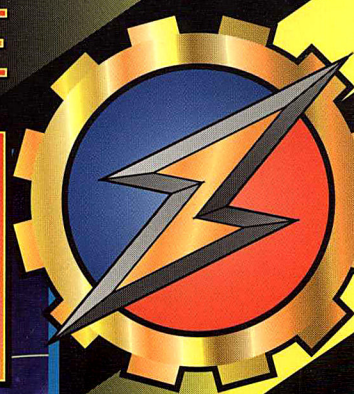


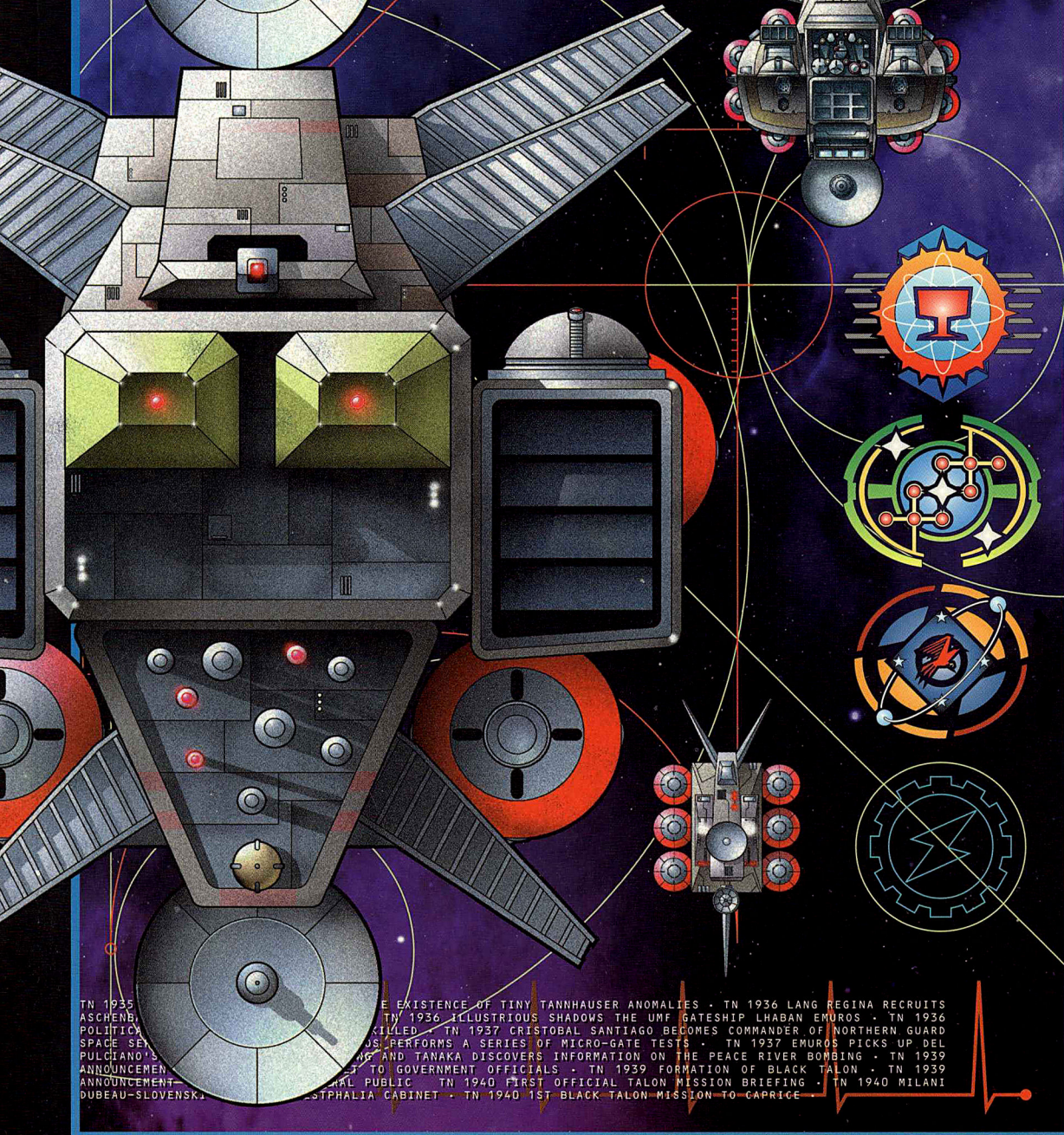
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SPACE VEHICLES COMPENDIUM ONE

SPACESHIP COMPENDIUM



SHIPS OF TERRA NOVA



TN 1935 ASCHENB. TN 1936 ILLUSTRIOUS SHADOWS THE UMF GATESHIP LHBAN EMUROS . TN 1936
POLITICAL KILLED . TN 1937 CRISTOBAL SANTIAGO BECOMES COMMANDER OF NORTHERN GUARD
SPACE SEV US PERFORMS A SERIES OF MICRO-GATE TESTS . TN 1937 EMUROS PICKS UP DEL
PULCIANO'S AND TANAKA DISCOVERS INFORMATION ON THE PEACE RIVER BOMBING . TN 1939
ANNOUNCEMENT TO GOVERNMENT OFFICIALS . TN 1939 FORMATION OF BLACK TALON . TN 1939
ANNOUNCEMENT TO GOVERNMENT OFFICIALS . TN 1940 FIRST OFFICIAL TALON MISSION BRIEFING . TN 1940 MILANI
DUBEAU-SLOVENSKI . TN 1940 1ST BLACK TALON MISSION TO CAPRICE .

HEAVY SOURCEBOOK

GEAR

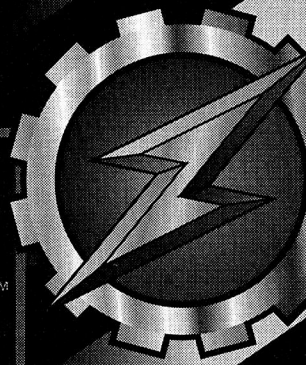


HEAVY GEAR™

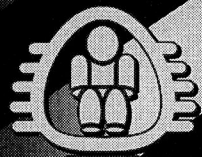
Behind the Scene

When we set out to write this book, we knew that we wanted it to be as much a roleplaying supplement as a tactical supplement. If not more so. After all, the world of Heavy Gear is one in which space battles are few and far between, and those that do come to pass are among the deadliest in which humanity has ever engaged. We also knew that while we wanted it to tie in with and support the Black Talon program, we didn't want to limit the book's contents to strictly military use.

These two goals shaped every step of the process, resulting in the book before you. There are plenty of tactical vehicles contained herein, but there are plenty of roleplaying seeds as well — of both a military and non-military nature. From the small, independent cargo clipper Carcosa to the massive Gateship Laban Emuros and from the Hutchinson Space Center in Valeria to the Accord research outpost on Ares, Gamemasters and Players of Heavy Gear should find a wealth of material within these pages, especially if your stories carry your group to the cold reaches of space.



SHIPS OF TERRA NOVA



DREAM POD 9

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SPECIAL THANKS

TO ALISTAIR GILLIES AND JANNE HEMPEI, WHO WORKED
MIRACLES THAT WOULD MAKE REVEREND MOTHER FAJIL
TURN GREEN WITH ENVY.

OPENING FICTION FROM CHAPTER 3 CONTAINS EXCERPS FOR
POEM XV OF "THE BLACK RIDERS AND OTHER LINES" BY
STEPHEN CARNE.

DEDICATION

TO ALL THE PEOPLE WHO HAVE BEEN PART OF APAGEAR
OVER THE YEARS — ESPECIALLY TO JEFF MACHINTOSH
(A.H.A. WHISPER), WITHOUT WHOM NONE OF THIS WOULD
EVER HAVE HAPPENED.

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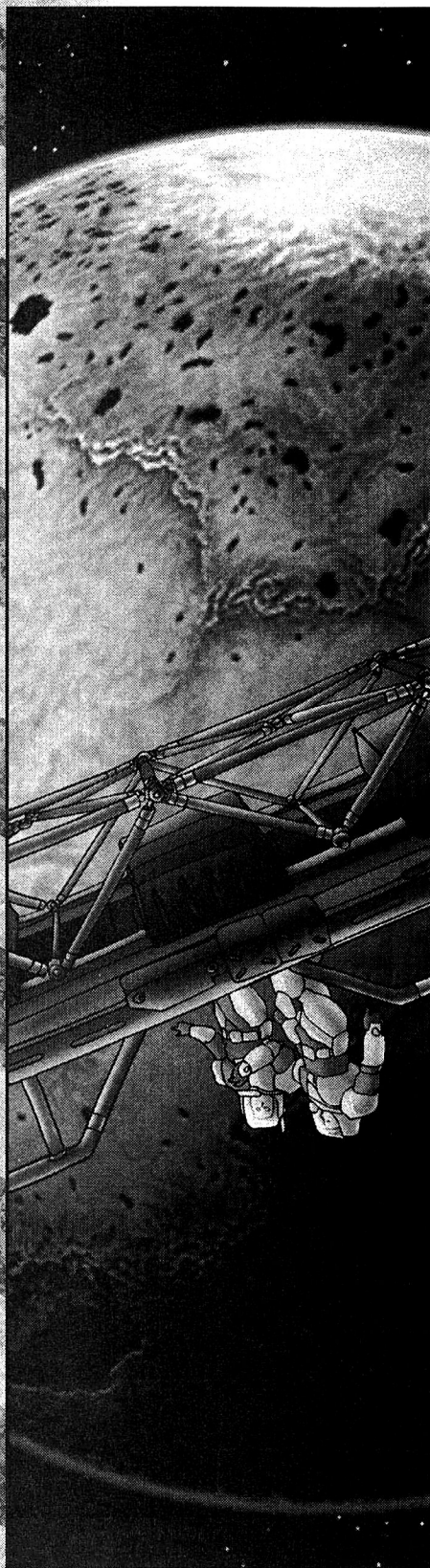
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LOW ORBIT



The flex on the movement mechanism was wearing slightly, near where it attached to the detection array. It had taken some kind of damage, maybe from that coolant the gun trackers had started venting the day before.

Astorre flipped his tool rack open. Taking the flex bolts off looked like a job for the three-eighths Gripley. Getting the tool into the panels' recesses was going to be tricky with the space suit's bulky gloves, though.

"Hey," Astorre called to Rhys. The new technician was standing by one of the radio beacons.

The bright disc of Terra Nova hung behind him, motionless. Rhys was a tiny blot of darkness against a sandy backdrop.

At the sound of his name over the intercom, Rhys looked up and across to where his colleague stood. Astorre shut the tool rack and clipped it to his suit.

"Yeah?" replied Rhys, sounding despondent.

"You got a three-eighths Gripley there?" asked Astorre. He noticed Rhys' glum demeanor at last. "Are you OK?"

"Oh, you know," said Rhys, trying to shrug despite being in a very large space suit, and very nearly succeeding, "Just kind of bored. Disillusioned."

Rhys had joined up hoping to go out towards the stars, with a pioneering spirit. That, at least, had been what the corps' recruitment drive had said in so many words. But was that what he was doing? Charting the unknown reaches of the galaxy? Hardly. Here he was and had been for well over six months, performing maintenance checks on an orbital facility, all the while staring back at the planet below.

Terra Nova was beautiful from above, yet this, if anything, made Rhys' new job worse. Since he was working on an artillery platform, he was really just preparing to destroy large portions of the planet. Still, he just needed to save a couple of months' more wages, and he could buy himself out of the service.

Astorre was not unsympathetic. Everyone agreed that they had, to some at least some degree, been overly optimistic, fooled ever so slightly about life as a spacer.

"I see," he said, "You were expecting to be some adventurous desperado, a valiant explorer of the space-ways, in a manner not dissimilar to the popular fictional characters Hank Redshift and the Upsilon Patrol."

"That's not quite how I would have put it, myself."

"But I am essentially correct?"

"Yes." He sighed quietly and looked into the distance.

"And so once again," said Astorre, "The kneecaps of na'vet» have been shattered by the gangster-wielded blunt instrument of the truth÷" He smiled gently, tried to make a joke of things, hoping to reassure Rhys.

"Just wasn't what I expected," said Rhys, "I thought it would be different."

A long pause followed, as the two of them looked away at Terra Nova. Astorre could make out the edge of Lake Esperance, just peeking out from a cover of clouds above it. He turned around to face Rhys.

"Have you got that three-eighths Gripley?"

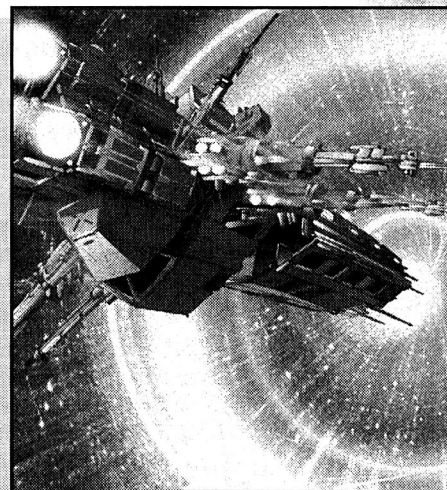


SPACECRAFT - 1.1

The **Spaceship Compendium** contains a wealth of information describing the space assets available to Terra Nova as of TN 1943. In addition to a variety of military and civilian spaceships, the reader will find several installations and facilities in this book, ranging from Terra Nova's premiere launch facilities to the major research base on the planet Ares, almost ten times as far from Helios as Terra Nova and one of the most remote, permanent planetary settlements in the Helios system.

This chapter introduces the book and provides an overview of several of the many aerospace corporations that keep Terra Nova's space industry in business. Chapter Two, *Gateships*, provides a historical context for Terra Nova's small Gateship fleet and describes one of its most famous Gateships, the UMFGS Laban Emuros. Chapter Three, *Terranovan Space Assets*, covers the more mundane space assets of the planet. It includes relatively simple drones, several military vessels, a broad range of civilian vessels, a new training facility for the Black Talon program and the research base on Ares. Chapter Four, *Launch Facilities*, looks at two of Terra Nova's most important launch facilities (the Hutchinson Space Center and the Port Oasis Launch Facility) as well as the massive landscape Westphalia, which can launch orbital rockets from virtually anywhere in the Badlands.

Finally, the last chapter, *Gamemaster Resources*, provides tips for running adventures set in space, outlines four possible campaign seeds, presents several new pieces of equipment and introduces a variety of NPCs and character archetypes related to Terra Nova's space industry.



How to Use This Book - 1.1.1

Because the **Heavy Gear** setting sees very little in the way of large-scale military conflict in space — there has been only one such event in recent Terranovan history, and it occurred before the main story takes place — most of the ships and vehicles in this book are civilian or utilitarian in nature. They exist to take Player Characters from one planetary adventure to another. Most often, such an excursion will involve transport to and from the Loki system, perhaps as part of a Black Talon operation (such as one from the **Raids and Raiders** book), or perhaps not. Other destinations exist within the Helios system, though no others are known to exist outside without passing through Caprice. Still, there are a few vehicles with a purely military nature, and they can form the basis of additional combat designs should a particular campaign take such a path.

All ships in the **Heavy Gear** setting, aside from small, utilitarian vehicles such as the Spacehog Gear or the BPM-98 boarding pod, are unique vehicles that are rarely mass-produced. These ships are full of rich and colorful history as well as interesting people, and the Players' experience may benefit greatly from introducing such touches into the ships that will carry their Characters across space. The Carcosa, a transport clipper operating throughout the Helios system, is one example of a thoroughly unique craft, but even two Oberon rescue cutters will look only cursorily similar to each other when maneuvered side-by-side. Their interiors are likely to be even more different, each having undergone several different refits and medical technology updates during its decades-long lifespan.

AEROSPACE CORPORATIONS - 1.2

The aerospace industry is as large and diverse as the automotive industry or the Gear industry. Since the vast majority of the public rarely comes into contact with it, however, it can often seem to the typical citizen as though it hardly exists at all. Mainly those who work in the industry are the only ones who realize its true scope: Terra Nova is otherwise practically crawling with aerospace corporations. They range in size from the giants such as General Space Systems of the Southern Republic, which has a hand in practically every aspect of the industry, down to the small, highly specialized businesses such as Lundquist Solar Power of the United Mercantile Federation, which manufactures auxiliary solar panels for communications relay satellites in the Helios system. These corporations typically have their main offices located within major industrial centers. In order to keep secondary transport and storage costs to a minimum, however, their manufacturing plants are usually found in space or on the planet's surface, near the spaceports their products serve.

These corporations play as vital role in the planet's economy as its many military contractors. Because the various space programs are extremely costly, even the smallest aerospace corporations take on large and financially rewarding contracts. When one considers that every mark or dinar taken in by an aerospace or military contractor results in approximately two and half marks or dinars of local spending, the importance of these companies becomes clear. Several minor communities are entirely supported by an aerospace company and the various service industries that have grown up around it.



1.2.1 - Telfer Spaceworks

The Telfer Spaceworks company was founded in TN 1876 from the ashes of Orton Orbital and Shenoï Space Transit, two aerospace companies on the verge of total collapse. Using these corporations' assets and production facilities, the company's owner, Gerhard Telfer, was able to move into production of assorted ground-to-orbit craft. For several cycles, he contented himself with these small beginnings, creating first light launch vehicles before moving on to the construction of heavier craft such as shuttles. By TN 1900, Telfer Spaceworks was taking contracts for large cargo craft, designed to take goods between the moons of Terra Nova and even to other planets.

During the War of the Alliance, there was little traffic in large craft from the surface of Terra Nova. As a result of the CEF's space superiority, the Telfer Spaceworks were all but shut down for the duration of the war. Fewer than half of the company's production facilities continued to operate, producing large-scale mechanical spares for landships, lorries and other heavy vehicles. This was not exactly Gerhard Telfer's vision of putting man into space. Yet, it was work that needed to be done and, despite occasional attacks on the factory, it chugged slowly along.

The post-war period saw a resurgence of activity for Telfer Spaceworks. With the rebuilding on Terra Nova came projects throughout the Helios system. Telfer transport ships were suddenly in great demand for the refitting of research bases, space stations and, by no means least, the newly acquired Hermes 72 satellite network. In TN 1920, with rising profits, Telfer Spaceworks expanded by buying the launcher manufacturing facilities of Zang Space Industries AG, a beleaguered firm based in Port Aurora. Since then, the company has rallied and diversified, and Zang towers can be seen in Kenema and Innsbruck, as well as Port Aurora. For Telfer Spaceworks, though, the acquisition of production facilities close by the spaceport was a godsend. Although the major factories and workshops remain in Livingstone, the advantages of having an office and repair facility close to the space industry's nerve center are vast.

Today, Telfer Spaceworks is one of the pre-eminent manufacturers of large spacecraft in the North. Military contracts are consistently few and far between, much to the chagrin of some of the directors, who feel that this is where the big money lies. The company seems to be coasting along quite nicely, however, with the profits from its civilian arrangements.

Corporate Description

Legal Appellation:	Telfer Space Industries Ltd.
Headquarters:	Telfer Plaza, Livingstone, Northern Lights Confederacy
Directing Executive:	Melita Rinaldi
Major Products:	Cargo spacecraft

◆ Organization

Telfer Spaceworks is run from the top by a board of twelve directors. These directors are selected by shareholders under the recommendation of the General Manager, covering a wide range of expertise across the company. Some of the financial experts on the board are recruited from outside the company but those with technical expertise are almost always internal appointments.

The current General Manager of Telfer Spaceworks is one Melita Rinaldi, head-hunted in TN 1935 from a middle management position at Northco. A controversial appointment at the time, she retains the backing of the board, especially the influential Markus Telfer, head of Research & Development, and grandson of the company's late founder, Gerhard Telfer. Intelligent and charismatic, Markus is a favorite with the shareholders and can often sway them to his point of view. It helps that he is a shareholder himself.

Employing many members of Livingstone's working class, the company does sometimes have trouble, as animosity from the Forzi-Kolson cartel war spills over on to the factory floor. These troubles are only symptomatic of bigger troubles at the top — Rinaldi is currently trying to fob off advances from both cartels. Representatives of both Forzi and Kolson have tried to get Telfer Spaceworks allied with them, using both bribes and dire threats. The General Manager is fast approaching a point where she may have to throw in her lot with one side or the other, resist as she may.

◆ Area of Expertise

The bread and butter of Telfer Spaceworks' prosperity lies in ground-to-orbit transport. Aerospace and drop shuttles, as well as launch vehicles for putting dumb payload into orbit, are in constant demand, as are spare parts and trained technicians. The space industry is not like the automotive — the factory produces at most tens of units in a cycle, and each vehicle is unique, made to fill specific requirements for the buyer. In addition the exacting demands for safety and build quality for a spacecraft mean that extreme care must be taken in construction. The company could not do this with a mass production line.

That said, Telfer Spaceworks does have two major product lines that serve as a general template and classification for their crafts. The first is the Actaeon aerospace shuttle, popular for moving cargo to and from orbit, and also for long-distance flights across Terra Nova. The second is the Narcus drop shuttle, which is ideal for general service as a cargo hauler and runabout in the lunar colonies.



General Espace Systems (GES) - 1.2.2



General Espace Systems (GES) was founded in TN 1429, during the early days of the city-state Marabou. It was only a small aerospace company at the time, specializing in cheap, small-payload delivery systems and water-landing shuttles, able to produce the necessary orbital systems for the fledgling, post-Colonial, interstellar trade between Terra Nova and Caprice. As the Southern leagues began to form and the battles over territory began, GES saw the opportunity to expand its business markets with the fledgling Marabou military. Quickly shifting its product focus to wartime technologies, GES was able to provide the Marabou military with the electronics and missile systems necessary to begin its expansionist campaign in early TN 1534.

GES's industrial base grew ten-fold over those early decades. The Marabou military leaders offered GES strategic factories and facilities at pittance prices, thus securing themselves a loyal aerospace contractor. This political partnership benefited both organizations at the time, allowing them both to expand their reach and their influence. The jobs, provided by GES's newly acquired facilities, helped the fledgling Southern Republic by bringing economic stability to occupied regions and also shortening supply lines for the military. GES benefited in the short term by gaining new economic assets and technology. However, in the long run, this fast economic upswing took its toll on the company, with a series of problems caused by the artificially accelerated growth. Over the decades that followed, GES became a symbol of Republican greatness and technological superiority, much to the company's financial chagrin. Within the last decade, the company has been slowly selling off its worst performing facilities to competitors and new aerospace startups. Using the capital gained by the sale of these assets has helped offset increased operating costs in recent cycles and allowed the corporation to expand into newer, more profitable aerospace opportunities.

A number of GES' larger contracts with the Southern Republic government have been put on hold recently due to official spending policies and the threat posed by the Interpolar War. Complaints and protests to Lord Protector Jacques Molay and his underlings by GES executives and GES labor unions have fallen on deaf ears. It appears that the political protection and clout that the GES once enjoyed has slowly begun to dissolve over the years since the War of the Alliance. The Southern Republic's military has grown less interested in space technologies in favor of more terrestrial technologies. GES executives have begun to seek out the support of other governments and organizations, including the newly established Westphalia Cabinet, with whom GES has great hopes for securing a spaceship maintenance contract, even though such a contract would likely displease the Republic greatly.

Corporate Description

Legal Appellation:	General Espace Systems, Inc. (GES)
Headquarters:	GES Building, Marabou, Southern Republic
Directing Executive:	Joseph Gusteav
Major Products:	Military-grade electronics, zero-gravity materials, facilities prefabrication, fusion tubes

Organization

As a large conglomerate, General Espace Systems is built around complex silos of management, with the majority of cross-corporate communications occurring at the executive vice-president management level. Severe communicative disconnects are the norm amid these isolated business units, creating redundant project departments competing against each other for contracts. Being such a large and inefficient player since the beginnings of the Republic has resulted in many of the factories in the South remaining outdated and in ill repair. Smaller competitors with new factories have been better able to vie for government contracts in the past decade. GES has recently replaced its longtime CEO with business tycoon Joseph Gusteav, a golden boy of polar equity markets. Concerns regarding a pending merger initiated by Gusteav with the Southern polar market's bastard child of heavy industry, SR Industrial (SRI), have cast doubt on GES's future and Gusteav's skill as a CEO. Having just recently laid off 13,000 workers from GES in preparation for the pending merger, Gusteav is currently facing a board of inquiry by shareholders, mostly top Southern politicians who are unhappy about their stock holdings' performance.

Area of Expertise

General Espace Systems is a major aerospace contractor to the Southern Republic and her allied territories. Specializing in everything from missile guidance systems to space-facility construction, GES is capable of pulling together the multitude of resources required by the Southern Republic space programs. It is constantly sub-contracting with smaller and more innovative aerospace technology companies and performing patent acquisitions of new technologies, maintaining more than a dozen factories across the Southern polar region and in orbit. Many of GES's factories are heavy industry, emphasizing zero-gravity materials production and fusion tube manufacture. It does maintain multiple electronic systems manufacturing facilities, however, including a small R&D office in Smyrna, where it develops advanced electronics for the Republican military. It is rumored that some of the research done by the Smyrna facility is being routed to the Black Talon program, much to the anger of Jacques Molay and his advisors. Prefect Ange-Marie Trihn, Republican Army Commander of Military Intelligence, has been ordered to mobilize a small bureaucratic operation to uncover how much "strategic" material is being discreetly passed on.



1.2.3 - Rapid City Aerospace

In TN 1803, The Rapid City Canning Company's assistant director of marketing, Kelli Loverood, secured a contract with Northco's aerospace division to produce high quality seals for the fuel tanks of Northco's Sagittarius liquid-fuel rockets. Loverood's action raised several eyebrows amongst the corporation's board of directors, but all members readily admitted that the company's chief products, canning seals, were not too far off the mark already, albeit at a slightly different scale. In addition, while a relatively small contract for Northco, it was a windfall for the otherwise minor, consumer-oriented corporation and was not a terribly risky maneuver.

Within a decade, The Rapid City Canning Company was producing the entire fuel and engine system for the Sagittarius as well as several of Northco's other rockets. The company's stock prices had risen tenfold, and its TN 1813 profits were 90% due to sales of liquid-fuel rocket systems. In TN 1815, Loverood, by then the CEO, spun the canning division off as Whitewater Canning and the corporation changed its name to Rapid City Aerospace. The new company soon became a major player in all of the North's aerospace programs.

Today, Rapid City Aerospace produces a wide variety of propulsion systems. Its Wisp payload assist modules (PAMs) carry satellites into higher orbits from their lift vehicles' payload bays. Its Stratus lift/propulsion units (LPUs) attach to hardpoints on lunar vehicles and allow them to reach orbit from the surface of Terra Nova's natural satellites — or to descend safely from orbit. Its Cirrus liquid-fuel rocket boosters enable other rockets to carry heavier payloads at a fraction of the cost of designing newer, larger vehicles. The corporation also produces unique drives targeted at specific ships, such as the 3.6-meganewton fusion tubes used by the Oberon-class rescue cutter and the 12-meganewton tubes that drive the North's Valeria-class destroyers into battle.

Rapid City Aerospace's corporate headquarters at the Aerospace Plaza on Fossenwood Avenue are conveniently located near the Northco complex. Although no longer subcontracting work from Northco, the two corporations maintain an amicable relationship. The location does allow Rapid City Aerospace easy access to Elementech, now situated with the Northco complex proper, and the two are heavily involved in designing specifications for a new generation of civilian space Gear. The Rapid City Aerospace building itself is a stern edifice of granite and steel. A two-story glass sculpture of the corporate logo stands in the cobblestone plaza and provides a spectacular light show for viewers when the sun is on the horizon.

Corporate Description

Legal Appellation:	Rapid City Aerospace
Headquarters:	The Aerospace Plaza, Rapid City, United Mercantile Federation
Directing Executive:	Reeni Varaday, Ph.D.
Major Products:	Space propulsion systems and propulsion control systems

◆ Organization

Rapid City Aerospace is a medium-sized corporation. It consists of a board of directors elected by the corporation's shareholders; a quarter of the company's stock is traded on the public market, and a small group of five individuals owns the rest. The board appoints a chief executive officer either from within the corporate structure itself or from without. The current CEO, Dr. Reeni Varaday, she is both a capable scientist and a competent businessperson, a combination the board finds quite valuable. She enjoys her position within the corporation and often "makes the rounds" to its various branch offices and manufacturing centers. Her personal interaction with the company's employees, from upper management to blue-collar line workers, helps her keep abreast of the corporate morale at all levels.

The corporation's complex at the Aerospace Plaza in Rapid City contains only its executive offices and chief business offices. Its primary rocket production facility is located on-site at Hutchinson Space Center in Valeria, NLC, and it maintains smaller facilities and branch offices near each of the spaceports in the northern hemisphere of Terra Nova, including Port Arthur. It manufactures its fusion tubes at the orbital shipyards where they will be installed, however, leasing manufacturing facilities as needed.

◆ Area of Expertise

Rapid City Aerospace is one of the leading manufacturers of space propulsion systems in the northern hemisphere. The corporation's products are found within space vehicles throughout the CNCS civilian and military fleets, from the small, liquid-fuel maneuvering thrusters of Elementech's Space Hog Work Gear to the mighty fusion tubes of the UMFGS Laban Emuros. In addition to providing control systems for its own propulsion units, Rapid City Aerospace offers a highly competitive after-market control system service and maintenance program for third-party propulsion systems; this program often results in new customers for its own systems.

Besides its headquarters and manufacturing centers, the corporation maintains a space propulsion research facility in the city-state of Marathon. The lab, Iandens Astro Development Laboratory, is named for Josafine Iandens, who designed in TN 1865 a 25-giganewton fusion tube to replace the archaic and worn-down tubes on the UMF's two Gateships. Under the direction of Dr. Jathan Micha, IADL has expanded into Gatedrive research, hiring four key researchers away from Artemis Systems of Kenema, NLC. In TN 1941, Micha secured one of Rapid City Aerospace's most lucrative contracts: the reverse engineering of a captured CEF third-generation Gatedrive under the aegis of Project New Frontier.



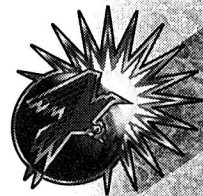
Republican Space Technologies - 1.2.4

Founded in Port Oasis as Bethke Cosmos in TN 1457, the company was created to produce spare parts for Terra Nova's spaceships and space stations whose maintenance contracts with Earth corporations were suddenly worthless. The company became adept at crafting one-of-a-kind replacement parts for ships that had been manufactured thousands of light-years away. However, as these relics of the colonial age were phased out of use the company's fortunes foundered. With the links of the interstellar community severed, and in the face of the difficulties of simple day-to-day survival, Terranovans showed little interest in space. Nevertheless the company somehow managed to cling on to life until the rise of the leagues and later the polar superpowers brought space back into the limelight.

Bethke Cosmos' fortunes turned a corner in TN 1731 when Republican Heavy Industries, looking to expand into the space sector, bought out the company and renamed it Republican Space Technologies. RHI's contacts in the Republican government brought RST new business and the company expanded into the area of drone construction, winning a few modest contracts. However, it took the return of Earth to the interstellar stage to bring the company to the forefront of the space industry.

The detection of the CEF invasion fleet in the Helios solar system in TN 1913 came as a complete shock to Terra Nova. Up until this time the space policy of the Southern and Northern militaries was simply to achieve a rough balance in their forces, as aggression in space was simply too expensive for too little gain. Thus Terra Nova simply did not have the numbers or the expertise to engage the invading fleet in space on equal terms. Desperate measures were needed and as the fleet approached the Republican government created an ambitious project. RST, in conjunction with the full resources of Territorial Arms and Obelisk Electronics, set up large automated construction lines that could churn out hundreds of drones per season with minimal human involvement. The use of swarms of drones by the Terranovan defenders drove the CEF fleet out of orbit and harried it across the Helios system, preventing it from supporting the troops on the ground.

Today the automated facilities are closed down in favor of a human workforce and much smaller production requirements. Not widely known, however, is the fact that RST receives government funding to keep the production plants in working order. The Southern Republic foresees the day when they will once again be needed.



Corporate Description

Legal Appellation:	Republican Space Technologies, Inc.
Headquarters:	The Bethke Center, Port Oasis, Southern Republic
Directing Executive:	Erica Rajendra
Major Products:	Space drones, rocket motors, spacecraft subsystems

Organization ◆

Republican Space Technologies is a wholly owned subsidiary of Republican Heavy Industries, and its managing director, Erica Rajendra, reports directly to the board of RHI. She serves as little more than a rubber stamp to its decisions, a situation that she finds highly frustrating. While she would prefer greater independence, she is hamstrung by the fact that most of RST's important ties to the Republican government go through RHI. Despite this close oversight RST does have its own distinct production complexes at the Port Oasis Launch Facility and in the industrial district of Port Oasis itself. The company also maintains an orbital workstation for micro-gravity manufacturing and the distribution of its products to users in space. Work at the orbital station is rather dull and the living quarters cramped, and it thus has the highest turnover of staff of any Terranovan space station.

The location and continued existence of the automated drone manufacturing plants is highly classified and is known only to the Space Defense Branch, a few highly placed RST executives and the maintenance crews that service them. Even RST's parent company RHI does not know their location.

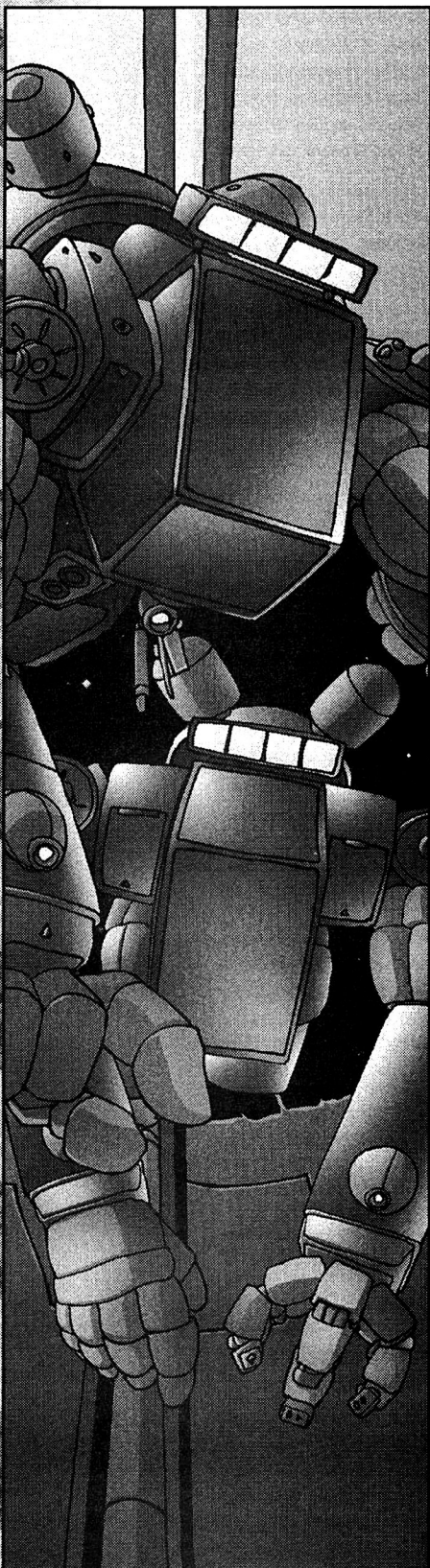
Area of Expertise ◆

RST is best known for its drone vehicles, which dominate both the Southern military and civilian markets. The Space Defense Branch of the Southern Republican Army has been stockpiling combat and mine drones ever since the end of the War of the Alliance and most of RST's production capacity is dedicated to servicing this demand. Civilian cargo, prospecting and maintenance models make up the remainder of its drone production and sell in good numbers considering the small size of the consumer base.

Beyond drone manufacture, RST is still active in its traditional market of subsystems and parts for manned spacecraft, producing such components as maneuvering thrusters, airlocks and life support filter systems. In many cases the lineage of RST's products can be traced back to standardized components used since the early interstellar age. For this reason the company's products are used in spaceship construction by both Northern and Southern manufacturers and they contribute greatly to the uniformity of Terranovan spacecraft.



THE HAND OF GOD



Private Hemming's Gear took deliberate, measured steps as she moved deeper into the yawning tunnel that stabbed deep into the heart of the *Laban Emuros*, one of Terra Nova's only active Gateships. She and Sergeant "Rouge" Marten, a crusty old space-salt who had actually worked on the ship back before the War of the Alliance (when she was still opening the Caprician Gate once a cycle), piloted a pair of Spacehog utility Gears, sure-footed machines that specialized in zero-gravity heavy-duty work.

