radar (2 km)
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Noisy, Poor Visibility, Reduced Endurance (4 hours at combat speed), Start-Up Time (1 minute)
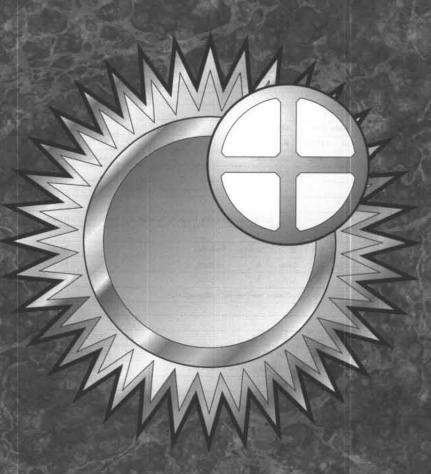
▶ SUPPORT OCTOPUS: OPEN GAMING STATS

TYPE:	Giant Robot	STRENGTH:	25	SIZE:	Large (Tall, 2.5 m)
SPEED:	Air 1000 kph	HIT POINTS:	37	TACTICAL SPEED:	Air 1670 m
OCCUPANCY:	None	INITIATIVE:	-1	ARMOR HARDNESS:	7
MANEUVER:	+0	DEFENSE:	9		

SPECIAL ABILITIES:	Extra Arms (2, Str 25), INS, Tactical Radio (Secure), Infrared (1 km), Radar (2 km)
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Noisy, Poor Visibility, Reduced Endurance (4 hours at combat speed), Start-Up Time (1 minute)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Self-Destruct Grenade*	12d12	SS	12m	8	4x Blast	Arc of Fire (Fr), 2x Less Ammo
Hand Grenades*	8d10	SS	12m	8	3x Blast	Arc of Fire (Fr), 2x Less Ammo

NOTE: *Blast Weapons. All weapons are Hand-held. Choose one type for configuration.

▶ ASSAULT OCTOPUS OPEN GAMING STATS

TYPE:	Giant Robot	STRENGTH:	25	SIZE:	Large (Tall, 2.5 m)
SPEED:	Air 1000 kph	HIT POINTS:	37	TACTICAL SPEED:	Air 1670 m
OCCUPANCY:	None	INITIATIVE:	-1	ARMOR HARDNESS:	7
MANEUVER:	+1	DEFENSE:	9		

SPECIAL ABILITIES:	Extra Arms (2, Str 25), INS, Tactical Radio (Secure), Infrared (1 km), Radar (2 km)
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Noisy, Poor Visibility, Reduced Endurance (4 hours at combat speed), Start-Up Time (1 minute)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Pulse Cannon*	10d10	SA	150m	10	-	Less Ammo
Frag Cannon**	6d6	SS	35m	20	Cone	-

NOTE: *Energy Weapon; **Blast Weapon. All weapons are Hardpoint-mounted. Choose one type for configuration.

▶ SUBMARINE TORPEDO OPEN GAMING STATS

TYPE:	Giant Robot	STRENGTH:	25	SIZE:	Medium (Long, 2 m)
SPEED:	Underwater 135 kph	HIT POINTS:	36	TACTICAL SPEED:	Underwater 225 m
OCCUPANCY:	None	INITIATIVE:	-3	ARMOR HARDNESS:	3
MANEUVER:	-2	DEFENSE:	8		

SPECIAL ABILITIES:	INS, Remote Control (Advanced), Sonar (2 km)
EXOTIC ABILITIES:	Limited A.I. (Dex 3, Wis 3, Cha 1)
MECHA DEFECTS:	Noisy, Poor Visibility, Reduced Endurance (4 hours at combat speed), Start-Up Time (1 minute)

WEAPONS

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Warhead	10d10	SS	-	1	4x Blast	3x Less Ammo, Melee

Chapter 9: Space Assets

The space fleets of the Colonial Expeditionary Force are the main vector of the offworld might of the New Earth Commonwealth. They transport the latter's fearsome ground troops over interstellar distances and supply them with fire support from orbit.
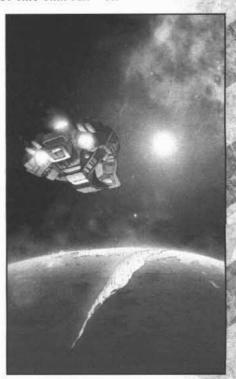
The Loki system is unique in the **Heavy Gear** setting in that it has not one but two thriving, separate and very distinct space-faring civilizations occupying it: the native Capricians and the invading New Earth Commonwealth's Colonial Expeditionary Force. The ships of Caprice are dedicated largely to harvesting water ice from asteroids and other space-borne objects for transport back to Caprice to quench the thirst of the parched planet. The CEF, on the other hand, has not one but two large military space fleets stationed presently in the Loki system, each with hundreds of thousands of personnel (both combat and support) and hundreds of thousands of vehicles (again, both combat and support).

This chapter examines the spaceships and related assets of the CEF as of TN 1946 (approximately AD 6141), shortly after the second largest space combat operation in recent memory, Operation Icarus (see below), takes place. This chapter presents several of the aerospace corporations that keep Earth and Caprice running. This is followed by the ships of the CEF fleets proper, introducing the CEF's modular ship program.

The ship program was designed to make the construction of five interstellar invasion fleets somewhat affordable. Ships are built from standardized modules that are constructed in assembly line fashion by the shipyards of Earth and Caprice. These modules are then assembled onto bare hulls and frames to make up a complete starship. This modularity reduces the costs and need to store a large amount of different spare parts, both of which are crucial for invasion fleets that are large and far from home.

Operation Icarus - 9.1.1

Operation Icarus is the campaign recently undertaken by the CEF to seriously damage Terra Nova's capacity to launch covert attacks against NEC holdings in the Loki system. By crippling Terra Nova's aerospace support infrastructure and decimating its fleets, the CEF hopes to prevent further incursions into occupied space and to diminish the rogue colony's ability to defend itself during the next Terranovan invasion campaign. The CEF 3rd Fleet's commander, Vice Admiral Gresfield, conceived of and conducted initial planning for Operation Icarus, but CEF Fleet Admiral Winthrop turned the operation over to Vice Admiral Mubatu of the newly refitted 8th Fleet upon her promotion to fleet command rank. CEF high command considers the operation a success, much to Mubatu's pride: it was her own mother who had failed to conquer Terra Nova more than two decades previously.

All participating members of the 8th Fleet and most of the command staff of the 3rd Fleet knew about Operation Icarus, though in the case of the rank and file of the 8th, they learned about it only as the fleet was assembling at the micro-Gate that would be used to transport them into the Helios system. No one else in the Loki system had (officially) any idea the operation was going to take place — indeed, the vast majority of Caprice hardly noticed the absence of the Fleet at first. It was only when bar, nightclub and escort service personnel realized that their regular customers from the 8th Fleet (stationed on Caprice) had abruptly stopped showing up that many non-military Capricians became aware that something big was finally happening in their system. (The economic impact on the entertainment industries in the regions of Gomorrah that housed most of the 8th Fleet is calculated in tens of millions of pounds of lost revenue.) The Liberati movement had realized the CEF was about to conduct a large operation, but not in time to get word back to the Westphalia Cabinet on Terra Nova. The movement is presently attempting to develop a reliable way to get an early warning back to Terra Nova should something as big happen again.

9.2 - AEROSPACE CORPORATIONS

Both Caprice and the NEC have massive aerospace industries that dwarf most other commercial branches of their respective economies. In the case of Caprice, the corporations that make up the aerospace bloc are sometimes difficult for the layperson to identify in the sea of megacorporation-owned subsidiaries that dominates the planet's economic landscape: it is giants such as Hakkar and Kalam-Sollers-Makhan with which the populace is familiar, not their ancillary firms. That Caprice's aerospace industry is colossal is hardly surprising, however, since the planet's very survival has depended on either interstellar commerce or in-system mining since its foundation. The industry has, since the collapse of the Human Concordat, been geared towards supporting the ice mining fleet. With the recent return of Earth, however, Caprice's military and interstellar ship manufacturing capacity is slowly increasing.

Earth, too, depends greatly on its aerospace industry, although in this case it is much more recent than Caprice's. (It was, after all, Caprice that manufactured most of the Human Concordat's spacecraft and space stations.) Refurbishing the remnants of the comparatively small fleets used in World War III and outfitting the five much larger Colonial Expeditionary Force fleets has created a boom in the Sol system's aerospace sector that is unmatched since humanity took its first steps off the home world. Mars and Jupiter are the primary centers of this industry; the planet Earth itself supports very few such manufacturers directly.

9.3 - THE CEF INVASION FLEETS

The space fleets of the Colonial Expedition Force are an eclectic mixture of the old and the new. During the collapse of the Human Concordat, when every ship capable of returning to Earth was either piloted there officially or hijacked for the trip home, several thousand long-range commercial transports found their way to the Sol system. Most were retired to "graveyards" in orbit around Jupiter or Saturn, but a few were refitted as ships-of-war during the Age of Isolation. Others were commandeered by the many combatants during World War III, although most nations constructed their own dedicated war machines. These vessels all fell under the purview of the New Earth Commonwealth Armed Forces at the end of the War, and they formed the seeds of the CEF invasion fleets during the pre-invasion build-up from AD 6106 to 6116.

CEF ships differ from those of other worlds (and those in other branches of the NECAF) in one important aspect: range. A CEF vessel has to be able to operate for long periods — potentially even decades — without much direct support from a friendly world. Colonial ships have the luxury of friendly ports of call and easy resupply; CEF ships do not. CEF crews may spend years in space before the crew ever sets foot on solid ground. Their ships must therefore be relatively independent and capable of long-duration operation: they are homes to thousands of people.

9.3.1 - The GEMAG Modular Ship Component Program

Once the NEC had united the Sol system under its flag and had set its sights on the rest of humanity, it became immediately clear that the remnants of the space fleets that had taken part in World War III would be insufficient to conquer the colonies. Even if all remaining, functional ships were combined into one fleet, and even if that fleet were augmented with refurbished ships from the graveyards of the Colonial Era, it would still not be enough. While such a fleet might be adequate to take one system back, it would leave the Sol system undefended. Furthermore, the closest colonized system, the Loki system, had potentially active Gates to at least three other worlds, and each of those would have to be guarded or exploited by a fleet as soon as possible to prevent the colonies from working together — and never mind the need for garrison fleets to keep conquered colonies in line! The newly forming CEF needed not one fleet but several.

The costs of constructing and assembling multiple fleets would be astronomical. In order to keep costs down, the ships had to be relatively cheap yet highly durable — or at least easily serviceable. The Martian aerospace corporation GEMAG Industries proposed to construct ships using modular components that could be designed once, mass-produced in droves and reused throughout an entire range of spaceships. Hangars could be interchangeable between supercarrier and frigate. Command bridges would be standardized across the board. The

same laser turret that provided cover fire to a troop transport's landers would provide anti-fighter defense to a remodeled dreadnought. Following initial trial runs with existing, refurbished craft, the NEC agreed that the plan would work and awarded GEMAG the exclusive contract to oversee the construction of the CEF fleets. Thus was born the GEMAG Modular Ship Component Program, more commonly known simply as the GEMAG Program.

Module Threat Values ◆

The CEF's modular warship designs save money for NEC in the long run. However, for Players, there is one minor additional step involved in using a CEF capital ship in a tactical game. Because each ship has a slightly different maneuverability, components on one ship will have different Defensive Threat Values (DTV) than components on another ship. These differences, in turn, affect the components' overall Threat Values (TV). In tactical games in which TV balancing is important, simply modify each component's DTV (listed in the table below) according to the rules on pages 132 and 133 of the **Technical Manual, Second Edition** (Section 6.1.12). Use the resultant number, the listed Offensive Threat Value (OTV) and the listed Miscellaneous Threat Value (MTV) to compute the total TV of the component. Sections that include weapons have an effective TV of 50 times the calculated one, due to the mass-destruction nature of spaceship weapons.

▦ Module Threat Values Table

Component	OTV	DTV	MTV	Component	OTV	DTV	MTV
Gateship Command Center*	0	5625	74,833	Missile Turret	14145	2500	2731
Gateship Staff Center*	0	4900	105,665	Laser Turret	2739	2500	2731
Large Command Center	0	4900	18,366	Railgun Turret	4101	2500	2731
Small Command Center	0	4900	11,251	Heavy Railgun Turret*	14,690	2500	2731
Electronic Warfare Center	0	2500	7686	Gateship Defense Blister*	7578	2500	2731
Large Vehicle Bay	0	4900	33,590	Spinal Massdriver	2788	4900	1849
Small Vehicle Bay	0	2500	3613	Torpedo Launcher	6178	4900	1504
Frame Bay*	0	2500	2272				

*These components are currently found only on CEF Gateships, especially the Tortoise-class ship. As such, they are listed with the Tortoise on page 16. The Tortoise has an effective Maneuver Rating of -10.

GEMAG Industries - 9.3.2

GEMAG was founded in AD 5989 as a state-owned corporation of the Olympus League on Mars tasked with the maintenance of the ailing constellation of weather and communications satellites orbiting Mars. With the demise of the Human Concordat, however, it grabbed as much as it could of the space industry infrastructure on the ground as well in orbit. Olympus City troops aided GEMAG in hostile takeovers of these facilities and the small communications company quickly became one of the largest manufacturers of space hardware in the Solar system outside of Earth's own corporations. GEMAG's facilities on Mars survived World War III mostly unscathed, unlike its Earth competitors, further strengthening its market share. It sought and received highly lucrative contracts to produce deep space vessels for the NEC in AD 6078, supplanting much of the financing and know-how of military operations with such giants as the NEC's own Moscow Heavy Industries. In turn, GEMAG assisted MHI with its own aerospace projects on Earth. For its own part, GEMAG got the coveted position as a preferred supplier for the NEC's interstellar ambitions. GEMAG was privatized at the end of WWIII in AD 6104 and it is officially a privately held corporation. Its major stockholder is still Olympus City, which enjoys unparalleled prosperity from corporate profits. At the same time GEMAG gets almost free reign in its operations.

Johan Wennerström is the current GEMAG Managing Director. He is a life-long corporate employee, following his parent's footsteps in serving the company. He earned his position through a brilliant career in GEMAG's Space Station Division as a project manager and later as director of the entire SSD. He understands that GEMAG's position as a leading aerospace corporation in the NEC's vast empire depends on his ability to deliver results. He is a skilled businessman and has little time for incompetence or explanations from his subordinates or business partners. He is a native of Olympus (like every Managing Director before him) and is proud of his Martian background.

Wennerström's position in GEMAG is shakier than it seems, however. Problems in his beloved Space Station Division are growing and his opponents in the company are using it as a catalyst to get him fired. His brilliant if ruthless management techniques have driven many of his former allies to question his true intentions and there is a growing discontent among the corporate ranks. Although he has plenty of powerful friends among the NEC's military leaders as well as among politicians in Olympus, their loyalties can change quickly and are likely to do so if he seems vulnerable.

Corporate Description	
Legal Appellation:	GEMAG Industries Group, Ltd.
Headquarters:	Olympus City, Olympus League, Mars
Directing Executive:	Managing Director Eduard Johan Wennerström
Major Products:	Gateships, major military and civilian space stations and spaceships

◆ Organization

GEMAG is divided into three major divisions. The Deep Space Division (GEMAG DSD) concentrates on building large interplanetary and interstellar vessels. It was DSD's Biron MacLeod who conceived of GEMAG's Modular Ship Component Program for the CEF, and with large dockyards orbiting Mars and Jupiter, DSD is responsible for constructing the CEF's capital ships. DSD is the largest division in GEMAG and there has been discussion of splitting it into military and civilian branches. This would cause a major corporate shake-up and many people are jockeying for promotions and fearing demotions.

The Space Station Division builds and maintains space stations for military and civilian uses. GEMAG SSD has recently obtained a long-standing contract to maintain and upgrade all military space stations in the Solar system. There are rumors circulating that GEMAG stampeded the price in order to get the contract so it can develop standardized smaller systems similar to DSD's Modular Ship Component Program. There have been some problems with weight/size issues, however, and the NEC is rumored to be getting impatient with its favorite military space supplier.

The Aerospace Support Division sells a wide variety of spares and generic parts to almost all of the aerospace companies on Earth and several on Caprice. GEMAG ASD can also supply specialists and consultants to help customers. Employees of this division can be found in almost every part of Earth's sphere of influence. These specialists work alone and often without HQ's supervision and some are known to work off-hours for less savory customers when the price is right, especially in the colonies.

◆ Area of Expertise

GEMAG has the largest space-system construction yards in human space and can build a project of any size in its Mars shipyards. In practice GEMAG can only turn a respectable profit on large vessels. Thus GEMAG's expertise is concentrated on large space applications, like interplanetary craft, Gateships and large space stations. GEMAGs technological and economical lead in this area is unchallenged.

Wennerström knows quite well that GEMAG isn't up to par on small-sized projects and has invested huge sums of money to break into the small space-system market. New assembly lines are being constructed at Gateway in Earth's L5 point. Some analysts believe that the mysterious chain of failures and accidents is due to a combination of haste to meet fierce competition as well as the direct manipulation of those competitors.

Kadellie Weapon Systems - 9.3.3

Kadellie Weapon Systems was created in AD 6033 as a corporate fusion between two major arms manufacturers — Ing Systems and Kadellie Engineering — in Rangstadt on Earth. The new corporation combined the Ing family's expertise in missile systems with Kadellie Engineering's knowledge of small spacecraft. Eschewing civilian production, the corporation's first products were air-launched and space-launched missiles for the NEC. KWS expanded into many other military markets as the Third World War progressed, and by the 62nd century only Moscow Heavy Industries could rival the importance of KWS to the NEC's war machine.

Kadellie's reliance on military contracts resulted in a major business crisis with the end of the War. Half-hearted attempts to expand into civilian markets met with little success, and the company was approaching bankruptcy when the NEC launched its plan to retake Earth's former colonies. KWS threw its remaining lobbying power and influence in support of the plan, and it was rewarded with contracts for everything from hover command cars to spacefighters. In the years since, KWS has regained its power and eminence as one of the NEC's primary weapons contractors. As Earth's war of conquest continues, the fortunes of Kadellie Weapons Systems are thoroughly entangled with those of the CEF.

Maria Zhang-Ing is the current managing director of Kadellie Weapon Systems, following in her father's footsteps. Her family still holds a controlling interest in the company, and she is easily one of the richest women on Earth. She dedicates most of her free time to her family, although she anonymously contributes major sums of money to a variety of charities. Some of her close friends think this is because she is troubled by her position as an arms merchant and that her heart is not really in the family business. Maria is a capable career businesswoman, however, and is very skilled at negotiating her company through the minefield of NEC business and politics.

⬚ Corporate Description

Legal Appellation:	Kadellie Weapon Systems Engineering Corporation
Headquarters:	Tuira Heights, Rangstadt, Earth
Directing Executive:	Managing Director Maria Zhang-Ing
Major Products:	Battle Frames, missiles, military vehicles, transatmospheric fighters, spacecraft

Organization ◆

Kadellie Weapon Systems is divided into four project groups. The Missile Group continues the company's tradition of excellence in missile technology. More often than not, KWS missile designs have become standards within the industry. The Missile Group also develops unmanned and remotely piloted vehicles such as minesweeper drones. The Aerospace Group is responsible for manned surface-to-orbit vehicles and spacecraft, including the TAAF-54 and TAEF-54 transatmospheric fighters (see Chapter 8) and the Nukdae spacefighter. The Surface Group is the company's fastest growing division, creating new Frames, Frame variants and optional equipment. The Surface Group collaborated with the Aerospace Group in the development of the Type 99 space operations Battle Frame (see Chapter 8) and with the Missile Group in the creation of the Octopus Packs (see Chapter 8). The Manufacturing Group — by far the largest division of KWS — handles the actual production of designs from the other three divisions.

Business has been booming as the war with the colonies continues and Kadellie has had some problems filling orders. There have been discussions about constructing new production lines on Caprice to supply the CEF, which would allow Earth-based facilities to supply forces within the Solar System adequately. Zhang-Ing has been cool to the idea, but has sent several envoys to Caprice to speak with possible strategic partners within the Corporate Council.

◆ **Area of Expertise**

Kadellie Weapon Systems enjoys a comfortable lead in its main areas of business. Along with several Frame designs and conventional military vehicles, it is the primary supplier of transatmospheric fighters to the CEF. The company has excellent relations with its military clients who provide constant feedback on its designs. Kadellie Weapon Systems is naturally more than happy to implement these suggestions — for a hefty price. Some KWS products have also found their way into the civilian market. KWS sells navigation and aerospace traffic control systems that are derived from Missile Group projects, as well as spare parts and supplies for small spacecraft. Finally, KWS also manufactures specialized system components for other space companies.

Competition has emerged lately, however, as several companies are developing superior alternatives to long-established Kadellie standards. The company's dominance in missile design, for example, is being challenged in certain specialized applications such as anti-submarine rockets. Management consultants have come to the conclusion that some groups have become too big and research money is spread too thin for the company to stay on top in every field. Zhang-Ing has been pondering whether she should divide the company's four groups into a number of smaller divisions, because she does not wish to abandon the family (and company) tradition of excellence in every facet of product design. Her advisers are firmly against this, but so far have not dared to voice their opinions publicly.

9.3.4 - Caprice Ships Interstellar

Cantonni-Rand was the largest shipbuilder in the Human Concordat, formerly based on Mars but relocated to Caprice to exploit the Gateworld's position at the center of interstellar trade. The collapse of the Concordat also brought Cantonni-Rand low, but the Monolith shipyards themselves survived, despite a raid by a Concordat cruiser, which turned back when the Caprice Corporate Executive threatened to turn the Arclight defense platforms on the Earth ship. Unfortunately, though Caprice retained in control of the massive yards, it lacked the expertise to exploit them fully. The only corporation with expertise in ship construction — Caprice Ships Interstellar, a manufacturer of in-system ice-mining vessels — took control of the yards and responsibility for maintaining the Arclight defense platforms. However, until the return of the CEF, CSI used less than one percent of Monolith's capabilities, with most slips and gantries left empty. Nonetheless, CSI played a major role in maintaining trade links with Utopia, Atlantis and Terra Nova, servicing the now-independent colonies' small fleet of Gateships.

The return of the Earth forces in LC 259 stunned the Capricians, and the invaders made securing Monolith a top priority. CSI found its day-to-day operations subsumed by the needs of the military war machine, its personnel co-opted into working on military manufacturing and maintenance projects. Perhaps surprisingly, CSI survived as a corporate entity, making immense profits from supporting the CEF war machine, the Earth military deciding it was easier to suborn existing industry than install its own regime. CSI appears the loyal subject to its Earth masters, making every effort to please them, despite access restrictions imposed when Monolith became the invader's principal base of operations.