Back behind the pair of armored spacers, in the entrance of the Gatedrive's barrel, countless stars shone, unblemished by clouds or atmosphere. Hemming had fallen in love with starlit skies at a young age, and her fascination with astronomy and planetary science had grown throughout her childhood until finally she'd decided that she *would* one day live and work in space.

Never a top student, she soon found that only the best and brightest scientists and researchers became involved in the Northern Guard's space program; not to be denied, she joined the military and quickly maneuvered her way into the engineering division of the UMF Space Defense Corps. To have the *Emuros*, the pride of the fleet, as her first assignment was an honor not lost on the young woman.

Swinging his high-intensity spotlight to illuminate the smooth section of wall they'd been sent to investigate, Marten opened a channel.

"Here we are. Looks like some vacuum welding. . . See the marks on the plate? Fused particulates. Nasty but expected."

Hemming's lamp joined in as she pulled her Gear to a stop. She raised her eyebrows when she saw the faint marks Marten gestured at. "Doesn't look too serious," she stated. "Will something that minor really affect the Gatedrive?"

The translucent image of Marten's weathered face in her cockpit smiled. "Don't let Di Smit hear you ask that. This is her baby — this is one of the biggest particle beam cannons ever built. It's almost three-hundred meters long and sixty wide."

His eyes took on a peculiar light as he looked back toward the circle of stars that shone at the entrance of the system. When he spoke again, his voice was softer, almost reverend.

"This is the hand of God, Hemming. It let humans walk clear across the universe in the blink of an eye. It might be the single most important invention in history. . . It's why we're out here," Marten glanced towards the entrance, towards distant Terra Nova, adding, "and it's why we're out *here*. Never take it for granted."

Hemming's stomach lurched a little, both from the weightlessness of her environment and the gravity of Marten's words. "Sorry," she answered. "I'll remember that. So what are we going to do? Will we have to replace the whole plate?"

Marten expression softened. He winked and raised a massive grinder in his Gear's manipulators. Silently revving the tool's engine, he answered, "Nah. . . But don't let Di Smit hear about *this*, either. . ."



HISTORY OF THE GATEDRIVE - 2.1

The Gatedrive's primitive beginnings lie with the Sagan Institute of Science (SIS) in AD 4367. While conducting an experiment on a curious anomaly beyond the Solar System's Kuiper belt, the SIS probe SIS-01, later re-christened the Cosmos Explorer, opened up the first Gate and plunged through a fold in space to re-emerge one light-year away in the blink of an eye. The anomaly, a small astrophysical oddity with a gravitational field one hundred times more powerful than contemporary theory could predict if were treated as a black hole, was explained by Markus Tannhauser in a coherent theory in 4372, more than 50 years after the anomaly was discovered in 4318.

It took more than two centuries for a stable, working Gatedrive to be developed. Consisting of an enormous particle cannon, the "drive" aims a beam at the Tannhauser discontinuity. The resulting matter/anti-matter interaction creates a region of "folded space" in which the discontinuity and its consanguine, distant opposite essentially switch places, carrying nearby objects safely across vast distances in almost no time at all. The first-generation models of Gatedrives were quite bulky and imprecise; they were capable of opening only the largest, most powerful Tannhauser discontinuities.

In AD 5238, a series of minor technological advances combined to yield a second generation of Gatedrive. The new generation was far more powerful, allowing a much greater output from a device roughly the same size as the first-generation drive. In addition, the drive was more precise, thanks to advances in the high-energy sensors required to localize a Gate and provide data to the drive control mechanism. Consequently, weaker Gates could be opened and exploited with relative ease.



Recent Advances - 2.1.1

During the years of isolation following the Human Concordat's withdrawal from its colonies in AD 5790, both Caprician and Terra scientists slowly sought ways to advance Gatedrive technology once more, to develop a third generation of drive capable of utilizing the smallest Tannhauser predicted to exist by top scientists. The Caprician teams succeeded in their efforts, creating a system that could exploit these micro-discontinuities to a limited degree. When the New Earth Commonwealth's Colonial Expeditionary Force invaded Caprice in AD 6116, it brought with it teams of scientists and engineers to analyze and incorporate Caprician technology into its own. One of the greatest prizes was Caprice's nascent third-generation drive, which nicely complemented Earth's own limited advances in the field. In AD 6124 (TN 1929; LC 265), the two teams succeeded in developing the third-generation Gatedrive, which could exploit the micro-anomalies as fully functional Gates as well as open the larger discontinuities faster.

Meanwhile at roughly the same time, a young, independent researcher on Terra Nova, Gawa'ne Di Smit, was developing her own theories about Tannhauser's anomalies. In TN 1928, she predicted the existence of the very micro-anomalies the Caprician/Terran third-generation Gatedrive was about to exploit. For her efforts, she received several coveted scientific awards and achieved prominent recognition in her field. Rumor has it that she is in line to receive the highest civilian honor the CNCS awards, as well; her discovery led directly to the uncovering of a covert CEF presence in the Helios system, and it has undoubtedly saved countless lives.

With the capture in TN 1942 by the 77th Black Talon Squadron of a critical component to the CEF's third-generation Gatedrive, a question many military strategists are wondering is, What have the other colonies been up to since the Age of Isolation?



Professor Markus Tannhauser

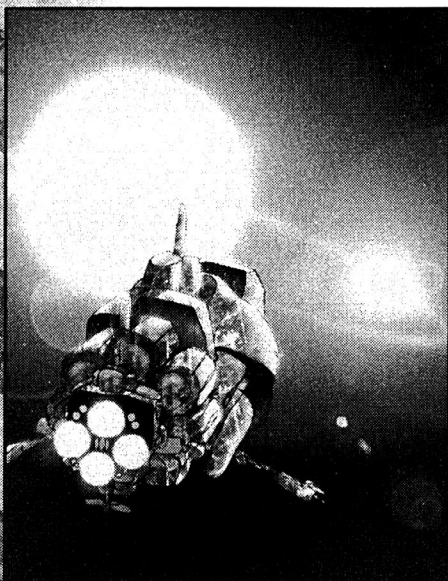
Markus Tannhauser was born in Buenos Aires on April 22, 4332, to a poor, working-class family. Markus was a precocious child and finished his high school education by age 13. The young Tannhauser was granted a generous scholarship by the University of Algiers, where he eventually specialized in astronomy.

In 4355, at age 23, Tannhauser became the university's youngest tenured professor. He produced many brilliant research papers, but it was only in 4368, when heard of the SIS probe incident, that all his ideas came together to form one coherent theory. He spent the next few years elaborating his concepts and, in 4372, published his "Principia Universalis," a book in which he explained one of science's holy grails, the unified field theory. The Tannhauser theory explained all known physical phenomena and hypothesized the existence of many more. Centuries after Tannhauser's death, his ideas became the theoretical framework of interstellar travel and many other technological marvels.

Professor Tannhauser was ill-prepared for the Pandora's box he had just opened. Because his theory explained the entire known universe without the help of a divine being, religious groups denounced him as a blasphemer. As more and more scientists lauded his brilliance, an increasing number of religious fanatics loathed him as the devil incarnate. The professor was forced to spend most of his final years in hiding at his cottage in the Atlas Mountains. Markus Tannhauser was assassinated while giving a speech on October 15, 4398. His killer was a disturbed individual who blamed Tannhauser for the death of God. Tannhauser's tombstone reads, "Markus Tannhauser / 4332-4398 / Creator, Godslayer and Mortal Man."



2.2 - GATESHIP HISTORY



Once the principles behind opening a Gate were understood and a working Gatedrive was operational, humanity began to explore its surroundings as quickly as possible. The drives were mounted in ships designed to travel to the distant stars and return home safely. Indeed, most Gateships were actually built around their Gatedrives, rather than the other way around.

Aside from small utility craft, nearly every space vessel is unique, and Gateships follow this trend almost without exception. When Gateship construction was a viable business — in the time before the Human Concordat withdrew from its colonies and ushered in the Age of Isolation — these massive ships were custom-designed and built according to the needs of the time. The first ships were developed by the Concordat government's space exploration program, the Deep Space Explorer Corps. During this period of Gateship construction, the differences between two Gateships of the same "family" were due largely to improvements in the science and engineering behind the technology; since construction took several years, each new Gateship was out-of-date by the time its hull was completed. During the later periods, private groups, with the Concordat's blessing, commissioned Gateships, and the differences in these designs were due entirely to economic factors (what a consortium could afford), purpose and aesthetics. During the era of Gateship manufacture, one exception stood out: automated Gatedrones tended to have a consistent design within families of vessels to the point at which they could even be considered as distinct classes of ships.

As humanity's colonization and exploitation of space proceeded through the millennia, Gateships underwent several stages of design evolution. These changes were due in part to improvements in Gatedrive design, but were due also to changes in humanity's expansion strategy.

2.2.1 - The First Gateships

The first Gateships that humanity constructed were primarily unmanned affairs such as the Vanguard series of Gatedrones. These early ships, both manned and unmanned, were designed largely for the exploration of the Universe by small teams of scientists and military personnel. They took decades to design, construct and test before they were pronounced ready for travel, but they were still relatively simple compared to the second wave of ships. The Gatedrones were nothing more than a bulky, powerful first-generation Gatedrive, fusion tube thrusters, gargantuan reaction mass storage tanks, vast arrays of sensors and a computer core to control the ship. Manned Gateships added life support systems and rudimentary living modules for the crew. The earliest of these were armed in the event that the crews met unknown — and hostile — alien life forms out there in the sea of stars; the practice of arming Gateships in this manner was dropped by the time the second-generation Gatedrives were in use.

Dedicated to exploring the ever-expanding Interstellar Gate Web, as the network of Gates and planets was coming to be called, the early Gateships also featured cavernous vehicle bays. These hangars contained several varieties of conventional spacecraft, including planetary probes for conducting initial surveys and in-system transports to allow small teams of explorers to launch minor expeditions throughout a new system while the Gateship itself either waited at the Gate or lumbered slowly towards the system's most interesting planet — if it featured any planets at all. One of the most crucial components of the Gateship's fleet, however, was its collection of ice harvesters. Designed to plunder the system's Kuiper belt for water ice to be used as reaction mass by the Gateship, these harvesters were what allowed the exploration ships to expend their own reaction mass for in-system transit. If no suitable belt objects existed nearby, the Gateship was unable to leave the Gate and explore the system, since its reaction mass reserves were required to return home.



Captain Elido Carlomagnes

The first extra-solar mission caused much excitement among the military astronaut corps. They knew that six of them would enter the history book as the first humans ever to leave the Solar System, and although the risk was enormous — no one knew exactly what would happen once they crossed the Gate — there was no shortage of volunteers. Captain Elido Carlomagnes was selected to lead the mission from a list of 300 possible candidates. At 43, Carlomagnes already had a widespread reputation as a strong leader and an excellent astronaut. A man of action, he twice refused a promotion that would have pulled him from space and into an office. A cultured man with a Ph.D. in applied space engineering and another in astrophysics, he had followed the development of the Gatedrive ever since was old enough to understand what was involved.

Carlomagnes and his team spent a whole five years getting themselves acquainted with the HCS Keldysh, running thousands of computer-simulated missions to ensure that all foreseeable difficulties were covered. When the ship finally headed out for deep space in January, 4650, Captain Carlomagnes' last transmission was a simple farewell message. No one would learn about the Keldysh's fate until its triumphant return one month later.





Commercial Gateships - 2.2.2

Shortly after new worlds were opened up for concerted colonization and exploitation, Gateship design underwent a major transformation. Instead of transporting small fleets of craft within their bellies to explore new star systems, Gateships began opening Gates for massive fleets of colony vessels, mining ships, freighters and even the occasional Concordat military vessel. Although exclusively utilizing the second generation of Gatedrives, which were notably smaller, these commercial ships were as big as or bigger than the first generation of ships, since they had to maintain the Gates for much longer in order to allow large fleets to cross the threshold. During this period, however, the ships were re-armed, this time to defend against hostile humans rather than non-existent aliens.

Relics of a Bygone Era - 2.2.3

The Gateships of modern-day Terra Nova are largely relics from the bygone days of interstellar colonization and trade. When the Concordat withdrew from its colonies in TN 1454 (AD 5790), most Gateships throughout the Gate Web were pressed into service or captured by panicked crews and citizens struggling to reach the safety of Earth. Those that were left behind were too damaged to make their way through the Gates, were heavily defended by crews and troops loyal to Terra Nova, or were undergoing refits and upgrades that made them useless for actual travel. Few were left unscathed; even those in dry-dock were not immune to bloodshed as confused colonists sought passage back to Earth.

When the dust had settled, Terra Nova's fleet of fifteen had been reduced to seven ships. None of the present-day leagues existed at the time, however, so their immediate fate was undecided. They were still under the nominal ownership of the consortiums that had owned them prior to the Concordat's withdrawal, but most of those had only minor representatives remaining on Terra Nova. The ships that were still capable of travel within the Helios system were claimed by their crews; most were subsequently turned over to the city state or corporation of the crews' choice, though this process often resulted in more bloodshed and damage to the ships as the crewmembers fought amongst themselves to make those choices. One ship, the Laban Emuros, succeeded in becoming an independent Gateship, a minor political entity of its own until it voluntarily joined the United Mercantile Federation in TN 1567.

In time, each of the seven Gateships was repaired and brought into service. The Marcus Pohlo, the Laban Emuros and the Tienlung eventually took up permanent posts at Gate II, which connects the Helios system directly to the Loki system. They enabled marginally profitable trade with Caprice once both worlds had managed to overcome their struggles in the wake of the Concordat's departure. Only two ships were constructed in the Helios system in the following centuries. The Northern Lights Confederacy completed construction on the Moskva in TN 1703 as part of a joint program enacted by the newly formed Confederated Northern City States to explore Gate I's route to Caprice. The Humanist Alliance's Remar Vajra launched from the shipyard in orbit around Zeus in TN 1745 in order to reopen contact with Caprice after the St. Vincent's Plague forced the Gatemworld to cut off all ties to Terra Nova in TN 1731.

Terra Nova's Gateships all saw action during the War of the Alliance when the invading Earth forces seized them in the early stages of the war. Two, the NLCGS Moskva and the WFPGS Antam, were lost during the war, and most of the rest are in dry-dock or, in the case of the MDGS Tienlung, mothballed with no plans for returning it to service.

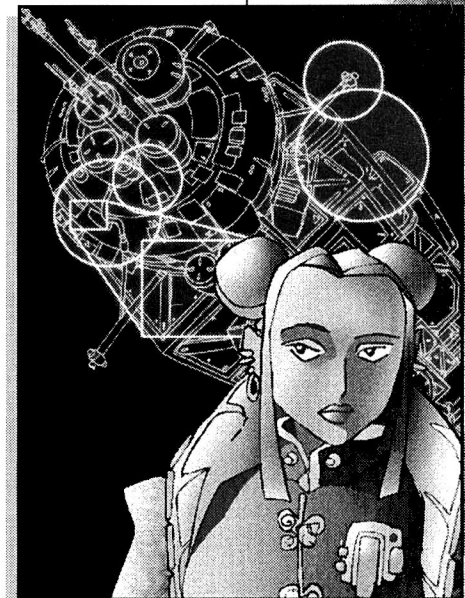
The Dragon at the Gates of Heaven

"We have a fantastic opportunity before us, honorable Taipans, an opportunity for the Mekong Dominion to take its place at the forefront of what we all know to be coming. Whether we approve or not, the Westphalia Cabinet has begun something that cannot be halted without the gravest of consequences.

"This Black Talon program will draw Terra Nova into contact with the rest of humanity; it is impossible to deny this fact. We will one day meet again the people of Utopia and Atlantis, of Jotenheim and Botany Bay, of Eden, Home and New Jerusalem. To do so on our terms, rather than on Earth's, the Talons *must* take an active role in exploring the Gate Web and in contacting the people of those worlds. At the moment, the program relies on relics such as the UMF's Laban Emuros or the Republic's Illustrious, machines whose owners are too timid to allow beyond the safety of Helios. These will never suffice, and the program cannot rely on friendly — or even functional — Gateships being available at each point along the journey.

"No, it will require a fully mobile Gateship that can travel through potentially hostile systems and provide support to diplomatic first-contact missions. We *have* that ship. He slumbers even now in orbit around Poseidon, waiting for the day he can stretch forth his own talons and roam the heavens his namesake protected in ancient times. Tienlung must awaken!"

— Opening remarks of Asako Tanaka, Taipan of Dominion Space Systems, to the Mekong Assembly's Inner Tier, 37 Summer, TN 1943





2.3.1 - HCS Keldysh

In AD 3136, humanity took its first hesitant step towards the stars. Constructed in the Sierra Nevada mountains of North America in dry-dock facilities in the drained bowl of the artificial lake that gave the Lake Kennedy arcology its name, the Argo slower-than-light generation ships promised salvation for a humanity threatened by the slowly encroaching ice age. Tens of thousands of volunteers boarded the Argo ships between 3136 and 3387 and embarked on a voyage from which, ultimately, no one was ever heard again.

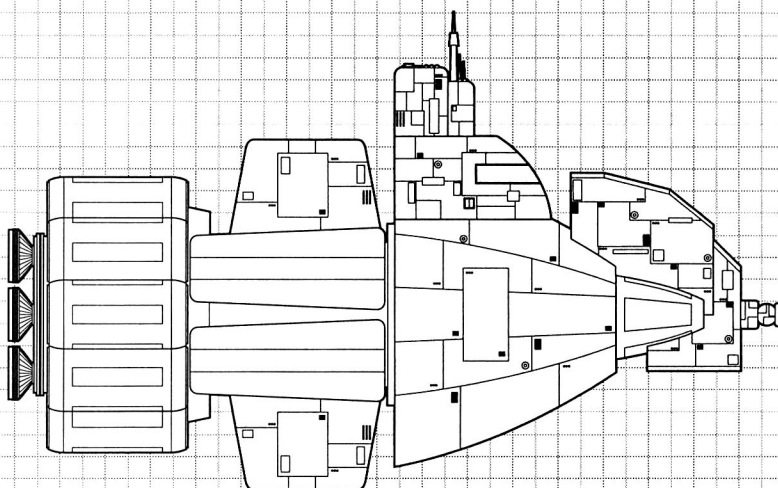
After the ice had retreated and humanity was organized under the prosperity of the Human Concordat, a new possibility for interstellar travel revealed itself: the Tannhauser discontinuity and the Gate that opened when it was bombarded with rare particles. In time, after nearly three centuries of investigation, testing and discovery, humanity was prepared to take its second, much larger step to the stars. Constructed in orbit around the Earth's Moon and launched in AD 4650, the HCS *Keldysh* would be the first manned ship to travel through a Gate. The *Keldysh's* crew consisted of six exceptionally well-trained men and women chosen from hundreds of candidates from across the Solar System. Led by Captain Elido Carlomagnes, the crew included a navigator/astronomer, a medic, a Gatedrive engineer, a geoscientist and an in-system pilot who also served as an engineer for the ship's more mundane systems.

The *Keldysh* was outfitted very much like an ordinary Gatedrone; in fact, its general hull design was taken directly from the Vanguard series of Gateprobes being used to conduct the unmanned exploration of the Solar System's only known Gate. Three major components marked it as dramatically different from a Vanguard probe, however. The most obvious difference was the addition of a life support module to keep the crew alive during the voyage; because the crewmembers would be cut off from contact with Earth for over a month, the module was designed to rotate about the long axis of the ship in order to provide a sense of gravity and keep them as comfortable as possible. The second difference was the ship's hangar. In order to conduct possible repairs on the ship or to conduct brief surveys of the solar system on the other side of the Gate, the *Keldysh* included two in-system shuttles. Finally, the ship included a fully functional backup Gatedrive along with enough components to construct most of a third drive should something catastrophic occur to the ship during its voyage. The Concordat would take no chances on getting the ship and its crew home safely; failure could mean the end of manned exploration of space.

Fortunately, the mission was a resounding success and all crewmembers returned safely to Earth. The *Keldysh* never underwent any further missions; it was retired immediately upon its return and placed in orbit around the Moon as a monument to the exploration of space. As an interesting historical footnote, the ship took its name from Mstislav Keldysh, one of the most important political figures from the 20th century. Keldysh was instrumental in convincing the heads of two mutually hostile Earth leagues to join together in the peaceful exploration and utilization of space.

Vehicle Specifications

Name:	HCS Keldysh	Length:	350 meters
Origin:	Earth	Width:	250 meters
Manufacturer:	Human Concordat Space Explorer Corps	Height:	250 meters
Type:	Manned Gateship	Main Drive:	4 x Fusion Tubes
Crew:	6	Reaction Mass:	65,000 tons Water (5000 BP)
Empty Weight:	65,000 tons	Total Thrust:	4 x 28,500,000 Newtons
Loaded Weight:	130,000 tons		





Gatedrones - 2.3.2

With the discovery and explanation of Tannhauser discontinuities during the 44th century and the development in the 45th and 46th centuries of a functional Gatedrive to exploit them, the stars were at last open to the human race. The first stages of this great endeavor required the use of unmanned drones — Gatedrones — to determine exactly to where a Gate led. More importantly, humanity needed to know what effect travel through a Gate would have on electronic systems and, through the use of test animals, what effect it would have on biological systems. The Vanguard series of drones, based loosely on the original probe developed by the Sagan Institute of Science to determine the nature of the discontinuities, represented humanity's first efforts at exploring the Gates. Later, during the manned phase of interstellar exploration, Gatedrones were used for initial surveys and probes of what was rapidly becoming known as the Interstellar Gate Web. Sending a drone was far cheaper than sending a human crew, especially when a particular branch of the Web didn't appear to pan out after a few jumps. Following the development of second-generation Gatedrives, the issuance of Gatedrones such as the Zagreus series became even cheaper — though still by no means inexpensive.

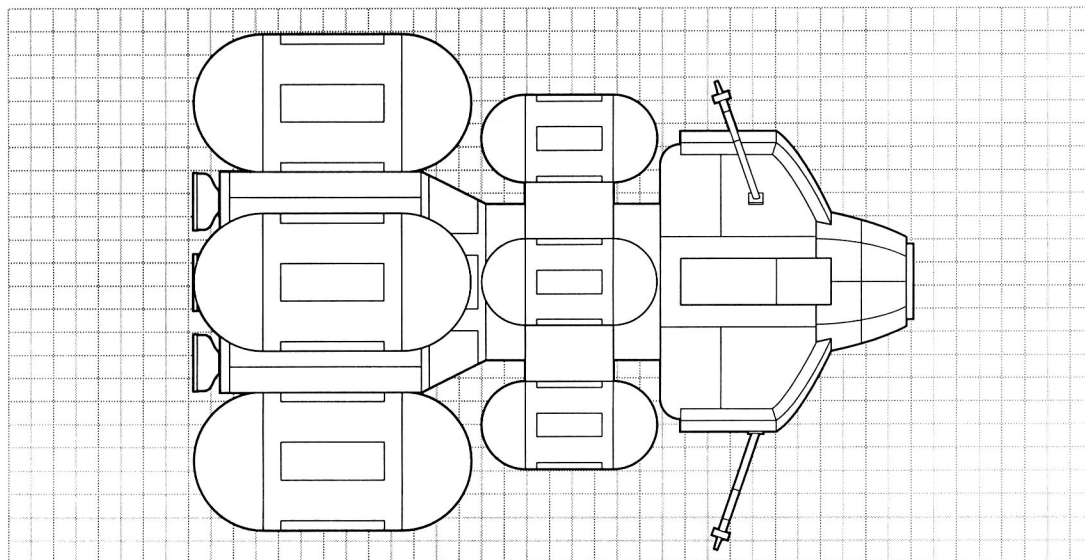
Upon arrival in a new star system, the Gatedrone's first task was to locate itself in space and — hopefully — identify the system in the catalog of known stars. The drone accomplished this task by conducting observations of the brightest stars and comparing their relative locations in space to the locations of the brightest stars in the catalog. Too often, however, the data points were inconclusive and a star system's actual location was a mystery. After all, a single trip through a Gate might take a ship all the way to the opposite side of the galaxy, and such distances made the comparison of observations difficult at best. A second catalog of stars produced from observations from the Loki system, however, helped in the determination of a drone's location.

The second stage of exploration required the Gatedrones to systematically explore the new star systems' local space. During these surveys, the drones conducted observations of any planetary bodies of the system as well as hunted for new Tannhauser discontinuities. This phase generally took a few years, since the drones had to conserve enough reaction mass to return home and acquiring new mass during the voyage was generally unreliable at best.

The Gatedrone is basically an automated research Gateship comprising only the barest essentials: a Gatedrive, fusion tubes for local propulsion, reaction mass tanks and a powerful array of sensors. Modern drones are little-changed from their ancestors; the primary difference is that the third-generation Gatedrives allow the drones to be substantially smaller and to probe the smaller micro-Gates that have recently come to the forefront of stellar physics. These drones are used more for military purposes than pure exploration; the CEF is redoubling its efforts to exploit the newest additions to the Interstellar Gate Web for use in its mission of conquest.

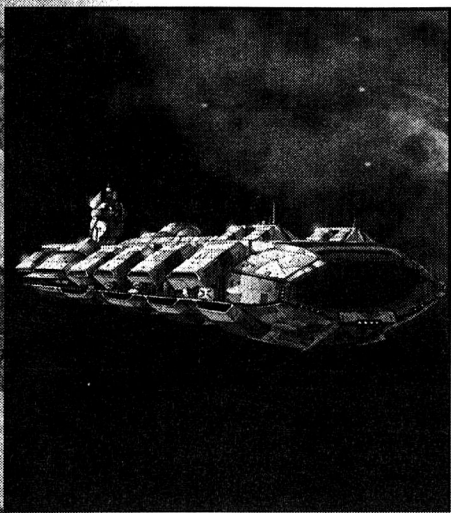
Vehicle Specifications

Name:	Zagreus-series Gatedrone	Length:	130 meters
Origin:	Caprice	Width:	70 meters
Manufacturer:	Caprice Ships Interstellar	Height:	35 meters
Type:	Human Concordat Gatedrone	Main Drive:	4 x Fusion Tubes
Crew:	None	Reaction Mass:	9500 tons Hydrogen (500,000 BP)
Empty Weight:	1900 tons	Total Thrust:	4 x 14,250,000 Newtons
Loaded Weight:	11,400 tons		





2.4 - UMFGS LABAN EMUROS



The UMFGS *Laban Emuros* is arguably the most important spaceship in Helios orbit, rivaled only by the SRGS *Illustrious*. Together, during recent cycles, these two ships have criss-crossed the Helios system, monitoring the coordinates of the known emergence points for CEF covert operations in the system. The *Laban Emuros* has been the staging point for nearly every Black Talon mission launched against the CEF-occupied Loki system and is the first sight most returning missions see when they cross the Gate and arrive home.

The *Laban Emuros* is nearly 500 cycles old. The Terranovan General Products consortium commissioned her in TN 1441 using Human Concordat subsidies. Her hull was completed in TN 1450 (AD 5787) by Canttonni-Rand at the Monolith Shipyards in orbit around Caprice; she was one of the last ships constructed there before the Concordat withdrew from its colonies in TN 1454 (AD 5790). In TN 1452, representatives of Terranovan General Products received the ship and piloted her to her new home, a docking station in orbit around Poseidon, where the company set about preparing her for her first mission. Outfitted with the latest Gatedrive and capable of supporting three hundred crewmembers for over five cycles without assistance or re-supply, the ship was to serve the consortium by providing passage for its own freighters and by leasing operations time to those of other, non-member companies. While it would spend most of its time in the Helios system, its long-range capabilities meant it was capable of using the Helios system's original Gate, Gate I (which was a much longer, more circuitous route), to reach Caprice if it so needed.

2.4.1 - Service Record

Few were more surprised than the heads of the consortium's member-corporations when the Concordat abandoned the colonies. The *Laban Emuros* was undergoing initial shakedown operations at the time and was located in the system designated simply as CP-03/4727.4 (named after its Gate), two jumps from either Caprice or Terra Nova and out of contact with its home base. As a result, the panicked owners were forced to book passage on another ship. When the *Laban Emuros* returned to the Helios system in TN 1456, its crew was surprised to discover that its parent corporations had fled and no longer existed on Terra Nova. There were standing orders at the ship's docking facility for it to make its way to Caprice and, ultimately, Earth, but after some mostly non-violent debate, the crew elected to remain in the Helios system. They were, after all, native Terranovans.

The *Laban Emuros* served a brief stint of operating as an independent political entity in the Helios system, providing occasional transfer to Caprice and largely operating on a shoestring budget. In TN 1567, by unanimous vote of the crew of a mere 120 individuals, the *Laban Emuros* joined the United Mercantile Federation, which had already managed to purchase the ship's docking facilities. From that point on, the Gateship provided exclusive service to Mercantile corporations as they undertook trade with Caprice.

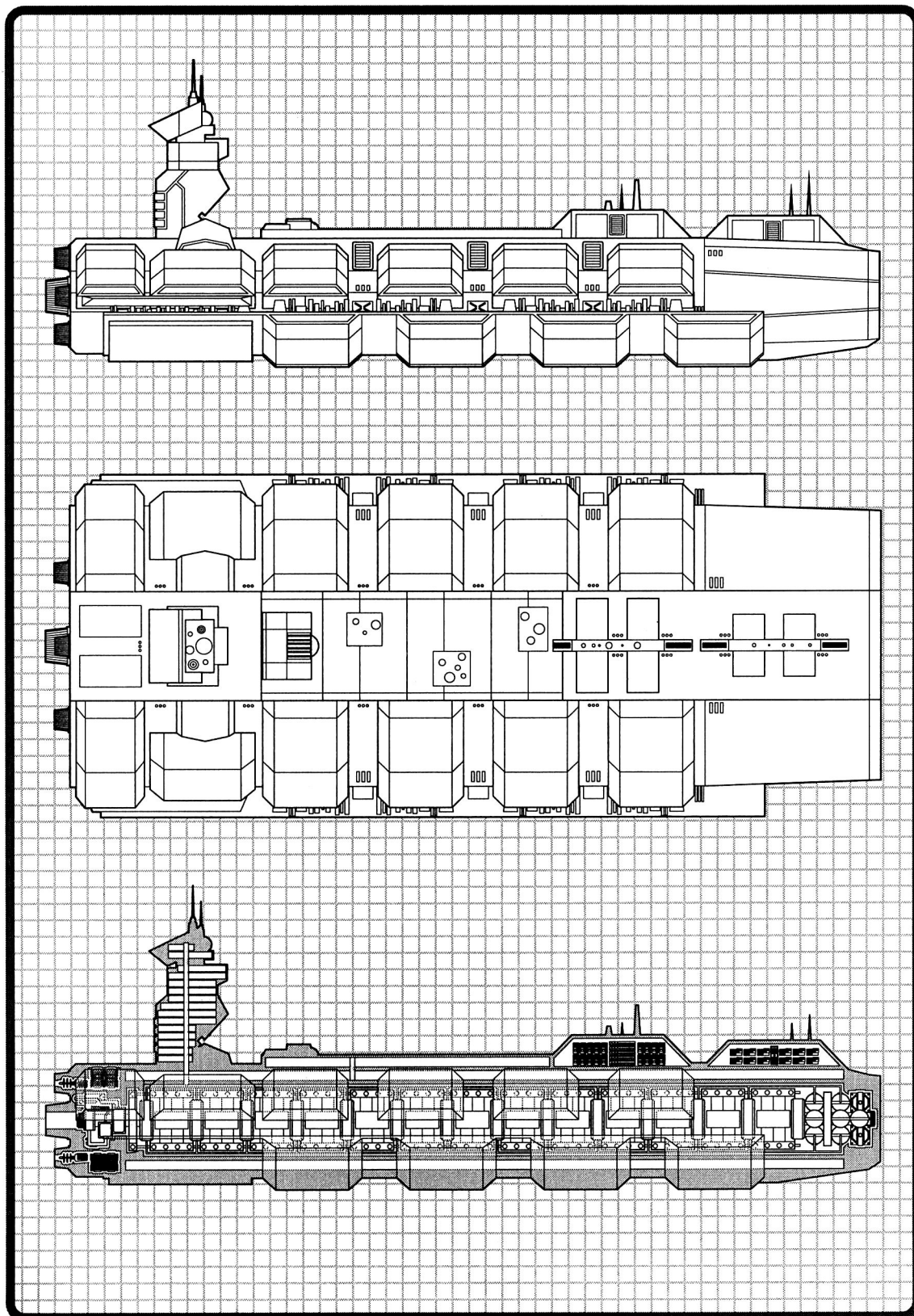
These operations ceased in TN 1913 when the New Earth Commonwealth's Colonial Expeditionary Forces invaded the Helios system. At the time, the *Laban Emuros* was in dry-dock at its Poseidon facility and was therefore largely spared the predations of the War of the Alliance. It was thus the first ship to operate under the Joint Terranovan Space Initiative (JTSI) to monitor Gate I and Gate II for the probable return of the CEF.

◆ In Search of Micro-Gates

When the Confederated Northern City States dissolved the JTSI in TN 1935 in answer to the Southern Republic's duplicitous handling of its own space forces, operational control of the *Laban Emuros* was transferred to the Northern Guard Space Service, the CNCS military's space exploration and defense corps. It spent a cycle posted at Gate I before moving to its new port in orbit around Ares. There it underwent the transformation that would take it into the true forefront of the defense of the Helios system. Receiving an advanced sensor system developed during the War of the Alliance, the *Laban Emuros* began prowling the Helios system in search of possible "micro-Gates." These objects, curious phenomena postulated by Dr. Gawa'n Di Smit, would prove to be a very real hazard to the defense of the system: for cycles, the CEF had been covertly inserting its agents in order to gather intelligence on Terra Nova, to incite unrest and to prepare for the CEF's return. This information was revealed when the *Laban Emuros* encountered a renegade Gate Coffin carrying Helena Del Pulciano, a leader of the resistance movement on Caprice. With her help, the Terranovans learned of the existence and location of the several micro-Gates the CEF had been exploiting, and the Black Talon program was launched.



Deck Plans - 2.4.2





2.4.3 - Recreational Facilities

The 300-person crew aboard the *Laban Emuros* rotates back to Terra Nova every other season. During their 84-day long tours aboard the ship, tensions can sometimes run high. As many crewmembers are fond of pointing out to rookies, the only thing worse than having no pressing mission besides hunting for micro-Gates is waiting for a Black Talon mission that's late returning through the Gate. Fortunately, the large, rotating habitation sections of the ship are relatively spacious. Over the centuries, the crews have installed numerous recreation facilities to pass the time between Gate openings, and the recent crews that have served during the Black Talon program are no exception.

In addition to several standard workout rooms to counter-act the effects of weightlessness on the body, the ship has two "competition-sized" swimming pools. These are not as wide as regulation pools, and they are curved with the hull, but they are certainly of regulation length. Visitors are often surprised to find them nestled in Habitat Two. Habitats One, Three, and Five feature running tracks that encircle the entire habitat and which provide a grand total of almost a full kilometer of running space. Habitat Four holds the prize of the post-War of the Alliance crews: a very small, scaled-down soccer field that allows four-on-four matches. The field, which is very hard to play on until one adapts to the hull's curvature, is well-known throughout Terra Nova's active Gateship fleet. Whenever the *Laban Emuros* happens to be in the vicinity of another Gateship — most often the SRGS *Illustrious* — the ships' captains usually concede to a small, informal series between each ship's best players. So far, since the *Illustrious* and the *Laban Emuros* met in TN 1939 to begin monitoring CEF-used micro-Gates, the *Emuros-Illustrious* Series is tied at seven wins each. The captains encourage these friendly rivalries, since they help put both crews at ease when operating together.

2.4.4 - Vehicle Hangars

As a commercial Gateship, the *Laban Emuros* was expected to spend most of its time keeping station near one of the Helios system's two Gates. While apparently a trouble-free occupation to outside observers, it is nevertheless a costly endeavor that requires dozens of secondary daughtercraft to complete. These minor vessels range from simple guidance drones, which help a client ship navigate into position before the Gate is opened, to powerful tugs to help manage traffic around a Gateship. For a ship like the *Laban Emuros*, which can make its own long-range journeys, fuel harvesters and transport ships round out its complement; these are used to refuel its enormous reaction mass tanks while in mid-journey. The *Laban Emuros* includes a dozen hangars of various sizes to accommodate its daughtercraft. Holds One through Six are massive affairs capable of housing its tugs and harvesters. Holds Seven and Eight are considerably smaller and are primarily used for small-craft operations; they can be fully pressurized if needed. The remaining four, medium-sized holds were originally used for in-system shuttles and other such craft.

Under its current mission with the Black Talon operations in and out of Caprice, however, Holds Nine through Twelve have been relegated to Black Talon support. Most missions are staged from these bays, and they provide a temporary home for the Black Talon Furies while the teams undergo final preparations for the transfer to Caprice. Holds Eleven and Twelve can be pressurized just like their smaller kin, and they are equipped for quarantine operations in the unlikely event that screening on the Liberati facility on Carthage in the Loki system (Operation Mother's Milk; see the *Liberati Sourcebook*, p. 47) fails to catch biological contaminants on returning Black Talon operatives. The SRGS *Illustrious*, which is involved in only a handful of Black Talon operations, maintains facilities similar to those of the *Laban Emuros*.

◆ In the Presence of Giants

"I was there at the beginning, and I'm not giving up my post for anyone. Not a chance. I'm just a little guy, right, nobody particularly important — a private in the UMF Space Defense Corps who drew the short straw and got assigned to the *Emuros*, a hell of a job back then when I drew it. Now, though, with all that's happened and all that continues to happen, I wouldn't trade it for anything.

"I was on duty, calibrating the sensor cluster for Dr. Di Smit, when we detected Miss Del Pulciano's Gate Coffin entering the system. Sweet prophet, you can't imagine how we all felt while watching that micro-Gate open for us like the eye of god and a small, unknown ship drifted through, tumbling and scattering debris.

"I swear Dr. Di Smit yelled, like she was surprised to see all her careful work prove correct on what might as well be called our first try. It's like she secretly doubted herself, like it would all turn out to be some gigantic mistake on her part. Anyway, I'm the one who pulled open the hatch on the Coffin in Hold Eight. I'm the first Terranovan ever to lay eyes on Miss Del Pulciano. Yeah, she was in hibernation at the time, but still... Giants roam these corridors, you know, probably the most important people in the recent history of our great planet. And they all eventually say 'Hi' to me. Like I said, I'm not giving this up for anything."

— Private Ezekiel Collins, UMFGS *Laban Emuros*

Part:	Conning Tower	Speed	Weapons:	Unit ID #:	Round Notes:
Threat Value:	8581	Combat/Top: /	Name	Fire Arc	0:
Size:	25 (450 tons)	Speed	S	M	1:
Crew:	35	Combat/Top: /	L	EX	2:
Bonus Actions:	5	Maneuver: -10	Acc.	Dam.	3:
Piloting :	/	Fire Control: -5	ROF	Special	4:
Gunnery:	/	Armor: 50/100/150	x	Ammo/Left	5:
Leadership:	/	□□□□□ □□□□□	x		6:
EW:	/	□□□□□ □□□□□	x		7:
Tactics:	/	□□□□□ □□□□□	x		8:
Sensors:	+3/20 km	□□□□□ □□□□□	x		9:
Communications:	+3/100km	□□□□□ □□□□□			10:
Perks & Flaws: Anti-Missile Systems (R3, 200 rnds), Backup Systems, Ejection Systems, ECM (R5), ECCM (R5), Emergency Medical, Haywire Resistant, HEAT-Resistant Armor (R20), High Cap. Computer, HEP (Ext. Cold, Radiation R5, Vacuum), Lab (Leadership R1), Life Support (Full), Satellite Uplink, Trideo Link-up, Large Sensor Profile (R2), No Engine, Sensor Dependent					

Part:	Railgun Turret	Speed	Weapons:	Unit ID #:	Round Notes:
Threat Value:	3050	Combat/Top: /	Name	Fire Arc	0:
Size:	25	Speed	S	M	1:
Crew:	4	Combat/Top: /	L	EX	2:
Bonus Actions:	3	Maneuver: -10	Acc.	Dam.	3:
Piloting :	/	Fire Control: 0	ROF	Special	4:
Gunnery:	/	Armor: 30/60/90	x	Ammo/Left	5:
Leadership:	/	□□□□□ □□□□□	x		6:
EW:	/	□□□□□ □□□□□			7:
Tactics:	/	□□□□□ □□□□□			8:
Sensors:	1/2 km	■□□□□ ■□□□□			9:
Communications:	-3/10 km	■□□□□ ■□□□□			10:
Perks & Flaws: Automation (R4), Backup Systems, Ejection Systems, Emergency Medical, HEAT-Resistant Armor (R10), HEP (Ext. Cold, Radiation R5, Vacuum), Life Support, Reinforced Crew Compartment, Shielded Weapons, Weapon Link, Large Sensor Profile (R2), No Engine, Sensor Dependent					

Part:	Heavy Laser Turret	Speed	Weapons:	Unit ID #:	Round Notes:
Threat Value:	3235	Combat/Top: /	Name	Fire Arc	0:
Size:	25	Speed	S	M	1:
Crew:	4	Combat/Top: /	L	EX	2:
Bonus Actions:	3 Actions	Maneuver: -10	Acc.	Dam.	3:
Piloting :	/	Fire Control: 0	ROF	Special	4:
Gunnery:	/	Armor: 30/60/90	x	Ammo/Left	5:
Leadership:	/	□□□□□ □□□□□	x		6:
EW:	/	□□□□□ □□□□□			7:
Tactics:	/	□□□□□ □□□□□			8:
Sensors:	+1/2 km	■□□□□ ■□□□□			9:
Communications:	-3/10 km	■□□□□ ■□□□□			10:
Perks & Flaws: Automation (R4), Backup Systems, Ejection Systems, Emergency Medical, HEAT-Resistant Armor (R10), HEP (Ext. Cold, Radiation R5, Vacuum), Life Support, Reinforced Crew Compartment, Shielded Weapons, Weapon Link, Large Sensor Profile (R2), No Engine, Sensor Dependent					

Part:	Gatling Laser Turret	Speed	Weapons:	Unit ID #:	Round Notes:
Threat Value:	3492	Combat/Top: /	Name	Fire Arc	0:
Size:	25	Speed	S	M	1:
Crew:	4	Combat/Top: /	L	EX	2:
Bonus Actions:	3 Actions	Maneuver: -10	Acc.	Dam.	3:
Piloting :	/	Fire Control: 0	ROF	Special	4:
Gunnery:	/	Armor: 30/60/90	x	Ammo/Left	5:
Leadership:	/	□□□□□ □□□□□	x		6:
EW:	/	□□□□□ □□□□□			7:
Tactics:	/	□□□□□ □□□□□			8:
Sensors:	+1/2 km	■□□□□ ■□□□□			9:
Communications:	-3/10 km	■□□□□ ■□□□□			10:
Perks & Flaws: Automation (R4), Backup Systems, Ejection Systems, Emergency Medical, HEAT-Resistant Armor (R10), HEP (Ext. Cold, Radiation R5, Vacuum), Life Support, Reinforced Crew Compartment, Shielded Weapons, Weapon Link, Large Sensor Profile (R2), No Engine, Sensor Dependent					

Part:	Missile Turret	Speed	Weapons:	Unit ID #:	Round Notes:
Threat Value:	4274	Combat/Top: /	Name	Fire Arc	0:
Size:	25	Speed	S	M	1:
Crew:	4	Combat/Top: /	L	EX	2:
Bonus Actions:	3 Actions	Maneuver: -10	Acc.	Dam.	3:
Piloting :	/	Fire Control: 0	ROF	Special	4:
Gunnery:	/	Armor: 30/60/90	x	Ammo/Left	5:
Leadership:	/	□□□□□ □□□□□	x		6:
EW:	/	□□□□□ □□□□□			7:
Tactics:	/	□□□□□ □□□□□			8:
Sensors:	+1/2 km	■□□□□ ■□□□□			9:
Communications:	-3/10 km	■□□□□ ■□□□□			10:
Perks & Flaws: Automation (R4), Backup Systems, Ejection Systems, Emergency Medical, HEAT-Resistant Armor (R10), HEP (Ext. Cold, Radiation R5, Vacuum), Life Support, Reinforced Crew Compartment, Shielded Weapons, Weapon Link, Large Sensor Profile (R2), No Engine, Sensor Dependent					



EULOGY



Sous-Caporal Julian Renard stood at rigid attention inside the cramped passenger deck of the nameless in-system transport craft, identified merely as "SRS-21-32" on its hull. His feet planted firmly on the metallic deck plates and held in place by detachable magnetic pads on the bottoms of his spotless boots, Julian was awash with conflicting emotions. Like any model Republican soldier, however, he kept it hidden beneath a face that might have been wrought from stone, his expression identical to those of the deck's fourteen other occupants.

The ship was in a holding pattern around the massive bulk of the SRGS *Illustrious*, along with three other transports. A fifth shuttle glided silently through space, visible on the cabin's monitors as a tiny speck, the outline of blinking lights marking its position for all other craft to see.

Julian once again underwent a pendulum's swing of emotion, reaching an elation that he could never express as anything but half-words to his friends back home. Barely 200 kilometers away was the pride of the Republican space fleet, a Gateship a thousand times the better of the UMF's *Laban Emuros*. The *Illustrious* was the first Southern defense against the invasion everyone in the combined space forces knew in their hearts would be coming any day now. According to rumor, the Emuros would run and hide the instant the Earthers returned, but the *Illustrious*...

The *Illustrious* and her Richelieu and Chimera escorts would stand and fight and burn a holy hell through the enemy fleet, ripping the very fabric of space to keep those bastards away from the homeland. Some rumors suggested the Commandant would even turn the Gatedrive on the enemy if he had to. There were other rumors about the Commandant, too, but Julian chose to ignore them. No one in charge of such a magnificent creation as the *Illustrious* would betray the Republic. Impossible!

"Atten-SHON!" The *Illustrious'* Master of Arms' voice echoed through transport. Julian imagined it echoing throughout every ship in the local fleet, from the *Illustrious* down to the pair of Space Hog Gears keeping station beside SRS-21-32. On the cabin monitor, the image of the tiny silhouette of the lone shuttle changed to a much closer view of the ship, as captured by a remote camera drone. Julian's emotional pendulum swung back the other way and his legs buckled. He was shamefully thankful that the absence of gravity meant his lack of self-control would go unnoticed.

"Tell brave deeds of war. Then they recounted tales," began Commandant Maxwell, his voice calm and deep over the intercom. On the monitor, the shuttle's rear drop bay yawned silently open. "There were stern stands and bitter runs for glory." With the graceful precision of a few simple laws of motion, first one, then another and another—A handful of coffins slid soundlessly into the void. "Ah," continued the Commandant, reading a simple eulogy, "I think there were braver deeds.

"Each of us is a vital piece in the great machine that defends our beloved homeland," the Commandant continued. "When one of us fails to return home, we all suffer. These men and women died not in combat, but in the act of saving other lives." Julian gulped, mentally picturing the ruptured reaction mass tank of the freighter inbound from the Helios Kuiper belt, the squad of rescue workers from the fleet's Oberon desperately struggling to free trapped crew before increasing pressure in a second tank reached critical levels. They hadn't made it.

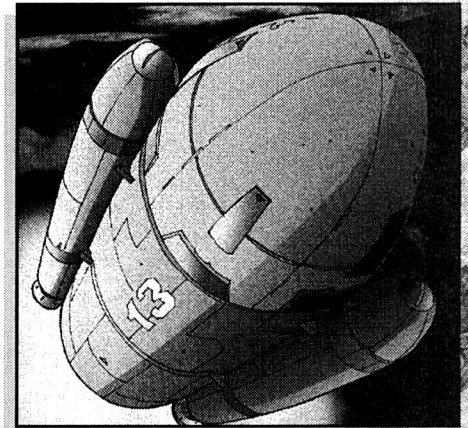
"We are diminished by their loss, but we are strengthened by their sacrifice. In the coming cycles, we will all be tested in ways we never dare imagine. When it comes, we must remember those who have put their lives on the line for us." He paused. "We commit the bodies of these brave men and women to the stars..."



TERRANOVAN SPACE ASSETS - 3.1

From a transport en route to the ice planet Hades, to a transfer ship engaged in repairs on the Hermes 72 satellite constellation, to the massive Gateships that guard the entrances to the Helios system and comb the edge of the system for more, there is a wide variety of spacecraft originating from Terra Nova. The needs of spacers, both civilian and military, are many and varied. To support them, the world requires a complex network of spacecraft of every kind. Destroyers patrol the frontiers of the planet while cargo ships and shuttles bring supplies and personnel from planet to space station and back again. Civilian ships outnumber those of the military by some margin, yet the armed forces more than make their presence felt.

Although Terranovan spaceships are not few, they are also not many. Spacecraft are not mass-produced — there simply is not the demand for thousands upon thousands of ships to crowd the void. For one thing, the amount of capital required to set up a single successful space venture is prohibitive. For another, especially for the military, the personnel cannot be found, or spared from more important tasks on the planet. So while Terranovan spaceships may be broadly classified by their function and design, each and every vessel is a unique product of the hands that made her, with features and peccadilloes not shared by any other craft.



Space and Terra Nova - 3.1.1

There was a time, during the early colonial period, when trade dominated space travel in the Helios system. Earth-based corporations invested heavily in Terra Nova, as in the other colony worlds, and the Tannhauser Gates were in frequent use. Centuries of isolation changed this mercantile emphasis into one of primary industry — mining the asteroids and planets for resources. The invasion of the Colonial Expeditionary Force changed this again. Maintaining an advanced warning system and a defensive fleet became the order of the day, and provided an excuse for some more one-upmanship between the North and South.

Now, though the combined militaries of the polar confederations may not account for most of the Terranovans in space, they certainly account for the bulk of the money. Vast amounts of marks, dinars and man-hours are being ploughed into the development of military space facilities. From fighter craft to the shared deep space early warning system, the space around Helios is currently undergoing a military build-up like never before. This does not consist so much of building new spacecraft — Terra Nova lacks the resources to do much more than maintain ships left behind by the colonists — but rather in the increasing armament of anything space-worthy. New production proceeds at a limited rate as it both costly and time-consuming.

Every day, as the military sphere of influence in space expands, it encroaches on the livelihoods of civilian spacers whose work, they would argue, is just as important to Terra Nova as that of the military. Nonetheless, ice miners and transport captains increasingly find their routes diverted or harbors blocked for hours at a time, while some polar officer commandeers the local area for the use of the fleet. As much as this annoys the civilians, their opposites are more powerful and better armed, so there is little to be done. Only a few spacers, vassals to some of the mightier corporations on Terra Nova, can make their demands to the military and expect to have them accepted.

◆ Space Race

That the two hemispheres of Terra Nova extend into space is no secret. Though the lunar and orbital bases remain friendly rivals rather than outright enemies, a covert competition for space superiority continues between the CNCS and AST. As with pretty much everything, the North and South differ in their approach to the escalation of space assets.

The CNCS continues to pour money into military spending and is currently ahead of the AST in terms of sheer quantity of military spacecraft. On the other hand, there are a greater number of privately owned civilian ships that originate from the South. The Southern military is much more willing to use civilian contractors for non-critical logistical assignments in space than their Northern counterparts. This frees up money to spend on more research and design, as well as more sophisticated craft and facilities for purely military purposes. Only time will tell which doctrine will come out ahead.





3.2 - JOMINI-CLASS MINESWEEPER

The Jomini-class minesweeper is a relatively modern Southern ship, having entered service during the height of the Judas Syndrome tensions. The Jomini class, like the Savoy class it replaced, is designed to act as a screening vessel against the swarms of drones and mines common in space battles. To this end, it is equipped with a highly advanced, powerful sensor array and armed with an pair of rapid-fire laser cannons to engage multiple targets. The sensor array is one of the most advanced arrays ever developed for a military vessel in Terranovan history. The sensors are extremely precise and can locate and track simultaneously thousands of targets at extreme ranges. The Jomini also fields a powerful ECM/ECCM array to jam the guidance systems of enemy drones and missiles. When used in conjunction with the Jomini's sensor array and a barrage of accurate laser fire, the chances of a successful enemy drone or missile attack are small. The sheer precision and versatility of the Jomini's sensors have caused some pundits to decry the ships as being "an excuse for the government to build an expensive mobile spy satellite." In truth, the Jomini vessels do serve a secondary role as surveillance ships; however this role is more often assigned to drones and satellites, which are far more efficient at the job.

Jomini crews contain some of the top electronic warfare specialists in the South. These men and women are essential to the survival of the fleets they protect and are under constant pressure while on duty. Because of this, Jomini sensor/EW operators are highly respected by other spacers. However, the turnover rate of Jomini EW crews is one of the highest in any Terranovan military. The pressure the sensor/EW operators experience is comparable to that of air traffic controllers.

3.2.1 - Service Record

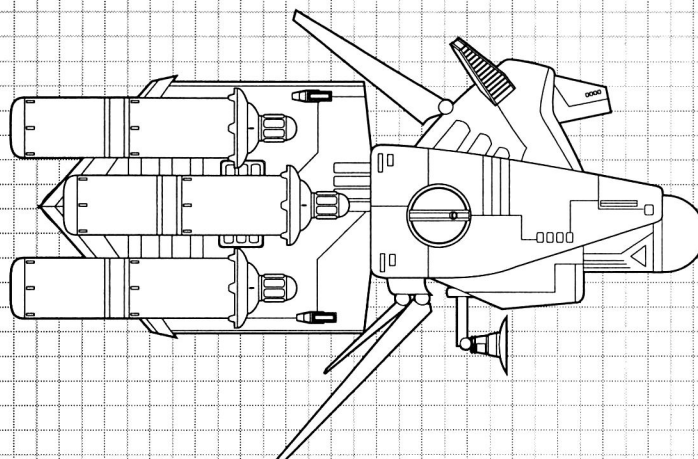
The Jomini has served the Southern Republic well. During the War of the Alliance, Jomini vessels caused many problems for the CEF's 8th Fleet by erecting an ECM screen that prevented the invaders from effectively targeting the Terranovan fleets. Jomini vessels were instrumental in the hit-and-fade tactics employed by the Terranovans in space. In more recent times, the Jomini-class has been relegated to secondary roles, due to the emphasis being placed on better-armed, more powerful ships. However, a new use has been found for the Jomini-class: their powerful sensors are extremely useful in tracking CEF Gatecoffins and Gatedrones. Two ships have been assigned to monitor the areas where the probability of there being microgates is high.

Game Statistics ☐

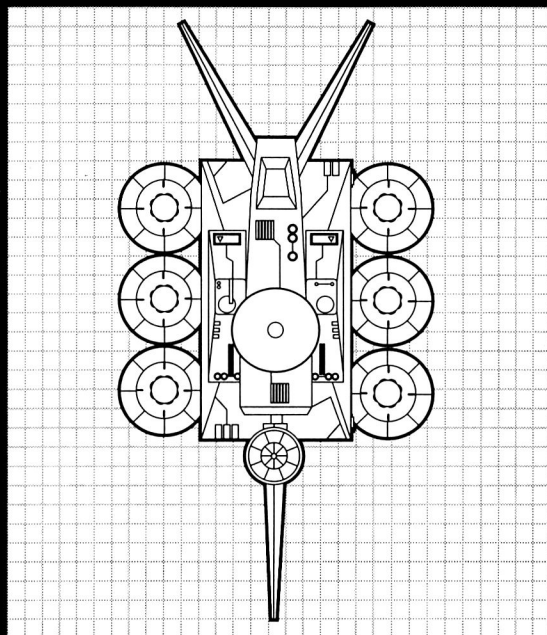
Threat Value:	8255	Offensive:	1472	Defensive:	2770	Miscellaneous:	20523	Lemon Dice:	3
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Vehicle Specifications ☐

Name:	Jomini-class	Length:	63 meters
Origin:	Terra Nova	Width:	48 meters
Manufacturer:	Southern Republic Orbital Shipyards	Height:	45 meters
Production Type:	Early Production	Main Drive:	6 x Fusion Tubes
Cost:	5,500,000 dinars	Reaction Mass:	36 tons Hydrogen (5000 BP)
Empty Weight:	725 tons	Use:	Minesweeping/Screening
Loaded Weight:	830 tons	Total Thrust:	6 x 5,500,000 Newtons



JOMINI-CLASS MINESWEEPER



ARMOR DAMAGE

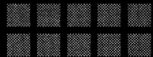
50



60



70



80



90



GENERAL SPECIFICATIONS

• THREAT VALUE: 8255 • SIZE: 30 • COST: 5,500,000 dinars

WEAPONS

NAME	CODE	FIRE ARC	S	M	L	EX	Acc	Dam	Qty	ROF	Special
Laser Emitter	HGLC	T	2	4	8	16	+1	X16	1	+1	-3RB
Laser Emitter	HGLC	T	2	4	8	16	+1	X16	1	+1	-3RB

AMMO

FULL	LEFT
100	
100	

PERKS

NAME	RATING	GAME EFFECT	AUX
Autopilot	-	Acts as Level 1 pilot	YES
Backup Systems	-	Absorbs first hits for all systems	-
Cargo Bay	-	500 m3	-
Crew Accommodations	-	4 places, military-quality	-
Decoy System	3	Visual and Sensor	YES
ECM	4	Offensive electronic warfare equipment	YES
ECCM	3	Defensive electronic warfare equipment	YES
Ejection System	-	Escape pods, 4 places	YES
Emergency Medical	-	Absorbs first "Crew Stunned" result	-
High Capacity Computer	-	-	-
Hostile Environment Protection	-	Extreme Cold, Radiation (R4), Vacuum	-
Life Support	-	Full	YES
Micro-Lab	-	Athletics	-
Reduced G-Effect	-	Acceleration seats; +1 to FIT checks	-
Satellite Uplink	-	Allows long-range communications	Yes
Sickbay	2	Room for 2 patients	-
Stealth	4	Add to Concealment	YES
Trideo Link-Up	-	Send tactical data back to HG	YES
Vehicle Bay	15	Drone bay (100 tons)	-

FLAWS

NAME	RATING	GAME EFFECT
Sensor Dependent	-	Must have sensors to operate

CREW INFORMATION

• PILOT NAME:

• RANK:

• SQUADRON:

• AFFILIATION:

PILOT (LV/AT): GUNNERY (LV/AT): ELEC. WAR. (LV/AT):

CREW DATA

VEHICLE CREW

• CREW:

4

• BONUS ACTIONS:

+2

CREW DAMAGE

VEHICLE CREW

CREW

BONUS ACTIONS

SYSTEMS DATA

MOVEMENT

• PRIMARY COMBAT SPD: S 23

• PRIMARY TOP SPD: S 45

• SECONDARY COMBAT SPD: - -

• SECONDARY TOP SPD: - -

• MANEUVER: -3

• DEPLOYMENT RANGE: 1800hrs

ELECTRONICS

• SENSORS: +2 20

• COMMUNICATION: +2 50

• FIRE CONTROL: 0

ARMOR

• LIGHT DAMAGE: 70

• HEAVY DAMAGE: 140

• OVERKILL: 210

SYSTEMS DAMAGE

MOVEMENT

COMBAT SPD

TOP SPD

COMBAT SPD

TOP SPD

MANEUVER

FUEL SPENT

ELECTRONICS

SENSORS

COMM

FIRE CONTROL

ARMOR

LIGHT DAMAGE

HEAVY DAMAGE

OVERKILL

WEAPONS

WEAPON 01

WEAPON 02

WEAPON 03

WEAPON 04

WEAPON 05

WEAPON 06

WEAPON 07

WEAPON 08

WEAPON 09

WEAPON 10

PERKS

PERK 01

PERK 02

PERK 03

PERK 04

PERK 05

PERK 06

PERK 07

PERK 08

PERK 09

PERK 10

PERK 11

PERK 12

PERK 13

PERK 14

PERK 15

PERK 16

PERK 17

PERK 18

PERK 19

HEAVY GEAR



3.3 - CHIMERA-CLASS POCKET DREADNOUGHT

The Chimera-class Pocket Dreadnought is a new revamping of a wartime innovation. During the War of the Alliance, with ship losses mounting, a decision was made to arm Terranovan merchant ships and use them as ad hoc warships. Known as Operation Partizan, the various ships were rebuilt in the space docks around Zeus and armed using a surplus store of ship weaponry. Each of the Partizan vessels was unique, as were the weapon configurations installed on them. The vessels and their crews, who were mostly volunteers, performed admirably. The Chimera itself, captained by Ameline Enfield, a Norlight citizen, was involved in several daring actions during the war, including the capture of the warship Baden. Following the dissolution of the Joint Terranovan Space Initiative in TN 1935, the CNCS commissioned a new class of vessel based on the Chimera, which had a successful and proven weapon layout, and chose to honor the ship and the courage of her fellows by naming the new class after her.

The Chimera is longer and sleeker than her destroyer contemporaries but much smaller than the CEF dreadnoughts. Chimeras, designed to engage and destroy enemy ships at a distance, mount two heavy railguns forward and a third aft. Two turret-mounted laser cannons and a light railgun forward complete the anti-ship weapons complement. Two gatling laser cannons provide close defense. Chimeras also feature three large drone bays, two forward for offensive drones and one rear for mines and towed sensor arrays, and carry over one hundred drones. Seven fusion tubes provide thrust up to four gees. New advances in hull shaping assist in reducing the ship's sensor signature, allowing the Chimera to track an enemy and sneak into an optimum firing position. A full ECM/ECCM suite allows the ship to fight on the electronic battlefield.

3.3.1 - Service Record

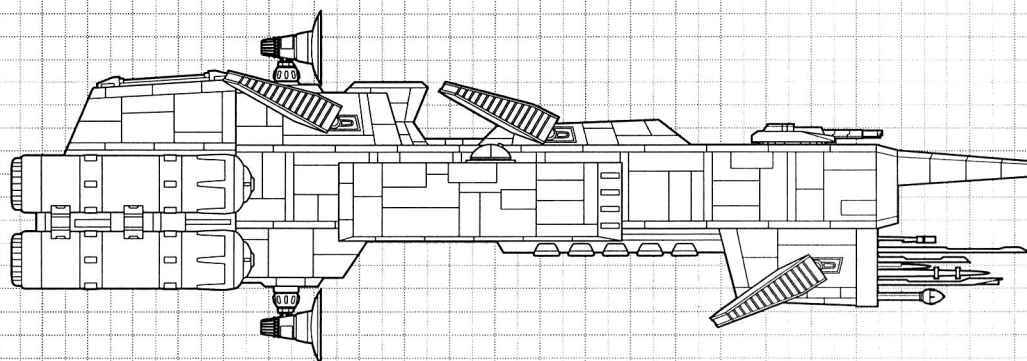
Chimera-class vessels are modeled after the weapon configuration of the original Chimera, which was quite successful in hunting and destroying CEF warships. Although none of the new vessels have seen actual combat, their performance in combat exercises has been exemplary. Three ships, the Chimera, Manticore and Orochi are currently in service and patrolling the two Helios Tannhäuser Gates. A fourth, the Griffin, is currently undergoing space trials and is expected to join her sister ships in a few months. Work on the next ships, Shoggoth, Basilisk and Iroc, is proceeding ahead of schedule. Construction was slow in the beginning, with the space forces having to fight for every mark in the budget. In anticipation of growing conflict with the NEC and a very possible return of the CEF, more funds have been diverted to expand the fleet. It is hoped to have a total of nine ships operational within the cycle.

Game Statistics ☐

Threat Value:	26135	Offensive:	24908	Defensive:	3230	Miscellaneous:	50267	Lemon Dice:	3
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Vehicle Specifications ☐

Name:	Chimera-class	Length:	90 meters
Origin:	Terra Nova	Width:	50 meters
Manufacturer:	Northern Orbital Shipyards	Height:	60 meters
Production Type:	Early Production	Main Drive:	7 x Fusion Tubes
Cost:	14,000,000 marks	Reaction Mass:	235 tons Hydrogen (5000 BP)
Empty Weight:	4700 tons	Assault:	
Loaded Weight:	4950 tons	Total Thrust:	7 x 28,500,000 Newtons





14.000.000 marks

AMMO

[illegible]

▼ PERKS

	PERK 01 •
	PERK 02 •
	PERK 03 •
	PERK 04 •
	PERK 05 •
	PERK 06 •
	PERK 07 •
	PERK 08 •
	PERK 09 •
	PERK 10 •
	PERK 11 •
	PERK 12 •
	PERK 13 •
	PERK 14 •
	PERK 15 •
	PERK 16 •
	PERK 17 •
	PERK 18 •
	PERK 19 •

HEAVY GEAR

PILOT NAME:									
RANK:									
SQUADRON:									
AFFILIATION:									
PILOT (LV/AT):		GUNNERY (LV/AT):		ELEC. WAR. (LV/AT):					

CREW DAMAGE

VEHICLE CREW
CREW •
BONUS ACTIONS •

SYSTEMS DAMAGE

MOVEMENT

COMBAT SPD •
TOP SPD •
COMBAT SPD •
TOP SPD •
MANEUVER •
FUEL SPENT •

ELECTRONICS

- SENSORS •
- COMM •
- FIRE CONTROL •

ARMOR

DAMAGE •
DAMAGE •
OVERKILL •

WEAPONS

WEAPON 01 •
WEAPON 02 •
WEAPON 03 •
WEAPON 04 •
WEAPON 05 •
WEAPON 06 •
WEAPON 07 •
WEAPON 08 •
WEAPON 09 •
WEAPON 10 •



3.4 - SP-3 SHRIKE FIGHTER

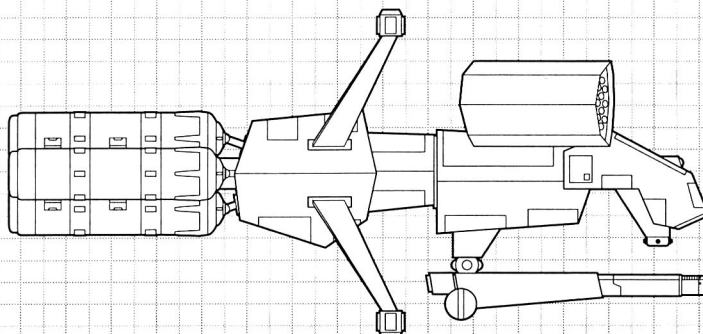
Manufactured by Northco-Applefish at a small shipyard in orbit around Hope, the Shrike is a cramped, ugly vessel with incredible acceleration and deadly firepower. Equipped with a ventral-mounted Westfellows Technologies LOKI-S space-hardened railgun and brimming with DiMaeen Peregrine rockets and RAVEN-II missiles, the Shrike is a brutal vessel capable of utterly destroying a much larger ship during a high-speed lightning strike. Widely used by the UMF Space Defense Corps, it was originally designed for fast attacks in and around Terra Nova's immediate orbital vicinity, including its moons and Lagrange points. With its powerful fusion tubes, it could attain speeds that made it almost impossible for defending units to return fire. During the War of the Alliance, however, the Shrike became one of Terra Nova's premier strike fighters and on-site tactical command vessels for drone swarms. The swarms were launched from Terra Nova, Zeus and Poseidon in pursuit of the CEF's invading 8th Fleet after it was driven from Terranovan orbit.

3.4.1 - Service Record

A capable orbital fighter, the Shrike underwent a dramatic modification within days of the 8th Fleet's withdrawal from Terranovan orbit in TN 1914. In order to provide last-minute tactical information for the drone swarms that preceded Terra Nova's struggling ship fleets as they pursued the CEF forces into the outermost reaches of the Helios system, Shrike fighters were designed to spend nearly all of their reaction mass in high-speed drives. Doing so would put them in long-period, highly elliptical orbits and leave them with little remass for returning home easily. In order to improve crew survivability of these desperate strikes, the cockpit was modified to include cold-sleep modules and the crew reduced to two.

Game Statistics ☐

Game Statistics																							
Threat Value:		3293		Offensive:		3113		Defensive:		4500		Miscellaneous:		2264		Lemon Dice:		3					
Crew: 3		Actual Size: 18 (150 tons)		Default Size: 15				React. Mass: 3 tons Hyd.				Cost: 1,370.000 marks				Armor: 30/60/90							
MOVEMENT MODE						COMBAT SPEED						TOP SPEED						MANEUVER					
Space						45 (4.5 g)						90 (9.0 g)						-2					
Reaction Mass:						2000 BP						Deployment Range:						500 hrs					
Sensors:						0 (4 km)						Communications:						0 (10 km)					
Fire Control:						0																	
WEAPONS																							
Name		Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	ROF		Special				Ammo						
LOKI-S		LRG	T	5	10	20	40	0	x14	1	+2		-				120						
Peregrine Rockets		HRP/48	FF	3	6	12	24	-1	x20	1	+4		Indirect Fire				48						
RAVEN II Missiles		ATM	FF	3	6	12	24	+1	x25	1	0		Guided, IF				4						
PERKS & FLAWS																							
Name		Rating				Game Effect				Name		Rating				Game Effect							
Ablative Armor		10				Front				Reduced G-Effect		-				+1 to FIT rolls							
Autopilot		-				Acts as Level 1 pilot				Stealth		2				Adds to Concealment							
Backup Life Support		-				Absorbs first "Life Support" hit				Target Designator		3				+2 to attack for Guided weapons							
Hostile Enviro. Protection		-				Extreme Cold, Radiation (4), Vacuum				Annoyance		-				Cramped cockpit							
Improved Rear Defense		-				-1 penalties R. and R. Flank defense				Sensor Dependent		-				Must have Sensors to operate							
Life Support		-				Limited																	
Notes:		War of the Alliance Variant: change Life Support to Full; add Sickbay (2 patients), Microlab (cold sleep) and Microlab (drone operations); increase Reaction Mass to 3500 BP and Range to 1000 hrs. TV = 4238.																					





XIONG SHOU-CLASS FIGHTER - 3.5

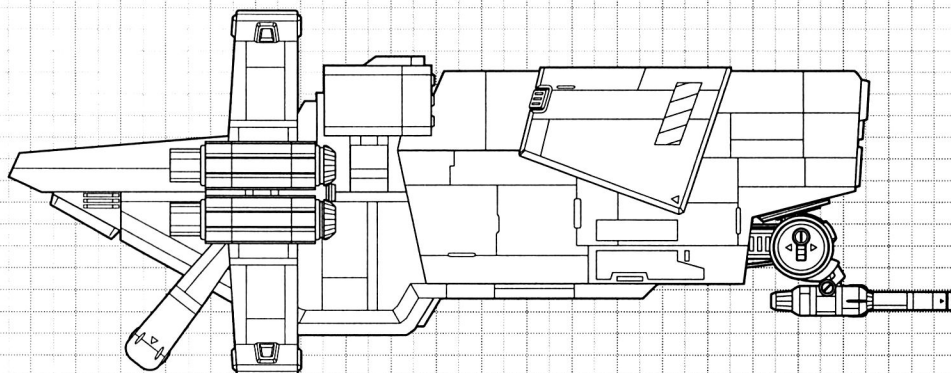
The Xiong Shou class fighter is a two-man craft deployed by the Southern Orbital Defense Corps and several other subordinate departments of the Space Defense Branch, including the former Mekong space assets absorbed by the AST. A fast attack ship, the Xiong Shou is by no means as versatile as the Richelieu-class destroyers that form the mainstay of the Southern fleet. Instead it is optimized to get to a target at a very high speed and take it out as quickly as possible. The Xiong Shou's endurance has been described as "pathetic" and was in fact designed to be so. Provided a Xiong Shou crew can strike first, even against a powerful destroyer, they can often strike last. Survival of an attack mission often requires there to be "one shot, one kill," because a Xiong Shou fighter without that capacity is in big trouble. Though of limited use, a Xiong Shou fighter can be produced for a fraction of the cost of a destroyer, although it requires one of these long-range ships to support it for extended action. A Richelieu can carry two Xiong Shou in its vehicle bays, in addition to a handful of drones. Xiong Shou crews — a pilot and a gunner — are typically assigned together for a long time. It is considered very important for the crew to be able to anticipate each other's actions, and if things go wrong, those two people will have the opportunity to die together a long way from home. All Southern spacers have a great deal of respect for Xiong Shou crew members, but few envy them.