CSI's status as arch-collaborators has earned it the enmity of corporate and Liberati groups alike, who believe the corporation's willingness to roll over and submit to the invaders grossly hindered resistance efforts. In the Corporate Council, CSI riposted that any resistance by their people would have led to swift and lethal reprisals by the CEF against Gomorrah and other targets, their submission thus sparing Caprice the kind of devastation visited upon Utopia; a lost battle, but not a lost war. Like all the corporations, CSI plays the long game, seeking to advance its own position at the expense of others. Under the tutelage of Earth technicians, the company has relearned the techniques of Gateship manufacture. It remains to be seen if it will use these skills to aid the CEF, or strike against it.

Corporate Description

Legal Appellation:	Caprice Ships Interstellar
Headquarters:	Hightower, Venarow Hub, Gomorrah, Caprice
Directing Executive:	Stefan Kiesel
Major Products:	Maintenance and manufacture of in-system craft and Gateships

Organization ◆

Historically, a board of nine directors has governed CSI, determining policy and approving contracts. The board members have a mix of engineering, financial and management backgrounds, each regarded as an expert in his/her own field. Each remains immensely powerful within the organisation, but the day-to-day policies of CSI are now in the hands of the CEF, whose representative on the board dictates the corporation's actions. The emplacement of the CEF representative has increased divisiveness on the board; rather than trading favors back and forth among themselves to advance their agendas, all board-members need to do is sway the CEF representative (currently Lieutenant Colonel Allyiane Kaminski). This is, of course, exactly what the NEC intended: divide and conquer.

The head of the board is Chairman Stefan Kiesel, a charismatic and intelligent businessman whose first-hand experience of CEF operations (as a junior executive, he accompanied the 2nd Fleet to Utopia as an observer) has made him a CEF favorite, a model "new citizen" of the Commonwealth. His knowledge of the NEC's inner policies makes him fearful of what the CEF might do, and he sees collaboration as the only method of safeguarding Caprice.

The Corporation's employees are drawn largely from Venarow and undergo intense scrutiny by both corporate and CEF security before being allowed to work on Monolith or one of the company's other installations. Most of CSI's test pilots and tug crews are drawn from the ranks of ice miners, notably members of the Cornillion Consortium with which CSI has a longstanding relationship, a backdoor by which the Liberati have been able to infiltrate the company.

Area of Expertise ◆

The bulk of CSI's business has been in the manufacture and maintenance of in-system tugs and ice miners, as well as that of surface-to-orbit shuttles. Since the return of Earth, this once-civilian industry has been militarized, with troop transports like the AC-56 and AT-33 largely replacing civilian models. Initially, the CEF wanted to completely suspend CSI's civilian operations but Kiesel convinced Admiral Winthrop that do so would compromise Caprice's viability, ice mining and the like being vital to the planet's survival.

Such civilian contracts are given only cursory attention by the CEF, responsibility for monitoring such operations placed in the hands of the overstretched CID. Gateship maintenance operations, and those involving the CEF's warships, however, come under the strictest security and any CSI personnel assigned to such projects undergo five distinct security checks and are always supervised by armed troops.

9.3.5 - Hayabusa Aerospace

Hayabusa Aerospace is something of an oddity: a successful Caprician corporation started by a Liberati. Coming to Gomorrah in LC 205 to support his family, Pitric Nokihata got a job as a ferry pilot for Capravia Technologies, delivering Mark 9 "Flitter" VTOL transports (see **Caprice Corporate Sourcebook**, p. 74-75) from the factory to its customers. His talent for business proved as substantial as his piloting skill, and in just a few years he was managing Capravia's Flitter production department. When Hakkar launched talks to buy Capravia in LC 212, he surprised everyone by proposing to buy his department and striking out on his own. No one objected, and when Capravia became a Hakkar subsidiary the following year, Pitric incorporated his department as Hayabusa Aerospace.

Today, Hayabusa Aerospace produces several types of aircraft and surface-to-orbit vehicles, and it has established a solid reputation for the quality of their products. Only the corporation's fierce independence draws more attention in the Caprice aerospace industry; Hayabusa has fought off two separate takeover bids, one by Hakkar and one by CSI. Hakkar dropped its bid when Pitric made it clear that he had absolutely no interest in selling the company, and the two corporations amicably went their own ways. CSI, however, attempted a hostile takeover at the moment that Pitric retired and his daughter, Sera, assumed control of the company. An ugly proxy war soon followed which nearly wrecked Hayabusa, until the CSI executive leading the takeover attempt was caught in an insider-trading sting by the Corporate Regulatory Authority. The takeover and the executive were abandoned in the public relations fiasco that followed, but Hayabusa employees remain deeply resentful towards CSI employees and openly critical of CSI products.

The animosity between Hayabusa and CSI has only deepened as CSI has ingratiated itself with the CEF. Corporations that do not want to deal with "collaborators" (out of either the conviction of their directors or simply to avoid the public relations backlash) have turned to Hayabusa to fill their requirements. This increase in orders and customers has quickly brought Hayabusa back into financial solvency, and these new relationships give Sera confidence that the company can resist any further corporate takeover attempts. CSI's increasing commitments to military production have also left the civilian aerospace sector wanting, which provides Hayabusa with excellent opportunities for the future.

Corporate Description

Legal Appellation:	Hayabusa Aerospace, Inc.
Headquarters:	Duquesne Airport, Genji Trench, Gomorrah, Caprice
Directing Executive:	Sera Nokihata
Major Products:	Aircraft, aerospace shuttles and space planes, propulsion systems

◆ Organization

In the game of inter-corporate politics, CEO Sera Nokihata is as ruthless as anyone, but in her heart she remains one of the Liberati. She still speaks with a trace of a Highlands accent, which was the source of many rude remarks by CSI executives during their takeover attempt. Her disgust with CSI is only made deeper by her loathing for the CEF, whose demands for submission and obedience fly in the face of everything she holds dear. Fortunately, Hayabusa's emphasis on the civilian air and aerospace markets means that the CEF pays the company little attention, and Sera has so far managed to keep her temper during the few times a CID agent has stopped by.

Hayabusa's divisions, referred to as "arms," run the gamut of the planet's aerospace industry. The Atmospheric Systems Arm, responsible for the production of Flitters and other aircraft that operate wholly in Caprice's atmosphere, represents the company's oldest and most stable sources of income. The Transatmospheric Systems Arm includes the production of as well as researching and developing new aerospace shuttle hulls and life support systems. The engine and powerplant departments of these two arms were extracted and merged into a separate Propulsive Systems Arm in LC 271. Hayabusa also maintains a Space Systems Arm, but only at a minimal level; the occupation of the space around Caprice, as well as CSI's undeniable strengths in this field, keep Hayabusa's interest in space limited to research and theoretical work for now.

The majority of the corporation's revenue still comes from aircraft and aerospace shuttle production. Hayabusa-produced versions of the Flitter are seen all over Gomorrah, and the company is currently refurbishing a fleet of Flitters owned by the Cat's Eye Express parcel shipping company. Cat's Eye Express has also contracted with Hayabusa to produce several space planes for its "Ends of the Eye" service, to deliver parcels from one end of the Trench to the other within hours. Other, less public projects are moving forward as well; the Atmospheric and Propulsive Systems Arms are quietly working with several Corp-Serf forces to develop a VTOL gunship that would rival (or if necessary, counter) the Peregrine design that is currently undergoing trials (see the **Caprice Corporate Sourcebook**, p. 76-77).

CEF WARSHIP TACTICAL COMPONENTS - 9.4

The GEMAG Program divides a spaceship into several broad categories. Power and propulsion components include a ship's massive drive systems, maneuvering thrusters, fusion power generators, backup solar panels and batteries. Environmental components include water reclamation, air processing, climate control and waste processing systems. Logistic components include hydroponics bays, crew habitats, coldsleep banks, medical centers, mechanical and electronic shops, repair bays, manufacturing centers and cargo/supply storage.

A ship's tactical components are by far the most immediate and important during a battle, especially for a ship of the line. These components include command centers, electronic warfare centers, daughtercraft vehicle bays and the various offensive and defensive systems. While GEMAG DSD constructs each component of a ship, Kadellie Weapon Systems and Moscow Heavy Industries (along with a handful of smaller manufacturers virtually unknown to the general public) supply the actual weapons and tactical electronics.

Large Command Center ◆

Serving as the bridge for the largest of the CEF's ships of the line, the large command center is always alive with activity. A center operates during battle conditions with a crew of forty men, women and GRELs; during normal operations, the crew is reduced to ten individuals. As with all consoles under the GEMAG Program, the center's consoles are entirely software-based — that is, the navigators' stations and the comm officers' stations are exactly the same, but their operations and user interfaces are software-driven rather than hardwired. Any single console in the center can easily be repurposed on the fly by the captain or his executive officer. A massive tactical holotank provides the ship's captain with a detailed analysis of the space surrounding his vessel, giving him a crucial edge in a battle. A marine guard station is typically found in the corridor just outside the command center's armored access doors.

Small Command Center ◆

The small command center is a smaller version of the large command center; it is likewise the bridge of the smaller CEF ships of the line. In battle conditions, the center operates with a staff of twenty people, but five normally suffice to keep the ship running. Interestingly, a standard small command center serves as the flight control center for the Nova-class carrier and the Tortoise-class Gateship. A simple replacement of the module's central computing core transforms a command bridge into an air traffic control center with no additional modification necessary. Like its larger cousin, this command center usually has a marine checkpoint just outside the access doors.

Electronic Warfare Center ◆

Small and somewhat cramped, the electronic warfare center is a well-lit chamber dominated by its central computing core. The core, which contains powerful signal processing software and hardware, drives most of the center's functionality. Surrounding the core are ten workstations from which troopers and soldiers conduct the ship's electronic warfare operations. Each station is manned when the ship is in battle or conducting maneuvers, but the center is otherwise usually unoccupied. When occupied, security is moderate, with a pair of marines posted outside the center.

◆ Large Vehicle Bay

These cavernous hangars tend to be major hubs of activity for all ships that carry them. In their standard configuration, a single hangar supports forty CF-78 fighters, providing launch, recovery and repair operations for its complement. Each fighter has its own permanent docking cradle within the bay. Access to the launchway is relatively simple, and a track-mounted loading arm can maneuver damaged fighters around to the bay's internal electronic and mechanical repair facilities as needed. The docking cradles can be adapted for other vehicles: the most common adaptor fits a slightly smaller TAAF-54 transatmospheric fighter snugly into a CF-78's berth. Other cradle adaptors allow a single berth to support fifteen large or sixty small combat drones.

Although the bays are entirely self-sufficient for launch and recovery purposes, they are often connected internally to additional storage facilities as well as manufacturing and repair areas. Heavily shielded, armored airlocks connect the entire bay and its related logistic modules to the rest of the carrier, with the fighter crews' quarters and mission briefing rooms immediately adjacent. During normal launch or recovery operations, the bays are open to space, although they can be sealed and pressurized if necessary. A major variation on the standard design removes all fighter berths to service a single AC-56 assault lander or a single AT-33 deployment craft. The remainder of the space within the bay is used to maneuver the lander's transported craft with the help of the bay's loading arm.

◆ Small Vehicle Bay

The relatively diminutive cousin of the large vehicle bay, the small vehicle bay is no less a hub of activity. Far more general in layout, this bay supports atmospheric shuttles, in-system transfer ships, launches and even small tugs — primarily non-combat support craft necessary to the ship's general operations. In a pinch, however, it is perfectly capable of supporting small combat craft such as marine assault pods and combat drones. It can even support two fighters, although the bay's loading arm is too small to manipulate such craft. This bay lacks the integral shops of the larger bay, and it must thus rely on adjacent service and repair modules for major undertakings.
Weapons Modules - 2.2.1

The GEMAG Program's weapons modules fit into two standardized types: large, fixed-angle weapons platforms and relatively smaller weapons turrets. Both varieties follow the same general layout, with a gunnery control center adjacent to the weapon mounts, tracking and guidance electronics, power supplies and ammunition bays, all enclosed in thick composite armor plating. Crawlways enable access to the subcomponents, and armored airlocks connect the control center with the ship's internal corridors. Ammunition replenishment hatches are located on the exterior of the ship to facilitate reloading operations; light walkers such as the Caprician-made Type 84 "Handyman" Mount conduct such operations on modern CEF ships, although thruster-stabilized cargo sleds with massive cargo arms performed the task before. Gunnery controls are always fixed in place with respect to the hull — even in weapons turrets, it is only the actual weapons that are turreted. Keeping the centers fixed allows for easier interfacing with the ship's environmental systems.

Internally, the gunnery control centers are small and cozy ("cramped," most Maxwell gunners would note, especially if a Mordred marine is on hand). Either ten or four acceleration-protected crew stations occupy the centers, depending on whether the module is a fixed-angle weapons platform or a turret. Each station houses a system console that provides access to the weapons' functions. The console hardware in each module is identical and standardized, the interface dictated entirely by software. The weapons themselves carry the interface software, which allows the weapons to be installed independent of their control centers. The one other significant feature of the control centers is the array of access hatches to the escape pods.

The gunnery control center's tracking computers, which contain expert systems to find targets, assess threats and recommend fire patterns, do most of the work. They operate in concert with the rest of the ship's systems, including the command centers, which provide a larger picture, and electronic warfare centers, which break through enemy countermeasures. The gunners have final authority over target choices and firing, however, and understanding and operating the interface consoles requires a great deal of training.

Missile Turret ◆

Equipped with a pair of heavy missile launchers, missile turrets are primarily used for anti-ship duty. These weapons are capable of inflicting massive destruction upon a target at considerable ranges: even a near miss from one of these missiles can be devastating. When a swarm of targeting drones guides the missiles in, few targets can survive an onslaught. Both Kadellie Weapon Systems and Moscow Heavy Industries manufacture missile launchers used in this module; the two systems are virtually identical.

Laser Turret ◆

The laser turret is without question the most ubiquitous weapon system in the entire NEC space navy. It is found on nearly every ship of the line, second-line combat ship and military space station used by the NEC. A twin laser cannon provides the system's firepower, which is typically brought to bear on smaller, fast-moving targets such as drones and fighters rather than on large ships. To facilitate the component's modularity, the system is never tied to the ship's power grid and thus is capable of only a limited (albeit large) number of shots before needing to be reloaded. Numerous corporations manufacture the laser cannons used in this component.

Railgun Turret ◆

Most ships of the line include at least two railgun turrets to augment their small-vessel firepower. The high rate of fire of the railguns enables them to take on swarms of incoming drones or fighters. Moscow Heavy Industries has exclusive license to manufacture the guns for these turrets, which was a profitable coup for the corporation. The TMC-43 performs extremely well, and the Ballista gunboat program has adopted it wholesale, right down to the ammunition bays and feeders.

Spinal Massdriver ◆

The spinal massdriver module is used in only one class of ship, the Leviathan dreadnought. An enormous and devastating weapon, the massdriver is usually brought to bear upon enemy ship formations in much the same way the smaller railgun turret is brought to bear upon enemy fighter and drone formations. It can also be employed against ground targets to overwhelming effect. This module was considered for the Tortoise-class Gateship, but anything but another Gateship would be capable of avoiding the shot, so it was abandoned in favor of heavy railgun turrets. Moscow Heavy Industries manufactures the massdriver used in this module.

Torpedo Launcher ◆

Torpedo launchers are found on the largest of the CEF's ships, and these weapons fire extremely long-range torpedoes that are capable of taking out an enemy ship well before the two vessels come to within the range of their other weapons. The range is almost too long to be used effectively in space combat without terminal guidance; it is comparatively easy for the target to maneuver out of the way at the weapon's maximum range. For anti-ship duties, the torpedoes are guided to their targets by drones. For planetary bombardment, TAAF-54 fighters usually provide the necessary guidance, but the Type 6-16 and 11-22 Battle Frames can handle the job, too. Both KWS and MHI manufacture the torpedoes.

▶ PART: LARGE COMMAND CENTER (SILCORE STAT BLOCK)

Size: 30 * DTV - Movement: Towed, Maneuver: varies, Armor: 70/140/210

* MTV - Crew: Living 40; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Emergency Medical (one use), Escape System, Life Support (Full); Armor Quality: HEAT Resistant (Rating 20); Communications (+3/100 km ground, 10,000 km space, Satellite Uplink); Features - Haywire Resistant, Hostile Environment Protection (Extreme Cold, Radiation - Rating 5, Vacuum), Laboratory (Leadership - Rating 1); Information Warfare Devices: ECM (Rating 5), ECCM (Rating 5); Reinforced System: Backups; Sensors (+3/20 km ground, 2000 km space); Movement Flaw: No Engine; Negative Features: Large Sensor Profile (Rating 2), Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	200

▶ PART: SMALL COMMAND CENTER (SILCORE STAT BLOCK)

Size: 25 • DTV - Movement: Towed; Maneuver: varies, Armor: 70/140/210

* MTV - Crew: Living 20; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (+2/80 km ground, 8000 km space, Satellite Uplink); Features - Haywire Resistant, Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum), Laboratory (Leadership - Rating 1); Reinforced Systems: Backups, Chassis, Crew; Sensors (+2/16 km ground, 1600 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
None fitted								

▶ Part: Electronic Warfare Center (Silcore Stat Block)

Size: 20 • DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

• MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (+2/50 km ground, 5000 km space, Satellite Uplink); Features - Haywire Resistant, Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum), Laboratory (Information Warfare - Rating 1); Information Warfare Devices: ECM (Rating 3), ECCM (Rating 3); Reinforced Systems: Backups, Crew; Sensors (+2/10 km ground, 1000 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
None fitted								

▶ PART: LARGE VEHICLE BAY (SILCORE STAT BLOCK)

Size: 40 • DTV - Movement: Towed; Maneuver: varies, Armor: 70/140/210

* MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Arms: 1 x Tool Arm (Rating 15, cannot punch); Features - Accomodations (250 cubic meters), Cargo Bay (vehicle bay, 170,000 cubic meters), Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum), Laboratories (Technical Sciences (Electronics) - Rating 1, Technical Sciences (Mechanics) - Rating 1); Communication (0/10 km ground, 1000 km space); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (0/2 km ground, 200 space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
None fitted								

▶ PART: SMALL VEHICLE BAY (SILCORE STAT BLOCK)

Size: 20 * DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

• MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Arms: 1 x Tool Arm (Rating 12, cannot punch); Communications (0/10 km ground, 1000 km space); Features - Cargo Bay (vehicle bay, 10,000 cubic meters), Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (0/2 km ground, 200 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
None fitted								

► LARGE COMMAND CENTER (OGL STAT BLOCK)

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	155 (MP: 110)	Speed:	Space, towed (MP: 0)	Total MP Cost:	944
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	891,136,000 CEE

Occupancy: 32 operators, 8 passengers, no cargo (MP: 352)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Electronic Counter-Measures (+5 defensive jammer, +5 radio jammer, MP: 50), Environmental Systems (Life Support, MP: 20), Rooms (Conference Room, capacity 40, MP: 1), Sensors (Infrared, Radar, global, 20 km, MP: 200)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (8, MP: -8)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Anti-Missile System	2d4	A	56m	200	Automatic, 3x Extra Ammo, Hardpoint, 2x Long Range	-	70

► SMALL COMMAND CENTER (OGL STAT BLOCK)

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	155 (MP: 110)	Speed:	Space, towed (MP: 0)	Total MP Cost:	610
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	372,100,000 CEE

Occupancy: 16 operators, 4 passengers, no cargo (MP: 176)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Rooms (Conference Room, capacity 20, MP: 1), Sensors (Infrared, Radar, global, 16 km, MP: 160)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (4, MP: -6)

Weapons: None fitted

► ELECTRONIC WARFARE CENTER (OGL STAT BLOCK)

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	100 (MP: 0)	Speed:	Space, towed (MP: 0)	Total MP Cost:	380
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	144,400,000 CEE

Occupancy: 8 operators, 2 passengers, no cargo (MP: 84)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Electronic Counter-Measures (+3 defensive jammer, +3 radio jammer, MP: 30), Environmental Systems (Life Support, MP: 20), Rooms (Conference Room, capacity 10, MP: 1), Sensors (Infrared, Radar, global, 10 km, MP: 100)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (2, MP: -4)

Weapons: None fitted

► LARGE VEHICLE BAY (OGL STAT BLOCK)

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	155 (MP: 110)	Speed:	Space, towed (MP: 0)	Total MP Cost:	914
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	835,396,000 CEE

Occupancy: 8 operators, 2 passengers, 3600 tons cargo (MP: 588)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Hangar (3600 tons, Gargantuan vehicles, MP: 30), Rooms (Conference Room, capacity 10, MP: 1), Sensors (Infrared, Radar, global, 2 km, MP: 20)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (2, MP: -4)

Weapons: None fitted

► Small Vehicle Bay (OGL STAT BLOCK)

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	100 (MP: 0)	Speed:	Space, towed (MP: 0)	Total MP Cost:	604
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	364,816,000 CEE

Occupancy: 8 operators, 2 passengers, 200 tons cargo (MP: 388)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Hangar (200 tons, Gargantuan vehicles, MP: 30), Rooms (Conference Room, capacity 10, MP: 1), Sensors (Infrared, Radar, global, 2 km, MP: 20)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (2, MP: -4)

Weapons: None fitted

► MISSILE TURRET SILCORE STAT BLOCK

Size: 16 ● DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

● MTV - Crew: Living 4; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/1 km ground, 100 km space); Movement Flaw: No Engine, Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
2	Heavy Antitank Missile	T	+1	x30	5	0	Guided, Indirect Fire, Linked	25 ea
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	50

► LASER TURRET SILCORE STAT BLOCK

Size: 16 * DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

● MTV - Crew: Living 4; Deployment Range: 1000 hours, Reaction Mass: varies

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
2	Heavy Laser Cannon	T	+1	x20	5	0	Linked, Attenuating Damage (3)	100 ea
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	50

► RAILGUN TURRET SILCORE STAT BLOCK

Size: 16 * DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

* MTV - Crew: Living 4; Deployment Range: 1000 hours, Reaction Mass: n/a

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/1 km ground, 100 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
2	Light Railguns	T	0	x14	5	+2	-	500 ea
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	50

► SPINAL MASSDRIVER SILCORE STAT BLOCK

Size: 25 ● DTV - Movement: Towed, Maneuver: varies, Armor: 70/140/210

* MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: n/a

Perks and Flaws:

Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/5 km ground, 500 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Medium Artillery Gun	FF	-1	x18	30	+1	Area Effect 1, Indirect Fire, Redundant, Minimum Range 15	50

▶ MISSILE TURRETOGL STAT BLOCK

Type:		Vehicle	Defense:		2	Initiative:		varies (MP: 0)
Size:		Colossal	Strength:		n/a	Maneuver:		varies (MP: 0)
Hit Points:		100 (MP: 0)	Speed:	Space, towed (MP: 0)		Total MP Cost:		2349
Armor Hardness:		30 (MP: 150)	Tactical Speed:		varies	Total Money Cost:		5,517,801,000 CEE

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)