Service Record - 3.5.1

Xiong Shou units are typically paired with Richelieu-class destroyers, which provide them with an extended range. During the War of the Alliance, it was common for the fighters to be sent in advance of a planned engagement to hit critical targets without warning. With each Xiong Shou given a single target, after leaving the fleet, the fighters were alone. With their blistering speed and firepower, the Xiong Shou were often able to deal crippling blows to CEF ships. However, completing the mission was rarely more difficult than escaping retribution from their victims' Terran allies. Most Xiong Shou attack ships never made it back to base.

Game Statistics

Threat Value:		2458		Offensive:		1931		Defensive:		4352		Miscellaneous:		1092		Lemon Dice:		3					
Crew:		2		Actual Size:		18 (150 tons)		Default Size:		13		React. Mass:		3 tons Hyd.		Cost:		888,000 dinars		Armor:		30/60/90	
Movement Mode								Combat Speed				Top Speed						Maneuver					
Space								38 (3.8 g)				75 (7.5 g)						-1					
Reaction Mass:								2000 BP				Deployment Range:						250 hrs					
Sensors:								+1 (4 km)				Communications:						-1 (25 km)					
Fire Control:								0															
WEAPONS																							
Name		Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	ROF	Special				Ammo							
Pulse Laser Cannon		HPLC	T	3	6	12	24	+1	x24	1	0	-4RB				50							
Rockets		HRP/24	F	3	6	12	24	-1	x20	1	+3	Indirect Fire				24							
PERKS & FLAWS																							
Name		Rating			Game Effect						Name		Rating			Game Effect							
Backup Systems		-			Absorbs first hits for all systems						Life Support		-			Limited							
Ejection System		-			Escape pods, 2 places						Stealth		3			Add to Concealment							
Emergency Medical		-			Absorbs first "Crew Stunned" result						Sensor Dependent		-			Must have Sensors to operate							
Hostile Enviro. Protection		-			Extreme Cold, Radiation (R4), Vacuum																		





3.6 - THE CARCOSA

Plying the routes back and forth between the planets, the Carcosa is one of the largest cargo clippers in the Helios system. She can usually be found between Terra Nova and its moons or Ares and Poseidon, though over the years since her manufacture, she has visited every one of the planets that orbit Helios. The Carcosa's captain is Paol "Crazy Man" Hardig, also a major shareholder in the ship's ownership. As the ship's longevity shows, the captain's childhood nickname does not, thankfully, apply to his piloting skills. Captain Hardig operates as an independent contractor taking large cargoes and — less frequently — passengers from place to place. He can often be seen at Hope Moonbase, taking on new spacers as hired hands, distinctive in his yellow jacket. Though a handful of spacers form the ship's regular complement, it is rare for them all to be available at one time. As a result, there are often vacancies for the next voyage.

What makes the Carcosa a particularly valuable vessel is that she is a clipper. Able to enter and leave planetary atmosphere under her own steam, for a bulk cargo journey, the Carcosa can save clients an Emir's ransom in fees for transfer vessels and shuttles. The Carcosa is owned by a cartel of corporations and individuals; Hardig owns a tenth — a gift to him from a high-up relative in Paxton Arms. Some of the other shareholders — who all purchased their stakes in the ship — resent this, but there is little they can do about it. For one thing, the crew seems to consider Captain Hardig synonymous with the Carcosa, often referring to him as "the King." He commands respect from many in the space community — to get rid of him would certainly be more trouble than it would be worth.

3.6.1 - Service Record

The Carcosa was developed by Telfer Spaceworks around TN 1930. Intended to be the basis of a whole class of merchant cutters, the Carcosa project reached massive proportions. Over a hundred companies were sub-contracted as part of the process of design and manufacture. Unfortunately, demand for such ships dried up within a few years. The Carcosa's sister ships, the Magonia and the Sosostris, remain in their hangars, unfinished. In her years of service, the Carcosa has acquired a reputation for reliability second to none. This record is marred only by a month-long 'lost' period during which the Carcosa went missing without trace before reappearing near Ares. Neither Captain Hardig nor any members of the crew are willing to reveal just what happened.

Large cargo clippers are rare — as a result, the Carcosa does not usually have to wait long for a cargo. However, the larger part of customers for space flight do not have either the amount of goods necessary to fill the hold or the need to have their cargo go into atmosphere, instead relying on more conventional orbit-to-orbit ships. As a result, the Carcosa sometimes is forced to lay over for several months at a time.

Game Statistics ☐

Threat Value:	4182	Offensive:	493	Defensive:	1171	Miscellaneous:	10884	Lemon Dice:	1
---------------	------	------------	-----	------------	------	----------------	-------	-------------	---

Vehicle Specifications ☐

Name:	Carcosa	Length:	80 meters
Origin:	Terra Nova	Width:	45 meters
Manufacturer:	Telfer Spaceworks	Height:	30 meters
Production Type:	Late Prototype	Main Drive:	8 x Fusion Tubes
Cost:	10,457,000 marks	Reaction Mass:	270 tons Hydrogen (3000 BP)
Empty Weight:	900 tons	Use:	Intersystem Bulk Cargo Transport
Loaded Weight:	1000 tons	Total Thrust:	8 x 4,100,000 Newtons

Weapon Payload ☐

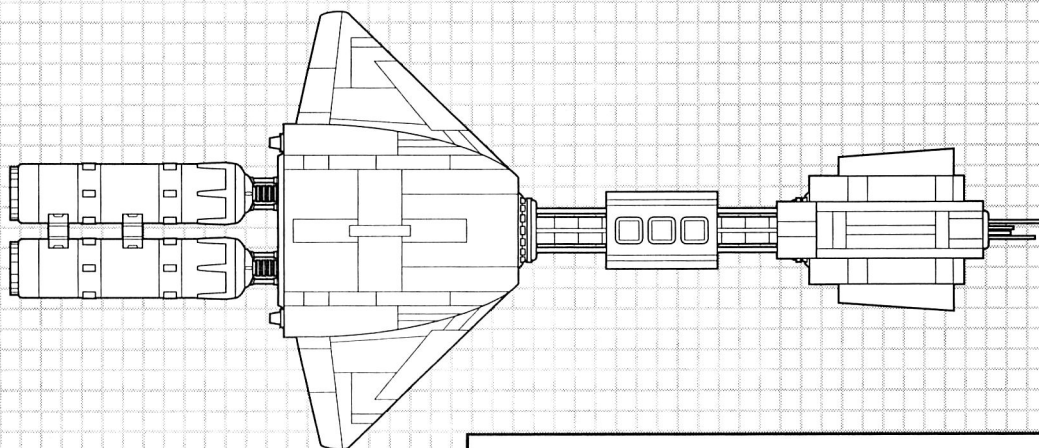
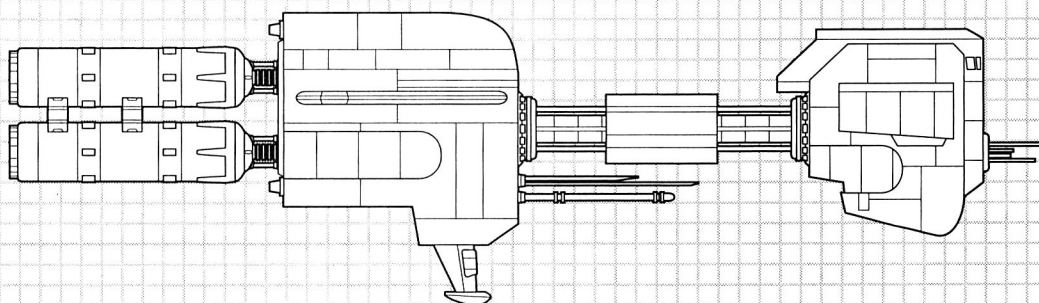
Name	Ammunition Payload	Name	Ammunition Payload
Defense Rockets	18	-	-

Performance Table ☐

•	1.1 g (Terra Nova) local gravity in stratospheric flight
•	5 m/s ² climb rate, 11 m/s ² total thrust
•	1170 seconds to orbit at 429 BP
•	Fully Loaded, 18 m/s ² total thrust
•	1170 seconds to orbit at 702 BP

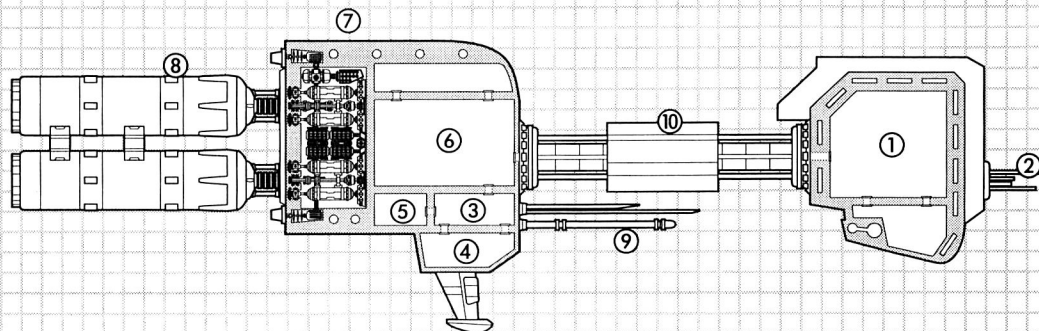


Carcosa Deck Plans - 3.6.2



Legend

- | | | |
|---------|--------------------|------------------------------------|
| 1 | Forward Hold | 6 . Main Pressurized Cargo Hold |
| 2 | Navigation Sensors | 7 . Engineering/Maneuver Engines |
| 3 | Bridge | 8 Fusion Tubes |
| 4 | Crew Quarters | 9 Communication/Sensor Array |
| 5 | Secondary Holds | 10 Cargo Collar |





3.6.3 - This Ship For Hire

The Carcosa is primarily contracted by large corporations that have space interests, which usually means technology and communications companies. Quite often, by the time the Carcosa arrives in dock, the captain has already been contacted en route by a prospective client and the cargo is waiting for the ship at its very next port of call. Final details are assessed, contracts are signed, and the Carcosa has her next voyage ready. Other times, the ship arrives without any cargo to pick up, only to unload. This can, at less populous locations, leave the crew on the horns of a dilemma. They can spend time and money doing nothing until they acquire a contract, or, failing that, they can head for a larger settlement (often in Terranovan orbit) without a cargo, cutting their losses.

Around Terra Nova, there is not generally too much time for the crew to idle around on shore leave. While in port on a layover — planned, anticipated or unexpected — the captain typically goes off looking around the various offices of different haulage companies. The hands, however, will often have signed on for a limited voyage and will depart to look for another job or for passage to the planet. Meanwhile, the Carcosa undergoes refitting and maintenance.

Haulage companies act as agents — it is unusual for any to have their own space craft — and the Carcosa is an accredited ship on many registers. The company that hires the ship also takes care of such details as loading, unloading and permission to land the ship at the destination space facility. Each company usually has a representative office at each of the major Helios destinations.

3.6.4 - Around and About

While on a voyage, the six crewmembers apart from the captain are divided into two watches. These watches then alternate shifts on duty throughout the voyage. Each shift is four hours long, with the exception of the two consecutive “dog watches,” which last for only two hours each. This serves little or no function when in space, but ensures that during maintenance shifts on the ground, each watch is not stuck with being on duty at the same time every day.

The captain is putatively on duty at all times, though as the officer in charge, he can make his own schedule. All hands are required on deck when entering or leaving dock and during emergencies. Otherwise, those crewmen not on duty are free to use their time as they will. The Carcosa boasts a gymnasium and recreation room, though neither of these is so fascinating as to take up a huge amount of anyone’s time. Lately, to kill time, the crew has taken to having free-fall races through the cargo holds. In micro-gravity they can get up to very high velocity, and races often end with the last person to smash into a wall or packing crate being declared the winner. As long as no one is seriously injured, the captain is willing to let these races continue.

3.6.5 - Extra Cargo

Forward of the main section of the Carcosa is the ship’s cargo collar. This structure is used to secure additional containers of cargo on to the ship in space. Running along the length of the collar are a series of movable clamps, to which the individual container modules can be attached. In this manner the Carcosa can increase her cargo capacity to a great degree.

However, the Carcosa’s aerodynamics are designed only with the main body of the ship in mind. When extra cargo is being carried in this fashion, she is no longer capable of entering an atmosphere due to the weight and drag of the cargo modules. It is typical practice for the captain to arrange for cargo to be in orbit, ready for pickup, before the Carcosa takes off from a planet. Sometimes, though, if pickings are lean, the vessel may wait for several days trying to acquire more cargo before she finally sets off on her run.

The crew of the Carcosa inspects the loading of the cargo collar, but is not responsible for unloading at the other end. Having grown impatient with procrastinating dockers, the crew now gives the cargo’s recipients four hours to unload the cargo collar. When this time has elapsed, any cargo modules remaining on the collar are cut loose to float where they will.

[illegible]

• THREAT VALUE: 4182 • SIZE: 32 • COST: 10,457,000 marks

[illegible]

• PILOT NAME: _____

• RANK: _____

• SQUADRON: _____

• AFFILIATION: _____

PILOT (LV/AT): GUNNERY (LV/AT): ELEC. WAR. (LV/AT):

VEHICLE CREW

• CREW:	7
• BONUS ACTIONS:	+2

VEHICLE CREW
CREW •
BONUS ACTIONS •

MOVEMENT	
• PRIMARY COMBAT SPD:	F 10
• PRIMARY TOP SPD:	F 20
• SECONDARY COMBAT SPD:	S 18
• SECONDARY TOP SPD:	S 36
• MANEUVER:	-3
• DEPLOYMENT RANGE:	2000hrs

• SENSORS:	-1	3
• COMMUNICATION:	0	45
• FIRE CONTROL:	0	

• LIGHT DAMAGE:	39
• HEAVY DAMAGE:	78
• OVERKILL:	117

MOVEMENT

- COMBAT SPD •
- TOP SPD •
- COMBAT SPD •
- TOP SPD •
- MANEUVER •
- FUEL SPENT •

	ELECTRONICS
	SENSORS •
	COMM •
	FIRE CONTROL •

	LIGHT DAMAGE •
	HEAVY DAMAGE •
	OVERKILL •

[illegible]

Cannot Glide	-	No appreciable wing surface
Difficult to Modify	-	-1 to all Repair rolls
Large Sensor Profile/ Sensor Dependent	3/-	Subtract from Concealment/ Must have Sensors to operate

WEAPON 01 •

WEAPON 02 •

WEAPON 03 •

WEAPON 04 •

WEAPON 05 •

WEAPON 06 •

WEAPON 07 •

WEAPON 08 •

WEAPON 09 •

WEAPON 10 •

	PERK 01 •
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	PERK 18 •
	PERK 19 •

HEAVY GEAR



3.7 - OBERON-CLASS MASH/RESCUE CUTTER

Any accident in space is potentially extremely dangerous. Long distances make waiting for medical help impractical because the seriously injured will simply die while waiting for it to arrive. Therefore most spaceships carry their own medical supplies and personnel to deal with injuries, and patients are stabilized on their own before MASH units and rescue cutters like the Oberon-class arrive on the scene. The lightly injured stay aboard their own ships since they can soon resume their duties but those too seriously injured for recovery are moved to the Oberon for further treatment in its hospital facility. The result of a stay aboard an Oberon is often the end of a spacer's career, and this has brought the ship a grim reputation — many spacers fear these vessels and believe that any journey aboard Oberon brings bad luck.

Most accidents in space are cases involving a single victim, but there are occasional large-scale serious accidents as well. These kinds of accidents are usually quite deadly and leave few survivors. Those rare accidents that leave many survivors include radiation leaks, food and water supply poisoning or life support failures and lead to a large number of patients in poor condition that need long-term medical attention. The Oberon thus has room for fifty patients and can, if necessary, assemble a portable field hospital for the short-term care of a hundred more at the site of the accident. The Oberon is not a dedicated search-and-rescue vehicle but it has two smaller craft for moving patients around; these can be used for SAR operations if necessary. A significant fraction of the crew usually has extra training to deal with rescue missions as well.

3.7.1 - Service Record

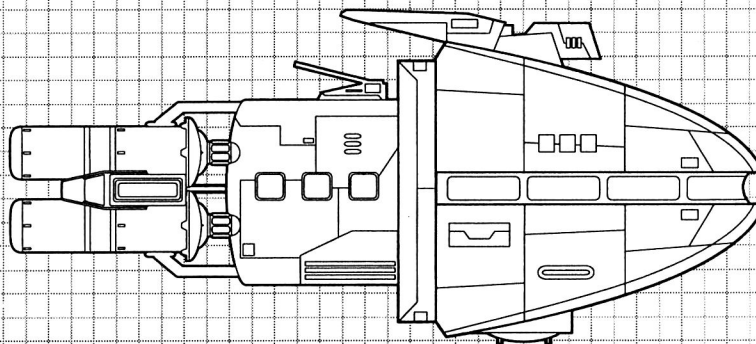
The Oberon has performed its function almost flawlessly in its fifty-cycle history. Ships of this class have faced down all manner of catastrophe during their service, ranging from small accidents aboard transport barges bound for Helios' outer planets to disasters affecting hundreds of people. One of the largest, yet unpublicized incidents involves the Humanist Alliance Gateship *Remar Varja* and its reactivation in TN 1925 as part of the Joint Terranovan Space Initiative. During its initial shakedown voyage from its base in orbit around Poseidon, some chemical supplies were temporarily stored next to the mess hall in its habitation module. Halfway to Gate II and the UMF's *Laban Emuros*, chemical contaminants had seeped into the food supply and poisoned nearly the whole crew to varying degrees. Before the entire ship was incapacitated, the chief medical officer wisely chose to alert DESC, the Southern Republic Army Deep Space Exploration Corp, which ordered an Oberon — the *Angel of Springwood* — to the scene. When the *Angel* arrived one week later, not a single crewmember was able to meet the medics. Twenty-five men and women had already died and twenty more followed shortly after the *Angel's* arrival, but the remaining 165 survived thanks to the rescue ship's quick response.

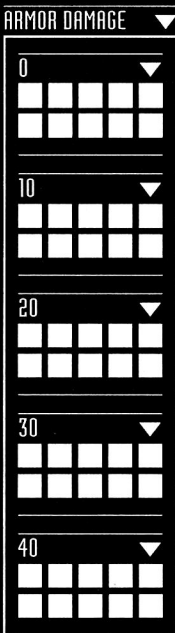
Game Statistics ☐

Threat Value:	25,708	Offensive:	0	Defensive:	462	Miscellaneous:	76,662	Lemon Dice:	3
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Vehicle Specifications ☐

Name:	Oberon-class	Length:	250 meters
Origin:	Terra Nova	Width:	80 meters
Manufacturer:	Orbital Shipyards	Height:	80 meters
Production Type:	Early Production	Main Drive:	4 x Fusion Tubes
Cost:	22,035,000 marks/dinars	Reaction Mass:	36 tons Hydrogen (3000 BP)
Empty Weight:	1200 tons	Use:	Rescue Operations
Loaded Weight:	1350 tons	Total Thrust:	4 x 1,800,000 Newtons





• PILOT NAME: _____

• RANK: _____

• SQUADRON: _____

• AFFILIATION: _____

PILOT (LV/AT): [] GUNNERY (LV/AT): [] ELEC. WAR. (LV/AT): []

VEHICLE CREW	
• CREW:	16
• BONUS ACTIONS:	+5

VEHICLE CREW
 CREW •
 BONUS ACTIONS •

MOVEMENT		
• PRIMARY COMBAT SPD:	\$	3
• PRIMARY TOP SPD:	\$	6
• SECONDARY COMBAT SPD:	-	-
• SECONDARY TOP SPD:	-	-
• MANEUVER:		-9
• DEPLOYMENT RANGE:		4000hrs

MOVEMENT

- COMBAT SPD •
- TOP SPD •
- COMBAT SPD •
- TOP SPD •
- MANEUVER •
- FUEL SPENT •

- SENSORS:
- COMMUNICATION:
- FIRE CONTROL:

-1	1
+1	25
	-5

SENSORS •
COMM •
FIRE CONTROL •

• LIGHT DAMAGE:	50
• HEAVY DAMAGE:	100
• OVERKILL:	150

	LIGHT DAMAGE •
	HEAVY DAMAGE •
	OVERKILL •

• THREAT VALUE: 25,708 • SIZE: 35 • COST: 22,035,000 marks/dinars

[illegible][illegible]

	WEAPON 01 •
	WEAPON 02 •
	WEAPON 03 •
	WEAPON 04 •
	WEAPON 05 •
	WEAPON 06 •
	WEAPON 07 •
	WEAPON 08 •
	WEAPON 09 •
	WEAPON 10 •

[illegible]

	PERK 01 •
	PERK 02 •
	PERK 03 •
	PERK 04 •
	PERK 05 •
	PERK 06 •
	PERK 07 •
	PERK 08 •
	PERK 09 •
	PERK 10 •
	PERK 11 •
	PERK 12 •
	PERK 13 •
	PERK 14 •
	PERK 15 •
	PERK 16 •
	PERK 17 •
	PERK 18 •
	PERK 19 •

NAME	RATING	GAME EFFECT
Large Sensor Profile	5	Subtract from Concealment
Sensor Dependent	-	Must have sensors to operate

HEAVY GEAR



3.8 - SPACE HOG

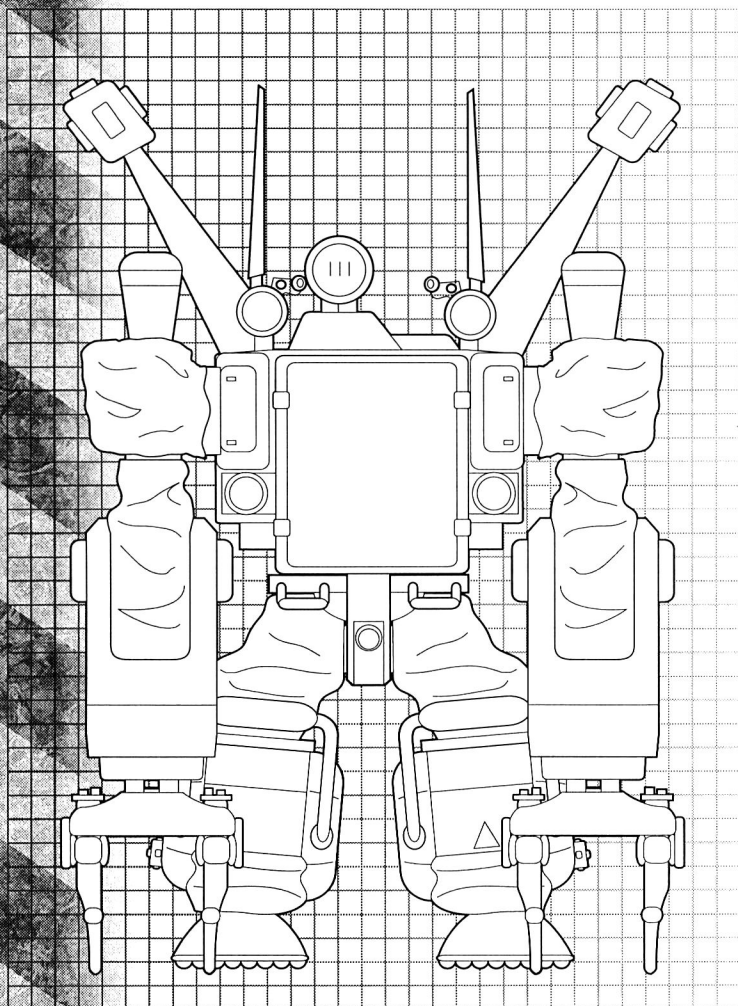
A space-going variant of the ubiquitous Groundhog all-purpose work Gear, the Space Hog does in space what its cheaper cousin does on the ground — just about anything asked of it, from heavy cargo transferal to space ship hull repair and even light mining duty. The Space Hog commercial utility Gear, Elementech's most ambitious model to date, is targeted at a very specific market — Terranovan space programs. Superficially, the Space Hog bears little resemblance to the Groundhog, its enclosed cockpit, sheathed joints, composite armor and vernier thrusters being the most noticeable dissimilarities. The differences are deceiving, however, as, at its core, the original chassis and power train remain, as do the plethora of optional tool arms and other add-ons common to the elderly parent. On-board communication and sensor systems have been upgraded substantially, a necessity considering the demanding environment the machines are intended to work in. Limb and back-mounted thrusters provide some measure of vectored movement, though limited fuel stores mean that the vehicles spend a surprising amount of time in walker mode, on their specialized, molecularly adhesive feet. While it lacks the simplicity and some of the ruggedness of the original design, the Space Hog is the most common space-ready Gear on — and off — the planet. Maintenance crews and pilots alike favor the familiar design, and to date its reliability has been rock-solid.

3.8.1 - Service Record

The Space Hog is utilized in significant numbers on board space stations, large mining vessels, Gateships and other sizable platforms throughout the solar system. Introduced in TN 1923, the appearance of the first space-going Groundhog was a direct result of the War of the Alliance and Terra Nova's renewed interest in off-world pursuits. Since that time, every major space power save the Paxton Space Corps (which manufactured its own space-safe work Gears) has invested in Elementech's product, with the UMF's Stellar Exploration Directorate being its best customer.

Game Statistics

Threat Value:	166	Offensive:	6
Defensive:	53	Miscellaneous:	440
Lemon Dice:	3		
Crew:	1		
Actual Size:	6 (7.2 tons)		
Default Size:	5		
Reaction Mass Weight:	7.2 tons H. Eff.		
Mass Production Cost:	68,800 marks/dinars		
Armor:	10/20/30		
Movement Data			
Movement Mode	Combat Speed	Top Speed	Maneuver
Walker	3	5 (30 kph)	-2
Space	1 (0.1 g)	2 (0.2 g)	-2
Reaction Mass:	100 BP	Deployment Range:	200 hrs
Electronic Data			
Sensors:	0 (2 km)		
Communications:	0 (12 km)		
Fire Control:	-2		
Perks & Flaws			
Name	Rating	Game Effect	
High Towing Capacity	-	Double	
Hostile Enviro. Protection	-	Desert, Extreme Cold, Radiation (R4), Vacuum	
Life Support	-	Limited	
Searchlight	-	200 m, swivel	
Tool Arm x 2	6	Can punch	
Annoyance	-	Condensation on viewport glass	
Exposed Movement Systems	-	"Movement" hits one step worse	
Notes:			
• Mark 3A: Add two Micro-Labs (TV = 335)			
• Mark 4A: Add Light Mining Equipment, Geological Sensors, 3 x Hand Grenade (TV = 318)			
• Mark 5: Replace Tool Arms with Manipulator Arms (R6, Can Punch) (TV = 200)			





CERES-CLASS LAUNCH - 3.9

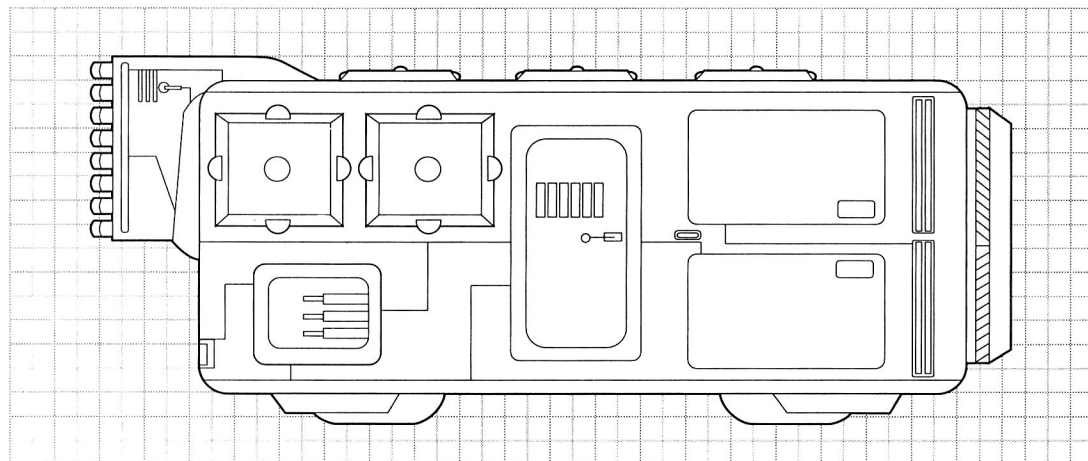
A large fraction of the Terranovan space industry is composed of military personnel, and roughly 17% of the spaceships in service are crewed by, paid for and fall under the jurisdiction of the military. While most actual tasks to be performed in space are fairly mundane, many militaries cannot generally hire a private contractor to do the basic work. Custom-ordering a range of vehicles to perform a range of minor duties would soon break the budget of any nation, so the militaries generally keep on hand a supply of small, general-purpose craft, commonly called "space trucks." Artemis Systems' Ceres-class launch serves this role for the UMF Stellar Exploration Directorate. The engineers who designed the Ceres understood well the concept behind it: while the vehicle may not be intended to fulfill the Directorate's needs for high-mass ferrying, special-purpose retrofits, large-scale crew transport or even emergency mine laying, the design would doubtless be called upon to do it all, and there would be little warning or conversion time in which to make the adjustments.

Service Record - 3.9.1

While primarily intended to ferry crew and supplies between stations and supply ships, the Ceres has nonetheless served countless other roles throughout its history. It has been converted into craft as diverse as medevac shuttles, fighter recovery ships, drone transports, minelayers, and even the occasional ad hoc boarding pod. Throughout it all, the design has shone, proving to be a versatile and reliable ship even when not used for its primary purpose. Unfortunately, the somewhat unglamorous nature of its typical duties has resulted in the common reference to it as a "Flying Five-Ton" by other spacers, much to the chagrin of those crewmen assigned to a Ceres.

Game Statistics

Threat Value:	288	Offensive:	0	Defensive:	40	Miscellaneous:	822	Lemon Dice:	3		
Crew:	1	Actual Size:	8 (15 tons)	Default Size:	7	React. Mass:	22.5 tons HZine	Cost:	126,000 marks	Armor:	8/16/24
Movement Mode				Combat Speed		Top Speed				Maneuver	
Space				3 (0.3 g)		6 (0.6 g)				-3	
Reaction Mass:				150 BP		Deployment Range:				50 hrs	
Sensors:				-1 (1 km)		Communications:				-2 (5 km)	
Fire Control:				-2							
PERKS & FLAWS											
Name		Rating		Game Effect		Name		Rating		Game Effect	
Autopilot		-		Acts as Level 1 pilot		Life Support		-		Limited	
Cargo Bay		-		100 m³		Passenger Seating		-		Seating for six passengers	
Easy to Modify		-		+2 to Repair roles		Exposed Movement System		-		Dmg. to Mov. systems one step worse	
Hostile Enviro. Protection		-		Extreme Cold, Radiation (4), Vacuum							
Notes											
• Maintenance Shuttle: Change Passenger Seating to 2; add Vehicle Bay (Size 5), Searchlight (50 m, swivel), Tool Arm (R6, cannot punch); Remove Cargo Bay. TV = 291											
• Medevac Shuttle: Change Cargo Bay to 25 m³, Passenger Seating to 3; Add Emergency Medial (5 people), Micro-Lab (First Aid), Passenger Accommodations (2 passengers). TV = 586											
• Passenger Ferry: Change Cargo Bay to 25 m³, Passenger Seating to 20. TV = 572											





3.10 - SP-2 WHIPSNAKE AOS SPACE PLANE

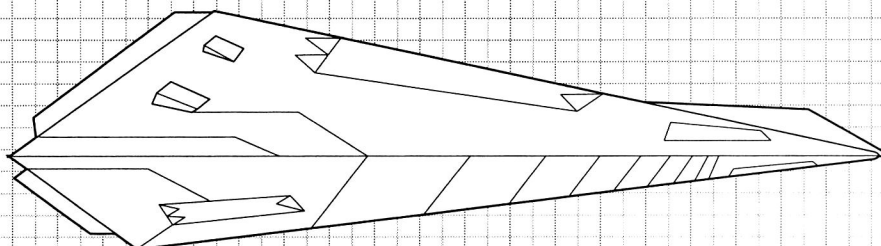
Named after a Badlands predator, Paxton Arms designed the Whipsnake Anti-Orbital Strike (AOS) space plane to intercept enemy orbital assets over Peace River-protected territory. The aircraft's engines are powerful enough to boost it into low orbit, where it can engage enemy targets with its railgun or turret-mounted laser cannon. The targeting systems have been optimized for long range firing, and Whipsnake pilots like to brag that they can carve their names into their targets without being detected. Satellites and Ortilery platforms are the Whipsnake's primary opponent but it can also engage smaller spacecraft that venture close to the atmosphere. Whipsnakes also carry two ASAT missile drones in an internal vehicle bay that can be released in flight to strike at targets beyond the reach of the aircraft's weapons. The tailless design, sleek surfaces and internal weapon mounts contribute to the Whipsnake's stealth, which it relies on during approach and when evading enemy return fire. Not designed to engage other dedicated fighter aircraft, the Whipsnake relies on this stealth and its speed for its defense. Very few aircraft can catch a Whipsnake at full throttle in a shallow dive.

3.10.1 - Service Record

Whipsnake AOS space planes were used primarily by Peace River but models were also purchased by both polar confederations during the War of the Alliance. Whipsnake squadrons not only attacked CEF satellite deployments but were also effective in harassing CEF landing attempts by attacking their landing transports. Being a very specialized aircraft, only a few squadrons were ever fielded. Since the destruction of Peace River, the fate of the proud pilots and equipment of the Paxton Air Service Whipsnake squadrons remains unknown.

Game Statistics ☐

Threat Value: 4213		Offensive: 1405			Defensive: 6861			Miscellaneous: 4372			Lemon Dice: 2		
Crew: 2	Actual Size: 12 (45 tons)	Default Size: 16			React. Mass: 297 tons H. Eff.			Cost: 5,614,000 \$PR		Armor: 20/40/60			
Movement Mode					Combat Speed			Top Speed			Maneuver		
Flight					45			90 (4.7 Stall)			-1		
Space					18 (1.8 g)			36 (3.6 g)			-2		
Reaction Mass:					660 BP			Deployment Range:			2000 km		
Sensors:					+1 (2 km)			Communications:			0 (25 km)		
Fire Control:					0								
WEAPONS													
Name	Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	ROF	Special	Ammo	
Laser Cannon	LLC	T	5	10	20	40	+1	x16	1	0	-2RB	30	
Railgun	LRG	FF	5	10	20	40	0	x14	1	+2	-	60	
PERKS & FLAWS													
Name		Rating		Game Effect				Name		Rating		Game Effect	
Autopilot		-		Acts as Level 1 pilot				Sniper System		-		LLC	
Backup Life Support		-		Absorbs first "Life Support" hit				Stealth		2		Add to Concealment	
Chaff/Flare Dispenser		2		20 shots				Stratospheric Flight		-		Can enter stratosphere; double flight MP	
ECM		2		Offensive electronic warfare equipment				Vehicle Bay		6		ASAT missile drones (7 tons)	
Hostile Enviro. Protection		-		Extreme Cold, Radiation (R3), Vacuum				Cannot Glide		-		No appreciable wing surface	
Life Support		-		Limited				Decreased Maneuverability		1		Space movement	
Reentry System		-		Permanent				Requires Airstrip		-		Must have airstrip to land	
Notes: Nominal Load: 2 x ASAT drones (Size: 4)/ Required Throw Weight: 7 tons/ Loaded Thrust: 45 / (45 + 7) x 1.8 g = 1.6 g lift power =1.0 g climb from stratosphere/ Burn for Terra Nova Escape Velocity: 840 sec at 18 MP = 504 BP													





BPM-98 BOARDING POD - 3.11

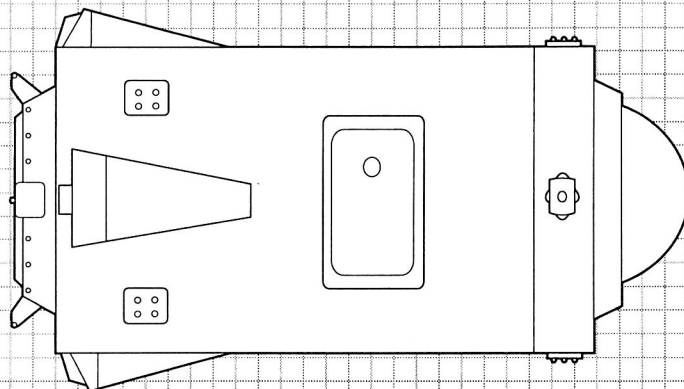
The BPM-98 is the workhorse of the CNCS Space Marines. Designed to enable twenty heavily armed and combat-ready marines to board a hostile vessel in the midst of combat, the BPM-98's (Boarding Pod, Manned-98) are much loved by the marines who depend on them. While boarding actions are rare, they are incredibly dangerous. The BPM-98 was designed to enable marines to capture other ships effectively without having to expose themselves more than necessary. The BPM-98 has been likened to a 'giant space leech' by many marines. Essentially a cylinder with a large airlock on one end and the cockpit on the other, the BPM-98 is launched at the target, performs a 180 degrees rotation mid-flight, and backs onto the hull of the target ship. Braking thrusters are applied at the absolute last second in order to minimize the BPM-98's time to target and maximize the survival rate of the marines inside. This thruster maneuver is considered just one of the perks of boarding actions by any daredevil marine. Once the pod is magnetically clamped down, cutting torches deploy to breach the hull of the enemy vessel in about half a minute. The BPM-98 is one of the few purely military spacecraft that crossed over into the civilian market. The SP-19 was designed by Northco for the extensive salvage operations that occur in space. Indeed, after the War of the Alliance, the SP-19 was a common sight in the Helios system, as a number of salvage companies used them to commandeer and recover derelict vessels from the conflict.

Service Record - 3.11.1

The BPM-98 is an older design dating back to the 19th century. It was introduced into the CNCS Space Services in TN 1898 and has served well since. It was last used in combat during the War of the Alliance in the rare boarding operations TerraNova forces undertook against CEF vessels. Those boarding actions are now considered the most daring missions ever undertaken by any CNCS marine, and the few veterans of boarding actions that survived the War are revered as heroes to this day.

Game Statistics

Threat Value: 1615		Offensive: 16				Defensive: 2668				Miscellaneous: 2150			Lemon Dice: 3			
Crew: 1	Actual Size: 12 (50 tons)	Default Size: 12				React. Mass:240 tons H. Eff.				Cost: 807,000 marks			Armor: 20/40/60			
Movement Mode						Combat Speed				Top Speed				Maneuver		
Space						30 (3.0 g)				60 (6.0 g)				-1		
Reaction Mass:						480 BP				Deployment Range:				50 hrs		
Sensors:						+1 (1 km)				Communications:				0 (5 km)		
Fire Control:						0										
Name		Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	R0F	Special		Ammo		
Cutting Torch		VB	F	0	0	0	0	0	x8	1	0	Physical Attack		-		
Perks & Flaws																
Name		Rating		Game Effect				Name		Rating		Game Effect				
Grapples		6		100-meter range				Reduced G-Effect		-		+1 to FIT rolls				
Hostile Enviro. Protection		-		Extreme Cold, Radiation (R4), Vacuum				Stealth		4		Add to Concealment				
Large Doors		-						Smoke Launchers		-		2 shots				
Life Support		-		Limited				Tool Arm		2		Cutting torch, Cannot Punch				
Passenger Seating		-		20 seats for marines				Sensor Dependent		-		Must have Sensors to Operate				





3.12 - CAMAEL ORTILLERY PLATFORM

Orbital artillery platforms — or “Ortillery,” as they are usually known — represent an ominous stage in humanity’s utilization of space. While capital ships such as destroyers and cruisers *can* train their weapons on a planet’s surface below, they are obviously intended to fight battles in space against other spaceships. Ortillery, on the other hand, has only one purpose, the devastating bombardment of planetary targets, and this fact unsettles many people who look to the stars at night for hope.

The Southern Republic’s Camael-series is a post-War of the Alliance platform that was put into orbit shortly after the CEF forces left the Helios system. It is a simple, classic space station design, although its surface is coated in radar-absorbent material to make it harder for enemy countermeasures to detect. Oriented much like a short “tower” with its long axis pointed downward towards Terra Nova, the platform features a docking module at the “top” with a large crew module directly below it. Although appearing somewhat cramped at first, most crewmembers find little problem with the amount of personal space afforded them. The platform features a small exercise station to keep them fit and reduce the effects of weightlessness on their bodies. Below this is a junction module that leads to three “horizontal” modules: the power supply module, the drone bay and the command and control center. The drone bay holds four combat drones that are deployed exclusively for station defense. The command and control center features a small observation lounge where the crewmembers can relax and, it is hoped, keep a sense of appreciation for the planet they may one day be called upon to assault. At the “bottom” of the tower rests the Camael’s gun, a small but deadly Gabriel-class kinetic cannon capable of leveling several city blocks.

3.12.1 - Service Record

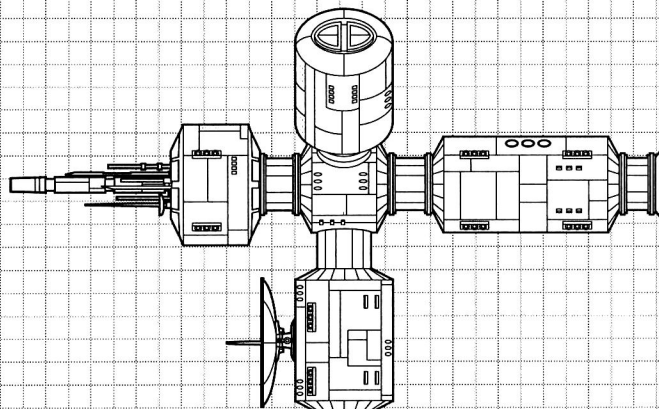
By treaty, the Republic’s eight Camael stations maintain inclined orbits around Terra Nova that do not take them farther than 30 degrees north of the equator. They are perfectly capable of adjusting to steeper orbits if the Orbital Defense Corps needs to remind the Northern leagues that the Republic is not to be trifled with, however. Despite this fact, and despite the recent Interpolar War, the Camaels have never been used, with one exception: in TN 1933, platform B/A-99-18 and B/A-21-09 (“Mo” and “Hewy” to their crews) each fired multiple volleys into the Ogadog Hills of the Saragossa Range, razing the area and causing notable secondary damage to the citizens of nearby Tijuana and Abebba. The Republic has never explained the strike, and most of the world assumed it to be a test. In fact, however, it was a deliberate strike against the renegade GREL fanatic, Colonel Proust. Miraculously, he and his closest followers survived the attack.

Game Statistics ☐

Threat Value:	4055	Offensive:	708	Defensive:	604	Miscellaneous:	10855	Lemon Dice:	2
---------------	------	------------	-----	------------	-----	----------------	-------	-------------	---

Vehicle Specifications ☐

Name:	Camael Ortillery Platform	Height:	28 meters
Origin:	Terra Nova	Diameter:	22 meters
Manufacturer:	Southern Republic Orbital Shipyards	Main Drive:	20 x Hydrazine Rocket Motors
Production Type:	Limited Production	Reaction Mass:	14 tons (100 BP)
Cost:	4,326,000 Dinars	Use:	Orbital Artillery Support
Empty Weight:	700 tons	Total Thrust:	20 x 140,000 Newtons
Loaded Weight:	714 tons		



A technical line drawing of a three-armed robotic gripper. The central hub is a circular plate with eight radial spokes and a central mounting point. Two arms extend from the hub, each ending in a rectangular gripper head. The gripper heads are oriented diagonally upwards. Each gripper head has a central rectangular opening and two smaller rectangular openings on the sides. The drawing is set against a grid background.

50

60

70

80

90

• THREAT VALUE: 4056 • SIZE: 30 • COST: 4,326,000 Dinars

[illegible][illegible]

NAME	RATING	GAME EFFECT	AUX
Anti-Missile System	2	100 shots	-
Autopilot	-	Acts as Level 1 pilot	Y
Backup Systems	-	Absorbs one hit for each system	-
Crew Accommodations	-	Military, 5 people	-
Ejection System	-	Escape Pods	Y
Emergency Medial	-	Absorbs one "Crew Stunned" result; medical support for 5 people	-
High Capacity Computer	-	-	-
Hostile Environment Protections	-	Extreme Cold, Radiation 4, Vacuum	-
Life Support	-	Full	Y
Manipulator Arm	6	Cannot punch; for recovering Drones and handling ammo	-
MicroLab	-	Athletics; helps crew maintain health	-
Satellite Uplink	-	Allows long range communication and artillery support	Y
Sniper Systems	-	+1 on Gunnery at Long and Extreme ranges	-
Stealth	3	Adds to Concealment	Y
Trideo Uplink	-	Send tactical data back to HQ	Y
Vehicle Bay	8	Drone bay (16 tons)	-

NAME	RATING	GAME EFFECT
Sensor Dependant	-	Must have sensors to operate

• PILOT NAME: _____

• RANK: _____

• SQUADRON: _____

• AFFILIATION: _____

PILOT (LV/AT):		GUNNERY (LV/AT):		ELEC. WAR. (LV/AT):	
----------------	--	------------------	--	---------------------	--

VEHICLE CREW	
• CREW:	4
• BONUS ACTIONS:	+2

MOVEMENT		
• PRIMARY COMBAT SPD:	S	2
• PRIMARY TOP SPD:	S	4
• SECONDARY COMBAT SPD:	-	-
• SECONDARY TOP SPD:	-	-
• MANEUVER:		-10
• DEPLOYMENT RANGE:		1600hrs
ELECTRONICS		
• SENSORS:	+1	2
• COMMUNICATION:	+1	10
• FIRE CONTROL:		0
ARMOR		
• LIGHT DAMAGE:		60
• HEAVY DAMAGE:		120
• OVERKILL:		180

VEHICLE CREW

WEAPON 01 •

WEAPON 02 •

WEAPON 03 •

WEAPON 04 •

WEAPON 05 •

WEAPON 06 •

WEAPON 07 •

WEAPON 08 •

WEAPON 09 •

WEAPON 10 •

	PERK 01 •
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	PERK 19 •



3.13 - DRONES

Drones, the “foot soldiers” of modern space combat, have proven to be a vital asset to Terra Nova’s space forces. In addition, several drones find their way into civilian use, especially in and around the cargo bays of spaceships and space stations. Most civilian drones use an entirely different command language than those used by the military; it is, however, just as finicky and just as difficult to learn. Programs are usually pre-compiled and checked in a dummy environment before being uploaded into a 20-ton robot that can lurch around and cause great damage to a space facility.

◆ Skag-class Air-Launched ASAT Drone

The Skag is an example of an air-launched anti-satellite (ASAT) missile. Designed and produced by Paxton Arms, the Skag missile spends the first part of its flight aboard the SP-2 Whipsnake space plane. Once the Whipsnake reaches the stratosphere, the Skag is released to make its rapid ascent into space where it seeks out and destroys its target. Although primarily intended to destroy satellites, the Skag is perfectly capable of annihilating most orbital targets.

◆ Booster Rockets

The typical Terranovan unmanned rocket is designed simply to get its payload into Terranovan orbit rather than into an interplanetary orbit around Helios. These rockets have almost no reaction mass left over upon stabilizing, and if a payload is ultimately bound for another destination, additional measures must be taken. These often involve an orbital transfer vehicle (OTV), a payload assist module (PAM) or transfer to a waiting spaceship or bus. Sometimes, however, a payload is sent directly from ground into a Helios orbit, as is often the case with space probes. In these instances, booster rockets may be attached to the primary rocket, augmenting or supplanting its lift during the early minutes of launch. The Cirrus booster rocket is an example of such a device. Attached to an Aries (the Northern equivalent of the Frelon) in pairs, firing for the first five minutes of flight and detaching before they leave the atmosphere, the Cirrus provide a cheap means of getting a payload into interplanetary orbit.

◆ Cargo Drone

Cargo drones are simple, automated vehicles used to move cargo between ships and/or stations in space. Under the supervision of the supercargo or his nearest equivalent, these blocky vehicles maneuver through space using simple chemical propulsion thrusters. Most cargo bays have a system of electrical rails running along their walls, floors and ceilings, and the largest bays typically feature whole networks of rail systems. The cargo drones attach themselves to these rails for motion within the bays; maneuvering on thrusters within a busy or crowded bay is a risky practice. Cargo drones feature a large arm that can move cargo much larger than the drone itself, provided the drone is attached to a rail against which it can brace itself. Typical cargo drones can maneuver up to 100 tons of cargo.

◆ Drone Bus

If drones are the foot soldiers of space combat, drone buses are the personnel carriers. They are simple vehicles consisting of an engine — almost always a chemical propulsion drive rather than a fusion tube — a sensor and communications cluster, and what amounts to a flatbed delivery truck. Adapted from unmanned cargo delivery buses used to transfer supplies between Terra Nova and her few scattered settlements, drone buses leapt into the spotlight during the War of the Alliance. After driving the CEF’s 8th Fleet from orbit, the Terranovans who were not directly involved in the defense of the planet’s surface stepped up the production of the combat drones that had won them their skies. Each season, several hundred drones emerged from the autofacs on Hope, Charity and Faith. Strapped to drone buses by the hundreds and rocketed off towards the front lines of the running space battle on the edges of the Helios system, the drones continued to pound the fleet and reinforce Terra Nova’s own meagre resources.

◆ Emergency Beacon

The emergency beacon is a vital piece of safety equipment that few spacers are willing to venture into the great, dark ocean without. With a mass of only 125 kilograms, the beacon is essentially a loud, easy-to-see, one-way communications device. Using a carefully selected subset of the same command language as military drones, these devices are usually set to go off automatically in the event a periodic “dead-man’s” signal is not received from the craft that carries it. They are designed with the basic Helios system guidestar catalog stored in ROM, along with the last known trajectory of their charges. With these data and with a periodic observation of the stars, the beacon can locate itself in the Helios system and broadcast this information in all directions. Most military beacons encrypt their data before transmission, but many of these are set to transmit clear data after 50% of their battery reserves are used up — if that much time has passed without a rescue, many military forces would rather have their crews returned to them than their secrets kept safe.

Vehicle: Booster Rocket		Space Movement				Weapons:								Unit ID #:		Round Notes:			
Threat Value: 603		Combat/Top: 43 /84(8.4G)				Name		Fire Arc		S	M	L	EX	Acc.	Dam.	ROF	Special	Ammo/Left	0:
Size: 16		Reaction Mass: 500BP													x			/	1:
Crew: 0 (Drone)		Dep. Range: 50 hours													x			/	2:
Bonus Actions: 0		Maneuver: -6													x			/	3:
Piloting : /		Fire Control: -5													x			/	4:
Gunnery: /		Armor: 8/16/32													x			/	5:
Leadership: /						Perks & Flaws: Ammo/Fuel Containment, Automation (R1), Autopilot (AUX), Airdroppable, Backup Communications, HEP: Desert, Exposed Movement Systems, Fragile Chassis, Highly Flammable, Large Sensor Profile (R1), Sensor Dependent, Traceable Emissions (R1)										6:			
EW: /																7:			
Tactics: /																8:			
Sensors: -1 (2 km)																9:			
Communications:0 (10 km)																10:			

Vehicle:		Cargo Drone		Space Movement			Weapons:								Unit ID #:		Round Notes:
Threat Value:	129	Combat/Top:	8 /15(1.5g)	Name	Fire Arc	S	M	L	EX	Acc.	Dam.	ROF	Special	Threat Value	0:		
Size:	8	Reaction Mass:	250BP								x			/	1:		
Crew:	0 (Drone)	Dep. Range:	250 hours								x			/	2:		
Bonus Actions:	0	Maneuver:	-2								x			/	3:		
Piloting :	/	Fire Control:	-5								x			/	4:		
Gunnery:	/	Armor:	8/16/24								x			/	5:		
Leadership:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		Perks & Flaws: Autopilot (AUX), Automation (R1), Hostile Environment Protection (Extreme Cold, Rad R4, Vacuum), Tool Arm (R15, Cannot Punch), Exposed Movement System, Sensor Dependent											6:		
EW:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													7:		
Tactics:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													8:		
Sensors:	-1 (1 km)	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													9:		
Communications:	0 (5 km)	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													10:		

Vehicle:	Drone Bus	Space Movement			Weapons:								Unit ID #:		Round Notes:	
Threat Value:	2093	Combat/Top:	30	/60(6g)	Name	Fire Arc	S	M	L	EX	Acc.	Dam.	ROF	Special	T. V./Ammo	0:
Size:	26	Reaction Mass:	2000BP									x			/	1:
Crew:	0 (Drone)	Dep. Range:	2000 hours									x			/	2:
Bonus Actions:	0	Maneuver:	-6									x			/	3:
Piloting :	/	Fire Control:	-5									x			/	4:
Gunnery:	/	Armor:	26/52/78									x			/	5:
Leadership:	/	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐	Perks & Flaws: Autopilot (AUX), Automation (R1), Backup Communication, Cargo Bay x 3 (600 m2 Each, Open), High Capacity Computer, Hostile Environment Protection (Extreme Cold, Rad R6, Vacuum), Satellite Uplink (AUX), Stealth (R5, AUX), Annoyance: Ancient Operating System Language, Exposed Auxiliary Systems, Exposed Movement Systems, Sensor Dependent												6:
EW:	/	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐													7:
Tactics:	/	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐													8:
Sensors:	0 (2 km)	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐													9:
Communications:	0 (100 km)	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐													10:

Vehicle: Emergency Beacon		Mouvement		Weapons:										Unit ID #:		Round Notes:
Threat Value:	4	Combat/Top:	- / -	Name	Fire Arc	S	M	L	EX	Acc.	Dam.	ROF	Special	Threat Value	0:	
Size:	2	Reaction Mass:	OBP								x			/	1:	
Crew:	0 (Drone)	Dep. Range:	100 hours								x			/	2:	
Bonus Actions:	0	Maneuver:	-10								x			/	3:	
Piloting :	/	Fire Control:	-5								x			/	4:	
Gunnery:	/	Armor:	2/4/6								x			/	5:	
Leadership:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐		Perks & Flaws: Autopilot (AUX), Backup Communications, High Capacity Computer, Hostile Environment Protection (Extreme Cold, Rad R6, Vacuum), Satellite Uplink, Annoyance: Ancient Operating System Language, Exposed Auxiliary Systems, Exposed Movement Systems, Fragile Chassis, Large Sensor Profile (R6), One-Way Communication (Send), Sensor Dependent											6:	
EW:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													7:	
Tactics:	/	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													8:	
Sensors:	-4 (1 km)	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													9:	
Communications:	>2 (20 km)	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐													10:	



3.14 - AVALON STATION

Black Talon teams are expected to operate in many different environments as part of their missions, both on-planet and off. At the time of the first few Talon missions, the only training facility in which to familiarize the teams with space and zero-g combat was the Zero Gravity Simulator Space Training Facility in Smolensk (see **Black Talon Field Guide**, p. 17). This was a temporary solution, however, required by necessity, and the strategists knew that even the best simulations were no substitute for training in the actual conditions. A more proper School of Zero Gravity Warfare was planned for. Constructed from the abandoned remains of an unfinished transfer station in orbit around Zeus, Avalon Station is finally operating in full capacity.

Avalon Station is composed of two circular habitation rings joined by a central hub. The upper ring, nicknamed 'Heaven,' houses the crew quarters, briefing rooms and the Gravity Dojo. The upper ring, unlike the lower, rotates to simulate gravity. The lower ring, known as 'Hell,' was originally designed to house smelting and refining furnaces. It is not as expansive as the upper ring; rather it is split into three large sections, almost resembling thick wings, joined at the central hub. The first section contains the main ship docking arms and hangars, and also houses the majority of the stores and heavy equipment. The second section is the primary training area containing the enclosed Zero-G Dojo, Zero-G Obstacle Course, computer simulators and, on the outside portion facing away from the station, the Zero-G Proving Grounds. Before the Westphalia Cabinet acquired Avalon, the third section was mostly an unfinished mess of superstructure. It has since been removed and replaced with an old CEF warship captured during the War of the Alliance. Expanses of solar panels sprout out from the main hub above the upper habitation ring and assist the fusion reactors in powering the station. Command and Control is contained in an armored bubble — with its own life support and backup systems — in the central spar.

Avalon Station is capable of rearming and refitting spacecraft and Gears, although for security reasons only vessels directly controlled by Talon Command use the base. No other ships are allowed to use the station without direct authorization from Talon Command. The station is armed with railgun and laser turrets for self-defense, and a cavernous drone bay augments station defenses.

3.14.1 - Service Record

The station that would eventually be known as Avalon Base was originally an unfinished transfer station orbiting the Zeus moon of Artorius. Construction was funded by a now-defunct Mekong mining company but was halted when further analysis showed that mining Artorius would not be as profitable as originally calculated. The skeleton station, known as MDOTS-19, was largely ignored during the next decade until Talon Command purchased it through several dummy companies to maintain secrecy. Talon Command completed the construction of the station with some modifications to better suit its new role.

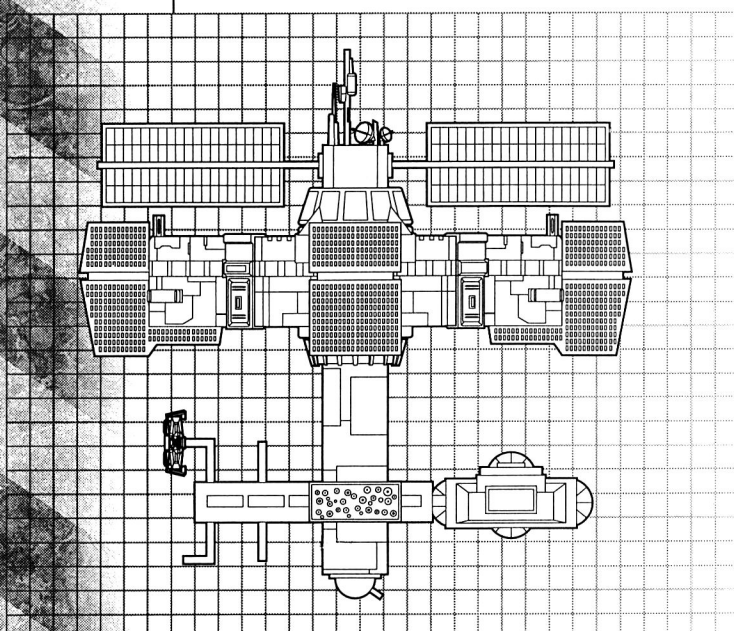
The station and the barren moon proved to be ideal training grounds. Talon Command completed construction on the station and it entered service as a training facility and mission staging base. Black Talon teams starting from Team 19 and up have received their formal space training at Avalon, with almost all of the teams spending some time on the station for mission-related skills training. Avalon also serves as a testing and proving ground for new technologies to be used in Gears and on the Fury shuttles.

Vehicle Specifications ☐

Name:	Avalon Station
Origin:	Terra Nova
Manufacturer:	Mekong Mining and Manufacturing/Westphalia Cabinet
Type:	Training Facility
Crew:	100 Permanent, Up to 50 Transient
Height:	1 km
Diameter:	500 m
Empty Weight:	1.3 megatons
Loaded Weight:	1.7 megatons
Reaction Mass:	-
Total Thrust:	-

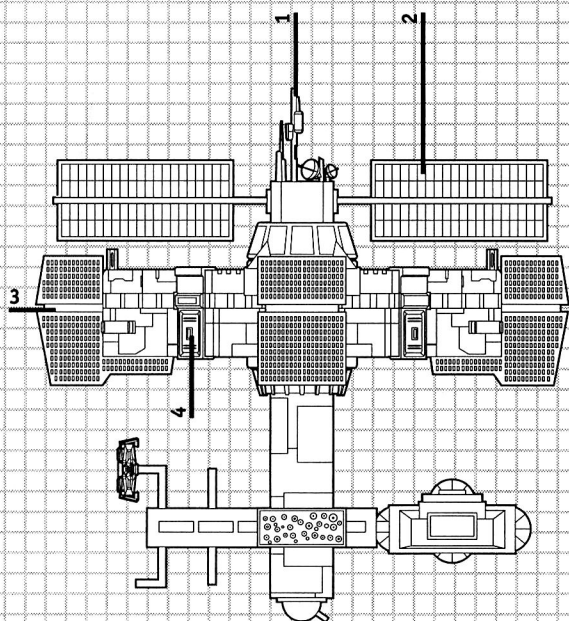
Weapon Payload ☐

Name	Ammunition Payload
4 x Railgun Turret	See Record Sheet
4 x Laser Turret	See Record Sheet
4 x Defense Turret	See Record Sheet
Assorted Drones	-

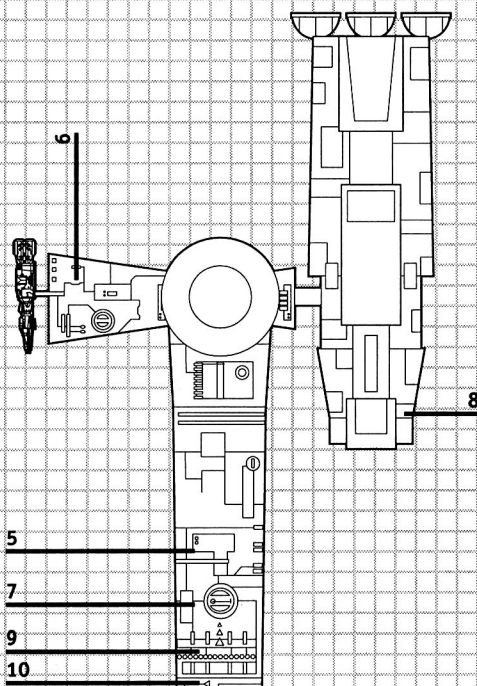
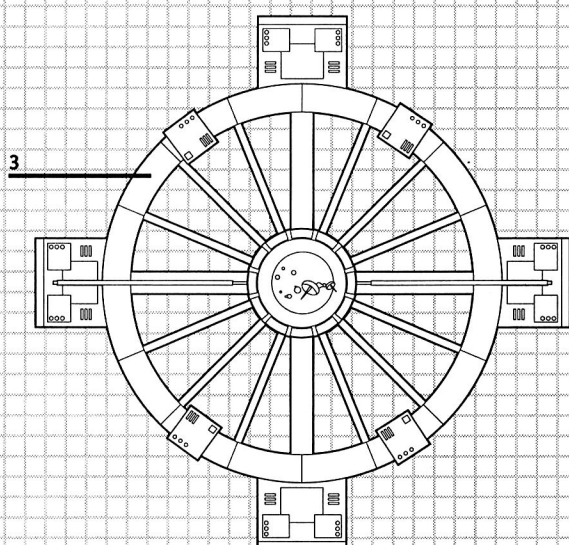




Map of Avalon



Location	Description
1 Communications Array - Part of the Communications Center, this provides long-range communications with Terra Nova.	
2 Solar Panels - Along with fusion reactors in the Lower Ring, these panels help to supply the station with power.	
3 Upper Habitation Ring - Rotating to provide a sense of gravity, this section houses the crew quarters and command and control. The Gravity Dojo is located in this section.	
4 Weapons Batteries - Avalon Station includes several weapons batteries to defend itself against probable attack by hostile forces.	
5 Lower Ring - Formerly a manufacturing section, this now contains training areas.	
6 Docking Section - This section contains hangars for shuttles and Furies along with external docking arms for larger vessels.	
7 Training Section - This portion of Avalon contains the Zero-G Dojo, Zero-G Obstacle Course, Simulator Training Rooms and, on the outside, the Zero-G Proving Grounds.	
8 The Baden - Captured during the War of the Alliance, this CEF warship is permanently moored at the station and provides training for boarding actions against CEF vessels.	
9 Zero-G Obstacle Course - A lattice-like superstructure at end of Training Section, this facility is capable of testing a pilot's abilities in free-fall.	
10 Zero-G Proving Grounds - This is a mock battlefield on the "bottom" of the Training Section.	





3.14.2 - Life on Avalon Station

Avalon Station is a military facility and it was designed as such, so there are few amenities. The interior is a drab, utilitarian gray broken up by yellow and black warning signs and notices. Black Talon Teams are constantly using the facilities for training, and discipline is strict. While the lower section is primarily for training, mission storage and prep, the upper section does have some small luxuries. Some hydroponics areas are open to off-duty personnel and there is a bar, restaurant and a small entertainment complex located in an area called 'The Village.' There are special team-building activities held every couple of weeks to promote teamwork, esprit d'corp and to provide a way for hard-working crew to unwind, such as the seasonal volleyball tournament, 3D chess competitions or snooker.

Black Talon teams share one large bunk area with separate quarters for the officers, although many prefer to stay with their teams. The quarters are plain, to minimize distractions, but some personal effects are allowed. The quarters for the station personnel are similar but a little more relaxed. Most share a room with two or four others, depending on rank, and many have pictures or potted plants. Officers are assigned individual quarters and are also provided a separate mess and wardroom.

3.14.3 - Black Talon Training Facilities

Avalon Station provides several facilities for training Black Talon teams in preparation for raids on CEF targets. Most of the teams spend at least a season training here if time allows, and even pressing missions' timetables allow for a few days' practice. For this reason, the facilities are almost constantly in use.

- Gravity Dojo

The Gravity Dojo is the only large training area located in the Upper section of the station. The area is divided into four actual training rooms. The rooms are large enough to accommodate Gears and a Fury mock-up. Most training that requires gravity is done on Terra Nova, but in the event additional lessons are needed the Gravity Dojo is available.

- Simulator Dojo

The Simulator Dojo is a large room on the lower section that is filled with cockpit mock-ups of various Gears. Each mockup is attached to a three-way gimbal mount and a sophisticated computer battlefield simulator. The computer can simulate any environment and the gimbal will tilt and rotate the cockpit in concert with the pilot's actions.

- Zero-G Dojo

The Zero-G Dojo is similar in style to the Gravity Dojo but larger in size. This training area provides a safe environment to introduce inexperienced pilots to the differences of operating a Gear in space with no worries about floating away. The walls are covered with heavy-duty nettings to absorb the impacts caused by clumsy piloting.

- Zero-G Proving Ground

The Zero-G Proving Ground is actually an open area on the bottom of one of the lower section habitation arms. Students gain experience maneuvering their Gears around obstacles and in mock combat drills, in an environment where they can easily lose traction and float away. The field with the Artorius moon above the students is meant to get them used to changes in perception, where ground is not always below them. Several recovery vehicles — mostly cargo drones — are on standby should a Gear lose its footing. The surface is broken up with obstacles and cover and can easily accommodate live-fire exercises.

- Ship Action Dojo

The centerpiece of the Ship Action Dojo is the captured CEF warship *Baden*, which is permanently moored to a docking arm. The docking arm can extend outwards to clear the rest of the station should a drill require it. The ship is large enough to allow Gears to practice combat on warship surfaces and in the ship's hangar. There is life support onboard the vessel for combat teams to practice boarding actions and infiltration.

The *Baden* was captured during the War of the Alliance by the *Chimera*, a merchant ship-turned-dreadnought that was actually refitted at the abandoned MDOTS-19 station as part of Operation Partizen. The *Baden* was thoroughly studied and stripped of all military technologies in the cycles following the war and was eventually mothballed in a UMF Space Defense Corps facility around Zeus.

- Zero-G Obstacle Course

At the edge of the training section is a mess of bare superstructure. Rather than have this removed, Avalon designers decided to keep the area as it was. Gear pilots practice maneuvering their Gears through the environment in the fastest time possible. The open nature of the course and the lack of gravity make it the most challenging course on Avalon. Combat simulations on the course are rare and usually reserved for only the most skilled pilots.



3.15 - ARES RESEARCH BASE: ACCORD

The cold wastes of Ares are host to some of the most desolate settlements in the Helios system; only the Hades outposts are more remote. At first glance this planet appeared to have little to offer. A frozen ball of mixed gases on the outskirts of the system, Ares lacked any exploitable mineral wealth. However, in TN 1705 an unmanned Humanist probe became the first craft to land on Ares' surface, and the data it transmitted back was astounding. The reddish tinge of the planet — assumed during early surveys of the system to be nothing more exotic than an analog of the surface of Mars — was discovered to be the by-product of the presence of long-chain organic molecules, a possible basis for new life. It seemed implausible that these compounds could have developed in such an inhospitable climate, and further research seemed to indicate that Ares had at one time possessed a considerably warmer climate and perhaps had even existed as the moon of one of the interior planets. These findings sparked innumerable controversies among the academic community.

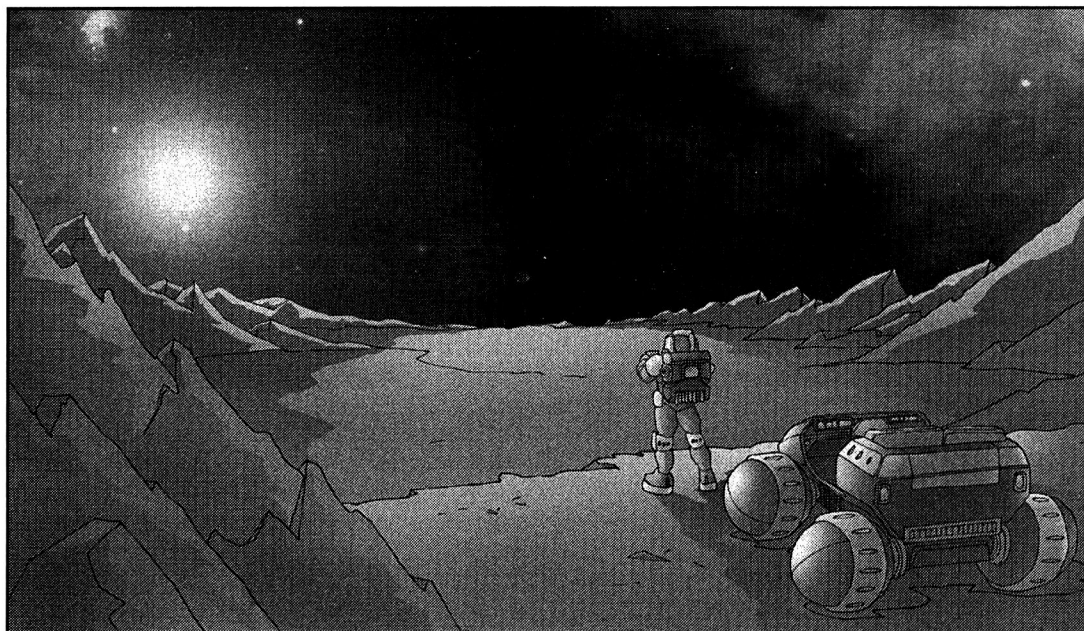
During this period, Terra Nova was immersed in the paranoia and rampant nationalism leading up to the St. Vincent's War, and the space agencies of both poles enjoyed carte blanche and nigh-unlimited resources, all in the hope of bringing home a propaganda victory. While scientists from both the Northern Stellar Exploration Directorate and the Southern Deep Space Exploration Corps were frequently uncomfortable with the ultrapatriotic fervor of their sponsors, they took advantage of the pro-research circumstances. Both CNCS and AST scientific bases were soon established, assembled from pre-fabricated materials shipped via unmanned transports. In the cycles to follow, both outposts operated in more or less complete isolation, both from Terra Nova and each other. A resupply ship each half-cycle was the only relief from the loneliness and monotony.

In an unusual footnote to history, the Ares bases provided the first warning to Terra Nova that CEF warships were inbound, when orbiting sensor arrays inadvertently picked up the first Earth Gateship and its armed escort. Although Terra Nova-based telescopes could detect the arrival of the 8th Fleet, their staff merely assumed it was one of the infrequent trade convoys from Caprice. Ares was much closer to the Gate than Terra Nova at the time, however, and its already more powerful telescopes were able to resolve the images of the fleet for what they were. Both bases immediately contacted their parent organizations on Terra Nova, providing as much as two week's extra time for the Terranovans to prepare for the invasion. While that time hardly amounted to much, both Ares outposts were pounded into dust by the passing CEF armada as retribution for sounding the alarm.

The current Ares base is a joint SED-DESC venture, established during the brief period of inter-polar goodwill immediately following the War of the Alliance. Unlike the first Ares bases, Accord has been characterized by an unusual degree of cooperation between the AST and CNCS scientists. They continue the research begun by the first Ares teams, but as a result of their post-war cooperation, the subsequent research has been more comprehensive and more useful than when the polar superpowers had worked independently.