Occupancy:	4 operators, no cargo (MP: 40)	Exotic Abilities:	None	Mecha Defects:	Poor Visibility (MP: -5)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Heavy Antitank Missile	10d12	SS	250m		Blast, Guided Missile (Laser, SARH), Indirect Fire, Hardpoint, Long Range	-	1040
Heavy Antitank Missile	10d12	SS	250m		Blast, Guided Missile (Laser, SARH), Indirect Fire, Hardpoint, Long Range	-	1040
Anti-Missile System	2d4	A	56m	50	Automatic, Extra Ammo, Hardpoint, 2x Long Range	-	50

▶ LASER TURRET OGL STAT BLOCK

Type:		Vehicle	Defense:		2	Initiative:		varies (MP: 0)
Size:		Colossal	Strength:		n/a	Maneuver:		varies (MP: 0)
Hit Points:		100 (MP: 0)	Speed:	Space, towed (MP: 0)		Total MP Cost:		789
Armor Hardness:		30 (MP: 150)	Tactical Speed:		varies	Total Money Cost:		622,521,000 CEE
Occupancy:	4 operators, no cargo (MP: 40)							

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Heavy Laser Cannon	5d12	S	250m		2x Extra Ammo, Hardpoint, 2x Long Range, Semiauto	Space-Optimized	260
Heavy Laser Cannon	5d12	S	250m		2x Extra Ammo, Hardpoint, 2x Long Range, Semiauto	Space-Optimized	260
Anti-Missile System	2d4	A	56m	50	Automatic, Extra Ammo, Hardpoint, 2x Long Range	-	50

▶ RAILGUN TURRET OGL STAT BLOCK

Type:		Vehicle	Defense:		2	Initiative:		varies (MP: 0)
Size:		Colossal	Strength:		n/a	Maneuver:		varies (MP: 0)
Hit Points:		100 (MP: 0)	Speed:	Space, towed (MP: 0)		Total MP Cost:		1254
Armor Hardness:		30 (MP: 150)	Tactical Speed:		varies	Total Money Cost:		1,572,516,000 CEE

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)

Occupancy:	4 operators, no cargo (MP: 40)	Exotic Abilities:	None	Mecha Defects:	Poor Visibility (MP: -5)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Light Railgun	10d6	S	250m	500	3x Extra Ammo, Hardpoint, 2x Long Range, Semiauto - 490		
Light Railgun	10d6	S	250m	500	3x Extra Ammo, Hardpoint, 2x Long Range, Semiauto - 490		
Anti-Missile System	2d4	A	56m	50	Automatic, Extra Ammo, Hardpoint, 2x Long Range	-	50

▶ SPINAL MASSDRIVER OGL STAT BLOCK

Type:		Vehicle	Defense:		2	Initiative:		varies (MP: 0)
Size:		Colossal	Strength:		n/a	Maneuver:		varies (MP: 0)
Hit Points:		155 (MP: 110)	Speed:	Space, towed (MP: 0)		Total MP Cost:		905
Armor Hardness:		30 (MP: 150)	Tactical Speed:		varies	Total Money Cost:		819,025,000 CEE

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)

Occupancy:8 operators, 2 passengers, no cargo (MP: 88)				

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Medium Artillery Gun	8d8	SS	1536m	50	3x Blast, Extra Ammo, Hardpoint, Indirect Range, 4x Long Range	Arc of Fire (Fr)	528

9.5 - TORTOISE-CLASS GATESHIP

Tortoises are gigantic military Gateships built to support invasion fleets in hostile systems. They are constructed by GEMAG Industries in its huge orbital facilities in orbit around Mars. The Tortoise's primary purpose is to open the local Tannhauser discontinuity, allowing CEF vessels to jump to the next system whenever necessary. They are the only link between home and an enemy system and thus Tortoises are exceedingly well armed and protected. Furthermore, the Tortoise often serves as both Fleet and Force headquarters in a system, directing from a distance all CEF operations.

The most important responsibility is without question Gate operations. Tortoises are typically deployed in pairs, except in the Loki system, so that a fleet will have both a primary and a secondary Gateship when it invades a hostile system, providing some assurance that the fleet can return home. Once in a new system, the strike fleet approaches enemy installations and carries out its work, while the two Tortoises and their protective squadron usually linger in the vicinity of the Tannhauser discontinuity, providing a base of operations to which the strike fleet can return for equipment and personnel rotations. Only when a system is under CEF control will the Admiral risk moving a Gateship closer to a colony.

Tortoise captains try to avoid fights if possible, since losing one of these valuable vessels means not only a loss of significant capital but also, more importantly, the loss of contact with home. If they do get into a fight, however, they can defend themselves quite adequately with a large arsenal of rail guns, missiles and lasers. Because of their nature, Gateships always receive first priority for repairs, maintenance, supplies and new personnel.

9.5.1 - Service Record

The Tortoise is a very recent Gateship design, and it is one of the few in human history to be constructed under anything approaching mass-production conditions. While most Gateships are as unique as the giant ocean-going liners of the distant past, no fewer than ten Tortoises have been built by GEMAG since the first Tortoise crawled from its massive construction pier in Mars orbit in AD 6120. Each ship is named for a hero from the mythical Trojan War as told by Homer in the Iliad.

The exact number, names and locations of the new Tortoise Gateships are unknown, however. The NEC has kept a tight lid on this information, treating it as one of the most guarded secrets it has. One Tortoise, the Ajax, is known to have passed through the Gate to the Atlantean worlds, and two others — the Diomedes and the Aeneas — have been observed passing through the Gate to the Utopian worlds. Beyond these three, however, little is known. When the CEF invaded the Loki system in AD 6116, it did so with ancient Gateships dating back to the Colonial Wars; as the CEF expanded its control of the Gate Web, these ancient relics followed. Apart from the 8th Fleet's ships, however, few have been called back, leaving many observers to speculate that the other seven Tortoises are not merely replacing the old ships.

● Warehouses in space
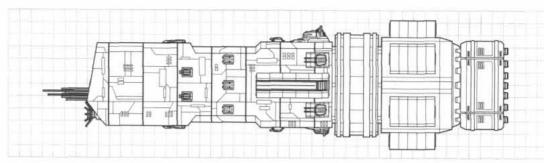
"Interstellar warfare is all about supplies. You need plenty of fuel, ammunition, food, spare parts, batteries, ammunition, pens and paper and more ammunition. The real problem is that we really cannot rely on the bloody colonies for anything. You never know if their warehouses have the special tools the Force needs for its finicky hovertanks, much less the spares that the Fleet needs for its electronics. So yes, we have everything. We have fountain pens, smart bombs, camouflage cream, wedding gowns — I kid you not! — and tens of millions of other articles from complete artillery pieces to bugs for spies.

"Unfortunately all that stuff has to be transported too, and it has to be warehoused on the surface or in space. We have massive robotic space warehouses, the Terrapins, where we keep it all — huge, largely automated behemoths built from the same basic frame as the Tortoise but without all the expensive components. From our Command Center, we can direct those warehouse barges and the automated transport vessels that carry the stock to its ultimate destination. We order items from toothbrushes to nuclear weapons from the warehouses, and then robots bag them up into containers and fly them into a cargo vessel waiting patiently to be on its way. The best part of it is that you never need to send anyone out there to do it by hand. That is, as long as the robots and the computers function properly, which they never seem to do."

— Voices of the Troopers, Martial Press, AD 6138
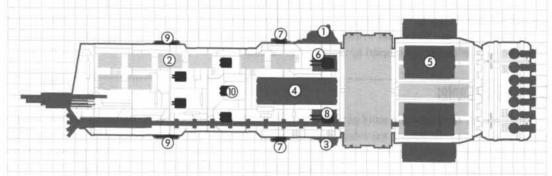
Deck Plans - 2.3.2

DESIGN NOTES

The ship is built into a long cylinder which is tremendously armored. The hull is generally smooth but has sensor arrays protruding out of it. Inside the vessel, most of the room is dedicated to the Gatedrive. The front two-third of the ship has twin thick hulls, with the innermost area dedicated to the Gatedrive and its support systems; there is some storage and fuel inside the outer hull. Part of the area is dedicated to office space for command center and staff center.

A set of massive centrifuges spin within an armored housing amidship, providing simulated gravity during extended deployments. Cavernous cargo bays occupy the space behind, shielding the crew from the engines. The massive engine cluster is partially protected by tortoise-like armor shell.

Tactical Components

1	1 x Gateship Command Center	6	4 x Frame Bay
2	1 x Gateship Staff Center	7	6 x Laser Turret
3	1 x Small Command Center	8	4 x Railgun Turret
4	2 x Large Vehicle Bay	9	4 x Heavy Railgun Turret
5	8 x Small Vehicle Bay	10	12 x Defense Blister

9.5.2 - Daughtercraft

Most Gateships have an entourage of daughtercraft in constant attendance; these range from simple maintenance drones to tugs to reaction mass transports. Long-range Gateships capable of autonomous operation such as Terra Nova's *Laban Emuros* (see **Spaceship Compendium I**, pp. 16-19) typically house these craft in their own cavernous internal bays. A warship such as the Tortoise, however, never operates alone — it is always accompanied by a CEF fleet or is in transit to support one. The Tortoise's tugs and transports thus travel on their own or within bays aboard Terrapin-class warehouse ships.

This is not to say the Tortoise does not have its own minor fleet of daughtercraft, however. Its non-combat bays contain shuttles and in-system transit craft as well as a few AT-33 deployment craft and AC-56 assault landers. In addition to the non-combat bays, a Tortoise contains eight small vehicle bays and two large vehicle bays. The small bays house its combat drones, as many as 400 large or 1600 small drones total, each ready for deployment under fire. The large vehicle bays each house forty CF-78 fighters. The drones and fighters fall under the supervision of the Gateship's flight control center, which is identical to that of the Nova-class carrier.

Repair work on the Tortoise is conducted almost exclusively by Type 84 "Handyman" Mounts manufactured on Caprice. These are normally housed in internal bays along with the ship's shuttles and transports. The Tortoise is also destined to carry a relatively large complement of Type 99 Battle Frames to engage units directly on the hull of the ship. These are — or rather, will be — housed in four dedicated Frame bays located on the Gateship's hull. Each bay can service an entire patrol of Frames, with a full company assigned to the ship. The CEF has only ordered 200 such Frames to-date, however, to be distributed among the five expeditionary fleets. Until the Type 99 Frames have proven themselves in combat against threats such as Terra Nova's Heavy Gears, the Tortoise's Frame bays will primarily be occupied by maintenance Mounts.

9.5.3 - Staff Center

The Tortoise can serve as a command post for the CEF's ground campaign. This command post, called "High-side" by troopers on the ground, has extensive communications systems to keep in contact will all troops in the system. Its large computer system allows staff officers to follow the flow of battle and counter enemy actions when necessary. The true heart of the Staff Center is a large combined arms operations center that allows a number of staff officers from various services to gather and direct together a single important operation. This large room shows the flow of battle in various large holotanks while individual officers can also follow their own fights on smaller units. In more peaceful times, this center can be used to run the day-to-day operations involved in the occupation of a conquered planet.

Most staff work is done in smaller offices adjacent to the main operations center. These offices surround the periphery of the combined arms operations center and have direct access to it. Each office usually supports a few officers and focuses a single aspect of the current operation, such as meteorology or intelligence. Briefings and debriefings are conducted in meeting rooms, while a few large auditoriums are reserved for briefings that precede complex combined arms operations. Finally, the Staff Center also includes an extensive data library covering all aspects of modern warfare, from politics to economy to military affairs to history to support decision-making.

Command Center - 9.5.4

The Command Center is the "brain" of the Tortoise; it combines all sensor, weapons and communications data from throughout the Gateship into one integrated stream. In addition to regulating the entire ship's functions, the Center is also responsible for coordinating traffic in and around the ship. It has a large number of operations controllers who are capable of coordinating the complex fleet-wide maneuvers necessary to launch an invasion, send a fleet through a Tannhauser Gate or direct a round-out replenishment run. During normal operations, the Center merely directs supply transfers. However, during combat, the Center plays an active role in directing the operations of the ships in its vicinity.

The Command Center layout is fairly similar to the Staff Center. The primary difference is the integration of sensors and weapons that allows the Command Center crew to fight a battle directly should they need to. Thus it is always adequately manned so that the Tortoise can respond to any threat with a minimum of delay. If the Tortoise is used to control ground combat directly, the Center is responsible for coordinating orbital fire support as well as aerospace operations such as shuttle flights, air strikes and the like. These kinds of operations are rare, however, since most captains don't like to take their Gateships too close to a planet — while a Gateship is a massive weapons platform, carrier and supply base, planets are always much bigger.

Defensive Systems - 9.5.5

Under ideal circumstances, a vessel such as the Tortoise is never without a sizable escort group of frigates, destroyers, and cruisers to form a defensive perimeter around this most precious of fleet resources. Because the ship represents a fleet's best — and quite possibly only — means of returning home, its defense is of the highest priority, and it is equipped with formidable firepower for those situations in which its escort fails to protect it completely. Like all ships under the GEMAG Program, the Tortoise is composed of modular components, and its weapons systems are no exception. In addition to the standard laser turret and railgun turret modules, the Tortoise includes two components not presently found on any other NECAF warship: the defense blister and the heavy railgun turret.

The defense blister is primarily intended for close-in defense against small units (fighters and drones) that manage to break through the escort's line. As such, the blister's weapons systems are not scaled for long-range space battles and are not equipped with mass-destruction warheads or firepower level. They can thus engage safely enemies in extremely close proximity to the ship without great risk to the Gateship itself.

The heavy railgun turrets are a last-ditch anti-ship defense. Due to its massive bulk and limited battlefield mobility, a Gateship is often one of the last ships through its own Gate. Should it have to open a Gate in the middle of a battle — something it should never have to do — the heavy railgun turrets are capable of defending the Tortoise when most of its escort has already passed across the Tannhauser discontinuity.

▶ GATESHIP COMMAND CENTER SILCORE STAT BLOCK

Size: 35 * DTV - Movement: Towed, Maneuver: varies, Armor: 75/150/225

● MTV - Crew: Living 75; Deployment Range: 1000 hours, Reaction Mass: n/a

Perks and Flaws: Accessories: Acceleration Protection, Emergency Medical (two uses), Escape System, Life Support (Full); Armor Quality: HEAT Resistant (Rating 35); Communications (+3/150 km ground, 15,000 km space, Satellite Uplink); Features - Haywire Resistant, Hostile Environment Protection (Extreme Cold, Radiation - Rating 5, Vacuum), Laboratories (Information Warfare - Rating 2, Leadership - Rating 3, Navigation (Space) - Rating 3); Reinforced Systems: Backups, Chassis, Crew; Sensors (+3/30 km, 3000 km space); Movement Flaw: No Engine, Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	250

▶ GATESHIP STAFF CENTER SILCORE STAT BLOCK

Size: 35 * DTV - Movement: Towed, Maneuver: varies, Armor: 70/140/210

* MTV - Crew: Living 75, Deployment Range: 1000 hours; Reaction Mass: n/a

Perks and Flaws: Accessories: Acceleration Protection, Emergency Medical (2 uses), Escape System, Life Support (Full); Armor Quality: HEAT Resistant (Rating 35); Communications (+3/200 km ground, 20,000 km space, Satellite Uplink); Features - Accomodations (100 cubic meters), Haywire Resistant, Hostile Environment Protection (Extreme Cold, Radiation - Rating 5, Vacuum), Laboratories (Information Warfare - Rating 2, Leadership - Rating 3); Reinforced Systems: Backups, Chassis, Crew; Sensors (+2/16 km ground, 1600 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	250

▶ FRAME BAY SILCORE STAT BLOCK

Size: 15 * DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

* MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: n/a

Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/10 km ground, 1000 km space); Features - Cargo Bay (vehicle bay, 800 cubic meters), Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (0/2 km ground, 200 km space); Movement Flaw: No Engine, Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
None fitted								

▶ HEAVY RAILGUN TURRET SILCORE STAT BLOCK

Size: 20 ● DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150

* MTV - Crew: Living 4; Deployment Range: 1000 hours, Reaction Mass: n/a

Perks and Flaws:

Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Feature - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/1 km ground, 100 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent

*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	50
2	Heavy Railguns	T	+1	x35	10	0	Linked	100 ea

▶ GATESHIP COMMAND CENTER OGL Stat Block

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	165 (MP: 130)	Speed:	Space, towed (MP: 0)	Total MP Cost:	1236
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	1,527,976,000 CEE

Occupancy: 64 crew, 11 passengers, no cargo (MP: 684)

Special Abilities: Chobham Armor (MP: 30), Communications (Laser Com, Tactical Radio, Interplanetary, Secure, MP: 16), Environmental Systems (Life Support, MP: 20), Rooms (conference room, 75 people, MP: 1), Sensors (Infrared, Radar, global, 30 km, MP: 300)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (11, MP: -10)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Anti-Missile System	2d4	A	56m	250	Automatic, 3x Extra Ammo, Hardpoint, 2x Long Range	-	70

▶ GATESHIP STAFF CENTER OGL Stat Block

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	155 (MP: 110)	Speed:	Space, towed (MP: 0)	Total MP Cost:	
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	

Occupancy: 64 operators, 61 passengers, no cargo (MP: 684)

Special Abilities: Chobham Armor (MP: 30), Communications (Laser Com, Tactical Radio, Interplanetary, Secure, MP: 16), Environmental Systems (Life Support, MP: 20), Rooms (conference rooms, 1 for 75 people, 10 for 5 people, MP: 11), Sensors (Infrared, Radar, global, 16 km, MP: 160)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (11, MP: -10)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Anti-Missile System	2d4	A	56m	250	Automatic, 3x Extra Ammo, Hardpoint, 2x Long Range	-	70

▶ FRAME BAY OGL STAT BLOCK

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	115 (MP: 30)	Speed:	Space, towed (MP: 0)	Total MP Cost:	498
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	248,004,000 CEE

Occupancy: 8 operators, 2 passengers, 40 tons cargo (MP: 238)

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Hangar (40 tons, Huge vehicles, MP: 25), Sensors (Infrared, Radar, global, 2 km, MP: 40)

Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (2, MP: -4)

Weapons: None fitted

▶ HEAVY RAILGUN TURRET OGL STAT BLOCK

Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)
Hit Points:	115 (MP: 30)	Speed:	Space, towed (MP: 0)	Total MP Cost:	1235
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	1,525,225,000 CEE

Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)

Occupancy:	4 operators, no cargo (MP: 40)	Exotic Abilities:	None	Mecha Defects:	Poor Visibility (MP: -5)

Weapons:

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions	MP Cost
Heavy Railgun	12d12	SS	480m	100	Extra Ammo, Hardpoint, Long Range	-	468
Heavy Railgun	12d12	SS	480m	100	Extra Ammo, Hardpoint, Long Range	-	468
Anti-Missile System	2d4	A	56m	50	Automatic, Extra Ammo, Hardpoint, 2x Long Range	-	50

9.6 - LEVIATHAN-CLASS DREADNOUGHT

The largest frontline military spaceships ever built, the Leviathan class dreadnoughts are the most visible symbols of the might of the CEF. From their command centers the CEF admirals dictate the fate of the colony worlds and billions of lives. The five dreadnoughts that command the CEF fleets are the *Hannibal* of the 2nd Fleet, the *Alexander* of the 3rd Fleet, the *Gaius Marius* of the 5th Fleet, the *Miltiades* of the 7th Fleet and the *Napoleon* of the 8th Fleet.

As the nerve center of the fleets, the dreadnoughts carry a large command staff, along with strategic planners, intelligence analysts, logistics experts and other assorted aides. The Leviathan-class dreadnoughts have a total crew complement of 7150, of which 1800 are directly involved in planning and controlling fleet operations while the rest see to the day-to-day operation of the ship. Fleet Admiral Winthrop commands the entire CEF from the Alexander, but each of the five dreadnoughts is capable of assuming full command of the combined fleets in the event of anything happening to the others.

Despite their role as command headquarters, the Leviathan-class dreadnoughts are heavily armed. Their primary armament is the three massdrivers mounted along the ships' spine. Each is capable of independent targeting by manipulation of the magnetic field at the mouth of the gun and is designed to break up enemy fleet formations at long ranges. The main guns are supplemented by a pair of torpedo launchers for precision attacks and railgun, laser and missile turrets for closer-in defense. Additional protection is provided by a decoy drone launcher. The ship has two hangar bays, which are in constant use by transfer shuttles and fleet couriers that arrive and depart around the clock.

9.6.1 - Service Record
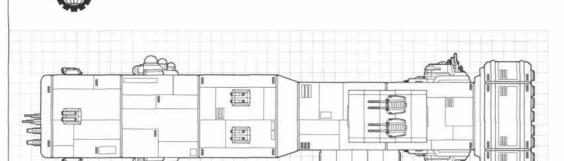
Designed and built during the long years of World War III, five of the surviving seven ships of the Leviathan class underwent extensive refitting in AD 6111 to become the flagships of the CEF fleets. Originally designed to punch holes in enemy lines that could then be exploited by smaller, faster vessels, the ships required major changes to convert them to command headquarters for a mission that could take several decades. The cavernous drone bays were replaced with a strategic command center and additional cargo holds, and the communications suite and living quarters were upgraded. After successful trials by the Hannibal, all five ships were completely refitted by the end of AD 6112.

Although heavily armed, the flagships are too important to risk on the front line and thus have seen little combat. The one exception is the 8th Fleet flagship Napoleon, which used its spinal railguns to good effect keeping the Terranovan fleet at bay during the 8th Fleet's flight through the fringes of the Helios system.
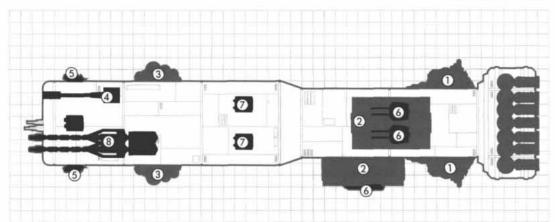
Vehicle Specifications

Code Name:	Leviathan-class	Empty Weight:	171,000 tons
Type:	Dreadnought	Loaded Weight:	214,000 tons
Production Type:	Early Production	Main Drive:	20 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	20 x 321,000,000 Newtons
Length:	420 meters	Reaction Mass:	10,260 tons Hydrogen (6000 BP)
Width:	120 meters	Space Movement:	15/30 MPs (1.5/3.0 g)
Height:	102 meters	Maneuver:	-9

Tactical Components

2 x Large Command Center	2 x Missile Turret	3 x Small Vehicle Bay	6 x Railgun Turret
2 x Electronic Warfare Center	6 x Laser Turret	2 x Torpedo Launcher	3 x Spinal Massdriver

DESIGN NOTES

The ship is built into a long slab-like shape which is tremendously armored. The hull is generally smooth but has sensor arrays protruding out of it. Inside the hull, most of the front end of the ship is dedicated to the torpedo launchers and the massive massdrivers (and their support systems). The front two-third of the ship has twin thick hulls; there is some storage and fuel inside the outer hull.