Vital Statistics ☐

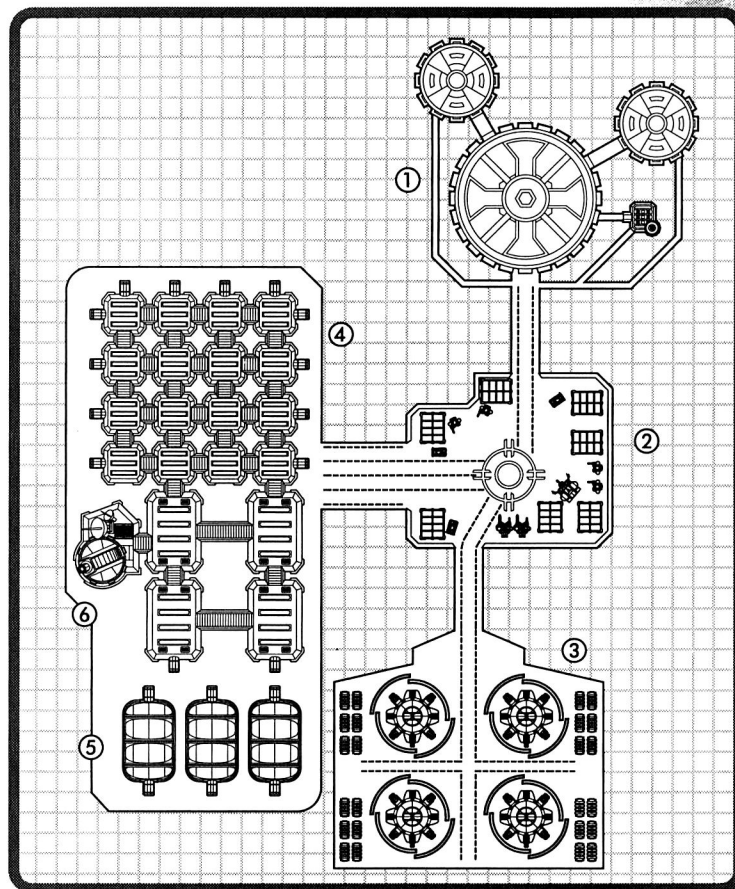
Date Established:	TN 1923	Size:	25 square km
Number of Employees:	30 scientists, 16 support personnel	Director:	Director Mayumi Sorenson, MD
Available Facilities:	6 square km indoor space		





Map of Accord

Location	Description
1. Landing Pad	- This reinforced tarmac platform serves as Accord's re-supply point, and as befitting its place as the crew's lifeline, it is always meticulously maintained and kept free of debris. A small crash/emergency rescue vehicle is on hand during landings and take-offs.
2. Motor Pool	- This building houses the station's research vehicles, including unmanned rovers, airborne drones, and the long-distance overland survey vans. A fully outfitted machine and electrical shop and a wide variety of replacement parts are also available.
3. Power Plant	- Crucial to the daily operation of the facility, this building houses a small nuclear reactor, a backup petroleum-burning electrical generator, and emergency batteries. Accord's energy supply is also supplemented by an immense array of extremely efficient solar panels, but these are not enough to sustain the base on their own.
4. Labs & Living Quarters	- Comfortable but spartan, each Accord employee receives quarters equivalent to a mid-range one-bedroom apartment. Each scientist is also assigned a small office and a laboratory suited to his or her needs. Recreational and exercise facilities, a cafeteria and a multimedia library are also present.
5. Hydroponics Lab	- Not only do these greenhouses allow unprecedented research into the cultivation of plant life under extreme conditions, crops that are grown here also supplement the diets of Accord's residents. Hydroponics have been one of the base's most successful endeavors, with many low-nutrient farming techniques being put to good use in Terra Nova's harsher environs.
6. Observatory	- This building provides a comprehensive set of tools for Accord's astronomers. Apart from a massive telescope, the observatory receives continually updated information from satellite sensor arrays and a ground-based radio telescope.



Accord at Play ◆

When you are living more than a billion kilometers from civilization, trapped on a frozen ball of mixed gases, recreation becomes of paramount importance. The stress-reducing properties of play are well known, and it is Accord base's policy that every resident, from astrophysicists to mechanics, participate in a minimum of six hours of recreation per thirty-six hour "day." (Despite the differences in rotational times, Accord residents continue to use the Terra Nova clock.) Because of this policy, Accord houses a variety of recreational equipment and facilities. The most popular item is undoubtedly the Trideo Monster Madness console. Many Accord residents have spent seasons building up their pet monsters, and Director Sorenson has even had to break up minor scuffles over whose turn it was to play. Another popular toy is the full-sized billiards table that Alek Turnbull had imported via a combination of bribery, coercion and well-placed connections. However, due to the low gravity on Ares, former pool hustler Turnbull has had to spend seasons relearning the feel of the game and building up his skills.

Exercise is also important for maintaining the fitness and mental balance of Ares residents. However, space requirements have placed severe limits on the types of exercise feasible at Accord. There are a variety of exercise machines and weights are available for use, but large-scale exercise facilities such as running tracks and swimming pools are simply out of the question. Despite the space constraints, one of the support staff has managed to set up a basketball half-court in the motor pool. It is only available when there is no major vehicle repair work to be done, however, as the mechanics tend to complain when stray basketballs ricochet through their workspace.



3.14.1 - Personnel

At just under fifty inhabitants, the Ares base Accord is one of the smallest, most closely-knit communities in the Helios system. Working in such close quarters, the scientists and support crew cannot help but to get to know each other, both professionally and privately, on a nearly comprehensive basis. While several close friendships — and, in a few cases, enduring romances — have resulted from this kind of long-term cohabitation, friction and even bitter rivalries are also not unknown. The extreme circumstances under which Accord crewmembers operate are more than some can bear, and the station is cursed by a high turnover rate. The average tenure for an Accord worker is a half-cycle: the span between one re-supply ship and the next. However, despite the trials of living under confined circumstances on an isolated, low-gravity planet, there has grown a small corps of dedicated crew. These individuals have not only adapted to life on Ares, but have thrived there. Some of these misfits have even declined reassignment back to Terra Nova, preferring instead to continue their research at Accord. Stunned by such an unforeseen turn of events, the Terranovan space agencies are unsure how to handle these expatriates.

◆ Director Maqumi Sorenson, MD

Mayumi Sorenson, born in Olduvai and educated at Mekong City's elite Academy of Science, is the current director of the Accord Research Station. As she quickly found out at the beginning of her tour of duty three cycles ago, 'Director' is an extremely broad and vaguely-defined position, encapsulating roles ranging from stern ship's captain to budget-minded bureaucrat to sympathetic nanny. She is in charge of implementing the sometimes-contradictory policies handed to her by the sponsoring Terranovan space agencies, both CNCS and AST, as well as the daily operation of the station and care of its inhabitants. She is a practicing psychiatrist and excels in the roles of mediator, counselor and confidante. She is also the busiest resident of Ares, but she is sustained by her Zentai Buddhist faith and her burgeoning romantic relationship with Samson Klee, an administrator for the UMF's Stellar Exploration Directorate. Some of Accord's crew question how much longer she will remain on Ares, however, now that she's involved in one of the longest-distance relationships the Helios system has ever seen.

◆ Chief Engineer Alek Turnbull

While Director Sorenson is the overall authority in Accord, her educational background ensures that she has more in common with Ares' academics than with the blue-collar technicians and mechanics that make up the support staff. This is where Alex Turnbull steps in. Born and raised in Petropolis, Turnbull believes he is on a mission from Mamoud to slap his group of lazy, slack-jawed, knuckle-draggers into something resembling a team of professionals. He *has* read the files stating that his employees are all experts in their respective fields and that only the cream of the crop have a chance to be selected for duty on Ares. He does not believe that claptrap for a second, however, and he makes sure his staff knows it. There can be no room for error in an environment as hostile as Ares, and Turnbull is damned if he will allow any screw-ups on his watch.

◆ Quentyn Paver, Ph.D.

Quentyn Paver is Accord's chief biochemist, and he has dedicated his entire professional career to studying Ares' unique long-chain organic molecules. He first came across these compounds as an undergraduate at the Humanist Alliance's Oxford Academy of Science. Soon after graduate school he fought ruthlessly to earn a place on Accord's research team. He first landed on Ares in the spring of TN 1935, shortly before the outbreak of Theban Blight, and he has spent more continuous time on Ares than any other human being. Paver is a prisoner of Ares, however. As a Tier-4 Preceptor, Paver lives in constant fear of the plague that devastated his homeland. Unable to return to Terra Nova for fear of contracting the disease, he continues his work at Accord. Despite elaborate quarantine protocols, Paver becomes extremely tense whenever the resupply ship arrives.

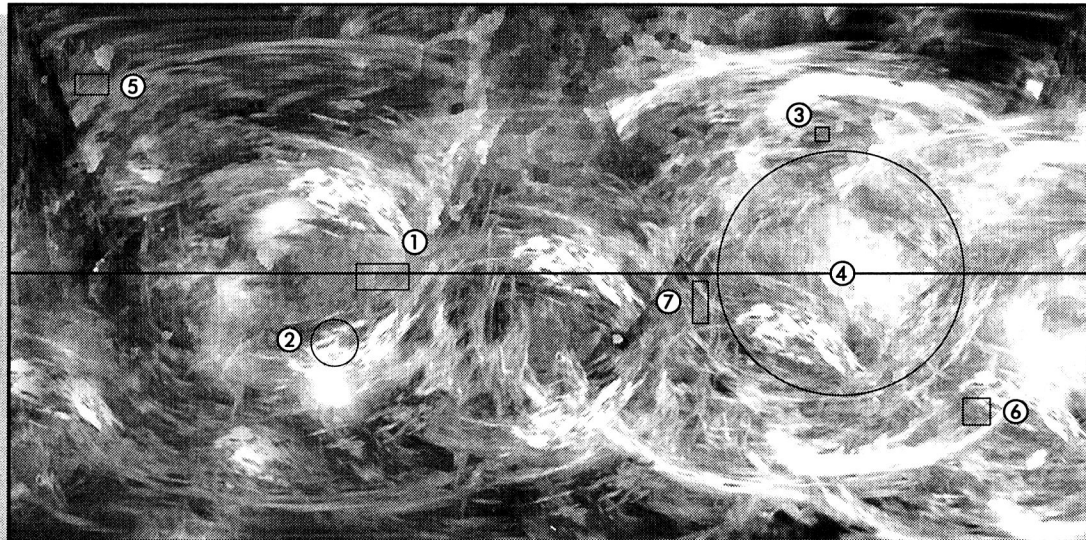
3.14.2 - Other Ares Facilities

Accord is not the sole facility in operation on or in orbit around Ares. In TN 1921, two cycles prior to the establishment of Accord, the Mekongese corporation Iijima Pharmaceuticals founded a small, commercial research base near Kellman's Gorge. In TN 1930, the UMF's Stellar Exploration Directorate began construction of an orbital facility for repairs and maintenance on its two Gateships, the Marcos Pohlo and the Laban Emuros. Completed in TN 1935, the facility, High Dock Two, is intended to supplement the primary SED Gateship facility, High Dock One, which is in orbit around Zeus. By maintaining two such facilities in very different orbits around Helios, the UMF's ability to cover the system's Gate points is dramatically improved. It was at High Dock Two that the Laban Emuros underwent modifications to its sensor systems in TN 1936 under the direction of Gawa'ne Di Smit, Terra Nova's premier scientist in the field of Tannhauser theory. In TN 1937, the ship left Ares orbit and began its historic hunt for micro-discontinuities. High Dock Two is unmanned and shut down when it is not in use; when it is in use, however, its crew and the staff at Accord appreciate and enjoy each other's company.



Map of Ares

Location	Description
1. Accord Research Base - Accord is located on Ares' equator, so that the planet's rotation aids in take-off, thereby requiring less expenditure of reaction mass.	
2. Seiman's Crater - This wide and shallow depression houses Accord's radio telescope, the biggest of its kind in the Helios system. The telescope is entirely automated and operated remotely from the Accord base, but technicians visit the installation periodically to conduct routine maintenance.	
3. Magellan Probe - The final resting place of the first Terranovan-built probe to land on Ares; constructed in the Humanist Alliance, the data transmitted by this lander led to the establishment of the first Ares research bases. The probe is over 200 cycles old, but due to the lack of weather on Ares, it exists more or less intact.	
4. Kellman's Gorge - This massive chasm is actually an immense impact crater, the result, according to current theory, of a collision with a rogue Kuiper belt object. The heat released by this impact resulted in the genesis of Ares' unique organic compounds.	
5. CNCS Base Alpha - The gravesite of the CNCS' first base on Ares. It was obliterated by the invading CEF fleet's orbital artillery.	
6. AST Research Station Aigle - Like its Northern counterpart, Aigle (Universal French for 'Eagle') is a burned-out shell. More than seventy people were entombed here by the CEF bombardment.	
7. Iijima Pharmaceuticals Research Post Tanabata - This is the newest of Ares' settlements, established in TN 1921. A purely commercial endeavor, Tanabata is entirely dedicated to the study of Ares' long-chain organic compounds, ostensibly with the goal of developing new medicines.	



Uneasy Neighbors ◆

The recent establishment of Iijima Pharmaceutical's Tanabata research post has been the cause of much speculation and controversy among Accord's crew. While Accord is dedicated to fostering international ties through multilateral scientific exploration, the Iijima post is unashamedly a commercial enterprise. Iijima Pharmaceuticals is a subsidiary of a branch of a puppet corporation of the Mekong Dominion's International Consumer Products, and it shares its parent company's rapacious business practices. While Accord makes its research freely available to everyone in the scientific community, Tanabata's researchers have been extremely tight-lipped about whatever findings they have made. This type of stonewalling has characterized Tanabata's relations with Accord. Tanabata's staff has been unfailingly polite in its handful of interactions with Accord, but frustratingly opaque, even to Mekong native Director Sorenson.

An extreme example of this isolationism came in TN 1937. Accord's instruments picked up some peculiar readings one day, and it soon became clear that there had been a horrific accident at Tanabata, its resupply shuttle having plummeted into the research post itself. It was obvious that the post had suffered both major structural damage and significant loss of life, but Tanabata steadfastly refused all of Accord's offers for aid. "Everything is under control," came the Tanabata administrators' bland replies. When Accord insisted, Tanabata's director indirectly threatened that force would be used were any of Accord's rovers to approach Tanabata. The Iijima research post was eventually able to recover on its own, but Accord-Tanabata relations have never recovered from that incident. Accord's crew gives the Tanabata facilities a wide berth whenever traveling overland, and Accord is always buzzing with all sorts of wild rumors about what Tanabata's researchers are doing and why they are so secretive. Everything from manufacturing vicious new biological weapons to constructing new stoneheads has been suggested, but none of Accord's crew feels satisfied with any of these explanations.



THE WONDER OF IT ALL



In a quiet corner of the Hutchinson Space Center, Pablo Martinez took off his duty jacket and stretched out on a deck chair, feeling more relaxed than he had in the last several seasons. He and the rest of his team had been given the afternoon off, but he had decided to stay behind and rest rather than go with them into town. Besides, there was something he just had to see.

"T minus two minutes to launch," declared a nearby loudspeaker.

He took a sip from his cawfee, then closed his eyes and felt the warmth of Helios on his face. A breeze was coming off of Lake Aurora, enough to feel cool but not enough to hamper the impending launch of a communications satellite. A technician had told him it was a routine launch, but nothing had been routine to Pablo in quite some time. He was still adjusting to life north of the equator, now that he was part of the Black Talons instead of the MILICIA. He could get used to Helios being in the wrong part of the sky now, and he could ignore the disapproving glances and whispers of Northerners as he walked down the street. The hardest part, though, was not knowing when he would see Marie again. They had begun dating shortly after he had made sergeant, and they had been together until he reported for duty with the Talons. She had given him a book their last night together, which he kept in his jacket pocket. He took it out and thumbed through it, not so much to read it as to think of her.

"T minus one minute to launch."

"Mind if I join you, Sergeant?"

Pablo turned and saw his commanding officer, Emily Hill. He started to get up, but with a wave she said, "Oh, as you were."

"Can I help you with anything, Comman - er, Captain?" He cursed to himself; he was still having problems with Northern Guard ranks.

"No, I just wanted to watch the launch," Emily said as she set up her own seat nearby. She made no mention of his mistake, which was one reason Pablo had grown to respect her. Many Guard personnel he had met would have taken some offense at the slip, and used the opportunity to make some smart remark about him personally, the MILICIA or the South as a whole. Emily, though, made it clear that none of that really mattered in the Black Talons. She hadn't even looked twice at the MILICIA rank flashes that still adorned his jacket. All that mattered to her was that you were a part of her team, and Pablo appreciated that.

"What have you got there?" she asked politely.

"Oh, it's a gift from my girlfriend," he replied as he put the book back in his jacket. *"She's a Gear pilot in my old unit."*

"Is it any good?"

"I really haven't read that much of it," Pablo admitted.

Emily chuckled, *"I know what you mean. I've got books at home that my husband gave me five cycles ago, and I still haven't read them. He's always giving me a hard time—"*

She became quiet suddenly as the loudspeaker counted down, *"Five, four, three, two, one, liftoff!"*

Pablo turned and looked, and his face broke into a wide grin as the rocket ascended from the launch pad. He was transfixed by the silver needle atop its pillar of flame for minutes, until he saw the puff of gases that signaled a stage separation. He laughed and said quietly, *"Wow. We're really going to do that?"*

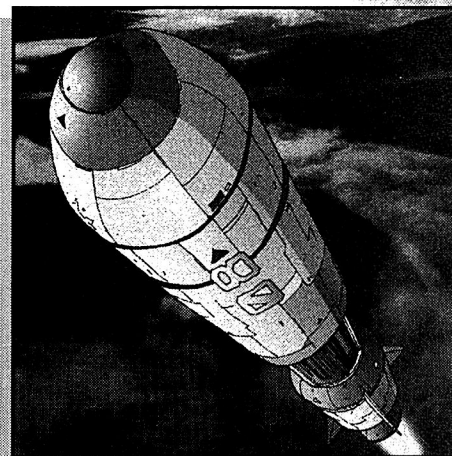
"Oh, yeah," he heard Emily say.



Introduction - 4.1

Spaceports and launch facilities enable and provide for the safe launch and recovery of spacecraft. Nearly every journey from a planet's surface begins at one, and nearly every voyage ends at one. To the everyday citizen of a planet, these centers of activity are largely unnoticed; not every city possesses a launch facility, and most people will live their entire lives without so much as giving the subject a second thought. To the men and women who work at these sites, of course, they are often the most interesting and exciting places on the planet's surface. Few workers don't look up from their mid-day meals and marvel at the fantastic machines climbing slowly toward space.

Launch facilities are a double-edged sword, however. They are part of the infrastructure that enemy forces seek to destroy in times of war, which puts nearby communities at great risk of receiving collateral damage. When the CEF invaded Terra Nova in TN 1913, it demonstrated this harsh reality by bombarding whatever its leaders thought might be a launch facility, hoping to cripple the planet's ability to mobilize a counterattack. Non-existent intelligence about the planet resulted much more widespread devastation than there would otherwise have been, however, and Terra Nova's counterattack was swift and powerful. In TN 1916, the Badlands city-state of Port Baja discovered just how risky maintaining an active launch facility could be in times of war, and it became one of the bloodiest battlegrounds of the War of the Alliance.



Terranovan Facilities - 4.1.1

Terra Nova possesses several launch facilities. The largest of these are the Port Aurora facility, recently renamed the Hutchinson Space Center, and the Port Oasis facility, referred to simply as "the Launch." Port Arthur possesses a small facility, as did the Badlands arcology Peace River before its demise at the end of the Interpolar War. Most major city-states maintain a small facility capable of handling a handful of shuttles or the occasional rocket launch. The number of facilities each league possesses is roughly proportional to the number of spacecraft it maintains (see **Tactical Space Support**, p. 39 for the exact numbers of spacecraft). The United Mercantile Federation, which operates the bulk of the CNCS' space assets, maintains the greatest number of sites, followed closely by the Southern Republic.

In addition to permanent facilities, the Terranovan leagues are capable of fielding mobile launch facilities if necessary. The smallest rockets, such as the South's Frelon and the North's Aries, can be carried overland and launched from temporary launching stations; the North even maintains a landship capable of launching its Aries rockets into orbit and moving to a new site before an enemy force can mount an effective retaliation.

Early Sites ♦

A planet's first spaceports are usually located at large bodies of water. The reason for this tendency is simple enough: a newly discovered planet lacks the concrete runways and launch pads of a developed world, so the first shuttles to touch down usually make water landings. During the early years of exploration of the planet, these splashdown sites become hubs of activity on the planetary surface, and the explorers and colonists quickly adapt them to receive increasing amounts of traffic. The concrete runways and launch pads are usually the first facilities to be constructed after rudimentary storage facilities are established; not all landing craft are equipped for water-landings, and the runways allow a more diverse assortment of craft to use the nascent facility. Control towers, permanent storage facilities and spacecraft service hangars usually follow the construction of the runways and launch pads. Housing for the new arrivals is usually constructed in concert with the rudimentary storage facilities, but at a site a few kilometers up-range from the spaceport's flight paths for safety concerns; should anything catastrophic take place at the port, the colonists will hopefully be spared.

Two other reasons exist for early sites to form at large bodies of water. First, the body of water itself can often function as a natural control over surface settlements. Through careful planning, a site can usually be chosen such that the most hazardous portions of both takeoff and landing occur over the body of water and away from populated areas. Second, the bodies of water provide a plentiful source of water for reaction mass (for landers equipped with fusion tubes), coolant and fire suppression.

Planets such as Terra Nova prove to be quite troublesome in the selection of initial spaceport sites. Lacking in large bodies of surface water at the equator, where the planet's rotation can greatly aid in achieving orbit, the first spaceports were confined to the polar regions. Port Oasis was founded on the shores of the largest southern lake, Lake Esperance, and Port Aurora was founded on the shores of Lake Aurora in the north. As an interesting footnote to history, the original, intended site for the northern port was Lake Clearwater, which is the northern hemisphere's largest body of water. A typographic error in the relaying of landing site coordinates resulted in the body of water 135 degrees *east* of the central meridian being chosen rather than the one 135 degrees *west*.



4.2 - HUTCHINSON SPACE CENTER

Built into the saguaro forests on the southern shores of Lake Aurora, the Hutchinson Space Center is the primary spaceflight center for the Confederate Northern City-States. Though it is neither as extensive as its cousins in the United Mercantile Federation nor as elegant as those in the Southern Republic, the Space Center is manned by a dedicated team who consider it an honor to be associated with one of Terra Nova's oldest spaceports.

Operating for centuries as the Port Aurora Space Center, the facility has developed a remarkably eclectic architecture and ambience. Terminals built to handle the traffic of recent cycles stand side by side with buildings that were declared historic monuments tens or hundreds of cycles ago. This retention of such old buildings, however, is only permitted as long as they serve a useful function. Any building that is rendered unsafe, uneconomical or simply obsolete is photographed and documented, then torn down as quickly as possible to make room for new construction. The CNCS Grand Library in Port Aurora has tens of thousands of images, schematics and blueprints of every laboratory, gantry and fuel tank ever constructed on the Space Center grounds, making it easily the most well-documented complex on the planet.

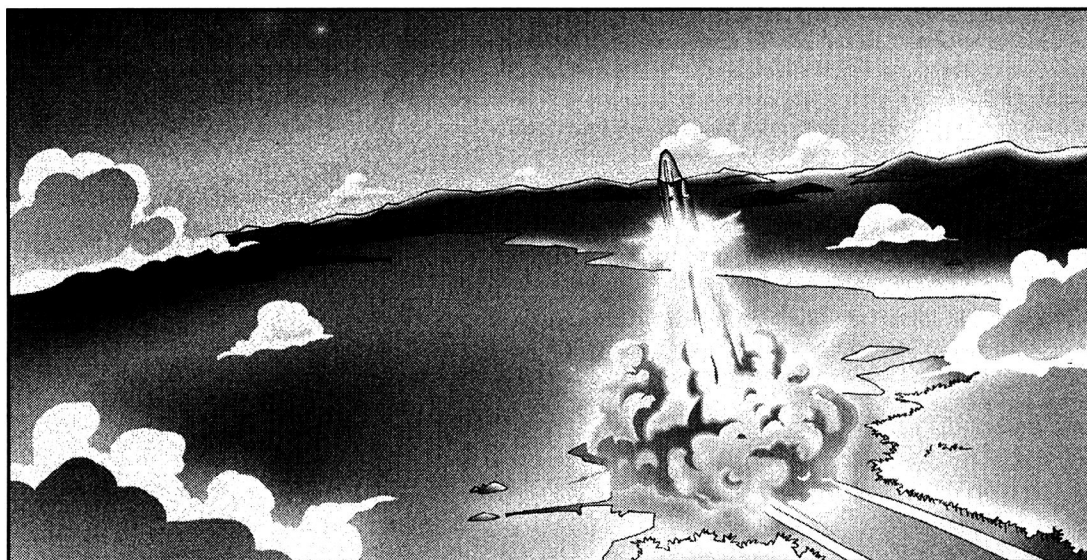
The facility has also played a crucial role in the defense of both the North and of Terra Nova as a whole, especially during the War of the Alliance. Rockets loaded with combat drones were launched in waves from the Center, and subsequently the facility was often subjected to Terran orbital bombardment. Its main launch pads were severely damaged in these attacks, but enough of the Center's infrastructure remained to support Northern Guard mobile launchers. The Space Center thus became a haven for "space guerilla" attacks, and remained a thorn in the side of the Terran space forces for the rest of the War. In the cycles since, the determined leadership of Center Director Miles Stephynson and his staff has breathed new life into the complex, and more activity now occurs around the Center than at any time before the War.

Throughout most of its history, the Space Center has been an almost insignificant tourist attraction for visitors to the city of Port Aurora. Every decade or so, the Port Aurora Chamber of Commerce would spend a small portion of its budget advertising the Center in northern travel magazines, but these attempts to bolster the site for tourism never panned out much. Consequently, budget requests to expand the Center's original Visitors' Building into something much larger have never been taken seriously, and the small building has primarily hosted only local school fieldtrips to the site. Recent events, however, have spawned newfound interest in the Center, and it is rapidly becoming one of the most popular sites in the twin cities of Port Aurora and Valeria.

Those who work at the Center have also seen it become a focal point for some very different groups. Renamed for Thor Hutchinson in TN 1940, the Space Center is the most public memorial to the slain Second Follower and thus is an important symbol for many devout Revisionists. The Center has likewise become crucial to the Westphalia Cabinet in the struggle against Earth, as much of the space training for Black Talon teams now takes place within the Center's facilities. Other less public activities also take place upon the Center grounds, making the Space Center a mecca for numerous conspiracy buffs and curious travelers.

Vital Statistics ☐

Date Established:	TN 495	Size:	Approx. 100 square kilometers
Number of Employees:	8500	Director:	Miles Stephynson, Ph.D.
Available Facilities:	Microgravity and foreign environment training complexes		
	Aerospace shuttle runways and rocket launch gantries and platforms		
	Facilities for satellite preparation, rocket assembly, and shuttle preflight and postflight processing		





Launch Facilities ◆

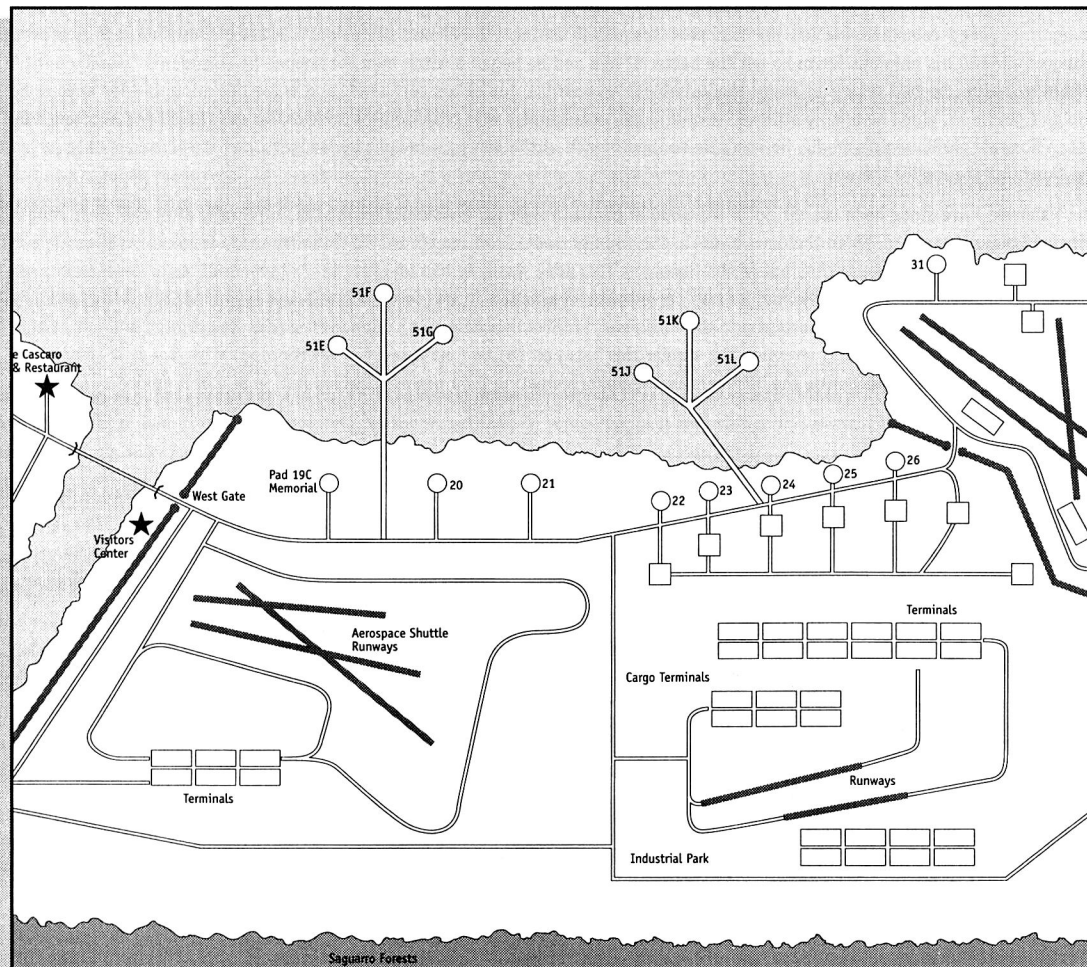
The main launch complex that forms the heart of the Space Center consists of seven launch platforms and their gantries and a like number of drop shuttle landing pads, all of which are spaced as closely together as safety regulations will allow. Although demand for launches has leveled off since the Interpolar War, other traffic is steadily increasing as the Westphalia Cabinet speeds up the tempo of the Black Talon program.

Two secondary launch complexes were also completed after the War of the Alliance, which are unusual in that the platforms are built up from the floor of Lake Aurora itself. Director Stephynson was under intense pressure from the Cabinet to resume launches once the War was over, but quickly learned that rebuilding the old platforms would take much longer than originally planned. As the reconstruction continued, Stephynson soon came up with a scheme to build new platforms in Lake Aurora for light launch vehicles, which would be connected to the shore by piers. Although roundly attacked by critics as a waste of resources, the Cabinet approved the plan when Stephynson showed that the new platforms would be ready fully three seasons sooner than the old ones. The six pads known as 51F through 51L were quickly built in TN 1919 and 1920, with flights officially resuming on 17 Autumn TN 1920.

Today, the Piers (as they have come to be known) are an integral part of the Space Center's civilian launch system. They handle almost all launches of light vehicles, leaving the shore platforms free to launch heavier rockets and drop shuttles. The Northern Guard also used the Piers for a time, but they stopped as soon as the platforms at the Port Aurora Northern Guard Base could resume service. Military launch officials never liked the exposed nature of the Piers, and moved their rockets back to more secure facilities as quickly as they could.

The Center also boasts a total of three aerospace shuttle runways, ranging in length from three to five thousand meters. Although most aerospace shuttles are capable of taking off vertically, they save considerable fuel by taking off and landing in a more conventional fashion. Four other runways set aside for standard aircraft also cross the Center grounds. The Northern Guard Base has its own shuttle and aircraft runways, but civilian aircraft are only permitted to land there in an emergency.

□ Map of Hutchinson Space Center





◆ Vehicle Postflight Revetments (VPRs)

Aerospace and drop shuttles are veritable kettles of dangerous substances, particularly the fuels used to propel them to orbit and maneuver them in space. When these vehicles return to Terra Nova, these toxic substances must be made safe before cargo and passengers may be offloaded and maintenance begun. Postflight revetments are simply large holes in the ground where this work may be done in safety.

These revetments are lined with beveled meter-thick walls of reinforced concrete, and are accessed by ramps from ground level that are pointed away from the runway or landing pad, to channel away any gasses or debris in the event of a catastrophic incident (read: an explosion). Once the vehicle is brought to a revetment, either towed or under its own power, the postflight ground crew goes to work. In their bright safety orange environment suits and specially modified vehicles and Gears, they pump unused propellant out of the vehicle into storage tanks, neutralize any maneuvering fuel that has built up on the spaceframe, and otherwise make the vehicle safe to work around. Once these procedures are complete, the spacecraft is moved to the appropriate terminal or hangar and the ground crew prepares to receive the next vehicle. This work usually takes about an hour, during which time the vehicle's occupants get the chance to reacquaint themselves with gravity.

◆ Port Aurora Northern Guard Base

A separate enclave within the Space Center grounds, the military base is the preferred launching site for Northern Guard space operations. The base duplicates on a smaller scale many of the facilities found within the Space Center proper, including separate aerospace shuttle and aircraft runways and rocket launch platforms. Military and civilian operations can thus coexist with minimal interference from one another, though there have been instances of civilian flights being held or cancelled due to "matters of military urgency."

The base is also the home of the Northern Guard's 129th Armored Cavalry Regiment, known as the "Prophet's Hammers" (see **Northern Guard Army List**, pp. 66-69 for more information). The last few cycles have not been kind to the Hammers, particularly since the unit was part of the first Guard push into Mekongese territory at the beginning of the Interpolar War. The shuttle containing the unit's commanding officer, Colonel Alderic Elden, was destroyed by surface-to-air defensive fire, and Major Alphonse Traugott assumed command. He led the Hammers adequately during the Mekong campaign, but once those battles were over, Traugott allowed his religious fervor to get the better of him and he began a witch hunt for anyone he considered "morally unfit." Within a season, he had driven as many "undesirables" as possible out of his command, and made life miserable for anyone he couldn't get rid of. When he openly attacked several Guard commanders who criticized his policies, he was sacked and succeeded by Anton Rosweld. To Rosweld's credit, he was able to repair much of the damage wrought by Traugott, and the Hammers ably served the North for the rest of the war.

The Hammers have since been caught up in the popular backlash against Revisionist extremism, especially after the press caught wind of Traugott's actions. When the news broke in the popular media, unit morale took a clubbing and Colonel Rosweld's staff was swamped with requests for transfers out of the Hammers. This slide was only halted with the assignment of Major Josef Heintziger as the 129th's executive officer. Heintziger had served with distinction in the famous 7th Gear Regiment "Cat's Paws" and is a respected combat leader. More importantly to the Hammers, however, Heintziger is a learned Massadan Revisionist, and has written several reputable journal articles stressing the similarities between the two main sects of Revisionism. With Rosweld's leadership and Heintziger's spiritual authority, the Hammers are gradually recreating their professional reputation as a unit guided by faith, not hamstringed by it.

◆ Microgravity Familiarization Facility

This large, plain structure on the Space Center grounds is where most Northerners get their first taste of life in space. The various Northern space services send most of their trainees here to be conditioned against Space Adaptation Syndrome, practice emergency procedures in vacuum chambers while wearing spacesuits, and otherwise learn enough about their new environment to acquire basic certification.

One wing of the Facility houses the spacesuit simulators that are so often seen on educational trideo programs. By adjusting the tension on the cables that suspend these suits from the ceiling, the rate at which the suits and their wearers rise and fall can be adjusted. This helps to simulate the gravity on different worlds, both in the Helios system and elsewhere. This wing also includes several vehicle simulators, particularly the infamous "Vomit Hunters."