▯ Tactical Components

1	2 x Large Command Center	5	2 x Missile Turret
2	3 x Small Vehicle Bay	6	6 x Railgun Turret
3	2 x Electronic Warfare Center	7	6 x Laser Turret
4	2 x Torpedo Launcher	8	3 x Spinal Massdriver

9.6.2 - Crew Interview

"This is the big gun of the fleet, the Moscow Heavy Industries SMC-23 massdriver cannon. Muzzle velocity approximately six klicks a second, requiring 11 gigajoules per shot. Two hundred millimeter diameter projectiles with simple kinetic penetrator or point one to one point oh kiloton nuke warheads with impact, proximity or time delay fusing. We just call it 'Boomer.'

"All that, though, makes it sound much more exciting than it really is. In a major fleet engagement we'd be responsible for breaking up enemy formations and crippling or destroying capital ships, but there hasn't been a fight like that since I was assigned here. The kill markers Boomer earned in the Terranovan campaign are still up there on the wall, but that was well before my time. Our days are spent running the diagnostic program twice per watch and training with targeting sims. Every couple of months the ship heads out to the Greater Blessed Belt so we can practice vaporizing a few asteroids, which is about as close as we come to real activity. The gun crews can't even do most of the maintenance themselves, since a thumbprint in the wrong place or something a hundredth of a millimeter out of alignment could throw everything out of whack. For that level of precision it all has to be done by drones.

"I have to admit, though, it's always busy elsewhere on the ship. *Napoleon* coordinates the operations of the entire 8th Fleet, so there's constant activity in the command center as the status of each ship in the fleet is tracked in real time. The hangars see a rapid turnover of shuttlecraft bringing officers arriving for mission briefings, fleet couriers carrying top priority messages and transports with supplies for the ship's seven thousand crew, along with munitions and fuel. The engineering section has its work cut out for it keeping the twenty fusion tubes in working order and not turning us all into radioactive debris.

"Finally, buried deep in the heart of the ship are the Intelligence Analysis and Strategic Planning departments, where the brass thinks up their hare-brained schemes. Security down there is always tight, but I've heard rumors that there's been a whole more activity in there since Mu-2, excuse me, Vice Admiral Mubatu, came on board. Maybe we'll have a little more excitement here in gunnery soon after all. I hope so. Boomer needs a good workout."

— Gunner Sasaki 'Spike' Shiro, Dreadnaught *Napoleon*, 8th Fleet

Voices of the Troopers, Martial Press, AD 6138

► TORPEDO LAUNCHER SILCORE STAT BLOCK							
Size: 25 * DTV - Movement: Towed, Maneuver: varies, Armor: 70/140/210							
• MTV - Crew: Living 10; Deployment Range: 1000 hours, Reaction Mass: n/a							
Perks and Flaws:							
Accessories: Acceleration Protection, Escape System, Life Support (Full); Communications (0/5 km ground, 500 km space); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/5 km ground, 500 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent							
*Offensive Threat Value (OTV)							

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Medium Artillery Missile	FF	-3	x18	60	+3	Area Effect 0, Guided, Redundant, Minimum Range 40	64

► TORPEDO LAUNCHER OGL STAT BLOCK						
Type:	Vehicle	Defense:	2	Initiative:	varies (MP: 0)	
Size:	Colossal	Strength:	n/a	Maneuver:	varies (MP: 0)	
Hit Points:	155 (MP: 110)	Speed:	Towed (MP: 0)	Total MP Cost:	1239	
Armor Hardness:	30 (MP: 150)	Tactical Speed:	varies	Total Money Cost:	1,535,121,000 CEE	
Occupancy: 8 operators, 2 passengers, no cargo (MP: 88)						
Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)						
Exotic Abilities:			None	Mecha Defects:	Poor Visibility (MP: -5), Service Crew (2, MP: -2)	
Weapons:						

Name	Dam.	ROF	RI	Ammo	Qualities		Restr.	MP Cost
Medium Artillery Missile	8d8	SS	3072m	64	Blast, 2x Extra Ammo, Guided Missile (Laser, SARH), Hardpoint, 5x Long Range		-	864

NOVA-CLASS CARRIER - 9.7

Nova-class carriers are considered the most prestigious postings in the CEF. Officers and enlisted personnel alike fight for the chance to join their crews. The competition is intense and the carriers can afford to take only the best. The pilots of the carrier fighter wings take this the furthest, considering themselves to be the cream of the CEF, looking down on the rest of the crew they see as their 'chauffeurs.' Despite the fact that the fleet admirals have headquarters on board the dreadnoughts, the Nova-class carriers tend to attract a good deal of attention. Vice Admiral Gresfield, as an ex-fighter pilot himself, is a frequent guest of the carriers' fighter wings.

Nova-class carriers have a total of 6600 crewmembers and a fighter complement of 120. The activities of the ships revolve around the smooth functioning of the fighter wings and all crewmembers take pride in their achievements in combat. A large flight command center tracks and controls fighter operations from the center of the ship and regular operational updates are announced over the ship-wide public address system. Fighters from the carrier are on patrol constantly and take-offs and landings occur around the clock. Designed for long-term operations, the carrier is equipped to conduct repairs and even major overhauls on its fightercraft in the years it may be away from friendly repair bases. For self-defense the Nova-class is armed with a mix of laser and railgun turrets, and a pair of drone launchers allows the carrier to support its fighters with reconnaissance and electronic warfare drones. A small hangar bay at the aft of the ship is home to a number of utility craft, including transfer shuttles and recovery vehicles.

Service Record - 9.7.1

The New Eurasian Commonwealth was the only nation during the Third World War to field carriers for space fighters, with the other factions restricted to deploying fighters from fixed bases such as airfields and space stations. The success of carrier-based operations during the war meant that it was inevitable that the CEF would include carriers as a major part of its expeditionary fleets. The Nova-class carrier was designed to be the focal point of fleet battle groups and construction began on the class in AD 6103. Since then the class has served with distinction with the CEF, reinforcing its view of the importance of carrier operations. The most decisive carrier action occurred in the Atlantis system, where fighters from the carrier *Ascella* overwhelmed the defenses of a deep space early warning post before it could react, allowing the 5th Fleet to reach the planet without interference from defenders elsewhere in the system.
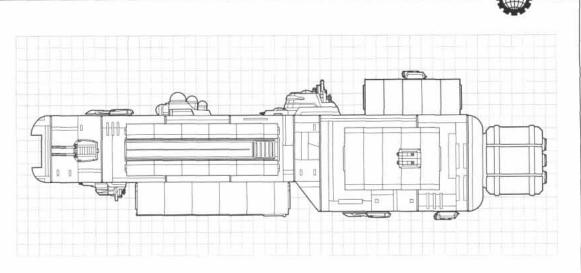
☐ Vehicle Specifications

Code Name:	Nova-class	Empty Weight:	81,000 tons
Type:	Carrier	Loaded Weight:	101,000 tons
Production Type:	Early Production	Main Drive:	11 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	11 x 321,000,000 Newtons
Length:	351 meters	Reaction Mass:	4860 tons Hydrogen (6000 BP)
Width:	90 meters	Space Movement:	18/35 MPs (1.8/3.5 g)
Height:	77 meters	Maneuver:	-8

☐ Tactical Components

1 x Large Command Center	3 x Small Vehicle Bay	1 x Electronic Warfare Center	4 x Railgun Turret
1 x Small Command Center	4 x Laser Turret	3 x Large Vehicle Bay	
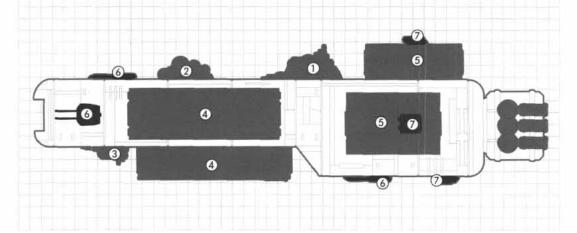
9.7.2 - Deck Plans

DESIGN NOTES

The ship is built into a long armored slab. The hull is generally smooth but has sensor arrays out of it.
Inside the vessel, most of the room is dedicated to the various hangar bays most of which protrude outside
as well. The massive engine cluster is partially protected by tortoise-like armor shell.

Tactical Components

1	1 x Large Command Center	5	3 x Small Vehicle Bay
2	1 x Electronic Warfare Center	6	4 x Railgun Turret
3	1 x Small Command Center	7	4 x Laser Turret
4	3 x Large Vehicle Bay		

"This is the home of the 11th fighter wing, the Hungry Ghosts. Yeah, our quarters are a little more luxurious compared to what the rest of the crew get, but we're the best, and we deserve the best. Don't believe me? Check out our kill ratio. We've been ranked in the top three wings in the fleet consistently for the last ten years. That trophy over the bar? The Fleet Redeye Cup — ours for the last three years running.

"We work hard, too. The Ghosts, along with the other fighter wings on *Vesper*, fly patrols around the clock to keep this system secure. Back when we first arrived in-system we had our hands full hunting down the remnants of the local defenses, but ever since we got the Atlanteans bottled up on the ground we haven't had much in the way of excitement. But that's okay; that just shows we're doing our job properly. It's not like Caprice, where I hear the bad guys can pretty much wander around as they please. If somehow there *was* enemy activity, our fighter wings would have two roles: as a *screening force* for our ships to defend against close-in attackers and — this is where the Ghosts come in — taking the fight to the enemy ships, usually targeting their engines so they can't escape or maneuver. Of course, that involves penetrating the enemy's screening force, but in my experience that isn't too much of a problem.

"You know, the Atlanteans and, I hear, the Terranovans, had fighters, but neither they nor their pilots could really stand up to us and our Nukdaes. Mostly they relied on drones to defend their ships. Now, popping drones might be fun, but it's not much of a challenge and hardly the stuff legends are made of. I hope they wrap up things here soon and we can ship out for Eden. Maybe they'll have some actual pilots there who aren't afraid of getting their hair mussed up instead fighting by remote control. There's not a pilot in the Fleet who doesn't look forward to a real dogfight."

— Pilot Karen Adderley, Carrier *Vesper*, 5th Fleet

Voices of the Troopers, Martial Press, AD 6138

▶ GATESHIP DEFENSE BLISTER SILCORE STAT BLOCK
Size: 16 * DTV - Movement: Towed, Maneuver: varies, Armor: 50/100/150
• MTV - Crew: Living 4; Deployment Range: 1000 hours, Reaction Mass: n/a
Perks and Flaws: Accessories: Acceleration Protection, Escape System, Life Support (Full); Features - Hostile Environment Protection (Extreme Cold, Radiation - Rating 4, Vacuum); Reinforced Systems: Ammo/Fuel, Backups, Crew; Sensors (+1/1 km ground, 100 km space); Movement Flaw: No Engine; Negative Feature: Sensor Dependent
*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
2	Gatling Laser Cannons*	T	+1	x16	2	+1	Attenuating Damage (1), Linked	Unlimited
1	Heavy Rocket Pack/24*	T	-1	x20	3	+3	Indirect Fire	120
1	Anti-Missile System	T	0	x1	1	+3	Anti-Missile	50

* Weapons are *not* Mass Destruction systemss

▶ GATESHIP DEFENSE BLISTER OGL STAT BLOCK								
Type:		Vehicle	Defense:		2	Initiative:		varies (MP: 0)
Size:		Colossal	Strength:		n/a	Maneuver:		varies (MP: 0)
Hit Points:		115 (MP: 30)	Speed:	Space, towed (MP: 0)		Total MP Cost:		1255
Armor Hardness:		30 (MP: 150)	Tactical Speed:		varies	Total Money Cost:		1,575,025,000 CEE
Special Abilities: Communications (Tactical Radio, Secure, MP: 4), Environmental Systems (Life Support, MP: 20), Sensors (Infrared, Radar, global, 1 km, MP: 10)								
Occupancy:	4 operators, no cargo (MP: 40)		Exotic Abilities:		None	Mecha Defects:	Poor Visibility (MP: -5)	
Weapons:								

Name	Dam.	ROF	RI	Ammo	Qualities		Restrictions	MP Cost
Gatling Laser Cannon*	4d12	S	80m	n/a	Hardpoint, Semiauto, Unlimited Shots		Space-Optimized	208
Gatling Laser Cannon*	4d12	S	80m	n/a	Hardpoint Semiauto, Unlimited Shots		Space-Optimized	208
Heavy Rocket Pack/24	10d8	A	120m	120	Automatic, Blast, Hardpoint, Indirect Fire, Extra Ammo	-		540
Anti-Missile System	2d4	A	56m	50	Automatic, Extra Ammo, Hardpoint, 2x Long Range	-		50

*Energy Weapon

9.8 - DEIL-CLASS CRUISER

The Deil-class cruiser is known as 'the jack of all trades' although not without adding the corollary 'master of none.' An uneasy compromise between a carrier and a destroyer, the Deil-class ends up not filling either role very well. In addition, the rush to put the design into production has resulted in some technical problems not being discovered until after the ships had been deployed, leading to some jury-rigged modifications to the ships' communications and life support systems. In particular a badly designed air filtration system lead to the growth of mold throughout the ship, which has still not been completely eradicated on some members of the class. Despised by their crews and ignored by the high command, the Deil-class has become the pariah of the CEF fleets.

The Deil has a crew of 550 and a fighter complement of forty. Armament consists of long-range torpedoes and short-range missile systems along with four laser batteries and two railgun turrets. A variety of drones can be launched from two small bays located on either side of the bottom of the ship. The ship's external layout has been designed to simplify landing operations for its fightercraft, the only feature of the ship that ever receives any praise. The class' unpopularity has seen it assigned to roles considered to be of low prestige by the naval branch of the fleets. The Deil-class has proved most successful in the planetary support role, where its primary missile system is loaded with ground bombardment munitions and its hangars equipped with TAAF-54 transatmospheric attack fighters. Troops on the ground have learned to appreciate the Deil-class' presence even if no one else has.

9.9.1 - Service Record
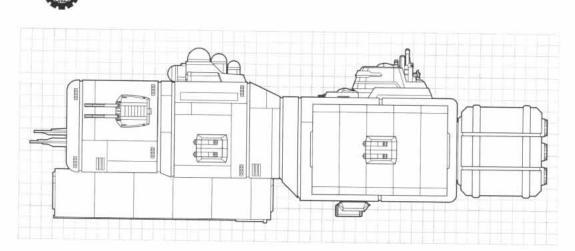
Conceived in AD 6108 by CEF strategists, the Deil-class cruiser was designed to increase the versatility of the CEF fleets. Combining the firepower of a destroyer with the fighter complement of a carrier would create a ship capable of carrying out a wider variety of missions than either. Construction of the prototype, the Jack Hob, was completed in AD 6109. Pressure to get the fleets to full strength as quickly as possible was intense so after only three months of testing the class was rushed into full production.

Once in the field, the class' deficiencies soon became apparent. The ships lacked the firepower of a destroyer and deploying them on the front line of battle risked losing their fighters' base of operations, while simultaneously their relatively small fighter complement made it inefficient to use them strictly in the carrier role. The class fell into the disfavor of fleet commanders, who relegated them to minor tasks and in many cases transferred their fighter wings to make up for losses on carriers.

Vehicle Specifications

Code Name:	Deil-class	Empty Weight:	31,000 tons
Type:	Cruiser	Loaded Weight:	39,000 tons
Production Type:	Limited Production	Main Drive:	5 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	5 x 321,000,000 Newtons
Length:	246 meters	Reaction Mass:	1860 tons Hydrogen (6000 BP)
Width:	65 meters	Space Movement:	21/41 MPs (2.1/4.1 g)
Height:	58 meters	Maneuver:	-8

Tactical Components

1 x Large Command Center	1 x Torpedo Launcher	1 x Large Vehicle Bay	4 x Laser Turret
1 x Electronic Warfare Center	1 x Missile Turret	2 x Small Vehicle Bay	2 x Railgun Turret

DESIGN NOTES
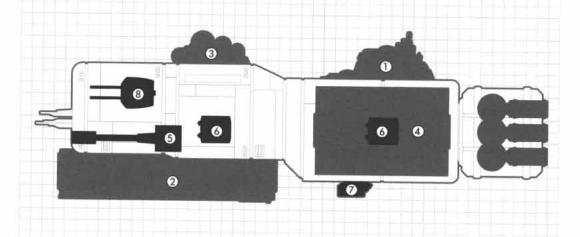
The ship is built into a long armored slab, with a notch underneath where the forward bay is fitted. The hull is generally smooth but has sensor arrays protruding out of it. Inside the vessel, most of the room is dedicated to systems and supplies; the small vehicle bay hang out from either side of the rear hull like stubby wings. The massive engine cluster is protected by a tortoise-like armor shell.

Tactical Components

1	1 x Large Command Center	5	1 x Torpedo Launcher
2	1 x Large Vehicle Bay	6	4 x Laser Turret
3	1 x Electronic Warfare Center	7	1 x Missile Turret
4	2 x Small Vehicle Bay	8	2 x Railgun Turret

9.8.3 - Crew Interview

"That musty smell? Mold in the heat exchangers, I'm afraid. You'd think you'd get used to the smell after a while, wouldn't you? Not a chance, and I can still smell it on my clothes when I go on shore leave. Anyway, welcome onboard *Spectre*, the "best" damn ship in the fleet. Our top-notch crew consists of the screw-ups, the perennially posted, the officer academy wash-outs, the ideologically suspect, the losers of political infighting and the just plain incompetent. Makes us kind of special, even in respect to other *Deils* — if you've made it here you know you can kiss your career goodbye. Where do I fit in? Well, let's just say I had a slight difference of opinion with my former commanding officer and leave it at that. Not that I'm bitter, or anything.

"I mean, what could be better? We get all the bottom of the barrel assignments that no one else wants to do: drone recovery, debris disposal, long-range patrols to the Oort cloud and back. If it's boring or degrading or both, odds on it'll passed down the line to us, usually in concert with a bunch of other cruisers. In the other flee... **what the hell do you think you're doing? No!** You GREL-lover, if you do a radar test now you'll fry the team outside doing maintenance on the comm array! Did they teach you anything at the academy? Try a stunt like that again and they won't even bother with a court martial before they shoot you, and I'll make sure I'm the one pulling the trigger. Now reset the system and *don't* touch anything — sorry where was I? Oh yeah, in the other fleets they've reclassified a lot of the *Deil* cruisers as ground support ships, so at least their crews have a real role to play and a chance to show what they can do despite their totally unfit vehicles. Apparently the ground troops are actually happy when the *Deils* arrive, strange as it sounds. Not much chance that we'll get to do anything like that in the Loki system. More's the pity, there's a couple of restaurants in Gomorrah I wouldn't mind having the chance to bomb off the map."

— Navigator Eduardo Brown, Cruiser *Spectre*, 3rd Fleet

Voices of the Troopers, Martial Press, AD 6138

IO-CLASS DESTROYER - 9.9

The Io-class destroyer is the primary ship of the line of the CEF fleets. Fast and heavily armed, it is credited with more kills than any other class of ship in the fleets and can always be found in the middle of any engagement. Io crews are proud of their ships' deadly reputation and go out of their way to decorate them with oversized kill markers and battle commemorations. This breach of regulations has led to many reprimands but the ships' crews continue to do so and an unofficial, fleet-wide competition has developed to see which ship can get away with the most colorful display.

The class has a crew of 300 and features spacious living quarters compared to those of cruisers or carriers. Unfortunately the same cannot be said of the internal passageways, which are unusually narrow and cause bottlenecks to crew movement and long response times during emergency situations and calls to battle stations. The ship itself is long and skinny, with a narrow cross-section that is designed to provide as small as possible a target for enemy fire. All of the weaponry is concentrated in the forward arc and destroyers tend to try to maximize their advantage by charging straight towards the enemy. The ship's primary firepower is supplied by a pair of torpedo launchers, allowing the destroyer to attack targets far beyond the range of most ship's guns. For shorter-range engagements the destroyer is equipped with heavy anti-ship missiles, along with laser and railgun turrets for defense against drones and attacks against smaller targets. The short- and long-range weapons are complemented by a launch bay for ship killer drones.

Service Record - 9.9.1

The Baltan-class destroyer was deployed late in World War III by one of the then few remaining factions. It was at the pinnacle of combat spaceship design at the time and easily outclassed the ships of the other factions. However the success of the class was immaterial against the massed might of the NEC, and the end of the war followed shortly after. The NEC was however impressed by the performance of the design and it was modified to conform to CEF standards and renamed the Io-class.

The class proved its worth almost immediately, outgunning the colonial ship designs and inflicting severe casualties. The most famous ship of the class is the *Feargus* which, along with three heavily damaged supply ships, acted as a decoy as the 8th Fleet left the proximity of Terra Nova, tricking Terranovan drones and ships onto the wrong vector from which they would be unable to catch up with the fleet. The *Feargus* was eventually destroyed by massed drone bombardment but not before destroying over five hundred enemy drones and two manned vessels and allowing the fleet to escape with minimal damage.
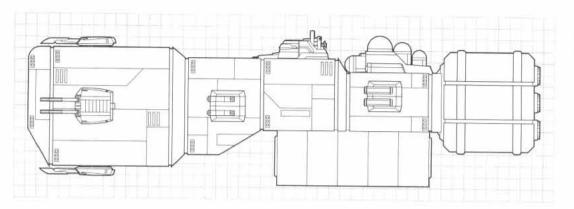
☐ Vehicle Specifications

Code Name:	Io-class	Empty Weight:	3700 tons
Type:	Destroyer	Loaded Weight:	4600 tons
Production Type:	Mass Production	Main Drive:	6 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	6 x 38,300,000 Newtons
Length:	204 meters	Reaction Mass:	370 tons Hydrogen (10,000 BP)
Width:	25 meters	Space Movement:	25/50 MPs (2.5/5.0 g)
Height:	22 meters	Maneuver:	-6

☐ Tactical Components

1 x Small Command Center	2 x Missile Turret	1 x Small Vehicle Bay	4 x Railgun Turret
1 x Electronic Warfare Center	2 x Laser Turret	2 x Torpedo Launcher	
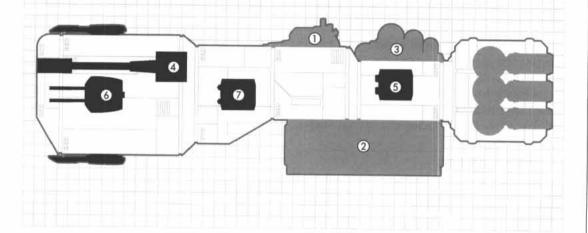
9.9.2 - Deck Plans

DESIGN NOTES

The ship is built into a series of long slab-like sections, with the large vehicle bay hung "underneath" almost as an afterthought. The hull is generally smooth but has sensor arrays protruding out of it. Most of the forward hull is dedicated to the weapon systems (torpedo tubes and reloading equipment, along with capacitors and cooling systems for the railguns). The massive engine cluster is protected by a tortoise-like armor shell.

Tactical Components

1	1 x Small Command Center	5	2 x Missile Turret
2	1 x Small Vehicle Bay	6	4 x Railgun Turret
3	1 x Electronic Warfare Center	7	2 x Laser Turret
4	2 x Torpedo Launcher		

"Here we have the Offensive Systems Fire Coordination Center, which is my combat station. I'm responsible for prioritizing targets identified by our sensors and then assigning our weapons fire to them in coordination with the other ships in our squadron. It can be pretty stressful in the middle of combat when there can be hundreds of bogies coming your way and you're trying to determine which point is the main thrust of the enemy attack, wondering whether or not you should ignore the anonymous blips the sensor operators have provisionally flagged as decoys. I've seen officers reduced to gibbering wrecks in those sorts of situations, and that was just in simulations. I've gotten used to it myself, and I often find myself entering a Zen-like state where I can just visualize the targets and divine their significance. I don't like to sound like I'm boasting, and of course the rest of the crew had its part to play, but it's safe to say that the two unassisted ship kills *Pegila* made early in the campaign were down to my insight. I'll let you in on a little secret — when Atlantean ships go evasive and release a cloud of decoys, their coverage pattern isn't half as random as they think it is. I was able to tell immediately where the ships were and "Boom!" the fission warheads took care of the rest, so I like to think of those two kill markers painted out there on the hull as mine.

"There hasn't been any need for my skills recently, since the Atlanteans have retreated from space altogether and are skulking around underwater. They send up the occasional drone to keep us on our toes and every once in a while they a launch an all-out barrage from their deep sea submersibles, but it's not a serious threat, little more than target practice really. *Pegila* has been sitting more or less idle for a while now, and that means my career isn't moving forward like it should. I'm thinking about getting myself transferred to a more prestigious posting — I'm sure *Gaius Marius* would be glad to have someone of my abilities.

— Gunnery Officer Ella van Hijfte, Destroyer *Pegila*, 5th Fleet

Voices of the Troopers, Martial Press, AD 6138

SPACE ASSETS

9.10 - URCHIN-CLASS FRIGATE

Often called the hardest working ship in fleet, the Urchin-class frigate is used in a variety of roles, including patrol, escort and screening missions. The ship's speed and maneuverability have led it to be used to exploit holes in the enemy's line to strike at support vessels. This versatility has won it considerable praise from fleet commanders. The relatively small crews of 230 appreciate the attention, and the Urchin-class has the greatest frequency of combat decorations in the fleet, although this does occasionally lead to a reputation as glory hounds.

Like many other ships of the CEF fleets, the Urchin-class carries habitat modules on extending tethers that can rotate while the ship is not under thrust to provide the artificial gravity that is necessary for the long-term health of the crew. However, the small size of the ship means it can only produce a small fraction of standard Earth gravity. Urchin crews encounter difficulties when returning to planetary surfaces after long periods in space, causing a great deal of amusement for crewmembers of larger vessels. As a result, frigate crews will band together while planet-bound for mutual protection.

The frigate's main armament consists of a pair of anti-ship missile turrets, which provide it with a heavy short-range punch. They are backed up by laser and railgun turrets and a small drone bay equipped with reconnaissance, electronic warfare and decoy drones. The Urchin-class is long and thin so as to present the smallest possible profile to an oncoming enemy, but its greatest defense lies in its speed and maneuverability, allowing it to avoid swarms of drones that a larger ship would be forced to destroy with defensive fire.

9.10.1 - Service Record

The Urchin-class frigate has had a long history, and, excepting the Gateships, is one of the longest-serving ship designs in current use. Originally known as the Drover-class patrol boat, the design saw widespread use during the colonial period as an escort and anti-piracy ship, some even turning up in the hands of privateers and the pirates themselves. With the collapse of the Human Concordat the class ended up in the hands of several Earth factions, including the NEC, and it was on the front line of combat throughout World War III, often fighting against ships of the same class. An updated version of the design was adopted by the CEF as the Urchin-class and all surviving Drovers were refitted as Urchins by AD 6114.
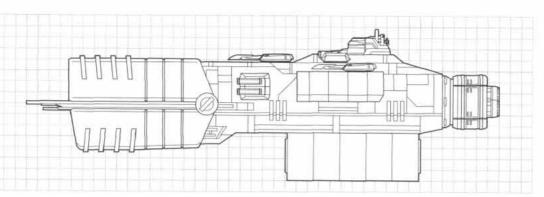
As a screening ship for the transports of the CEF fleet the Urchin-class has seen heavy combat. The frigates of the 8th Fleet in particular have suffered heavy loses as they struggled to protect troop ships unloading their cargo against enemy drones during the Terranovan campaign.

Vehicle Specifications

Code Name:	Urchin-class	Empty Weight:	1900 tons
Type:	Frigate	Loaded Weight:	2400 tons
Production Type:	Mass Production	Main Drive:	3 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	3 x 38,300,000 Newtons
Length:	160 meters	Reaction Mass:	190 tons Hydrogen (10,000 BP)
Width:	21 meters	Space Movement:	24/48 MPs (2.4/4.8 g)
Height:	17 meters	Maneuver:	-5

Tactical Components

1 x Small Command Center	2 x Laser Turret	1 x Small Vehicle Bay	3 x Railgun Turret
2 x Missile Turret			
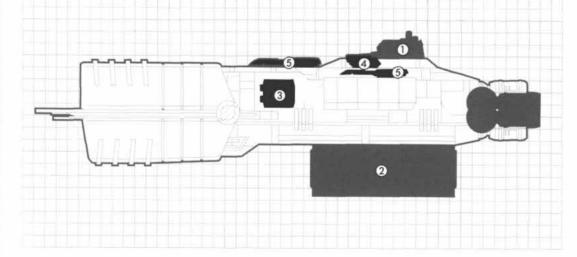
Deck Plans - 9.10.2

DESIGN NOTES

The ship is built into a slab, with a forward armored housing for extra protection. Most of the armament is located on the "top" side of the ship; daughter vessels launching from the bay are thus protected by the bulk of the hull during combat, where the guns are pointed toward the enemy. A set of centrifuges can deploy and spin from an armored housing amidship, providing at least partial simulated gravity during extended deployments. The engine cluster is partially protected by a bell-shaped armor shell.

Tactical Components

#		#	
1	1 x Small Command Center	4	2 x Laser Turret
2	1 x Small Vehicle Bay	5	3 x Railgun Turret
3	2 x Missile Turret		

9.10.3 - Crew Interview

"Lots of navy personnel start their careers onboard frigates. They're not such a bad place to do so: you'll get exposed to a lot of different types of fleet operations and with the small crew size it's easy to stand out if you do your job well. Many former frigate crew members go on to what I guess you'd call bigger and better things; our previous sensor officer, for example, is now second-in-command of the carrier *Lucifer*. I actually prefer it here, though. The crew has good camaraderie and we always have something worthwhile to do, as opposed to some of the larger ships which basically sit around twiddling their thumbs if there isn't actual shooting going on. We're constantly busy, even if it's just escorting supply ships to and from the Gates. That means I'm always busy as well, since drones are essential for all our operations. We use a wide variety of drone types; sensor drones for patrol and reconnaissance missions, jammer and decoy drones when we're on escort missions and even hunter/killer drones when we're assigned to break through enemy lines to strike at their rear. Recently we've been field-testing some Utopian drone designs, but I don't think I'm supposed to tell you anything about that...

"As opposed to any civilian drones you might be familiar with, which usually require constant communication with and control from their mother ship, our drones are designed to be autonomous once launched — they have to be, since constant broadcasting would give away our position. Generally we program them with specific mission details before launch and then update their commands later by burst transmission if need be. Recon drones send their data back to us the same way or rendezvous back with us if broadcasting would reveal our existence to the enemy. The drones are smart enough to look after themselves in most circumstances and can do tricks like take evasive action and choose targets of opportunity when they can't hit their primary target. But it can be frustrating to watch the ten drones you've just launched head off in entirely the wrong direction because the captain has just ordered silent running and you can't send them course corrections.

— Drone Controller Sam Curry, Frigate *Eudemon*, 2nd Fleet

Voices of the Troopers, Martial Press, AD 6138

BASTILLE-CLASS TROOP TRANSPORT - 9.11

Transporting the millions of troops required to invade entire planets over interstellar distances is a Herculean task. Add on top of that the weaponry, vehicles, food, shelter and entertainment they will require over several years and it becomes a logistical nightmare. It is a testament to the designers of the Bastille-class transport that it manages to reduce the problem from 'almost impossible' to merely 'very difficult.' The Bastille-class has a crew of 350 and carries a troop complement of 5000. In order to save on logistical requirements the troops are carried in sleep tubes for most of the journey. Large bays, universally known as 'morgues,' carry company-sized sections of troops in hibernation. Just prior to transfer to the target solar system via Tannhauser Gate, the troops are revived to allow them time to regain combat fitness. Use of sleep tubes is debilitating and soldiers require roughly two weeks to return to fighting shape. With the full contingent of soldiers awake the ship becomes uncomfortably crowded, and the life support system is stretched to its limit; it is often with a measure of relief that the soldiers are dispatched into battle.

The Bastille-class is a boxy and unmaneuverable ship for its size. Its most notable feature is the two large AC-56 assault landers that hang from its belly. Each is capable of carrying about 1250 soldiers from orbit to planet surface; landing the ship's full complement requires multiple trips or more landers. This is not considered a problem since troop ships are usually accompanied by cargo transports that carry the majority of the troops' supplies and equipment, along with additional landing craft. A small-craft docking bay allows for fleet couriers and crew transfers. The Bastille-class is not intended to enter combat and so is equipped with only defensive armament and decoy drones.

Service Record - 9.11.1

The Bastille-class transport is an entirely new design, created to fit a role never before required prior to the formation of the CEF: the transport of combat ready troops over interstellar distances. Planning on the design began almost immediately after the end of World War III and by AD 6106 shipyards across the solar system had started construction on the first of the nearly thousand troop transports required for the expeditionary force. Work continued unabated until just prior to the departure of the 3rd Fleet for Caprice in AD 6116. Since that time the class has had an undistinguished but reliable service, although troops carried on board complain about them incessantly. Very few transports have been lost in battle as they are well protected by the rest of the fleet and offload their troops from a safe distance to targets that have been heavily suppressed. Transports generally suffer more damage from bored and unruly troops than enemy fire.
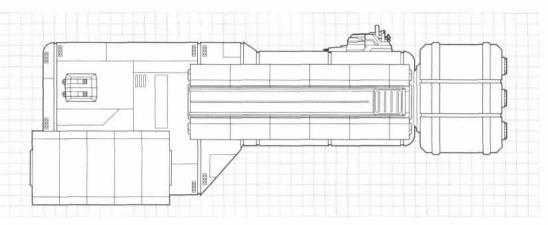
▦ Vehicle Specifications

Code Name:	Bastille-class	Empty Weight:	7200 tons
Type:	Troop Transport	Loaded Weight:	9000 tons
Production Type:	Mass Production	Main Drive:	7 x Fusion Tubes
Manufacturer:	Colonial Expeditionary Force	Total Thrust:	7 x 38,300,000 Newtons
Length:	163 meters	Reaction Mass:	430 tons Hydrogen (6000 BP)
Width:	60 meters	Space Movement:	15/30 MPs (1.5/3.0 g)
Height:	27 meters	Maneuver:	-6

▦ Tactical Components

1 x Small Command Center	2 x Small Vehicle Bay	2 x Large Vehicle Bay	2 x Laser Turret
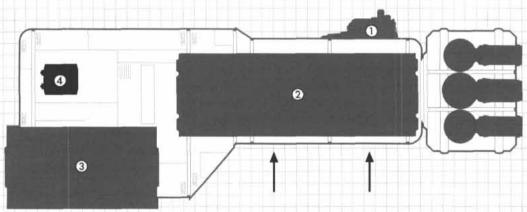
9.11.2 - Deck Plans

DESIGN NOTES

The ship is built into a thick slab, with the various vehicle bays attached to either side. The massive engine cluster is partially protected by tortoise-like armor shell.

Two Tarantula landers (Black Talon Field Guide, page 116) sit flush at the "bottom" of the ship's hull, upside down. Their cargo bays are inside the transport but their top halves — and weeapons — remain outside. The landers are wider (90 m) than the ship, and their thrusters protrude on either side.

Tactical Components

1	1 x Small Command Center	3	2 x Small Vehicle Bay
2	2 x Large Vehicle Bay	4	2 x Laser Turret

Crew Interview - 9.11.3

"You're supposed to wake up the troops before making the transfer to the target system so they'll be 'ready for anything' when the ships arrive, but we found keeping them asleep meant not having to dealing with five thousand cases of Gate sickness. We got into a bit of trouble for that, but it saved a lot of hassle and anyway what good would a bunch of groundpounders be if the ships got attacked? I hear our way of thinking is common in the other fleets as well.

"Standard procedure is to defrost medical personnel first, that way they can help us thaw out the rest of them. Seeing it takes at least half an hour per person to get them up and running, it can take a week before the whole lot are processed and we need all the help we can get. Next come the senior officers, of course, and then down the line to the lowliest trooper or soldier. Spending weeks or months in a tube leaves the occupant weak and out of condition, so a week or two of rehabilitation is necessary before the troops are combat-ready. Other than the smell of five thousand exercising grunts, the other problem at this stage is disease. The sleep tube process suppresses the immune system, and with the crowded troop quarters this creates the ideal conditions for epidemics, despite our best efforts to screen out infectious diseases before they get onboard. It's the only time I've ever seen a GREL with a cold.

"Once the ship reaches the target planet and the troops disembark, our job is basically done. Any wounded troops get sent to the hospital ships, not back to us. Of course at Terra Nova we were forced to leave orbit before our division could land, and when it became apparent it be a while before another landing would be possible we were forced to put them all back in the tubes. That was a mess, I can tell you. We weren't set up to prep the troops for hibernation — that's usually done on the ground — and in any case the tubes need a complete overhaul before they can be used again. When we finally made it back to Caprice there were some pointed suggestions made and every Bastille in service was given a refit, so hopefully I'll be spared a repeat of the sight of thousands of GRELs lining the corridors clutching urine samples waiting to be given a clean bill of health."

— Medical Officer Dieter Boesch, Transport *Raven*, 8th Fleet

Voices of the Troopers, Martial Press, AD 6138

9.12 - BALLISTA-CLASS GUNBOAT

Sleek, fast and heavily armed, Ballista-class gunboats are among the newest ships in the CEF fleets. The Ballista's primary role is that of anti-fighter/anti-drone gun platform; though its lasers and railguns have punch enough to damage capital ships, these ships generally steer clear of such vessels, being easy prey under most circumstances. The ship, dominated by its aft engine cluster of six fusion tubes and dorsally- and ventrally-mounted twin railgun turrets, is sixty meters long, twenty wide and ten high. Four rapid-fire, point-defense laser emitters complement the railguns, with at least two of the flexible mounts able to cover the vessel from any direction at one time. Ballistae carry a crew of sixteen and are rapidly becoming known as the most uncomfortable ships in the navy. Quarters and living spaces are both spartan and cramped, with much of the hull taken up by ammunition and fuel stores. Ballistae have excellent endurance, which adds to the problem of discomfort, since it means that crews are on assignment longer between shore leaves. On-board exercise and recreation facilities are minimal; these ships were designed with combat performance and efficiency in mind, not the wellness of the crew. The craft, one of the fastest in the navy, is capable of very high acceleration (6 g), and though each duty-station is equipped with the latest in acceleration couches and cradles, being inside a Ballista maneuvering evasively is a harrowing experience. That acceleration, coupled with the fact that the railguns are extremely loud inside the ship when fired, makes for a very intense combat experience.

9.12.1 - Service Record
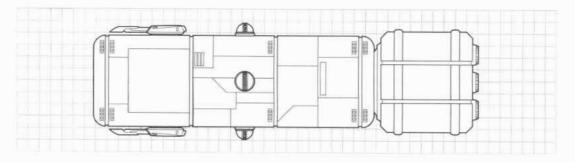
When the Colonial Expeditionary Force was driven from orbit around Terra Nova during the Terranovan Campaign, it was primarily drones doing the driving. The fleet sustained substantial losses before and in the process of retreating, resulting in the navy demanding a dedicated anti-drone vessel that could be in the vanguard of future space-borne assaults on the hostile planet. The Ballista, introduced in AD 6132, represents the CEF's answer — it has yet to be truly tested in battle, but hopes are high for the craft to perform well, clearing out thick concentrations of drones and fighters in order to allow heavyweights like the Io-class destroyers to close in and bring their superior firepower to bear. To date, the ships have proven easy to maintain — they're often more liked by in-port maintenance and repair crews than the men and women who serve aboard them. Several captains have brought their concerns about morale and crew effectiveness to the Admiralty; the engineers who originally designed the ship are reportedly looking for ways to improve quality of life aboard the vessels.

Vehicle Specifications

Name:	Ballista-class	Width:	20 meters
Origin:	Earth/Caprice	Height:	15 meters
Manufacturer:	Colonial Expeditionary Force	Empty Weight:	1100 tons
Production Type:	Limited Production	Loaded Weight:	1300 tons
Cost:	464,000,000 CCE	Main Drive:	6 x Fusion Tubes
Use:	Gunboat	Reaction Mass:	40 tons Hydrogen (3600 BP)
Length:	60 meters	Total Thrust:	6 x 11,000,000 Newtons

Weapon Payload

Name	Ammunition Payload	Name	Ammunition Payload
4 x Area Defense Laser Emitters	500	4 x Railguns	500

SilCORE Stats

Name:	Ballista-Class Dreadnought
Size:	34 (Length 60m)
*Threat Value:	
*Defensive Threat Value (DTV):	
Movement:	Space 30/60
Maneuver:	-3
Armor:	70/140/210
*Miscellaneous Threat Value (MTV):	
Crew:	Living 16
Deployment Range:	1000 Hours
Reaction Mass:	3600 BP

Perks and Flaws: Accessories: Acceleration Protection, Autopilot, Escape system (escape pods, 16 people), Life Support (full); Communications (0/40km, Space), Satellite Uplink; Features: Accommodations (military, 16 people, 96 cubic meters), Laboratory (0, Athletics), Sickbay (2 patients); Hostile Environment Protection: Extreme Cold, Radiation (4), Vacuum; Information Warfare: Stealth (4); Reinforced Systems: Ammo/Fuel, Backups, Chassis, Crew, Movement; Sensors (0/5km, Space); Negative Features: Sensor dependant; Annoyance: Cramped Crew Quarters.

*Offensive Threat Value (OTV):

Qty	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
4	Laser Emitters	T	+2	x16	2	+1	HEAT, AD3	500
4	Railguns	T	+1	x14	5	+2	Linked	500

Open Gaming Stats

Type:	Vehicle
Size:	Colossal (Long, 60 m)
Hit Points:	175
Occupancy:	8 operators, 8 passengers
Armor Hardness:	30
Defense:	0
Strength:	n/a
Speed:	Realistic Space Flight (3 g, G-Round 1200)
Tactical Speed:	n/a
Initiative:	-6
Maneuver:	-6

Special Abilities: Ejection Seats, GPS, Life Support, Tactical Radio (Secure, Interplanetary), Long Range Radio (Secure, Interplanetary), Infrared (2km), Hi-Rez Radar (5km), Rooms (Galley, Gym, Sickbay), Stealth (+4 Radar, +4 Infrared)

Exotic Abilities:	Limited A.I. (Dex3/Wis1/Cha1)
Mecha Defects:	Poor Visibility, Start-Up Time (10 minutes)
Weapons	

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
4 x Laser Emitter*	4d10	SS	160m	10	Long Range	Arc of Fire (Fr), Less Ammo
4 x Railgun**	4d10	A	500		Long Range	Arc of Fire

NOTE: *Energy Weapon; **Ballistic Weapons.

2.13 - CF-78 NUKDAE SPACE FIGHTER

The sucess of the TAAF-54 transatmospheric fighter lead to a late war project by Kadellie Weapon Systems to develop a purely space based fightercraft. With the end of the war and the NEC's decision to reabsorb the former colony worlds under its banner, the project came under the auspices of the CEF. Working to CEF requirements, KWS created a fighter that could be used in an offensive role in carrier based operations. While not as durable or heavily armed as the existing TAAF-54 fighter, optimization for space allowed for the creation of a more maneuverable and stealthy design than was possible for the multi-role TAAF-54. The Moscow Heavy Industries L45 missile system gave it an adequate long range attack and KWS' own 15 MW pulse laser was a respectable weapon for close-in dog fighting and capital ship strafing runs.

The design was approved by the CEF and would have immediately entered production if not for one problem. It is CEF policy that only capital ships receive class names, with all other equipment, from hovertanks to pistols, are given production codes only. However, it did not count on the stubbornness and romanticism of fighter pilots. The fighter's test pilots refused to refer to it by its production code, CF-78, claiming they could not fly such a soulless machine. Somewhere along the line the fighter picked up the name 'Nukdae' and eventually the pilots' superior officers and the KWS engineers adopted the name as well. Official reports started to turn up bearing the name, resulting in much confusion in the CEF procurement branch. Progress on the fighter project stalled and the problem escalated until it engulfed the highest level of the CEF command. After much bureaucratic wrangling the design entered production as the CF-78 Nukdae. The original test pilots were made an example of and demoted, but were hailed as heroes by fighter wings across the fleets.

2.13.1 - Service Record
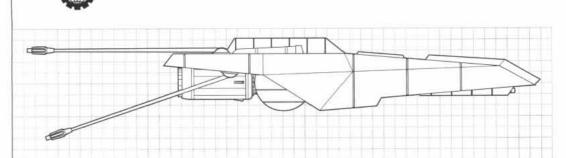
The culmination of a design project from the last years of the Third World War, the Nukdae fighter reached the prototype stage in AD 6103 and was ready for full production in AD 6016. It was adopted as the primary space fighter of the CEF, complementing the TAAF-54 transatmospheric fighter. It has proven a nimble opponent for colonial fightercraft and drones and Nukdae fighter wings have racked up impressive kill ratios. However, complaints about the fighter's effectiveness against larger targets led KWS to introduce a bomber variant in AD 6125.

In AD 6133 KWS sub-contracted the production of Nukdae frames and propulsion systems to Caprice Ships Interstellar in response to increased demand from the CEF to make up for loses during their colonial campaigns. CSI has reopened two piers at Monolith Shipyards for the task. Once completed the frames are transferred to secure facilities where weapon systems and electronics are installed by CEF and KWS technicians.