These surplus Hunters have had their limbs and V-engines removed, and their chassis are mounted on multi-axis suspension systems. These systems are combined with virtual training exercises to demonstrate to pilots how Gears react in different gravity environments. From this basic introduction, pilots move to different simulators to acquaint themselves with the handling characteristics of their particular machines. Although trainees rarely become ill by using this equipment, the name has stuck, much to the chagrin of the technicians and staff.



Pad 19C Memorial ◆

As the Piers were being built, the reconstruction of the main launch complex briefly came to a halt in the Winter of TN 1920 when surveyors assigned to evaluate Pad 19C made a grisly discovery. The bodies of twenty-seven workers, missing since the War of the Alliance, were found entombed in a maintenance bunker near the pad. The men and women had most likely died during one of the many Terran orbital strikes against the Space Center, when tons of rubble blocked the bunker's access hatch and sealed the men inside.

When the survey data was later analyzed, it was determined that the platform was beyond salvaging. Director Stephynson then halted all further work on Pad 19C, and announced it would be dedicated as a memorial to all Space Center personnel who had given their lives in the service of their league and their world. In a solemn ceremony on 29 Winter TN 1920, the bodies of the workers were laid to rest in the bunker where they had been found. The area around the pad was cordoned off from the rest of the Center, and the remaining structures were each painted with somber declarations to "Abandon In Place."

Space Center Visitors' Complex [Under Construction] ◆

The Westphalia Cabinet's acknowledgment of the existence of the Black Talons, and a subsequent leak to the media that Talons train at the Space Center, has resulted in remarkable public interest in the site. There have been enough requests for public visits and tours in recent seasons to convince Director Stephynson to dust off plans for a proper visitor's center. Until the War of the Alliance, visitors to the facility were taken on a brief tour through some of the historic sites, past a set of static vehicle displays and through a plain building with some threadbare and unremarkable historical artifacts. All of these were destroyed during the Terrans' orbital bombardment, and there has been neither funds nor interest in replacing them in any way — until now.

The Cabinet has recently approved funding for the visitors' complex, and Stephynson has made several public appearances promoting it as a center for learning and research for everyone. The showcase of the complex will be an auditorium that Stephynson has taken to calling the Amphitheater. Visitors will be seated around a large stage in the center of the hall, which will contain the largest open-air holographic system on Terra Nova. When activated, the system is designed to render full-scale holographs of many of the spacecraft and rockets used on Terra Nova, as well as reduced-scale images of Gateships and other large craft. A system test in early TN 1943 featured a remarkably immense and detailed holograph of the UMFGS Laban Emuros, which greatly impressed Stephynson and a visiting delegation from the Federation Space Defense Corps. The Visitors' Complex is scheduled to open in Summer TN 1945.

Playa de Cascara Hotel & Restaurant ◆

The Playa de Cascara is an unassuming hotel complex across the Thorn River from the Space Center, near the Center's West Gate. Several low-slung cabanas, many near the lakeshore, surround a large meeting hall and restaurant. This hotel is unique, however, in that it is owned by a former astronaut, and it has become the preferred "spacer's dive" around the Center.

Jon Myrdon was a crewman aboard the UMFSS Washington until an accident during a weapons drill cost him his right hand. Although Federation doctors managed to grow a new hand for him, it didn't quite take and the subsequent loss of manual dexterity cost him his flight status. He resigned rather than take a desk job, but he soon began to miss the company of other spacers and looked around for a place where they spent their time while on the ground. When he didn't find one, he decided to create his own.

The Playa de Cascara does respectable business as a hotel, but the restaurant draws the most customers. Here, spacers weave tall tales to impress gullible reporters and potential romantic interests, veterans try to pass on knowledge to rookies before they go up, and John gets to hear the latest happenings in the industry as he serves the best emerva fish in the area. John runs the hotel with the help of his wife, Anya.

The Church of Hope, Faith and Charity ◆

This Revisionist church near the Space Center had been in serious decline until Thor Hutchinson was assassinated in TN 1939. In the days after that tragic event, a rundown parish that was half empty on a good day was packed to the rafters with people, many of whom had not set foot in any church in cycles.

The people's grief soon turned to anger, as the days turned to weeks and the investigations into Hutchinson's death yielded little. Fortunately, the church was under the leadership of Mother Katheryn Anthony, a former monk of the Order of Dorothea. By the example she set in those dark hours with her strength and compassion, Mother Anthony was soon able to channel the parishioners' yearning to act towards constructive ends, and much of her flock became involved in a long overdue renovation of the parish. By the time the Space Center was renamed in Hutchinson's honor, the church had been transformed into a warm and inviting place for the faithful to gather.

Today, the Church of Hope, Faith and Charity bustles with activity, and has become an unofficial pilgrimage site for Revisionists to pay their respects to the memory of Thor Hutchinson. It is also one of the last stops many spacers make before leaving the embrace of Terra Nova for the hostility of space.



4.3 - PORT OASIS LAUNCH FACILITY

Located thirty kilometers east of the city of Port Oasis proper, the Port Oasis Launch Facility, also known simply as the Launch, is the premier spaceport of the South. Built in TN 492 to support the first wave of mass colonization, the Launch has been in continuous operation for over 1400 cycles. Although heavily damaged by orbital bombardment during the War of the Alliance, it managed to continue launches of attack drones right up until the end of the War, helping greatly in forcing the CEF fleet out of Terranovan orbit. After the war the reconstruction of the facility was made a high priority, and it was completely functional again in a matter of cycles. Today the Port Oasis Launch Facility sees a variety of commercial operations in addition to those of the Aerospace Directorate and the Republican Army.

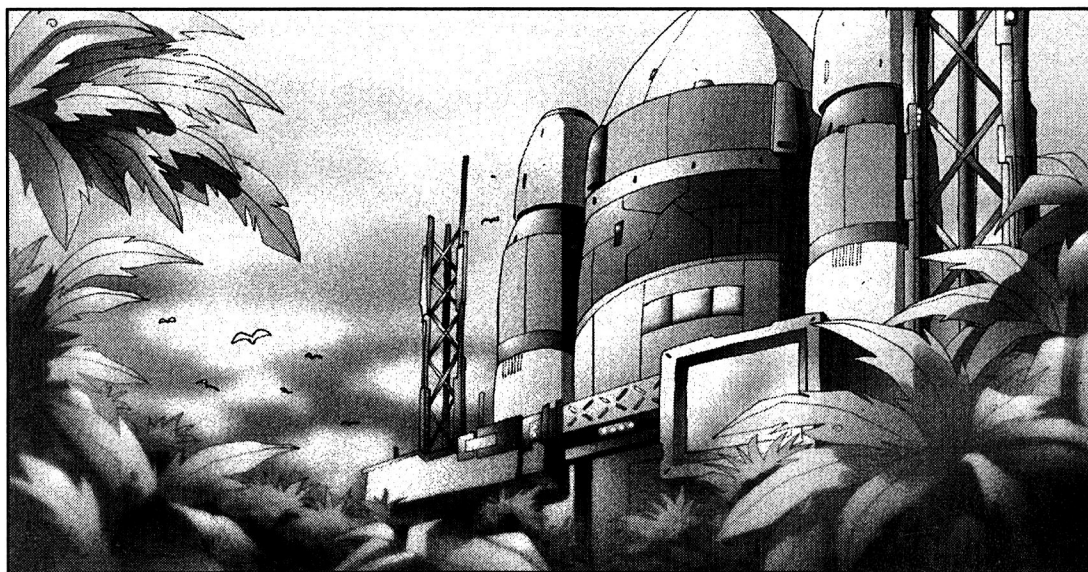
The Launch is known as the best defended location on Terra Nova, as the Southern Republican government firmly believes in the importance of controlling access to it. The entire facility is surrounded by a pair of electric fences, separated by a hundred-meter wide mine field. The only access to the facility is through a perimeter checkpoint on the highway leading to the city. Inside, it is defended by the 6th Infantry Brigade, the 9th Gear Brigade, and the 8th Cavalry Regiment. Security is provided by the Port Patrol, a regiment-sized force under the command of the Aerospace Directorate and equipped mainly as a light infantry force, but which also includes some Gears and light armored vehicles for patrols and rapid response. Finally, Legion Noire units are stationed there on a rotating basis. Outside the perimeter, the region is patrolled by the three landship groups permanently assigned to the area and two air wings operate from nearby airfields: the 2nd Air Cavalry Regiment (the Feathered Serpents) and the 11th Interceptor Regiment (the Emerald Hawks).

Despite the heavy security, the Launch is very popular as a tourist attraction. It receives tens of thousands of visitors each year and the Aerospace Directorate is only too glad to show off its work. Visitors are carefully monitored and are guided around in well-organized groups but do get to see most areas of the port. Several of the corporations at the Launch also have open days to allow tourists to inspect their operations and to provide free publicity. Tours end at the Visitors' Center, which features an exhibit on the Helios system along with a memorial for members of the Space Defense Branch who served during the War of the Alliance and a display highlighting the Aerospace Directorate's more recent activities.

The Launch's security forces and dominant military nature are a sharp contrast to its opposite in the North. Space industry news magazines frequently compare the two (unfavorably for the Launch) by remarking, "Hutchinson Space Center is a civilian complex with a military base tacked on almost as an afterthought, while the Port Oasis Launch Facility is a military base at heart and a civilian center purely by accident." Director Duniam is always quick to defend the Launch — in a pointed letter to the editors — by noting that the facility actually has a much stronger tourism trade than the HSC. He is quite proud of his facility's popularity, since it helps temper somewhat the overwhelming presence of the military and reaffirms for him the promise that space will one day not be populated with soldiers.

Vital Statistics ☐

Date Established:	TN 492	Size:	Approx. 160 square kilometers
# of Employees:	3300 (Aerospace Directorate and civilian personnel only)	Director:	Aerospace Directorate Vice-Director Gerard Duniam
Facilities:	Aerospace fighter airfield		
	Aerospace shuttle runways and rocket launch gantries and platforms		
	Facilities for satellite preparation, rocket assembly and shuttle preflight and postflight processing		

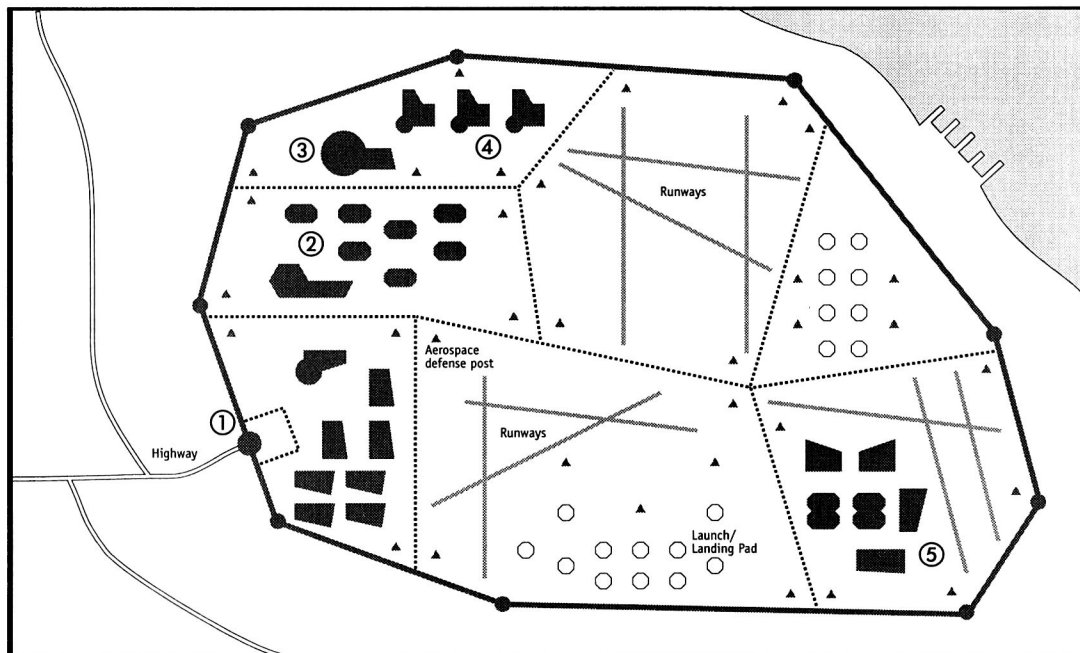




Map of Port Oasis Launch Facility

Location	Description
1 Checkpoint - All traffic arriving at the launch facility must pass through the checkpoint that straddles the only access road. After being searched and their passengers checked against SRID records, vehicles enter the facility proper through a tunnel under the perimeter fences and minefield.	
2 Command Bunker - This subterranean bunker is the defense headquarters for the facility and is manned 36 hours a day. It coordinates the operations of the Port Patrol and the various military units as well as monitors the electrified perimeter fence and mine field.	
3 Tactical Training Center - The Port Patrol and other military units train here for a variety of tactical scenarios involving the launch facility. This group of buildings is strictly off-limits to other personnel.	
4 SRA HQ - This area is home to the army units stationed at the facility. The barracks, vehicle hangars and command posts are patrolled by military police rather than the Port Patrol, leading to some disputes between the two groups.	
5 Aerospace fighter airfield - The Army Space Defense Branch's aerospace fighter wing, the Red Loons, is stationed here. The Red Loons are responsible for defense of close orbit above the launch facility.	
6 Civilian facilities - This area contains the visitors' center, the civilian terminal and the headquarters of the Aerospace Directorate. Several corporations operate from here and it is also home of the Directorate's astronaut training program.	

Map of Port Oasis Launch Facility



Tactical Training Center ◆

Tucked away in a corner of the military quarter, the Tactical Training Center is not included in any tour of the launch facility. Here the Port Patrol, along with the Legion Noire, the Colonial Defense Corps of the Space Defense Branch undergo a variety of training exercises. A mock-up of an aerospace shuttle on a runway and a launch vehicle and launch pad are used to train for a variety of hostage rescue and assault scenarios. They are also used by the facility's emergency services to practice fire fighting and to train for other emergencies, such as forced landings, quarantine situations and chemical spills. While these activities are semi-public, whatever training that takes place inside the large windowless buildings that make up the rest of the center is strictly confidential. It is rumored the buildings contain low and zero gravity simulators, along with mock-ups of off-planet bases and space stations, both Republican and foreign, and that the training scenarios include sabotage and full scale assaults on enemy facilities.

What is known is that the center has its own staff of technicians, trainers, 'enemy soldiers' and 'terrorists,' apparently part of the Space Defense Branch, who work to make the life of visiting units undergoing training as difficult as possible. The objectives of the exercises are often changed halfway through or the units are confronted with seemingly no-win situations. This is designed to keep the training units on their toes, although the center's staff seems to take a great deal of delight in tallying up the number of Legion Noire soldiers they have 'killed.' Nevertheless, the standard of training is high and the Black Talon program has repeatedly petitioned for permission to use the center in its training. So far these requests have been denied by the Southern Republican Army without comment.



◆ Jardin de la Paix

In the middle of the 16th century, the Marabou Marauders forcibly integrated a handful of southern, independent city-states into the Southern Republic. The group readily captured control of the poorly defended spaceport facilities of Port Oasis while the city itself braced for violent fighting in its own streets. The battle, however, never came. With their hold on the spaceport, which was their primary objective, the Marauders were content to wait-out the city defenders. Within weeks, the Port Oasis Treaty was signed and the city-state was a vassal of the new Southern Republic with hardly a shot being fired.

The Jardin de la Paix commemorates the signing of the Port Oasis Treaty. Constructed on the site where the treaty was signed, the memorial is a peaceful garden park covering four square kilometers. It features a set of long, winding paths that meander throughout the grounds. Stone benches and tables are located along the paths, and the park includes a small, artificial lake as well as a glass building that contains a copy of the treaty and a brief history of the Marabou Marauders' besiegement of Port Oasis.

Not actually part of the Launch itself, the garden is located just across the access road from the entrance to the complex. Being so close and providing an atmosphere far more relaxing than the military environment of the spaceport, the Jardin de la Paix is a popular spot for staff to take mid-day and evening meals — those who are willing to double their trips through the security checkpoint, at any rate. It is also a popular picnic site for tour groups visiting the Launch. Because of its proximity to the spaceport, the garden poses a sizeable security risk, and Port Patrol guards always escort important spaceport VIPs. In addition, an infantry escouade detachment from the Patrol's 3rd Compagnie maintains constant watch of the grounds.

◆ Red Loon Facilities

Attached to the Space Defense Branch's Orbital Defense Corps, the Red Loons aerospace regiment is a recent addition to the Southern Republic's armed forces. The unit was created in TN 1934 in order to provide a rapid response force to defend the spaceport from orbital attacks. In the initial planning stages, the ODC determined that trans-atmospheric aerospace fighters would be the unit's best hope for accomplishing its mission. Unfortunately, such technology had never before been in high demand on Terra Nova, and surprisingly few fighters had been conceived during the planet's history — fewer still had passed beyond initial think-tank stages and all but one (the Paxton Arms SP-2 Whipsnake) had never reached any stage of production beyond drop-test frames for de-orbit trials. Several CEF TAAF-54 fighters had been captured or recovered partially intact during the War of the Alliance, however, but these were mothballed in storage facilities while the planet's governments attended to more pressing matters. In order to rectify the situation and provide the Loons with the tools the wing needed to do its job, the ODC initiated a two-stage plan. The first stage was to adapt the L-45 Aspic fighter for stratospheric flight in order to provide an interim solution. The second stage was to develop a trans-atmospheric fighter based on the mothballed CEF technology.

After the formation of the unit, the Red Loon facilities were constructed in TN 1935 within the Launch compound on an area of land designated for such future expansion. The modified Aspics were delivered just as the runway surfaces were completed, and the unit was good-to-go. A pair of Paxton Arms Whipsnake anti-orbital strike spaceplanes joined the unit in TN 1936, providing the unit with its first actual trans-atmospheric fighters.

The Red Loons aerospace regiment consists of three wings of fighters: two interception wings of ten Aspic-S fighters each and one anti-orbital strike wing of five Aspic-S fighters and the two Whipsnakes. Commanded by Commandant Michele Fontaine, twin sister of the Emerald Hawks' Commandant Gabriele Fontaine, the Red Loons' fighters are painted a brilliant red with a stylized bird's beak at the nose. The new aerospace fighters are scheduled to begin performance trials in TN 1944 and the full production runs may ship as early as TN 1945.

4.3.1 - Military Presence

Although the best-defended location on Terra Nova, the sheer number of military forces permanently stationed at the Port Oasis Launch Facility frequently causes a logistic and bureaucratic nightmare. While over 700 Heavy Gears, nearly 200 tanks and over 2000 combat-ready infantry troops — plus their support compagnies and command sections — are manageable forces for a military base, it is the conflicting command structures, overlapping jurisdictions and subsequent territorial disputes that cause the real hassle.

The majority of the forces are under the direct control of the Southern Republic Army. These forces are primarily intended for the defense of the facility in times of war, but are kept at combat-ready status at all times given the likelihood of the Launch being the target of an unexpected attack. The Port Patrol, however, which is given security duty for the base, is under the direction of the Southern Republic Aerospace Directorate. The SRAD is well known for its disapproval of the militarization of space and frequently does all it can to stymie the Army's attempts at it. The leaders of the two organizations frequently find themselves engaged in shouting matches with one another, and it is a rare week that passes without a minor scuffle between their troops.



SRAD Port Patrol ◆

The Port Patrol is the combined-arms regiment assigned to base security for the Launch; as such, it is part of the Aerospace Directorate rather than the Army. Commanded by Commandant Helene Xerxes, the Port Patrol oversees the check-in of staff and visitors at the Launch's gates, patrols the facility grounds and maintains the minefield that surrounds the base. Since it is under the command of the SRAD, the regiment is often treated by the Southern Republic military as no better than the MILICIA. This fact frequently enrages the Patrol's members, many of whom think very little of the MILICIA themselves.

The regiment's 1st Compagnie consists of recon Gears and the base's two military police cadres. 2nd Compagnie contains the regiment's strike, general purpose and fire support cadres. The 3rd Compagnie is an infantry compagnie of 160 troops; most are non-specialized soldiers, although the compagnie also includes a demolitions escouade, two heavy weapons escouades and a marksmen escouade. The infantry of the Port Patrol perform the majority of the entrance security detail and the minefield maintenance; the Gears are mostly involved in patrolling the grounds, though one strike cadre and a general purpose cadre are posted at all times at the gates. The Port Patrol's vehicles are usually painted in deep black with a stylized version of Terra Nova on the left shoulder cover. Not very practical for camouflage during daylight operations, the scheme is quite effective at night and can be changed fairly quickly to an urban pattern if need be. It also serves as a visually distinctive look for the Patrol, a touch that civilian tourists often appreciate.

9th Gear Brigade ◆

The 9th Gear Brigade provides the majority of the Gear and strider defense for the Launch. A so-called "brigade petite," the 9th contains only two Heavy Gear regiments instead of the usual three, and it entirely lacks a cavalry regiment. (The 8th Cavalry Regiment stationed at the base is under the command of the 4th Cavalry Brigade, further complicating the chain of command for the on-site forces; this situation is expected to be rectified in TN 1945, the same time the Red Loons aerospace regiment is scheduled to receive its aerospace fighters.) The 9th Brigade is under the overall command of Sous-Prefect Azalia Montclair, who is the senior of the two sous-prefects on duty at the Launch. Under her immediate command are Commandant Bazille DuPont of the 128th Heavy Gear Regiment and Commandant Henri Shulz of the 37th. Sous-Prefect Montclair spends much of her time wishing a horrible fate would befall Commandant Xerxes of the Port Patrol, who, although technically of lower rank than Montclair, has the power as head of base security to overrule Montclair on most issues.

The 128th Heavy Gear Regiment, the Iron Sights, is primarily a heavy assault regiment. Consisting of 180 Heavy Gears (approximately half of which are Spitting Cobras or a variant thereof) and 36 Naga striders, the Iron Sights routinely train for heavy building-to-building combat and urban fire support missions; during these times, the Launch is closed to visitors and civilian staff are kept clear of the training areas. The regiment's vehicles are usually painted in an urban camouflage. The 37th Heavy Gear Regiment, the Assassins, is a recon force. Its 240 Gears are dedicated to reconnaissance and stealth, and they often engage in long-range patrols around the base — though not for the Port Patrol's sake. The Gears of the 37th are painted in wilderness camouflage to blend in with base's surroundings.

11th Interceptor Regiment — Emerald Hawks ◆

The SRA Air Cavalry Branch's 11th Interceptor Regiment, the Emerald Hawks, is stationed approximately fifty kilometers east of the Launch at Davis-LaSalle Air Cavalry Base. Along with the 2nd Air Cavalry Regiment, stationed seventy-five kilometers southwest of the Launch at Clemmings Air Cavalry Base, the 11th is charged with the air defense of the facility. (The Red Loons, stationed at the Launch proper, are responsible primarily for its orbital defense.) Flying regular patrol missions in its Aspic air-superiority fighters and Quetzal ground attack fighters, the Emerald Hawks share a friendly rivalry with the 2nd (the Feathered Serpents) that almost never escalates beyond harmless boasting.

The 11th consists of three interception wings and a ground attack wing. Each interception wing has two escadrilles of five Aspics each, and the ground attack wing has two escadrilles composed of two Aspics and three Quetzals. The fighters are always painted blue on the underside and a green camouflage pattern on the topside; the control surface flaps are usually painted a brilliant emerald green when the fighters are on low alert, but the paint can wash off easily in the event that they are forced to go to a higher level of alert. All told, there are thirty-four Aspics and six Quetzals in the regiment, which is under the command of Commandant Gabriele Fontaine, twin sister of Commandant Michele Fontaine of the Red Loons aerospace regiment. While the Emerald Hawks are rarely directly involved in the territorial disputes the plague the Launch, most members aren't above taking a swing at Port Patrol personnel every now and then to avenge a minor infraction against the Red Loons, whom they often treat as siblings thanks to the relationship between the two commandants.



4.4 - NCS-45 WESTPHALIA

The Westphalia is the last of the three CNCS mobile launch landships of the Aurora class. Her sister ships, the NCS-37 Utrecht (TN 1896-1915) and the NCS-43 Versailles (TN 1900-1916), were lost during the War of the Alliance. An understated vessel, the Westphalia was first laid down at the Zagazig landship yards in TN 1901; she was completed in TN 1904. Her first successful rocket launch was in Spring of TN 1905. Capable of simultaneously launching four light lift vehicles similar to the South's Frelon rocket (**Tactical Space Support**, p. 93) and carrying an additional four, the Westphalia is a vital part of wartime Terranovan-based space operations. Although she is always accompanied by at least one rocket fuel tanker, she carries enough in her own internal holds to launch all of her rockets. The fuel holds are heavily armored and self-sealing, and numerous safeguards insure that the chances of a catastrophic explosion are minimized. At all times, landship escorts are assigned to the Westphalia due to her strategic importance.

Rocket launches are conducted while stationary, with heavy stabilizing pads deployed to prevent the Westphalia from crashing into the ground or listing to one side during the violent launches. The rockets themselves are stored in self-contained launch bays. Each bay carries two rockets, one assembled and in the launch position, the other in pieces, waiting to be prepped for launch. Retractable gantries are elevated above the launch port, and the drones or decoys that make up the payload are loaded during assembly of the rocket. It usually takes approximately eight hours to assemble, load and launch a rocket safely. However during the War of the Alliance, the Westphalia routinely conducted launches as soon as the rockets were ready to fly, only two hours after the previous launch. The launches are dramatic, and they shake the Westphalia considerably, despite the shock absorbers and the fact that the rocket exhaust is vented out the bottom of the ship.

4.4.1 - Service Record

The Westphalia was commissioned as tensions between the North and South were rising quickly. It was thought that a mobile launch facility would be able to survive the upcoming global conflict and be of great strategic value. However, the arrival of the NEC's forces saw the Westphalia and her sister ships being thrust into even greater prominence since it was difficult for the CEF to predict where Terranovan rockets would come from, which were carrying decoys and which were carrying drones. The Westphalia's mobility made her especially important when CEF space assets were at their strongest. She did not suffer the fate of fixed launch facilities in the North or South, and she continued launching drone-filled rockets until the Treaty of Westphalia was signed. Only once did she come under fire from the 8th Fleet, and she was never directly attacked on the ground, though there were a number of close calls.

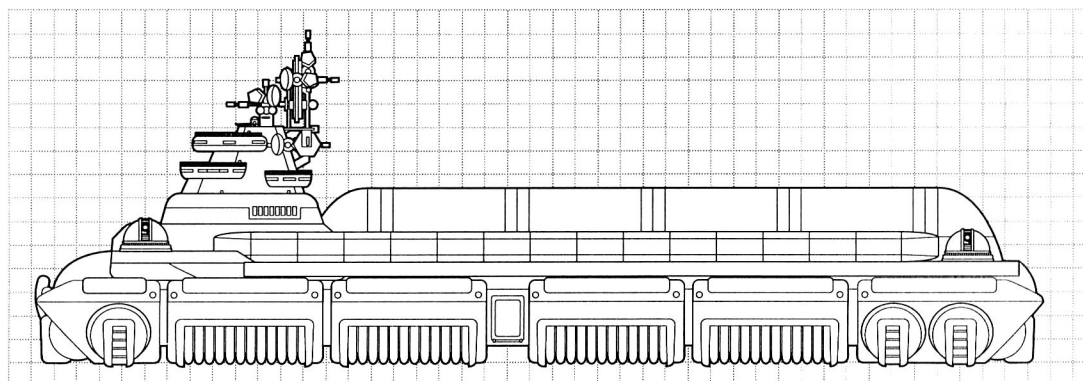
During peacetime, the Westphalia serves both the NGSS and the CNCS civilian space agencies. The Westphalia Cabinet is especially interested in the Westphalia, since her mobility will once again become a major advantage when the CEF inevitably returns.

Game Statistics ☐

Threat Value:	118066	Offensive:	5888	Defensive:	14387	Miscellaneous:	333923	Lemon Dice:	1
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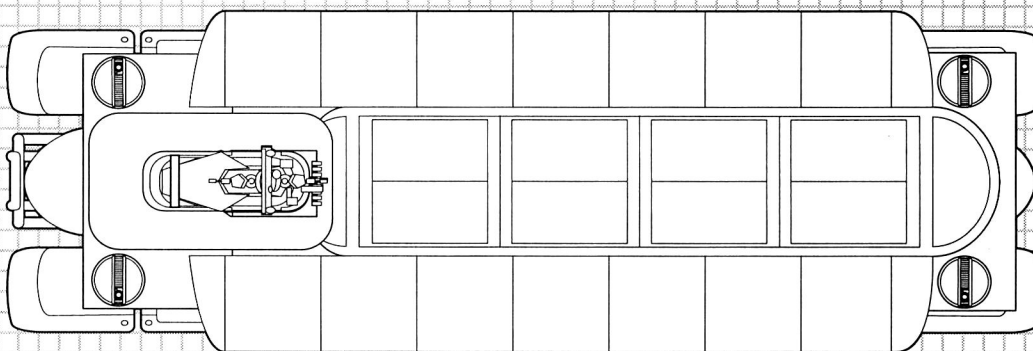
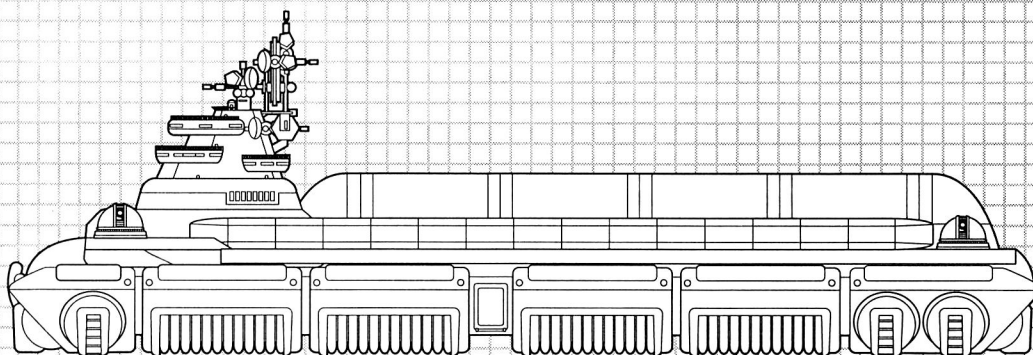
Vehicle Specifications ☐

Name:	Westphalia	Length:	260 meters
Class:	Aurora	Width:	90 meters
Production Code:	NCS-45	Height:	55 meters
Manufacturer:	Zagazig LandNaval Dockyards	Overall Weight (including fuel):	7265 tons
Use:	Mobile launch facility landship	Armor Material:	Durasheet Heavy Laminate
Powerplant:	3 x 1.1 GW AKP-11b Fusion Core	Average Armor Thickness:	0.5 meters
Secondary Powerplant:	4 x 60 MW Turbogenerator	Maximum speed:	30 kph



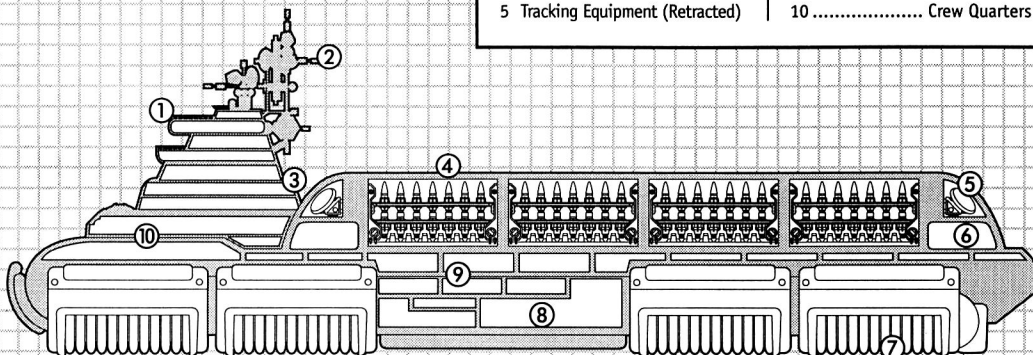


Deck Plans - 6.4.2



Legend

- | | |
|----------------------------------|---------------------------------|
| 1 Bridge | 6 Workshop & Clean Rooms |
| 2 Communication Tower | 7 Propulsion & Lift Units |
| 3 Launch Control | 8 Ground Vehicles Hangar |
| 4 Launch Bay 1 | 9 Bulk Storage |
| 5 Tracking Equipment (Retracted) | 10 Crew Quarters |





4.4.3 - Launch Procedures

Standard operational procedure for launching a rocket from the Westphalia begins almost immediately after the previous rocket is clear of the ship. Automatic dispensers spray smart coolant foam into the launch bay as the gantry is partially retracted. The evaporation of the foam indicates that the bay is cool enough for the crew to enter, wearing protective suits similar to those worn by firefighting teams. The crew then assembles the next rocket for launch with pit-crew speed and teamwork. The next rocket is brought out from behind blast doors in component pieces and moved onto the launch pad. The gantry is fully extended, and using a system of cranes mounted on the gantry and inside the vehicle bay, the rocket is assembled and loaded, after which it is primed and fueled for launch. Fueling is the most stressful activity for the launch crew, especially if the bay is still hot. Under such conditions, the crew will be wearing bulky protective clothing, while the bay itself is still covered in sticky cooling foam. After fueling, the crew checks the rocket, evacuates, and the rocket is launched.

The Westphalia's record for quickest successive rocket launches is 113 minutes 52 seconds, achieved by Sgt. Yanav Valency and his crew in TN 1916 during the War of the Alliance. The hurried pace of his team exposed the crew and the ship to more risk of catastrophe than normal, but the situation warranted it: the CEF 8th Fleet was dropping troops in Baja, having finally evaded Terra Nova's first wave of drones. In modern times, more stringent safety precautions are usually followed.

The launch bay crews are highly trained and motivated. Crews are usually drawn from two sources: field technicians and crash crews. This selection helps ensure that rockets are assembled quickly and carefully, by competent people used to working in hostile environments in bulky protective clothing. Sgt. Valency and two other members of his launch crew deserve special mention: they were members of an Innsbruck Death Track 1000 pit crew before the War of the Alliance.

4.4.4 - Launch Bays

The Westphalia's four launch bays are self-contained modular units with a high level of redundancy designed to keep the ship launching rockets in the most difficult of conditions. The bays are essentially highly durable, heat resistant cylinders with retractable cranes and walkways. Adjacent to each launch bay is its cargo bay, where another rocket lies waiting in component pieces, and the crew assembly area/control room. Running the length of the ship and connecting each launch bay to the main cargo hold is the rocket tunnel. Through this conduit, rocket components are sped down rails to re-supply the launch bays. Heavy blast doors seal everything off from the main bay during a launch.

Rockets are assembled vertically, in the launch position. This is done with the aid of the retractable gantry, which is erected over the launch bay tube. The gantry has one main lift crane and four smaller utility arms to position the rocket components better as they are assembled. Located in the bay itself are a variety of cranes and tracks enabling the launch crew to move the components about easily and efficiently. The rocket is fueled by means of a flexible ceramite-alloy pipe that is connected to the fuel supply pump by means of a highly secure and redundant locking mechanism.

During operations, a launch crew may be required to stay on alert for extended periods of time. Because of this, the each control room has sleeping and sanitation facilities, as well as food and water supplies. The control room is designed to function as the mission control station, though launches can be controlled from the Westphalia's main bridge. Despite an overall ergonomic design and comfortable chairs, the control rooms are considered the most cramped places aboard the Westphalia.

◆ No Smoking

"People like to glorify the Westphalia. Now, don't get me wrong, she's a lovely ship. I'm proud to have served in Launch Bay Four as crew chief for fifteen cycles, but let's face it: she's a glorified fuel tanker that occasionally puts things into orbit. Most of her operational weight is made up of highly flammable, volatile rocket fuel. So, after nearly being incinerated three times, I enforced a strict no-smoking policy among my launch crew. Eventually the whole ship's crew caught on. The tradition is that no one is allowed to smoke during their stint on the Westphalia — even when they're on leave.

"To signify your transfer on board, you've got to smoke one last cigarette or cigar or pipe or whatever. Even kids who have never had a single drag in their lives have to choke down a whole cigarette. Now, if you're caught smoking, well, let's just say that I'm told the coolant foam used in the launch bays is not particularly tasty. I hear that [Captain Theresa] Mogabe hasn't smoked in nineteen cycles. She still keeps the butt of her last cigar on a little stand in her quarters. To signify your transfer off the Westphalia, you've got to smoke something as well. When I finally left the service, my crew surprised me with a box of hand-rolled cigars from Gardena. It's been nearly thirteen cycles since, and I still haven't had another cigar. Those things will kill you, you know."