Vehicle Specifications

Name:	CF-78 Nukdae Space Fighter	Width:	6 meters
Origin:	Colonial Expeditionary Force	Height:	4 meters
Manufacturer:	Kadellie Weapon Systems/Caprice Ships Interstellar	Empty Weight:	82.0 tons
Production Type:	Mass Production	Loaded Weight:	87.4 tons
Cost:	128,000,000 CEE	Main Drive:	1 x Fusion Tube
Use:	Space attack/interception fighter	Reaction Mass:	820 kg Hydrogen (1000 BP)
Length:	12 meters	Total Thrust:	1 x 5,250,000 Newtons

Weapon Payload

Name	Ammunition Payload	Name	Ammunition Payload
MHI L45 Missile System	8	KWS 15 MW Pulse Laser	50

SilCORE Stats

Name:	CF-18 NukDae-Class Fighter
Size: 15 (Length 12m)	
*Threat Value:	
*Defensive Threat Value (DTV):	
Movement:	Space 30/60
Maneuver:	0
Armor:	26/52/78
*Miscellaneous Threat Value (MTV):	
Crew:	Living 2
Deployment Range:	100 hours
Reaction Mass:	1000 BP

Perks and Flaws: Accessories: Acceleration Protection, Autopilot, Emergency Medical, Ejection System (Escape Pods, 2 Crew), Life Support (Full); Armor Qualities: Ablative (6, Front); Communication (0/20km, Space); Hostile Environment Protection: Extreme Cold, Radiation (3), Vacuum; Information Warfare: Stealth (4); Reinforced Systems: Backups, Crew, Chassis; Sensors (+1/4km, Space); Negative Features: Sensor Dependant; Annoyance: Accel. Seats take 1 turn to enter/exit.

*Offensive Threat Value (OTV):

Qty	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	Missile System	FF	+1	x10	8	0	G, MR(-1), HEAT	8
1	Pulse Laser	F	+1	x20	3	0	HEAT, AD3	50

Open Gaming Stats
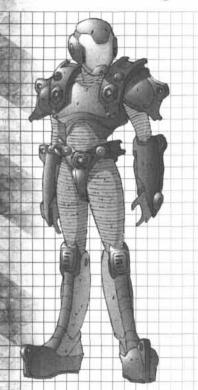
Type:	Vehicle
Size:	Gargantuan (Long, 12 m)
Hit Points:	130
Occupancy:	2 operators
Armor Hardness:	26
Defense:	0
Strength:	n/a
Speed:	Realistic Space Flight (3 g, G-Round 450)
Tactical Speed:	n/a
Initiative:	-1
Maneuver:	0

Special Abilities: Ejection Seats, Explosive Reactive Armor, GPS, Life Support, Tactical Radio (Secure, Interplanetary), Long Range Radio (Secure, Interplanetary), Infrared (2km), Hi-Rez Radar (4km), Stealth (+4 Radar, +4 Infrared)

Exotic Abilities:	Limited A.I. (Dex3/Wis1/Cha1)
Mecha Defects:	Poor Visibility, Start-Up Time (10 minutes)

Weapons

Name	Dam.	ROF	RI	Ammo	Qualities	Restrictions
Laser Cannon*	10d8	SS	160m	10	Long Range	Arc of Fire (Fr), Less Ammo
Guided Missiles**	5d10	SS	150m	8	Blast, Indirect, Guided (LG, SARH)	Arc of Fire (Fr), 2x Less Ammo

NOTE: *Energy Weapon; **Blast Weapons.

9.15 - CEF Fighter Pilot

Fighter pilots see themselves as the elite of the CEF, and they certainly have one of the more glamorous jobs in the fleet. While the average sailor plays an insignificant role in combat, skulking deep inside a capital ship with hundreds of others, fighter pilots take the fight right to the enemy. Since the fighter wings of the CEF are a relatively new invention compared to the long traditions of the other space and ground based units, their pilots feel compelled to create their own legends and customs and are well known for risk taking in search of glory. Outsiders can expect to be regaled with tales of famous battles and rundowns of the current kill rankings. Space fighters are piloted almost exclusively by humans, but their pilots are willing to accept Minerva-class GRELs as 'sister pilots.' Other types of GRELs are beneath their notice, however.

Attributes

AGI	0	APP	0	BLD	0	CRE	+1	FIT	+1
INF	0	KNO	0	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Communications	1	0	Gunnery (Space)	2	+1	Space Pilot	2	+1	Zero-G	2	0
Electronic Warfare	1	+1	Navigation (Space)	1	0	Survival (Space)*	1	+1	(*Specialization)		
G-Handling	2	+1	Notice	1	+1	Tactics	1	+1			

Typical Equipment

Flight suit, uniform, datapad

OGL Statistics

CEF Fighter Pilot (Fast Ordinary 1/Smart Ordinary 1): CR 1; Medium-size human; HD 1d6+1d8+4; hp 14; Mas 14; Init +2; Spd 30 ft.; Defense 15, touch 15, flat-footed 13 (+2 Dex, +3 Class); BAB +0; Grap +0; Atk +0 melee (1d3, unarmed strike) or +2 ranged (2d6, 9mm pistol) or 0 Fighter Guns; Full Atk 0 melee (1d3, unarmed strike) or +2 ranged (2d6, 9mm pistol); FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +2, Ref +2, Will +2; AP 0; Rep +1; Str 10, Dex 14, Con 14, Int 13, Wis 12, Cha 10.

Occupation

Military (bonus class skills: Pilot, Knoledge(Tactics)).

Skills

Craft (Electronic) +5, Computer Use +5, Knowledge (Tactics) +7, Navigate +5, Pilot +10, Profession +6, Repair +5, Search +5, Spot +3, Survival +3.

Feats

Aircraft Operations (Space), Personal Firearms Proficiency, Simple Weapons Proficiency, Vehicle Expert.

Note

Fighter Guns: 0 (Class) +2 (Dex) -4 (No Exotic Weapon) +2 (Sinergy: Vehicle Expert and Pilot 5+).

Due to the velocities and distances involved, spaceship weaponry is almost completely computer controlled. Gunnery crews spend most of their time insuring that their weapons operate at peak efficiency, conducting damage control during combat and engaging in endless maintenance the rest of the time. Needless to say, they are often on the lookout for anything to break the monotony and discipline is a constant problem for their commanding officers. Gunners have the usual spacer's disdain for GRELs as groundpounders, but they reserve particular contempt for the few Maxwells serving as gunners on board ships, who they see an yet another automated system waiting to replace them.

Attributes

AGI	0	APP	0	BLD	0	CRE	0	FIT	0
INF	0	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Communications	1	+1	Elect. (Ficon)*	1	+1	Mechanics	1	+1	Zero-G	2	0
Computer	1	+1	Gunnery (Space)	2	+1	Survival (Space)*	1	+1	(*Specialization)		
Electronic War.	1	+1	Notice	1	+1	Tinker	1	+1			

Fighter Offensive Systems Officer: change Electronic Warfare to Level 2, add G-Handling Level 2

◆ Typical Equipment

Coveralls or uniform, toolkit

OGL Statistics ◆

CEF Gunner (Smart Ordinary 2): CR 1; Medium-size human; HD 2d6; hp 9; Mas 11; Init +1; Spd 30 ft.; Defense 12, touch 11, flat-footed 11 (+1 Dex, +1 Class); BAB +1; Grap +1; Atk +1 melee (1d3, unarmed strike) or +2 ranged (2d6, 9mm pistol) or 0 Spacecraft Guns; Full Atk +1 melee (1d3, unarmed strike) or +2 ranged (2d6, 9mm pistol); FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort 0, Ref +1, Will +3; AP 0; Rep +1; Str 11, Dex 12, Con 11, Int 15, Wis 12, Cha 11.

Occupation ◆

Technician (bonus class skills: Craft(Electronic), Craft (Mechanic), Computer Use).

Skills ◆

Craft (Electronic) +10, Craft (Mechanic) +10, Computer Use +8, Disable Device +7, Knowledge (Technology) +7, Profession +6, Repair +7, Research +7, Search +4, Spot +3, Survival +3.

Feats ◆
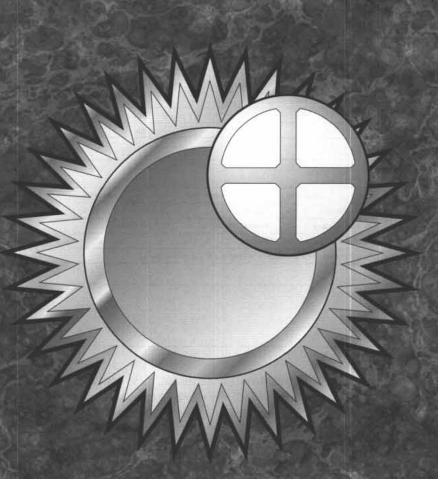
Advanced Firearms Proficiency, Builder, Personal Firearms Proficiency, Simple Weapons Proficiency.

Note ◆

Spacecraft Guns: +1 (Class) +1 (Dex) –4 (No Exotic Weapon) +2 (Sinergy: Craft (Electronic) 5+ due to Fire Control use). Variant, Fighter Offensive Systems Officer: Change Feats: Builder to Gearhead, Craft (Electronic) +8, Craft (Mechanic) +8, Computer Use +10, Repair +9.

Chapter 10: Notable Battle Groups

The most important tactical unit within the Colonial Expeditionary Force (and the NECAF Regional Army that preceded it) is without question the battle group, the Force's equivalent to the regiments of Terra Nova's armies. Divisions, brigades and fleets are arguably more significant units in the overall scheme of the CEF's effort to retake the colonies, and individual troopers and soldiers are far more concerned with their own patrols in the heat of battle, but it is the battle group that brings together both operational flexibility and history into one single body.

Traditions and war stories are always associated with particular battle groups, even the ones that are relatively new — the process of invading an alien world halfway across the galaxy from home builds legends from mortal men faster than any enemy can gun them down. Few battle groups are truly "new," however, despite the relatively recent inception of the CEF; many served during World War III — on all sides of the conflict — and some even claim to trace their roots all the way back to such periods of history as the Later Crusades of the fourth millennium or, more rarely, even further back. Though the Ice Age and 4000 years of history make the latter claims seem spurious, those few battle groups that hold to those claims will defend them as much as they defend the New Earth Commonwealth's ideals, if not more.

All battle groups worth their salt have gathered an impressive collection of distinctive patches, initiation rituals, tall tales and grim stories of battles fought against incredible odds. These elements build the battle group's *esprit de corps*, and they help tie each individual trooper and soldier to something much larger than himself, giving him a place to fit in the grand scheme of things that is more concrete than the sometimes nebulous CEF or NEC. They form a focus point for unrelenting pride within the battle group, and efforts by an unsympathetic or novice officer (or politician) to reform or alter a battle group's traditions are always met with strong resistance. Veterans have been known to stage dramatic protests that no civilian could ever hope to understand fully when something as seemingly minor (to an outsider) as a battle group's colors are threatened by meaningless change. In many ways, the traditions of a battle group make that battle group, and while patrols often function like families to their troopers or a soldiers, a battle group is a mobile nation complete with a flag that can be saluted when flamethrowers and artillery barrages have reduced all memory of home and Earth to silent ashes.

This chapter presents three unique battle groups drawn from the hundreds fielded by the CEF. The 45th Infantry Battle Group (the Squids) of the 5th Fleet is an elite organization of combat engineers and demolitions experts assigned to Atlantis; they have been key players in the limited successes the CEF has found on the ocean-covered world. The 25th GREL Battle Group (the Halberds) of the 3rd Fleet is a unit with a recently tarnished record; they are currently under investigation for possible connections to an illicit operation that aids AWOL soldiers in their flight to the highlands of Caprice. Finally, the 1001st Hovertank Battle Group (Mjolnir's Children) assigned to the 8th Fleet is a test bed for new equipment, tactics and organization; they expect to be one of the first units to make planetfall on Terra Nova once the CEF is ready for a second operation.

Combined Arms and the CEF - 10.1.1

The very nature of the CEF's means and methods of fighting has forced an extremely tight integration of all of its fighting arms. Infantry needs the support of Armor to ravage the enemy with lightning speed and hold captured ground. Armor needs the support of Artillery to break up formations, pin enemy forces in position or reduce static defenses to enable the free movement of friendly forces. All three need Aerospace for air support and battlefield intelligence concerning enemy movements and disposition in addition to making precision strikes against selected ground targets. Last but not least, Ortillery is often required to deal with particularly formidable static defenses. When applied in proper order, there is no opposing force that can withstand the combined might that the CEF can bring to bear against an objective.

Nearly all armor battle groups have a sizeable infantry complement associated with them, and in some cases it can be as much as an entire infantry battle group per armor company, although this is relatively uncommon among frontline combat units. Complete mechanized infantry brigades are also possible in the form of an armor battle group with three attached infantry battle groups. This organization gives the CEF a distinct advantage in that whenever its forces overrun an enemy position there are infantry troopers and/or soldiers close at hand to consolidate immediately and hold onto any ground gained.

10.2 - 5TH FLEET 45TH INFANTRY BATTLE GROUP [THE SQUIDS]

The Squids began as an aquatic engineering, demolitions and rescue unit nearly forty years ago. The first commanding officer of the battle group was outspoken Major James "Jimmy" Lorentz, who was given the formidable task of assembling a force capable of a wide variety of assignments, everything from constructing and maintaining undersea communications monitoring posts to recovering the crews of crippled submarines. Lorentz drew his recruits from Earth's naval, technical and marine corps, selecting the most physically fit and mentally sound humans available. GRELs, considered too bulky and unsuited to the tight quarters that the Squids would frequently find themselves in, were barred from the battle group. This ironclad restriction has continued to the present day, and not a single soldier has ever belonged to the 45th. Because of this, the unit quickly became known as a haven for those troopers too clever and/or useful to be wasted in the role of front-line cannon fodder. An unfortunate latent side effect of this segregation, however, is the vehement anti-GREL bias that has arisen among the troopers. In the past this has led to occasional scuffles between the Squids and the GREL crews that were sometimes assigned to ferry the battle group from point to point, and commanders have since taken care to assign all-human transport crews when dealing with the Squids.

While the Squids' extremely specialized area of expertise has limited their wartime versatility in past conflicts, when the plans for the conquest of Atlantis were being drawn up, the CEF High Command suddenly became very interested in this oft-neglected battle group. Accustomed to deep-water operations, the formerly obscure 45th vaulted into the spotlight. Within months the Squids became the darlings of the 5th Fleet. While the CEF's inexperienced and, some would say, poorly-managed navy suffered defeat after humiliating defeat at the hands of Atlantis' unparalleled seagoing forces, the Squids had finally been given their chance to shine.
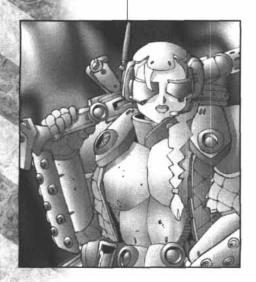
The Squids distinguished themselves while performing a variety of missions, especially in the area of demolitions. Their combat engineers, with their underwater training and unmatched experience, proved invaluable to CEF minesweeping and disposal efforts, while the Squids' crack teams of aquatic commandos ensured that no enemy harbor was safe from infiltration. After a series of daring raids on Atlantean ship manufacturing facilities was accomplished without a hitch, the 45th became the most decorated unit of its type operating on the Atlantean front. They also served as a valuable propaganda tool, being the only truly successful unit of the otherwise disastrous campaign.

Currently the Squids are languishing in orbit over Atlantis. While their combat losses have been minimal, the decimation of the CEF's naval contingent has deprived them of the vessels and hover APCs that served as their primary means of transportation. Unlike many of their fellows in the 5th fleet, however, morale is at an all time high. The Squids view the CEF's forced retreat as merely a temporary setback, and anxiously await the day when they can finally "get back in the water."

Guinea Pigs ☐

The unexpected success of the Squids has earned them special attention from High Command, and several of the most distinguished troopers have been removed from their units and sent to the Loki system's Liberty Station. They have been selected to participate as test subjects in Elite Genome Labs' SLEDGE project. The use of their genes in shaping the development of new bioengineered soldiers is especially ironic, given the Squids' past history of intense and occasionally violent discrimination against Earth's vat-grown warriors. The SLEDGE project is highly classified, however, and the test subjects have no knowledge of the ultimate purpose of their participation. Unbeknownst to the Squids, CEF agents have recovered a number of the battle group's combat casualties for use in this experiment. It is hoped that dissection may yield results that would be otherwise unavailable.

Apart from the purely inborn traits that make the Squids into the successful fighting force they have become, EGL is also studying how environmental influences have shaped these troopers' physiques. Of particular interest to researchers is how their bodies have grown to cope with the dramatic changes in pressure associated with deep water diving, which would be an incredible advantage for the Sobk SLEDGEs.
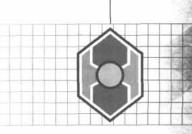
Command and Unit Structure - 10.2.1

The Squids' current CO is Major Jocelyn Frizell, who was handpicked and groomed for the position by the aging Lorentz. A stout, foul-mouthed sea salt with a legendary capacity for hard liquor, Frizell enjoys enormous popularity with her troops. While a certain amount of distance is encouraged between officers and those in the enlisted ranks, Frizell is an extremely hands-on commander with an "open-door" management policy.

Despite the affability of the Squids' unorthodox commanding officer, her Junior Officers feel somewhat unsettled by her freewheeling manner. Frizell has an unimpeachable record for making sound tactical decisions and has thus earned the respect of her subordinates, but her company commanders find themselves in the uncomfortable position of being unable to match her phenomenal popularity. In fact, Captain Ramira Capra, leader of Alpha Company, has privately remarked, "Major Frizell is the fun aunt that spoils the children whenever she visits, and we're the strict parents that have to clean up after she's gone." Captains Faye Garrison and Roger Barron unhappily concur with this assessment.
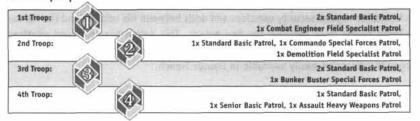
Note: All of these patrols are issued Diving Equipment and have the training to use them. Additionally, those units with engineering training have ready access to satchel charges.

Alpha Company

1st Troop:		2x Standard Basic Patrol, 1x Bunker Buster Special Forces Patrol
2nd Troop:		2x Standard Basic Patrol, 1x Assault Heavy Weapons Patrol
3rd Troop:		2x Standard Basic Patrol, 1x Commando Special Forces Patrol
4th Troop:		2x Standard Basic Patrol, 1x Demolition Field Specialist Patrol

Beta Company

1st Troop:		2x Standard Basic Patrol, 1x Combat Engineer Field Specialist Patrol
2nd Troop:		1x Standard Basic Patrol, 1x Commando Special Forces Patrol, 1x Demolition Field Specialist Patrol
3rd Troop:		2x Standard Basic Patrol, 1x Bunker Buster Special Forces Patrol
4th Troop:		1x Standard Basic Patrol, 1x Senior Basic Patrol, 1x Assault Heavy Weapons Patrol

Gamma Company
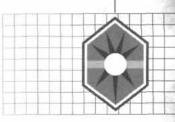
1st Troop:		2x Standard Basic Patrol, 1x Assault Heavy Weapons Patrol
2nd Troop:		2x Standard Basic Patrol, 1x Bunker Buster Special Forces Patrol
3rd Troop:		1x Standard Basic Patrol, 1x Demolition Field Specialist Patrol, 1x Commando Special Forces Patrol
4th Troop:		2x Standard Basic Patrol, 1x Combat Engineer Field Specialist Patrol

10.3 - 3RD FLEET 25TH GREL BATTLE GROUP [THE HALBERDS]

Hauser Trench, where Venarow-based industrial giant Hakkar, Inc., maintains more than 20 square kilometers of Mount and VTOL production facilities through its MassTech subsidiary, was one of the primary targets for early occupation. The dozen or so facilities in Hauser Trench are still used in the manufacture and assembly of Hakkar's product lines, but are now also involved directly in the CEF's war effort through the production of hovertank and Battle Frame components.

During the initial invasion, the 25th GREL Battle Group, the Halberds, served as second-line troops in occupying the Hauser facilities. Moving in behind the first invasion wave of GREL troops, the 25th entered an already pacified area. Much to their disappointment, the anticipated resistance that the troops had been prepared for appeared nonexistent, and except for a few pockets of resistance by Liberati, the 25th encountered almost no hostile action. Shortly after the formal surrender of Caprice, the Hauser trench became an important strategic facility to the CEF war-effort, particularly following the cooperation of Hakkar and its "donation" of its production facilities. At that point, the 25th, commanded by Major Garth Traut, was given permanent duty over Hauser Trench along with three other battle groups, the 156th Armor plus the 23rd and 27th Infantry.

The disappointment among the 25th's soldiers only increased with the tedium of curfew patrols that were impossible to enforce, and wild goose chase security raids resulting from misleading rumors of insurgent influence added to the decreasing morale. With the arrival of the early Black Talon missions, however, the 25th experienced some of its first action on Caprice. Unfortunately, casualties were high, with Beta Company taking the worst of the fighting in Hauser's northern outskirts. In the months that followed, Beta Company was retired and the remaining troops rolled into Alpha and Delta, shoring up their minor losses from the skirmishes. Omega Company was formed to add the skill of Morgana commandos to the Halberds' force, allowing the Halberds to handle the combined tactics of Terranovan and Liberati terrorists more effectively.

Recently, the CEF has stepped up its garrisons in Hauser Trench. This move has unfortunately resulted in an overcrowding of the various security forces, with petty bickering and brawls breaking out with rising frequency throughout the trench. The situation has become increasingly tense, and Hakkar representatives file complaints with the NEC Colonial Board in Paladin Lots on an almost daily basis. In an effort to promote better control over the situation, Major Traut has instituted regular security exercises and drills between his soldiers and the Hakkar corp-serfs in the hope of building better trust between the two groups. This action has improved relations somewhat, but at the same time has increased disorderly conduct in the neighboring brothels and taverns as some GRELs have begun to enjoy the pleasures easily available in Hauser Trench.

Pigs in the Parlor

Despite the recent excitement with the Black Talons, most of the GREL forces continue to grow complacent or restless with little to do; in addition, many have also heard of the mass exterminations taking place in Bastille Alpha to make room for a newer, better GREL soldier. Both have led to multiple desertions among the soldier contingents in and around Gomorrah. Most of these deserters are caught and executed but some still manage to escape through an "underground railway."

The 25th GREL Battle Group has recently come under CID scrutiny as an alleged hub of activity for this railway. These charges disturb Major Traut greatly, but he has been cooperative with the investigators. The CID has recently planted two Set-class SLEDGEs within the 25th's ranks: they are designed to blend in with GRELs rather than with humans, and their mission serves as a trial of the design's capabilities. While Traut knows of their existence, he is unaware of their actual identities.

Unknown to the CEF or to Traut, his own assistant, Soldier Colfax-3382, a Jan-class GREL, is responsible for the railway: he and four other Jans coordinate the escape of the fugitive. By pure luck, Colfax has uncovered the existence of the Set agents. He is uncertain of what to do with this limited information, but forwarded it to the Liberati contacts in the hope that they may be able to help out.
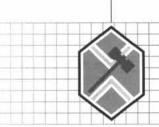
Command and Unit Structure - 10.3.1

The 25th Battle Group is currently commanded by Major Garth Traut, a WWIII veteran readying to retire in the next year or two. Traut relies heavily on his Jan-class aide, Sergeant Major Colfax, for advice with the disgruntled GRELs under his command. His concern over the growing unrest of his soldiers has forced him to rely on Colfax more intently lately, even allowing him access to "low-priority" CEF command transmissions. The three company commanders, Captain Scot Tomas (Alpha Company), Junior Lieutenant Marcus Finn (Delta Company) and Captain Tara Muller (Omega Company), are uncertain about this arrangement but recognize that Colfax has been awarded two decorations of valor for distinguished service, a rarity even among human NCOs. In addition, they also rely heavily on their own Jan-class soldiers to monitor the state of the GRELs, and thus dismiss their reservations.
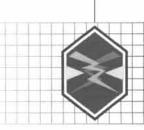
Alpha Company

1st Troop:	1	3x Pacification Mordred GREL Patrol
2nd Troop:	2	2x Pacification Mordred GREL Patrol, 1x Panzer Mordred GREL Patrol
3rd Troop:	3	2x Pacification Mordred GREL Patrol, 1x Shocktrooper Mordred GREL Patrol
4th Troop:	4	3x Standard GREL Garrison Armor Patrol

Delta Company

1st Troop:	I	2x Pacification Mordred GREL Patrol, 1x Panzer Mordred GREL Patrol
2nd Troop:	II	2x Pacification Mordred GREL Patrol, 1x Shocktrooper Mordred GREL Patrol
3rd Troop:	III	1x Pacification Mordred GREL Patrol, 1x Shocktrooper Mordred GREL Patrol, 1x Panzer Mordred GREL Patrol
4th Troop:	IV	3x Standard GREL Garrison Armor Patrol

Omega Company

1st Troop:	1	3x Commando Morgana GREL Patrol
2nd Troop:	2	1x Panzer Mordred GREL Patrol, 2x Commando Morgana GREL Patrol
3rd Troop:	3	2x Commando Morgana GREL Patrol, 1x Sniper Morgana GREL Patrol
4th Troop:	4	3x Standard GREL Garrison Armor Patrol*

*Each of Omega Company's armor patrols includes a Type 6-16 Battle Frame with a Minerva-Vb pilot.

10.4 - 1001ST HOVERTANK BATTLE GROUP MJOLNIR'S CHILDREN (8TH FLEET)

The retreat from Terra Nova left the 8th Fleet's battle groups in a perilous state. Many of them had been destroyed outright or abandoned, and most of those that had survived were reorganized for 'efficiency' or as out-and-out punishment for failure. After the 8th Fleet retreated back to Caprice to lick its wounds, new battle groups were slowly formed to bring the fleet back up to strength. Ships and tenders built in the captured Caprician shipyards slowly filled the voids in the roster and additional equipment and troops were assigned to get the various groups and units back up to reglementation specs.

That process was thought to have been complete until the surprise creation of the 1001st battle group in early AD 6138. The sudden formation of the battle group, along with its unusual structure, has been the focus of much conjecture amongst the men of the Fleet. While no word has been given by Ground Command, the most popular theory is that it is intended to be a spearhead unit, capable of independent action without support from other forces in the early stages of an invasion. Whether other such units will be created or if existing units will be reorganized along these lines is unknown and subject to much speculation among the rank and file.

The officer corps of the 1001st battle group is relatively young, with all of its officers having joined the CEF in the period after the 8th Fleet's defeat on Terra Nova. While veterans in other units have made sneering comments about the 'virgins,' Fleet Command has let it be known it believes that fresh blood is necessary to avoid repeating the mistakes of the past. This protectionist attitude has lead to animosity with other, more battle-scarred units, and the 1001st's officers are virtually social pariahs amongst their peers.

As a counter-balance to the relative field inexperience of the officers, the battle group's soldiers are all older GRELs, many of whom have been transferred from the 3rd Fleet. For their part, the soldiers seem unfazed by the controversy surrounding their officers; most are just happy to be assigned to something approaching active duty where they can once again do something useful. Remarkably few disciplinary problems have been reported, and the GRELs appear proud of their posting, a stark contrast to the soldiers in many garrison units in the Caprician theater.

The battle group has been undergoing almost constant training since its creation, allowing the kinks to be worked out of the TO&E and the officers to get comfortable with their commands. The training has ranged from firing range weapon drills to orbit-to-ground insertions to maneuvers in the Caprician highlands to mock battles against other battle groups, including ad hoc units of Frames in order to test its own Frame/hovertank combined operations. The 1001st's commanding officer, Major Antoli Herschel, has complained to Fleet Command that the battle group's old GRELs are inflexible and unable to adapt their tactics to deal with new enemies like the Frames. He has been assured that the battle group will be re-equipped with entirely new soldiers soon, though Fleet Command refused to elaborate further.

Playing Games

The 1001st has been involved in several wargames against other infantry and hovertank battle groups in the Caprician highlands, well away from any settlements (and, incidentally, the prying eyes of the Liberati and their sympathizers). Security seems to be a prime concern, and the exercises are always limited in scope to reduce the logistic needs and the paper trail that the latters always generate.

Targeting lasers and non-lethal ammunition take the place of normal weaponry, allowing combat to be fought without permanent injuries. The opposing forces often take the role of Terranovan or Caprician groups, allowing the battle group's commanders to hone their tactics against a variety of enemies.

In addition to these field exercises, the battle group's commanders have been training with computer simulations for an almost endless variety of hypothetical situations, ranging from uncontested landings on Terra Nova to simultaneous popular uprisings and invasion by Terranovan forces in the Loki system. The officers run through the simulations multiple times, with emphasis placed on creating strategies beyond those in current CEF doctrine. These scenarios are based on CEF's best intelligence and strategic planning and are considered top secret.
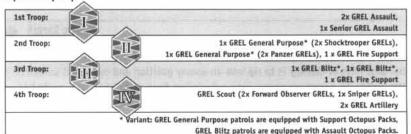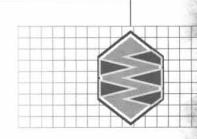
Command and Unit Structure - 10.4.1

Major Antoli Herschel is a second generation CEF officer, and his mother is currently serving as an executive officer aboard a cruiser in the 3rd fleet. This partially offsets the stigma attached to his lack of combat experience, but he still feels the pressure to prove himself worthy of such a prestigious assignment. Captain Eve Chand of Alpha Company, Captain Naomi Bartholomeusz of Beta Company and Captain Patrick McGoohan of Gamma Company are involved in all levels of decision making and planning so as to foster better co-ordination between the companies. The fact that the GREL NCOs are all long-serving veterans has made the officers' jobs much easier since the Jans are able to carry out many of the day-to-day administrative tasks with little supervision, giving the officers time to settle into their new positions.
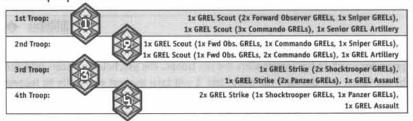
Note: All Strike, Assault and Artillery patrols are equipped to AD 6138 standards with HT-72s and HRT-72s replacing HT-68s and HRT-68s as appropriate.
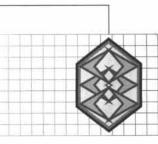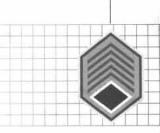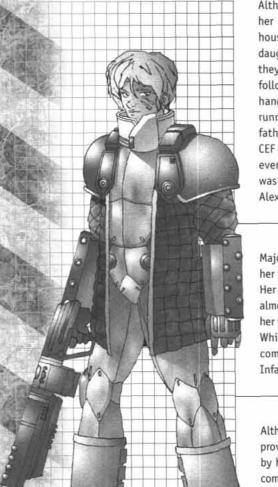
Alpha Company

1st Troop:	I	2x GREL Assault, 1x Senior GREL Assault
2nd Troop:	II	1x GREL General Purpose* (2x Shocktrooper GRELs), 1x GREL General Purpose* (2x Panzer GRELs), 1 x GREL Fire Support
3rd Troop:	III	1x GREL Blitz*, 1x GREL Blitz*, 1 x GREL Fire Support
4th Troop:	IV	GREL Scout (2x Forward Observer GRELs, 1x Sniper GRELs), 2x GREL Artillery

* Variant: GREL General Purpose patrols are equipped with Support Octopus Packs, GREL Blitz patrols are equipped with Assault Octopus Packs.

Beta Company

1st Troop:	1	1x GREL Scout (2x Forward Observer GRELs, 1x Sniper GRELs), 1x GREL Scout (3x Commando GRELs), 1x Senior GREL Artillery
2nd Troop:	2	1x GREL Scout (1x Fwd Obs. GRELs, 1x Commando GRELs, 1x Sniper GRELs), 1x GREL Scout (1x Fwd Obs. GRELs, 2x Commando GRELs), 1x GREL Artillery
3rd Troop:	3	1x GREL Strike (2x Shocktrooper GRELs), 1x GREL Strike (2x Panzer GRELs), 1x GREL Assault
4th Troop:	5	2x GREL Strike (1x Shocktrooper GRELs, 1x Panzer GRELs), 1x GREL Assault

Gamma Company

1st Troop:	I	2x GREL Assault, 1x GREL Strike (2x Shocktrooper GRELs)
2nd Troop:	II	2x GREL Assault, 1x GREL Artillery
3rd Troop:	III	1x GREL Scout (1x Forward Observer GRELs, 2x Commando GRELs), 1x GREL Strike (1x Commando GRELs, 1x Snip. GRELs), 1x Senior GREL Artil.
4th Troop:	IV	2x GREL Assault, 1x Senior GREL Assault

MAJOR ALTHEA SUGALES

Althea Sugales was the only daughter of a former drill sergeant. A landmine killed her mother when Althea was five years old and she grew up as the only girl in a house with four older brothers. Her father was a stern man who never wanted a daughter and as a result Althea was treated badly by her father and brothers, and they were often abusive. When she announced that she wanted to join the military, following her brothers' lead, her father laughed at her. Saying that she could never handle herself in a fight, he proceeded to prove it to her. Althea has two thin scars running down her left cheek from her father's knife. To prove to herself and to her father that she could shoulder the burden of war, Althea enlisted as soon as the CEF would allow her in. Her determination fueled her career and she has excelled at every task given her. During the final months of World War III, her infantry group was the first NEC unit to break through enemy lines and occupy the city of New Alexandretta.

Military Record

Major Sugales has spent many years dealing with pent-up aggression. She has found her best form of therapy is to rip into an enemy position and overrun it completely. Her ability to pound an enemy into submission from many sides has made her an almost ideal CEF commander. She has a talent for tactics and being able to think on her feet. Althea treats every mission as personal crusade, an attempt to prove herself. While she is known to have a temper in battle, Althea is also a very personable commander and socializes a great deal with those under her command in the 126th Infantry Battle Group on Utopia.

Attitudes

Althea Sugales has a problem with self-confidence. She feels that she must constantly prove her worth to her commanders and her troops. The psychological scars inflicted by her father and brothers run deep, and it will take the rest of her life to recover completely. She finds that being given greater responsibilities has helped her overcome these problems by providing her with an opportunity to rise above her family's cruelties and treat her subordinates with the respect she never received. Althea abhors mistreatment of any kind, whether it is directed at civilians, military personnel or animals. The CEF has been her home for more than four decades and she will do nothing to betray its trust in any way.

Combat Reactions

Althea does not hesitate in combat. The constant need to prove herself has made her a very dangerous opponent with a great deal of combat experience. She prefers firearms to close quarters fighting, and she shows particular hostility towards enemies armed with blades. When she fights, which she does alongside her troops whenever she can, she feels a great weight lifted from her shoulders but she is constantly alert for signs that she may start becoming addicted to the adrenaline rush.

Vital Statistics

Age:	60	Height:	160 cm	Weight:	41 kg	Hair Color:	dirty blnd	Eye Color:	green

Attributes

AGI	+1	APP	-1	BLD	0	CRE	+1	FIT	+1
INF	+1	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	6	UA	6

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	+1	Human Perception	2	0	Melee	2	+1	Small Arms	3	+1
Combat Sense	3	+1	Intimidate	1	0	Notice	2	+1	Tactics	2	+1
Dodge	2	+1	Investigation	2	+1	Psychology	2	+1	Zero-G	2	+1
Hand-to-Hand	2	+1	Leadership	3	+2	Security	2	+1			

Ogl Statitics ◆

Althea Sugales (Tough Hero 2, Smart Hero 2): CR 4; Medium-size human; HD 2d10+2d6+12; hp 33; Mas 13; Init +1; Spd 30 ft.; Defense 20, touch 14, flat-footed 19 (+1 Dex, +3 Class, +6 tactical vest); BAB +2; Grap +2; Atk +2 melee (1d6, unarmed strike) or +3 ranged (2d8, 5.56mm rifle); Full Atk +2 melee (1d6, unarmed strike) or +3 ranged (2d8, 5.56mm rifle); FS 5 ft. by 5 ft.; Reach 5 ft.; Al CEF; SV Fort +3, Ref +1, Will +3; AP 2; Rep +0; Str 10, Dex 13, Con 13, Int 14, Wis 12, Cha 12.

Occupation ◆

Military (bonus class skills: Navigate, Knowledge(Tactics)).

Skills ◆

Diplomacy +4, Gather Information +3, Knowledge (Tactics) +11, Listen +6, Navigate +6, Research +4, Search +6, Spot +9, Survival +6.
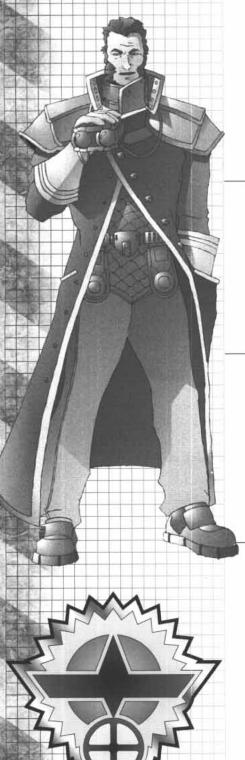
Feats ◆

Simple Weapons Proficiency, Personal Firearms Proficiency, Advanced Firearms Proficiency, Alertness, Armor Proficiency(Light), Combat Expertise, Armor Proficiency(Medium)

Talents ◆

Robust, Savant(Knowledge(Tactics)).

MAJOR AVERY MCKENNA

Commander of the 102nd CEF Armor Battle Group and the CEF garrison at Paladin Lots, and veteran of the first CEF invasion on Terra Nova, Major Avery McKenna is a valued and well-respected leader. The first-born son to a poor North American family, he entered military service as a means of securing income for himself and his family. Slowly moving up in rank prior to his assignment to the 8th Fleet Armor Groups, McKenna quickly gained recognition through his dedication to Earth's cause. Being a demonstrated and talented pilot and tactician, Avery was picked out to participate in a tactics team for integrating the new CEF Battle Frames into the armor groups following the defeat against Terra Nova. His current command, the 102nd Armor Battle Group, is a mix of both hovertank and Frame armor. His recent skirmishes with the Black Talon forces have tested his company's training and fortitude.

Military Record ◆

Avery McKenna is a veteran of armored combat. He entered military training in the decade following WWIII; by the time he graduated from officer's school, the CEF had captured Caprice and was staging its next set of assaults on Atlantis, Utopia and Terra Nova. McKenna began assisting as a Junior Lieutenant in the preparation and training of the "Caprice-grown" GREL soldiers for handling the newer HT-72 hovertanks and HRT-72 hover artillery. While overzealous and prideful, his strong sense of responsibility and determination make him an excellent officer. He is considered the leading expert on Frame deployment and tactics.

Attitudes ◆

The failure of the 8th fleet has weighed heavy on McKenna's pride for some time. Despite the respect won by his effective leadership in pulling his men off of Terra Nova with the last remaining shuttles, the commandant is haunted by the failure of the fleet to retake the planet. Over the last decade, his military professionalism has started to erode as the frustration over the past and the continued harassment by the Liberati on Caprice continue. As such, he sees no problem in committing atrocities against the rebel Liberati. His embarrassing defeat in the Dissora Desert during the first Black Talon Mission, at the hand of Sergeant Carlie Pinter, has only driven him into further maddened hubris.

Combat Reactions ◆

An intelligent pilot and tactical strategist, McKenna holds to the CEF's doctrine of offensive tactics on the battlefield. In his mind, the only good defense is an overwhelming offensive. As such, he is very aggressive and an extremely deadly opponent to fight in any battle. He coordinates himself and his forces with the masterly use of terrain, electronic warfare and battlefield psychology. Even in instances of meeting superior force, he looks for the means to win instead of retreat.

Vital Statistics

Age:	59	Height:	186 cm	Weight:	79.9 kg	Hair:	red	Eyes:	blue

Attributes

AGI	+1	APP	0	BLD	0	CRE	+1	FIT	+1
INF	0	KNO	+1	PER	+2	PSY	-1	WIL	+1
STR	0	HEA	0	STA	25	UD	5	AD	4

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	+1	Drive	3	+1	Gunnery (Gear)	2	+2	Notice	2	+2
Combat Sense	2	+2	Electronic Warfare	2	+1	Hand-to-Hand	2	+1	Small Arms	2	+1
Communications	1	+1	First Aid	1	+1	Human Perception	1	-1	Tactics	3	+1
Demolition	1	+1	Heavy Gear Pilot	3	+1	Leadership	2	0	Zero-G	2	+1
Dodge	2	+1	Gunnery (Ground)	2	+2	Melee	1	+1			

Ogl Statitics ◆

Avery McKenna (Dedicated Hero 1, Smart Hero 3): CR 4; Medium-size human; HD 4d6; hp 15; Mas 11; Init +2; Spd 30 ft.; Defense 14, touch 14, flat-footed 12 (+2 Dex, +2 Class); BAB +1; Grap +1; Atk +1 melee (1d4, unarmed strike) or +3 ranged (2d6, 9mm pistol); Atk +1 melee (1d4, unarmed strike) or +3 ranged (2d6, 9mm pistol); FS 5 ft. by 5 ft.; Reach 5 ft.; Al CEF; SV Fort +2, Ref +3, Will +5; AP 2; Rep +0; Str 10, Dex 14, Con 11, Int 13, Wis 14, Cha 11.

Occupation ◆

Military (bonus class skills: Navigate, Knowledge(Tactics)).

Skills ◆

Computer Use +8, Demolitions +7, Diplomacy +3, Knowledge(Tactics) +9, Pilot(Mecha) +13, Search +5, Sense Motive +8, Spot +9, Treat Injury +6

Feats ◆

Simple Weapons Proficiency, Personal Firearms Proficiency, Vehicle Expertise, Dodge, Exotic Firearms Proficiency, Combat Martial Arts

Talents ◆

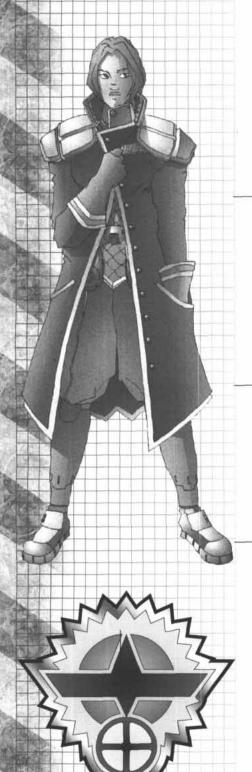Savant(Knowledge(Tactics)), Plan, Skill Emphasis(Knowledge(Tactics)).

Lieutenant Colonel Krynn Rassul

Born in a war-torn African splinter state, Krynn Rassul saw nothing but chaos around her until its conquest by the NEC brought some semblance of stability to her world, ending the fighting and the lawlessness. Others, however, did not share this view and Krynn and her family were severely injured during a terrorist attack on a nearby NEC base. The senselessness of the attack angered her more than her injuries, and when she was introduced to the NEC ideology of a greater purpose for Mankind it struck a deep chord with her. She volunteered for the CEF soon afterward. Her drive and determination were recognized, and she was assigned to officer training. Krynn participated in the CEF invasion of Caprice as a young infantry lieutenant, were she served with distinction against the brief resistance movement. Once the fighting died down, however, Krynn found herself with little to do. She asked for a transfer to the CID, where she discovered a natural affinity for investigative work.

Military Record

Having steadily risen through the ranks since the CEF's arrival on Caprice, Krynn is now the top investigator in the Commonwealth Integrity Directorate on the planet. A methodical worker, she patiently explores every line of inquiry before closing in for the kill. This has lead to the capture or death of several Liberati agents but has not uncovered the workings of the movement at large, something that only drives Krynn further on. She is part of a small faction within the CID that believe that the Caprician resistance still exist as an organized force. Her superior, Colonel Housam Amiel, is pleased with her success but is concerned that she might burn out and is considering ordering her to take leave.

Attitudes

Krynn considers herself a true patriot, dedicating her life to the promotion of the ideals of the NEC and has little time for those that see service in the CEF as a road to personal advancement. She pays almost no interest to the average Caprician citizen, regarding them as little different to Earth citizens, by and large doing as they are told by whoever is in charge. However, she holds a fanatical hatred for those that actively oppose the CEF, believing them to be nothing more than terrorists and she will not let herself rest until they have been destroyed.

Combat Reactions

Krynn has seen combat many times as an infantry officer and is almost completely inured to it. When leading raids by CID security troops she prefers quick and overwhelming force to bring the situation to rapid conclusion, deeming keeping the situation under control and preventing the enemy from escaping worth any extra casualties. Although rarely encountered without subordinates to defend her, Krynn has no difficulty with entering combat herself if necessary and is a crack shot with the large caliber pistol she carries with her at all times.

☐ Vital Statistics

Age:	42 years	Height:	172 cm	Weight:	65 kg	Hair:	light brown	Eyes:	brown

☐ Attributes

AGI	+1	APP	0	BLD	0	CRE	0	FIT	+1
INF	0	KNO	0	PER	+2	PSY	0	WIL	+1
STR	0	HEA	+1	STA	30	UD	5	AD	3

☐ Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	2	+2	Interrogation	2	0	Notice	3	2	Streetwise	2	0
Dodge	2	+1	Investigation	3	+2	Security	2	0	Tactics	2	0
Drive	1	0	Law	1	0	Small Arms*	2	+1	* (Pistols)		
Hand-to-Hand	2	0	Leadership	2	0						

OGL Statistics ◆

Lieutenant Colonel Krynn Rassul (Charismatic Hero 3/Dedicated Hero 2/Investigator 1): CR 6; Medium-size human; HD 3d6+3 plus 2d6+2 plus 1d6+1; hp 27; Mas 12; Init +1; Spd 30 ft.; Defense 15, touch 15, flat-footed 14 (+1 Dex, +4 Class); BAB +2; Grap +2; Atk +2 melee (1d3 nonlethal, unarmed strike) or +4 ranged (2d6, large caliber pistol); Full Atk (1d3 nonlethal, unarmed strike) or +4 ranged (2d6, large caliber pistol) or +2 ranged (3d6, Double Tap); FD 5 ft. by 5 ft.; Reach 5 ft.; SQ none; AL NEC, CEF; SV Fort +5, Ref +4, Will +8; AP 3; Rep +4; Str 10, Dex 12, Con 12, Int 12, Wis 14, Cha 14.

Occupation ◆

Military (bonus class skills: Knowledge [tactics], Survival).

Skills ◆

Diplomacy +5, Disable Device +4, Gather Information +8, Intimidate +8, Investigate +9, Knowledge (streetwise) +7, Knowledge (tactics) +8, Listen +8, Search +4, Sense Motive +10, Spot +8, Survival +6,

Feats ◆

Armor Proficiency (light), Attentive, Double Tap, Iron Will, Personal Firearms Proficiency, Point Blank Shot, Simple Weapons Proficiency, Weapon Focus (large caliber pistol)
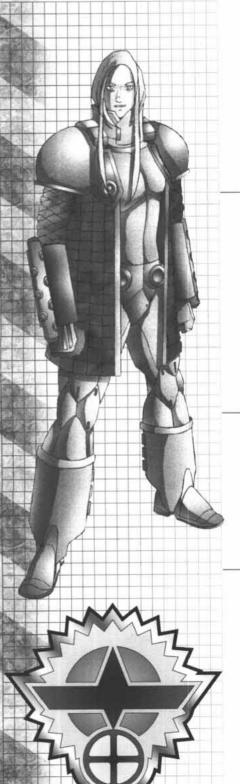
Talents ◆

(Charismatic Hero): Coordinate, Inspiration, (Dedicated Hero): Skill emphasis (Spot), (Investigator): Profile

MAJOR ELKE HILDEGARD

Elke Hildegard was born in New Moscow in 6102 AD, her parents being loyal medical doctors for the NEC. A patriot like her parents, Elke volunteered from medical school and was granted the rank of Junior Lieutenant. Thrust under the command of a battle-savvy major, Harman Lei, Elke found herself preparing to lead a GREL infantry troop. What she discovered on the front lines was a shock to her sensibilities and medical ethics: the persistent attitude that GRELs were only renewable military resources, similar to hovertanks and other CEF equipment. As such, medicine for GRELs was minimal, the forces instead relying only on triage surgery and the GRELs' natural healing abilities. Despite this ethical setback, Elke has served with distinction and received multiple promotions, all the while promoting the idea of GRELs as humans in need of the same egalitarian support as any other soldier.

Military Records

To her own surprise, Elke's career has flourished as an officer in the CEF. She is serious-minded, responsible and very stable, proving herself capable of commanding an infantry battle group. At the same time she has a very friendly, sociable and charming nature that helps her to relate well to both her soldiers and senior officers. These two sides of her personality have allowed her to move up in rank quickly, a perk that she has enjoyed. A humanitarian by nature, her current rank has also helped her to promote better respect for GREL soldiers outside her command. Seeing the result of high morale and associated combat effectiveness, many of her peer officers have attempted to adopt her command values within their ranks as well. Her immediate supervisor, Colonel Jan Valanski, views her command role as vital to maintaining troop morale during the current standoff on Atlantis' surface.

Attitudes

At heart, Elke is a humanitarian, driven by her own sensibilities and insights into medicine and genetics. Her patriotism and valor are products of her appreciation for the people that she works with, including GRELs. She has crusaded for the human attributes of the GRELs by practicing greater equality between them and natural-born within her own ranks. As a result, her troops maintain some of the highest morale among the CEF. There is not a single one of her men or women that Elke will tolerate losing to bigotry and foolishness.

Combat Reactions

Elke is not a natural-born fighter; rather it is a learned behavior. She is incredibly loyal and patriotic to the CEF and to her battle group, and will defend their honor and lives with her own if need be. In the same way, her troops and officers would do the same for her. Being currently stationed on the surface of Atlantis, it is very rare for her not to be accompanied by protective guards.

Vital Statistics

Age:	37	Height:	183 cm	Weight:	69.5 kg	Hair:	blonde	Eyes:	blue

Attributes

AGI	0	APP	+1	BLD	-1	CRE	0	FIT	0
INF	0	KNO	0	PER	+1	PSY	+1	WIL	+1
STR	0	HEA	+1	STA	25	UD	2	AD	4

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	0	Hand-to-Hand	2	0	Melee	2	0	Swimming	2	0
Combat Sense	2	+1	Human Percep.*	3	+1	Notice	2	+1	Tactics	2	0
Dodge	1	0	Leadership	2	+1	Psychology	1	0	Zero-G	1	0
Drive	1	0	Life Sciences	2	0	Small Arms	2	0	• (Body Language)		
First Aid	2	0	Medicine**	1	0	Social Sciences	2	+2	** (Surgery)		

OGL Statistics ◆

Major Elke Hildegard (Dedicated Hero 3/Field Medic 1): CR 4; Medium-size human; HD 3d6 plus 1d8; hp 16; Mas 11; Init +1; Spd 30 ft.; Defense 13, touch 13, flat-footed 13 (+3 Class); BAB +2; Grap +2; Atk +2 melee (1d3 nonlethal, unarmed strike); Full Atk +2 melee (1d3 nonlethal, unarmed strike); FD 5 ft. by 5 ft.; Reach 5 ft.; SQ none; AL CEF, GREL rights; SV Fort +4, Ref +1, Will +6; AP 2; Rep +3; Str 11, Dex 10, Con 11, Int 11, Wis 16, Cha 14.

Occupation ◆

Doctor (bonus class skills: Knowledge [behavioral sciences], Treat Injury).

Skills ◆

Craft (pharmaceutical) +3, Diplomacy +8, Knowledge (behavioral sciences) +6, Knowledge (earth and life sciences) +5, Knowledge (tactics) +2, Knowledge (theology and philosophy) +1, Profession +4, Sense Motive +7, Spot +9, Swim +1, Treat Injury +13, Tumble +1

Feats ◆

Educated (behavioral sciences, earth and life sciences), Medical Expert, Simple Weapons Proficiency, Surgery, Trustworthy.
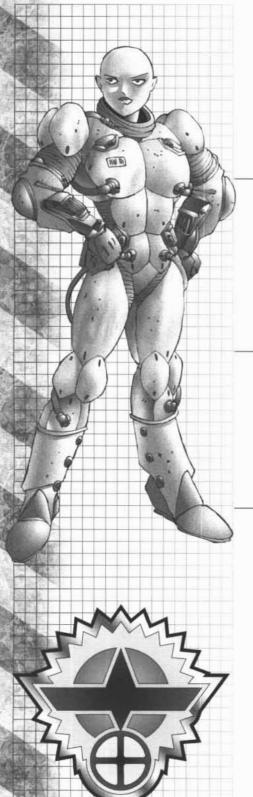
Talents ◆

(Dedicated Hero): Empathy, healing knack. (Field Medic): Medical specialist

SOLDIER ELIZA

Soldier Eliza was decanted aboard a Nova-class carrier in Earth orbit and participated in the Caprician invasion's first wave. Trained with what were at the time the latest advances in hypno-programming, Eliza quickly amassed a staggering number of kills against the largely disorganized freedom fighters. After the occupation was complete, her CEF commanders dispassionately and without any semblance of gratitude for her Herculean effort shipped her to Bastille Alpha, where she and her comrades were warehoused in preparation for their termination. Ironically, the CEF's bloodthirsty expansionism was the only reason her life was spared. She was assigned to the 5th fleet, tasked to re-take Atlantis and Eden. Although many of her genetic siblings were killed in the Atlantis naval debacle, Eliza has survived every trial.

Military Record ◆

While combat attrition and bureaucratic shuffling tends to ensure that GRELs do not form close attachments among one another, Eliza has been fortunate enough to have spent her entire military career with Soldier Dalby, a Maxwell-class GREL. With Eliza at the controls and Dalby manning the turret, they have led their HT-68 hovertank through countless victorious combat missions. The Atlantis missions, although costly for the CEF, have been the most satisfying times for Eliza and Dalby. Skimming across the water at top speed hunting down merchant craft and patrol ships has inspired a fierce happiness in the pair.

Attitudes ◆

Like most other GRELs, Soldier Eliza is not very prone to forming her own opinions. In fact, any indication of such individuality would be regarded as a manufacturing defect worthy of factory recall. Despite lacking independent thoughts, Soldier Eliza does possess certain programmed drives that push her to excel. Apart from the periodic training required of all GRELs, Eliza has begun to study chess after discovering a discarded electronic set. Because chess relies on outmaneuvering an opponent, something she knows well, Eliza is well on her way to mastering the game.

Combat Reactions ◆

Soldier Eliza and her Minerva-class sisters have a connection to hovertanks that no human driver can ever hope to match. Their technical knowledge, quicksilver reflexes, and "compatibility" with the hardware under their control combine to mold the Minerva-class GREL into one of the deadliest creatures known to humanity. Throughout her military career, Soldier Eliza has relied on her inborn and programmed talents to lead her through and even thrive in the most brutal conflicts. What Eliza and other GRELs lack, however, is the creativity and non-linear cognitive ability possessed by true humans, and this is her greatest tactical weakness.

Vital Statistics

Age:	23 years	Height:	200 cm	Weight:	134 kg	Hair:	none	Eyes:	violet

Attributes

AGI	+2	APP	0	BLD	+2	CRE	0	FIT	+3
INF	0	KNO	0	PER	+2	PSY	0	WIL	+1
STR	+3	HEA	+1	STA	50	UD	11	AD	10

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Athletics	1	+3	Drive	2	+2	Hand-to-Hand	1	+2	Survival	1	0
Combat Sense	1	+1	Electronic Warfare	1	0	Notice	1	+1	Swimming	1	+3
Communications	1	0	First Aid	1	0	Small Arms	2	+2	Tactics (Chess*)	1	0
Dodge	1	+2	Gunnery (Grnd)	1	+1	* (Specialization)					

OGL Statistics ◆

Minerva GREL (Fast Hero 2): CR 4; Medium-size humanoid; HD 2d8+8; hp 22; Mas 18; Init +5; Spd 30 ft.; Defense 19, touch 19, flat-footed 10 (+5 Dex, +4 Class); BAB +1; Grap +6; Atk +6 melee (1d4+5, unarmed strike) or +6 ranged; Full Atk +6 melee (1d4+5, unarmed strike) or +6 ranged; FS 5 ft. by 5 ft.; Reach 5 ft.; Al any; SV Fort +4, Ref +7, Will +0; AP 1; Rep +0; Str 20, Dex 20, Con 18, Int 10 Wis 11, Cha 13.

Occupation ◆

Military (bonus class skills: Knowledge (tactics), Survival)

Skills ◆

Balance +7, Computer Use +2, Drive +10, Knowledge (tactics) +1, Navigate +5, Survival +3, Swim +6, Treat Injury +1, Tumble +8

Feats ◆

Armor Proficiency (light), Personal Firearms Proficiency, Simple Weapons Proficiency, Surface Vehicle Operation (hover)*, Surface Vehicle Operation (ship)*.

* Bonus feats provided by the GREL's intense hypno-training
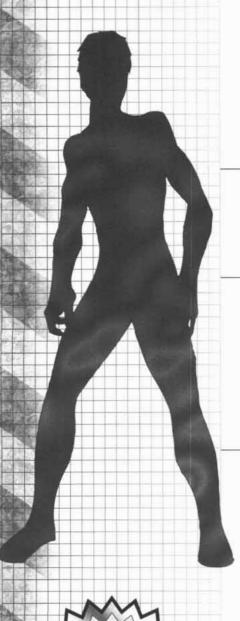
Talents ◆

Evasion

"SCORPIO"

For years CEF command has been receiving information passed on to it by an agent known only as Scorpio. This agent was recruited towards the end of the invasion of Terra Nova. His exact identity is unknown but he is assumed to have deep connections to a planet-wide information source. Contact with Scorpio was lost when the CEF 8th Fleet pulled out of the Helios system. As covert operations started up on Terra Nova to pave the way for a return invasion, Scorpio's former caseworker was able to re-establish contact. After several tests and evaluations, Scorpio returned as a viable information source for the CEF. Information from Scorpio led to the additional placement of agents in sensitive areas and data on the movements of the Terranovan military forces.

Military Record ◆

Scorpio's exact profession is unknown but he appears to be an accomplished espionage agent. His training was not given to him by the CEF and must have originated from one of the polar leagues. He is extremely cautious and methodical. Given time there is no doubt that he would be able to acquire any information that the CEF desires.

Attitudes ◆

Scorpio is a very careful information gatherer as is evidenced by the fact that no one — not even his caseworker — knows his identity. It is known that he is a skilled actor although he has had no formal training. His motivations are cloudy. Other than some transfers of funds, Scorpio has asked for little in return. He occasionally requests payment in the form of favors or black ops missions, such as assassination, terrorism, or espionage, organized and performed by a third party. Scorpio seems to acquire information from both electronic and analog sources. Exact methods are unknown but his effectiveness speaks highly of his skill.

Combat Reactions ◆

Scorpio would appear to be exceptionally skilled at both combat and evasion. It has been confirmed that Scorpio has killed at close range. This would seem to indicate some skill in armed and unarmed combat. In general it is assumed that he avoids combat since that can draw attention to his presence on the scene.

Vital Statistics

Age:	unknown	Height:	unknown	Weight:	unknown	Hair Color:	unknown	Eye Color:	unknown

Attributes

AGI	+1	APP	0	BLD	0	CRE	+2	FIT	+1
INF	+1	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	5	AD	4

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	+1	Dodge	1	+1	Human Perception	2	+1	Small Arms	2	+1
Combat Sense	1	+1	Electronics	2	+1	Investigation	3	+1	Stealth	2	+1
Computer	3	+1	Etiquette	2	+2	Melee	1	+1	Streetwise	3	+1
Disguise	2	+2	Hand-to-Hand	2	+1	Security	2	+1	Theatrics	2	+1

OGL Statistics ◆
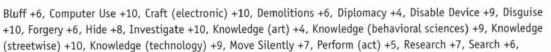
"Scorpio" (Fast Hero 3/Smart Hero 3): CR 6; Medium-size human; HD 3d6 plus 3d8; hp 24; Mas 10; Init +1; Spd 30 ft.; Defense 16, touch 16, flat-footed 15 (+1 Dex, +5 Class); BAB +3; Grap +4; Atk +4 melee (1d4+1, unarmed strike) or +4 ranged (2d4, light pistol); Full Atk +4 melee (1d4+1, unarmed strike) or +4 ranged (2d4, light pistol); FD 5 ft. by 5 ft.; Reach 5 ft.; SQ none; AL unknown; SV Fort +2, Ref +4, Will +3; AP 3; Rep +0; Str 12, Dex 13, Con 10, Int 16, Wis 11, Cha 12.

Occupation ◆

Criminal (bonus class skills: Disguise, Hide).

Skills ◆

Bluff +6, Computer Use +10, Craft (electronic) +10, Demolitions +6, Diplomacy +4, Disable Device +9, Disguise +10, Forgery +6, Hide +8, Investigate +10, Knowledge (art) +4, Knowledge (behavioral sciences) +9, Knowledge (streetwise) +10, Knowledge (technology) +9, Move Silently +7, Perform (act) +5, Research +7, Search +6,
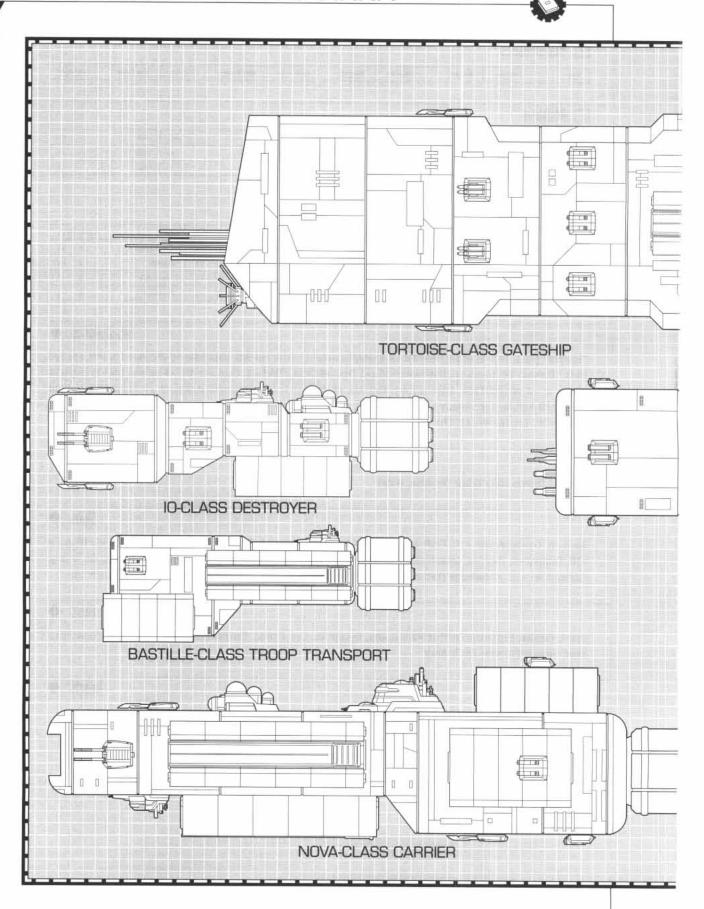
Feats ◆

Brawl, Combat Expertise, Combat Martial Arts, Deceptive, Low Profile, Personal Firearms Proficiency, Point Blank Shot, Simple Weapons Proficiency.
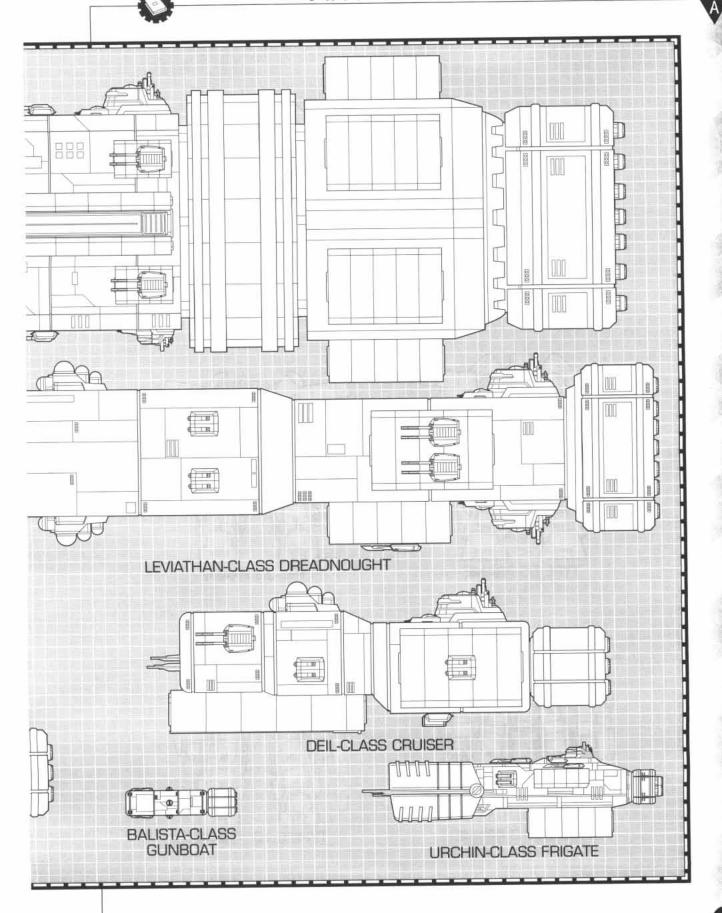
Talents ◆

(Fast Hero): Evasion, Uncanny Dodge 1. (Smart Hero): Savant (Investigate), Exploit Weakness.
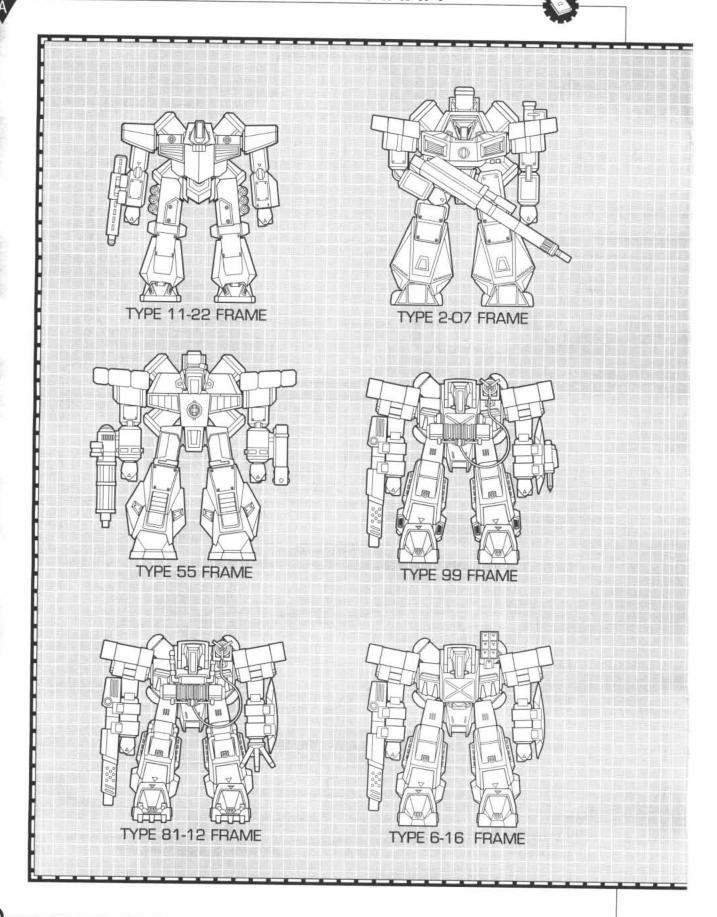
SHIP RECOGNITION CHART

TORTOISE-CLASS GATESHIP

IO-CLASS DESTROYER

BASTILLE-CLASS TROOP TRANSPORT

NOVA-CLASS CARRIER

LEVIATHAN-CLASS DREADNOUGHT

DEIL-CLASS CRUISER

BALISTA-CLASS
GUNBOAT

URCHIN-CLASS FRIGATE

TYPE 11-22 FRAME

TYPE 2-07 FRAME

TYPE 55 FRAME

TYPE 99 FRAME

TYPE 81-12 FRAME

TYPE 6-16 FRAME

HC-3 HOVER COMMAND CAR

HPC-64 HOVER APC

HT-72 HOVERTANK

HT-68 HOVERTANK

HRT-72 SELF-PROPELLED
ARTILLERY

HRT-68 SELF-PROPELLED
ARTILLERY

TARENTULA LANDER

SPLEINIR SHUTTLE

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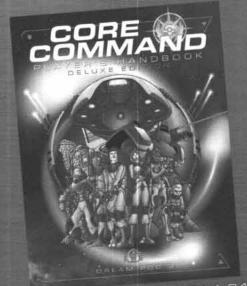
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