— Sergeant (ret.) Yanav Valency, TN 1935



4.5 - ES-3 FIRE TRUCK

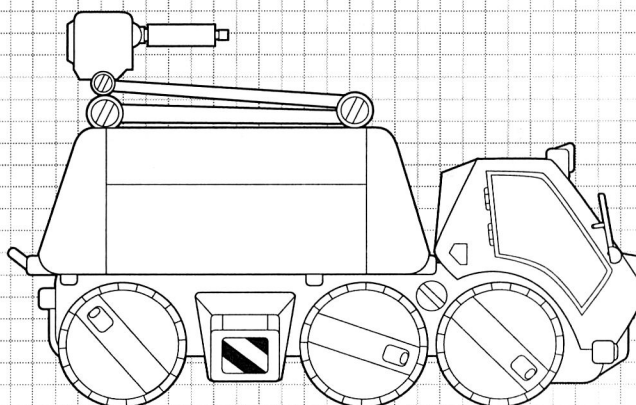
Fire has always been a danger to civilization, but it is especially so near the extremely flammable materials found at a launch site. At these facilities, airport-style fire trucks are always on standby as a precautionary measure during any take-off or landing. Virtually unchanged since their creation on ancient Earth, these vehicles are rugged and fast. Adapted from the venerable military five-ton truck, the Southern ES-3 emergency vehicle is a typical example of a fire-fighting unit. It has six large tires and a 180 horsepower diesel engine that propels it up to 90 kph. It mounts a telescoping cherry picker to which the fire-fighting cannon is attached, allowing a firefighter to tackle a fire from a high vantage point. The cherry picker also permits access to elevated areas should the crew need it. These vehicles are always assigned a first aid kit, although most medical operations are conducted by dedicated ambulances and their kin. The ES-3's internal tanks can hold 4000 liters of water or fire fighting foam, making it a vital component of the Southern space forces.

4.5.1 - Service Record

At the Southern launch facilities, the only problems with which the fire trucks usually have to deal are small grass fires started by a slightly off-target landing or take-off. Still, they are put on standby during every launch, just in case. The ES-3 and its many similar counterparts appear all over Terra Nova in both civilian and military roles. Launch facility vehicles are never called to duty on city fires unless those fires are immediately threatening the launch facilities themselves.

Game Statistics ☐

Threat Value:	57	Offensive:	42	Defensive:	14	Miscellaneous:	115	Lemon Dice:	3			
Crew:	4				Actual Size:	5 (3.6 tons)						
Default Size:	4				Reaction Mass Weight:	N/A						
Mass Production Cost:	23,000 Dinars				Armor:	4/8/12						
MOVEMENT DATA												
Movement Mode	Combat Speed				Top Speed	Maneuver						
Ground	8				15 (90 kph)	-2						
Reaction Mass:	N/A				Deployment Range:	320 km						
Sensors:	No Sensors											
Communications:	-1 (10 km)				Fire Control:	-2						
WEAPONS												
Name	Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	ROF	Special	Ammo
Fire Hose	MFL	T	0	0	0	1	+1	x7	1	+1	Fire-Fighting Foam, IF	30
PERKS & FLAWS												
Name	Rating		Game Effect				Name	Rating		Game Effect		
Emergency Medical	-		Ignore first "Crew Stunned" result				Tool Arm	3		Cherry picker, cannot punch		
Fire Resistant	-		1/2 Intens. of flame attacks vs. vehicle				Urban Friendly	-		Soft tires and traffic signals		
High Towing Capacity	-		Double towing				Large Sensor Profile	2		Subtract from Concealment		
Loud Speakers	-		Sirens and PA system				No Sensors	-		Cannot perform active Sensors scans		
Searchlight	-		100 m, swivel				Partially Exposed Crew	-		50% of Crew exposed		





LAUNCH FACILITIES

4

UTILITY VEHICLE - 4.6

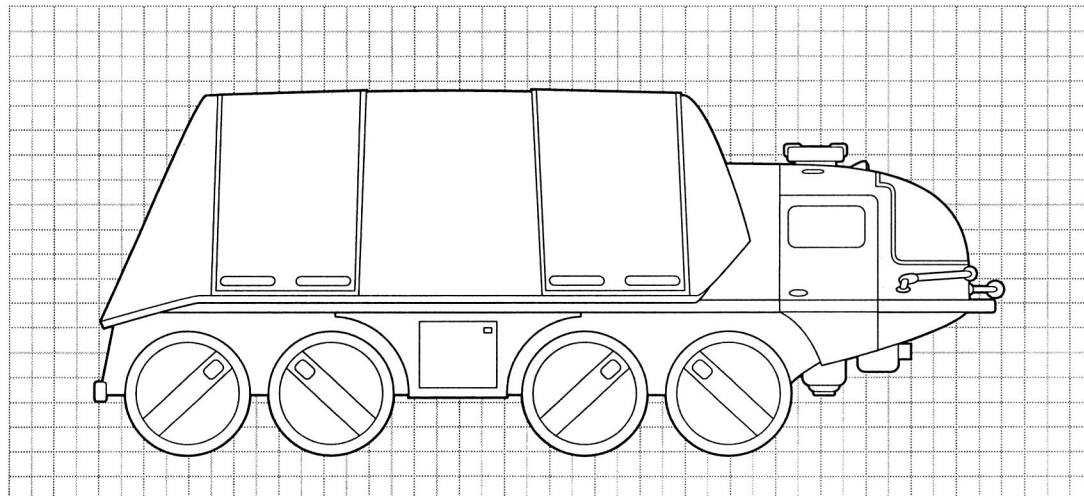
Though they may not be as glamorous as their space-borne brethren, the truth is that the majority of the vehicles of the UMF's Stellar Exploration Directorate are ground vehicles rather than spacecraft. Space exploration would not be possible without personnel and systems on the ground, and to transport these, the SED uses the G-8 utility vehicle. The G-8 is used as a "do everything" truck; variants exist for numerous different tasks. The basic model is a large, sleek vehicle with seats in the front and ample cargo room in the back. On the roof are big flashing emergency lights and radio antennas. The vehicle looks impressive, especially when painted in the standard SED paint scheme of blue, orange and red. The vehicles are exclusively manufactured by Doreda Tractors in Kenema. The SED has drawn criticism for spending extra money on these trucks. However, they maintain that the trucks improve their image, as images of generic boosters and launch vehicles tend to be rather dull.

Service Record - 4.6.1

The research branch of the SED makes regular visits to major Terranovan cities to educate people — children in particular — about space, and the sight of shiny G-8s is a common one. Utility vehicles like it are common all over the planet. Few are taken care of as well as the SED's public relations duty G-8, however. These vehicles — a small fleet numbering 20 trucks — are kept washed and polished, and they always leave a good impression on the Northern public.

Game Statistics

Threat Value:	79	Offensive:	0	Defensive:	12	Miscellaneous:	225	Lemon Dice:	3			
Crew:	1				Actual Size:					5 (2.8 tons)		
Default Size:	4				Reaction Mass Weight:					N/A		
Mass Production Cost:	32,200 Marks				Armor:					3/6/9		
MOVEMENT DATA												
Movement Mode	Combat Speed				Top Speed					Maneuver		
Ground	9				17 (100 kph)					-2		
Reaction Mass:	N/A				Deployment Range:					400 km		
Sensors:	No Sensors				Communications:					-2 (10 km)		
Fire Control:	-5											
WEAPONS												
Name	Code	Fire Arc	S	M	L	EX	Acc	Dam	Qty	ROF	Special	Ammo
None												
PERKS & FLAWS												
Name	Rating		Game Effect				Name		Rating		Game Effect	
Cargo Bay	-		16 m3				Tool Arm		2		Cargo loader, cannot punch	
High Towing Capacity	-		Triple towing				Urban Friendly		-		Soft tires and traffic signals	
Loud Speakers	-		Emergency sirens and PA system				Large Sensor Profile		2		Subtract from Concealment	
Passenger Seating	-		Seats for two passengers				No Sensors		-		Cannot perform active Sensor scans	





FORCED ISOLATION



Captain James Harper groaned and ran his hands across his face, feeling his fingers abrade against a mixture of dirt, grit and stubble. He'd been commanding the Tannhauser station Herod for the past year, and relief was nowhere in sight. The station itself was a marvel of technology. The Herod was over 400 meters long and contained a massive Gateship-class particle accelerator for opening the Tannhauser discontinuities that made interstellar travel possible. This was rarely done anymore, though, as the three discontinuities in the Loki system that the Herod had under its control did not lead to any other star systems to explore. The particle accelerator was mainly used for research purposes, probing the Tannhauser gates with weak energy beams to try to find out how these mysterious anomalies actually worked. However, recently even these simple experiments were being abandoned. Despite its technology, nothing changed the fact that Herod station was nearly three centuries old. Old things tend to break. "I hate my job," grumbled Harper.

"Roger that, sir," said his communications officer seated before him. "I'd really like a vacation soon." The last connection they had received from anywhere outside the station was ninety-six days ago, when a battered-looking Coalition transport had delivered essential food and supplies. Right now, they needed another transport to arrive. The station and its crew were not in any immediate danger, but they were well below the safety margins that every ship or station captain had been trained to abide by. "Captain," said the communications officer holding a headset to his ear, "Chief Lee wants to meet with you by the docking hub."

Captain Harper sighed. "Thanks. Tell him I'll be right down." He propelled himself down the corridor from the operations center. Peter Lee was the Herod's chief maintenance officer. He was arrogant and hard to get along with, but he sure knew how to fix things. Harper knew what this was going to be about: more griping. He had listened to the grouching of nearly every one of the thirty-seven crewmembers on the station by now. They all complained about how the food was rationed, how the station was falling apart, how the idiotic Coalition was neglecting them... Crew morale was plummeting at an alarming rate. Captain Harper was having a hard enough time getting them to follow their required exercise schedule. Sooner or later a careless accident was going to kill—

"Sir!" shouted Lee. "I want you to tell me what exactly what the hell is going on with our support. I need tools, I need parts, I need an entire crew of specialists!"

"I know about the maintenance problems you're having, Chief. I've sent in multiple requests for another shipment of—"

"Your 'requests' haven't done a thing, Captain. Do you have any idea of what needs repair?"

"Look, Lee... I've done all I can. Why don't you just take a break for a while? I appreciate your concern for the well-being of this station, but I think we can endure a noisy ventilation system and backed up waste disposal for now."

Lee glared at the Captain. "Have you ever listened to anything I've said? The problem isn't with those minor systems. The problem is with the reactor. It needs an overhaul as soon as possible. You know those power fluctuations we've been having? Those are the results of very important things in there frying out. Don't say I never warned you. I made some calculations, and I'm almost positive that we'll get a reactor failure sometime in the next—"

The explosion caught them both off guard. They barely had time to comprehend what was going on, let alone do something about it. Aged and strained past its breaking point, Herod station's power core went critical and detonated. A few seconds later, all that was left of the Tannhauser station were a few solid chunks and an expanding gas cloud that slowly enveloped discontinuity CP-15/5727.3.

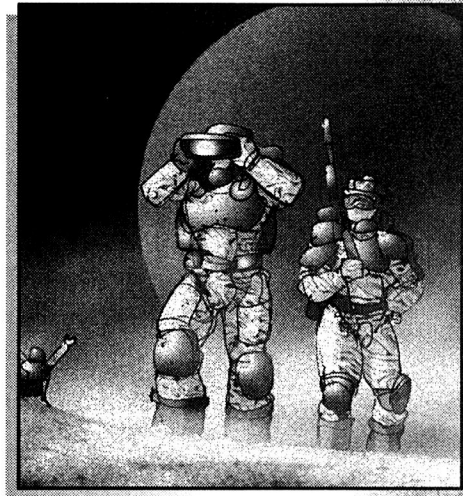


SPACE-BASED ADVENTURES - 5.1

Space travel in **Heavy Gear** is not generally a central focus of the setting; as noted in the **Tactical Space Support** manual, the **Heavy Gear** universe is one in which space travel is not often equivalent to high adventure. Rather, it is generally just another method of transportation, perhaps the setting for a single adventure in the middle of a far-ranging campaign. A space adventure might be treated much like an adventure on a maglev train or a landship: Player Characters are usually in space to get from one place to another in order to continue the story. Events during the journey might be incidental or they might be part of the campaign's plot, but they will typically be only a small fraction of the overall adventure.

Space travel can take a variety of forms. The Player Characters might be passengers on a transfer ship, drawn into an episode of shipboard intrigue. They might be part of the Liberati resistance in the Loki system, trying to recover Terranovan agents while eluding the Colonial Expeditionary Force and preparing for their mission on Caprice. In any case, the adventure will likely differ the most from planetary adventures by confining the Player Characters in a relatively small environment, limiting the range of their activities.

Because of this difference, the Gamemaster should take care to make the ship or station as interesting and detailed as possible; with the exception of small utility craft, the spaceships and stations of **Heavy Gear** are generally very old, very unique and full of character.



Gateships - 5.1.1

Gateships can provide some of the most dramatic settings for space adventures in **Heavy Gear**, and any travel from one star system to another requires their use. Although the actual process of Gating does not require a vessel to land on or offload passengers to the Gateship, Players may still wish to visit one in their voyages, and if the Player Characters are involved in covert operations, the time may not be immediately convenient for the opening of a Gate. Even if their journey is timed just right, Gates take hours to open. Thus, they are likely to find themselves aboard a Gateship, if only for a brief stopover. A number of factors make Gateships exotic; first is their immense size. Even the *Laban Emuros*, considered small by the standards of the Colonial Era in which she was constructed, dwarfs the largest of Terra Nova's conventional spacecraft.

Second is their age. Most Gateships, having been built in the age of interstellar exploration before the Human Concordat withdrew from its colonies at the end of the 58th century, are at least three hundred and fifty Earth years old. The UMFGS *Laban Emuros*, for example, is nearly four hundred years (560 cycles) old. It takes a skilled and dedicated crew to hold such a relic together, especially when operating equipment as dangerous and power-intensive as a Gatedrive. The crew of a Gateship knows every quirk and chronic malfunction on the ship by heart, and almost anyone who has served on one for a long time will have some suspenseful stories to tell. Players visiting a Gateship might get the uncomfortable feeling that the ship is being held together with spot welds, duct tape and hourly prayers to Mamoud.

Finally, there's the process of Gating itself. The build-up to the opening of the Gate is sensational — St. Elmo's Fire traces madly but harmlessly over ships' hulls. A Player Character's first trip through a Gate will definitely be a memorable experience and almost undoubtedly the most impressive thing encountered yet. Even if they undergo the process under hibernation, waking up in a strange, new system will be a harrowing experience.

Launch Facilities - 5.1.2

Almost every adventure that involves a trip in space will begin and end at a launch facility. Some Player Characters' first experiences with space flight will be taking an orbital shuttle to a transfer station, with potentially nauseating results. Launch facilities also provide most ground-based space training, so if part of the campaign includes the PCs becoming proficient in skills related to space travel, launch facilities are a good choice for the setting. Some of the NPCs they will encounter at these facilities include seasoned shuttle pilots, knowledgeable scientists or novice trainees.

Some of the key aspects of most launch facilities that will be apparent to PCs are their great size and intense level of activity that can be compared to that of a major airport. The spaceports, however, are vastly larger and dedicated to supporting far more complex activities — even after thousands of years of safe space travel and with the help of largely automated systems, a space launch is nothing to take lightly. The hustle and bustle of a launch complex can be quite overwhelming to first-time visitors.



5.1.3 - Captain Blood

Space is a harsh, dangerous place where the things people take for granted planet-side must constantly be at the forefront of everyone's thoughts. One constantly recalls the oceans on ancient Earth as being similarly dangerous — and similarly alluring. Space attracts a certain type of person, and of all the people living and working in space, the space marine is perhaps the most distinctive. It requires a specific type of carefree attitude combined with a level of professionalism that is very difficult to come by in order to join the various powers' space marine corps. Space marines are all volunteers, and hence are given a large amount of leeway once they are done with their training. The marines on board a spacecraft are generally given a wide berth and socialize only among themselves as a rule. Everyone understands that the life expectancy among space marines in combat is extremely short. Still, there's no life like it.

◆ Starting Point: The Devil Doesn't Care

The platoon has been loaded into two boarding pods and prepped for combat. An unidentified vessel was not responding to hails and after some short range shooting, it is now disabled. The craft is still occupied and the marines have to capture it. The boarding pod has hit the hull and has cut it open. What awaits them in the tangled maze of the enemy vessel? This is what the marines have been trained for.

Possible Campaign Variations ☐

Variation	Description
1	The ship is a manned CEF vessel. The crew consists entirely of GRELS.
2	The ship contains sensitive documents. The marines have to make sure the accompanying computer specialist doesn't get killed.
3	It is an old cruiser from a bygone age. Who knows what automated defense systems await the marines?
4	The boarding pod is disabled! The marines have to protect the pod's pilot, board the enemy ship and somehow get back to their own ship.
5	The marine's own ship is being boarded!
6	The marines get some well-deserved downtime on Terra Nova.

5.1.4 - Training Run

The Black Talon teams not only have the honor of being among the most elite of special forces on Terra Nova, but are also the first combat groups to take the offense against the CEF. Their missions are always top secret and the members must remain faceless to the rest of the planet. A Talon pilot never knows where he is going to be sent and what his next challenge will be; Black Talons fight wherever there exists a threat to the safety of Terra Nova, whether it is in space, on the surface of a planet or even in another star system. Not all threats to the Black Talon program come from the CEF, however the mere existence of the Talon program has caused a great deal of ire back on Terra Nova within certain circles.

◆ Starting Point: Avalon

The Player Characters are brought together as a new Black Talon team. They have completed the basic Talon training on Terra Nova and are now on board Avalon station for the final instruction before activation. There is no time to celebrate any graduations however, as Avalon is not known for her gentle instructors and easy tests. The gentle hand of gravity is noticeably absent and that takes time to get used to, inside and outside of a gear, and hopefully the Player Characters will behave themselves when interacting with the other teams.

Possible Campaign Variations ☐

Variation	Description
1	The group runs afoul of another team in training. A rivalry develops.
2	Training on Artorius, the group uncovers a CEF observation post.
3	The group must investigate a strange signal that has been detected.
4	The group is sent back to Terra Nova to assist in taking out a CEF base there.
5	Another Talon team has gone missing on a mission. The group must investigate.
6	Political rivalry conspires to cause the group to fail out of the Talon Program.



Trouble Found Us - 5.1.5

Not all Liberati nomads are an active part of the resistance movement. Many play a more passive role in the drama unfolding on Caprice, and although by no means fond of the CEF, many others simply try to eke out their lives without getting involved in the larger affairs. Most Liberati living in space work on either orbital stations or ice mining ships, and these tend to be outwardly neutral — security between the planet itself and its space assets tends to favor those Liberati genuinely not participating in the resistance. Still, these locations bring them close to the front lines of Terranovan infiltration in the Loki system. Sometimes, events and the Liberati sense of duty force them to become less-than-willing participants in the resistance.

Starting Point: Mistaken Identity ◆

The PCs are the crew of a Liberati ice mining ship that comes across a Gatecoffin containing a Terranovan agent who missed his scheduled rendezvous with Captain Henault and the Princess. The agent wants them to deliver him to his contact on Caprice, but doing so would put the crew in great danger. The crew will have to decide if they want to put their lives on the line for the resistance movement. . .

□ Possible Campaign Variations

Variation	Description
1	The agent is actually a CID agent attempting to catch rebel sympathizers.
2	A CEF gunboat demands an unscheduled inspection of the ship.
3	The PCs' ship has a dangerous equipment failure.
4	The Terranovan agent tries to hijack the ship if the Players don't cooperate.
5	The agent missed his rendezvous because of CEF sabotage.
6	The PCs take the agent to Caprice, but his contact is nowhere to be found.

Science on the Edge - 5.1.6

While considerably less violent than a typical wartime **Heavy Gear** campaign, setting the game on Ares' research base, Accord, offers several unique and equally dramatic roleplaying possibilities. Unlike military campaigns, which typically feature a strict chain of command and an emphasis on mission-based stories, the researchers of Accord are frequently left to their own devices, allowing PCs to work on their own projects and initiatives without feeling like they are being passively led around. Additionally, the hostile environment of Ares serves as a built-in antagonist. Technology makes Accord safer and comfortable, but in the back of everyone's minds is the undeniable fact that things could go sour very, very quickly. Finally, the claustrophobic atmosphere of the station lends itself well to "Cabin Fever"-type scenarios (see **Tactical Space Support** p. 76) where tension runs high, trivial conflicts can quickly escalate, and enemies are unable to escape each other.

Starting Point: Planetfall ◆

Much of the research at Accord centers on the recovery of samples from meteorites. By analyzing the composition of these space rocks, researchers are able to gain incredible insight into the chemical and mineralogical make-up of other parts of the universe. Additionally, the presence of precious metals or frozen water, a scarce commodity on Ares, provides more pragmatic motivation for this type of operation. Recently, Ares has begun to experience a small meteor shower. While Ares' atmosphere, thin as it may be, should protect Accord's inhabitants from most immediate danger from impact damage, the chance of equipment failure for Accord's orbiting resources is uncomfortably high. Also, there is a significant chance that the shower may delay the arrival of Accord's scheduled re-supply ship. Ares' researchers face a unique research opportunity, but only if they manage to survive the short-term hazards.

□ Possible Campaign Variations

Variation	Description
1	A reactor failure forces the PCs to jury-rig a solution.
2	One of Accord's crew commits suicide unexpectedly.
3	Micrometeorites knock out Accord's communication satellite.
4	One meteorite is actually an off-course Gate Coffin.
5	The meteor shower delays the scheduled re-supply ship, leaving the crew dependent on their remaining rations and equipment.
6	A survey rover breaks down in the field, leaving its passengers stranded on the ice.



5.2 - EQUIPMENT

Humans who live, work and fight in space are forced to contend with a variety of hostile conditions unique to the environment. Tasks both mundane and extraordinary are made much more difficult by the milieu; the consequences of normally minor miscues are amplified, and more serious mistakes and miscalculations are potentially deadly. Space has been conquered only by the development and use of expensive, specialized weapons and tools that allow the people living there to focus on the task at hand — rather than the host of vital issues a spacer unconsciously faces on a daily basis.

5.2.1 - Weapons

Manufacturers of personal weapons intended for use in space (all of which require permits for carrying) are faced with two key issues: weapons meant to be used in boarding/repelling actions shouldn't be capable of penetrating a ship's hull, and all weapons designed to be used in micro and zero-gravity situations need to be recoil-free.

Blast-Spear: a weapon intended to defeat armored opponents, this is a seven-foot lance with a small explosive charge that, when thrust into a target, drives home a deadly projectile (frequently an 18.5 mm shotgun slug). It's not a common weapon in a firefight, but can be deadly when used in ambush or close combat.

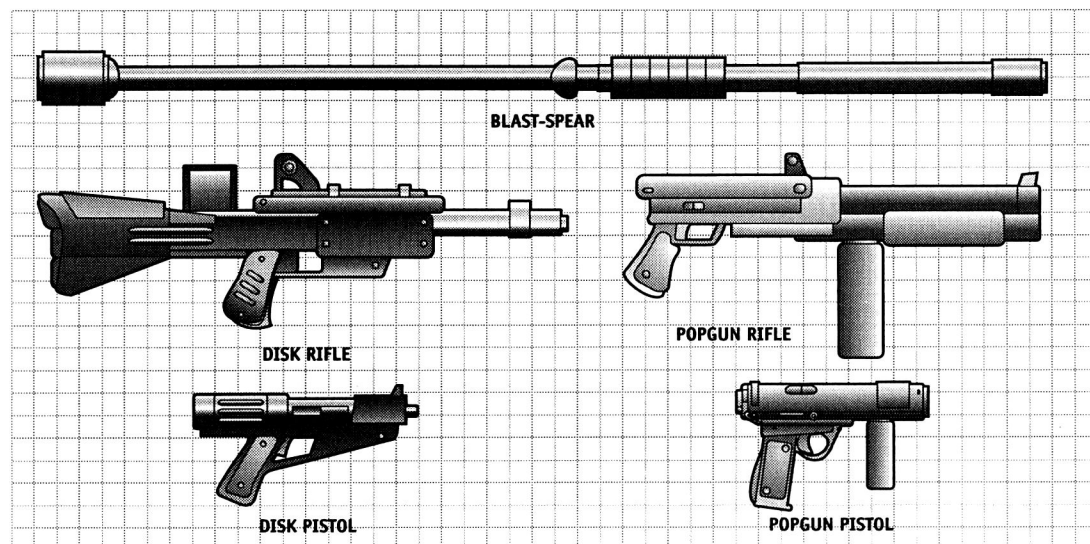
Disk Gun: weapons designed to pierce pressure suit- and light spacesuit-wearing foes, these compressed-gas powered pistols and rifles fire 2cm round, razor-sharp disks at velocities high enough to tear open heavy fabric and flesh alike. The gas charge is integral to each magazine of disks; there's no need to recharge the gun. They are ineffective against rigid armor.

Popgun: low-velocity arms that are used much more commonly as tools than weapons, pop-guns are single-shot, 30mm recoilless smoothbores powered by a compressed gas canister that screws in beneath the barrel of the weapon (canisters are good for 10 shots, are rechargeable, and can be purchased new for 1 mark/dinar). A wide variety of ammunition is available, from phosphorous flares and self-illuminating marking paint to transmitting beacons, non-lethal beanbags and even proximity-based fragmentation grenades. Most non-combat load-outs cost 1 mark/dinar for ten rounds. When fired in an atmosphere, popguns emit a loud "pop" — hence their name.

Weapon Statistics □							
Weapon	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Blast-Spear	0	x30	Melee	0	1	200/5	2
Disk Pistol	+1	x10*	10/20/40/80	0	30	400/10	1
Disk Rifle	+1	x12*	50/100/200/400	0	60	850/20	3
Popgun Pistol	0	varies**	5/10/20/40	0	1	100/varies**	2
Popgun Rifle	0	varies**	10/20/40/80	0	1	150/varies**	3.5

*Rigid armor values are doubled.

**Beanbag rounds have DM x15 (non-lethal) and cost 1 mark/dinar each. Fragmentation grenade rounds — usable only in the popgun — have DM x26/14 and cost 10 marks/dinars each.





Space Equipment - 5.2.2

Most of the tools designed specifically for use in space are as durable and utilitarian as other 62nd-century equipment; the main distinctions are that space-specific gear can withstand airless, pressureless, freezing environments, and is often meant to be used under very particular and demanding circumstances. Often modular and compact, tools designed for use in space need to be as reliable as possible; one slip in such an unforgiving environment can mean a quick death — or a slow and tormented one for the thousands of people who were counting on you to fix whatever it was that was going wrong in the first place.

Grapple Rifle ◆

Weight:	4 kg	Cost:	75
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A larger version of the grapple gun (see **Tactical Space Support**, p. 24), the grapple rifle has a longer effective range and frequently has two barrels in an over-under configuration that allow the user to anchor to two distant points rather than just one. Its purpose remains similar — spacers use them to tether themselves to ship hulls or rock and to travel efficiently from one spot to another without the use of a Man Maneuver Unit. Powered by a compressed gas canister, the grapple rifle has the following stats: Accuracy 0, Base Range 15 meters, x3 Damage Multiplier, Ammo 2. The gas canister is good for ten shots, and reloads are available for one mark/dinar (though the canister can be recharged by any standard pressure line).

Magnetic/Molecular Grip Boots ◆

Weight:	2 kg	Cost:	500 for magnetic soles, 2000 for molecular
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Placed in the soles of spacesuit boots, electromagnetic plates allow spacers to walk along the exterior of ship hulls in micro and zero gravity. Plate activation is controlled by the astronaut via simple presses of toe or finger switches, and people trained in using the system can move up to half of their normal movement rate; those highly skilled (Level 3 and above in the Zero-G Skill) can move up to three-quarters of their normal rate. The molecular grip system seen more commonly on space-going Gears is also an option, though an expensive one. Molecular grip plates, which contain an advanced compound that adheres to any plane when the current of a specific frequency and intensity passes through them, are more efficient, dependable, and generally superior to magnetic plate technology. They allow trained users to move at three-quarters speed along all surfaces; those highly skilled can move at full speed.

Repair Foam ◆

Mass:	4 kg	Cost:	25
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Consisting of a sprayer and a replaceable canister of instantly expanding, instantly hardening sealant smart foam, this material can be used to create temporary barriers, walls and, most importantly, patches on hull breaches. The hardened foam is fireproof, waterproof, floats (it's lighter than most liquids) and has an armor rating of 5 for each meter it is in thickness. The hardened product is permanent, but is unable to stand up to serious weathering or exposure in space (micro-meteorites make short work of it, for example) and is therefore only used as a temporary, stop-gap measure in situations that call for holes to be plugged quickly. One 4-kg canister can fill an area three cubic meters in size. Repair foam sprays too slowly to be used as a weapon, but it can be used effectively to cement downed and otherwise immobile foes in place. The foam itself is non-toxic, but people covered in the stuff that aren't wearing pressure or space suits stand a chance of suffocating.

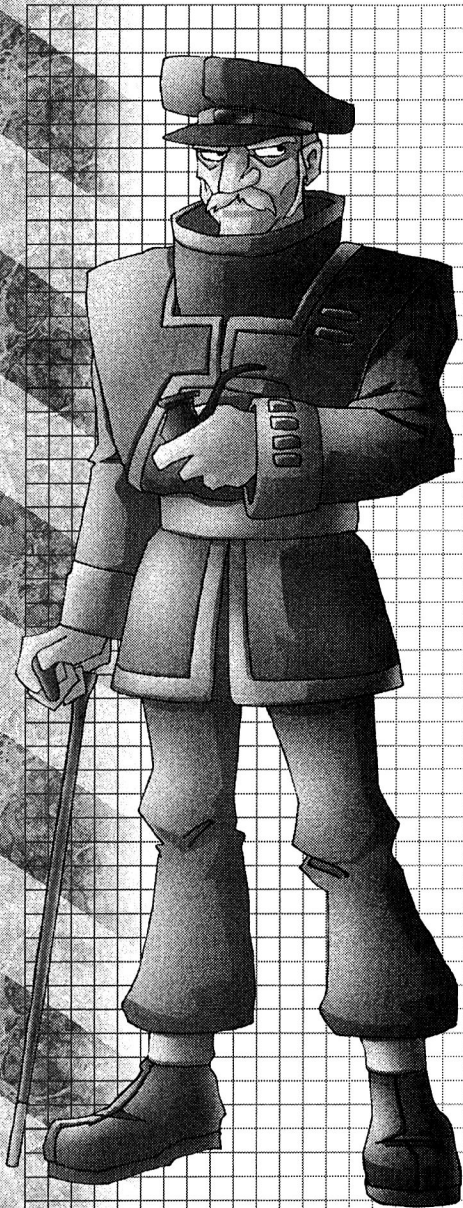
Laser Spin-Saw ◆

Mass:	20 kg	Cost:	5000
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This unique tool serves one purpose: to cut through the hull of a spacecraft and allow the attackers using the saw to gain access to the interior of the vessel. Looking like a three-bladed propeller, the laser spin-saw consists of a central hub that locks magnetically to the hull of the target vessel and a trio of powerful, spoke-mounted laser cutters. When activated, the three saws spin at approximately 180 rotations per minute; it generally takes such a saw mere minutes to cut an entrance into all but the most heavily armored of ships. The operation of these saws is dangerous, as the spinning arms represent a serious hazard to anyone close by in a micro- or zero-gravity environment — several cases of careless engineers getting too close and being snagged have been reported, with the unfortunate spacer usually ending up with broken limbs or worse. Laser spin-saws do damage on a vehicular scale; treat them as vibroblades.



5.3.1 - Captain Isaac Garysson



Being the captain of one of Terra Nova's few active Gateships is a rare privilege that is actually not highly sought by most officers. The sheer distance from facilities closer to home can be trying on anyone, and while the crew of the Laban Emuros is rotated planetside every other season, her captain and command staff must stay with her at all times. For Captain Isaac Garysson, the combination of childhood dreams and the honor of serving aboard the Laban Emuros is ample compensation for the long times away from his home on Terra Nova. He has felt somewhat restless recently in anticipation of a second invasion attempt by Earth, however, and yearns for command aboard a frontline combat vessel.

Profession

Isaac Garysson's career as an officer began with his assignment as First Officer aboard the UMFS Rapid City, a Valeria-class destroyer. In the initial fighting of the first CEF invasion, the ship was badly crippled and her captain killed. In a desperate move to save the ship, Garysson dropped its few remaining mines while evading an oncoming cruiser. The mines hit their mark, destroying cruiser and its three destroyer escorts. Garysson's kill record continued to increase throughout the War of the Alliance and included the destruction of a second cruiser. Highly decorated by the end of the War, Garysson taught tactics and game theory at the UMFA military academy until he was finally offered a post as the captain of the Laban Emuros.

Attitudes

Isaac Garysson is a well-tempered man with a focused passion for strategy. An avid chess player, he enjoys games and tactics of all kinds. Being stationed as captain of the Laban Emuros, he is an interesting enigma, seeming both focused on his assignment and distracted elsewhere. Most people perceive him as a heroic officer, remembering his bold War of the Alliance tactics. Garysson himself is among this group, and while his assignment aboard the Laban Emuros has been a lifelong dream, its current mission has him feeling helpless and outdated. He would much rather be operating in the Loki system along with the youngsters he routinely sends through the Gate. The fact that the Gateship will most likely be ordered to avoid any upcoming battles at all costs only frustrates him further.

Combat Reaction

Garysson may be an old war-horse, but he is a seasoned and dedicated soldier. He believes in the importance of Terra Nova's sovereignty and takes his current role very seriously. In the event that the Laban Emuros should fall under a second CEF invasion, Garysson will fight alongside his fellow soldiers to defend his mother world, going down with his ship if he must. In the same way, he would fight any Terranovan faction willing to sacrifice his homeworld's freedom and autonomy.

Vital Statistics

Age:	69 cycles	Height:	181 cm	Weight:	75 kg	Hair:	Grey	Eyes:	Green
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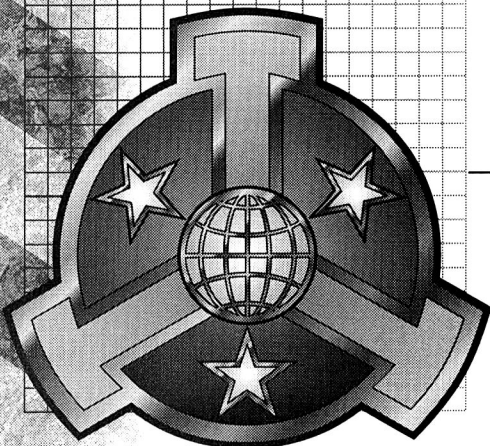
Attributes

AGI	0	APP	0	BLD	-1	CRE	+1	FIT	+1
INF	+1	KNO	+1	PER	+2	PSY	0	WIL	+2
STR	0	HEA	+1	STA	25	UD	4	AD	2

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	+1	Etiquette (Mil.)	2	+1	Hand-to-Hand	2	0	Small Arms	2	0
Combat Sense	2	+2	First Aid	1	+1	Leadership	3	+1	Tactics**	3	+1
Dodge	1	0	Intimidate	1	-1	Notice	2	+2	Teaching	2	+1
Electronic Warfare2	+1		Investigation	2	+2	Psychology*	2	+1	Zero-G	2	0

*Psychological Warfare Specialization, **Space Combat Specialization





GAMEMASTER RESOURCES

5



Professor Adriana Milrose - 5.3.2

Few people can guess on first glancing at Adriana Milrose that she is a native of Bethany in the Southern Republic, and fewer still believe her when she tells them. An exceedingly slim woman by any standard, she defies the stereotype of obesity that plagues the people of her city-state, and she shows no obvious regional accent, either. The former is simply due to her metabolism; the latter is by design. From an early age, she was fascinated by the spoken language and knew that she would one day travel across Terra Nova and learn to speak all of its tongues. What she never expected was that she would learn to speak the languages of other worlds as well.

◆ Profession

No Black Talon operative passes through Avalon Station en route to Caprice without first meeting Professor Milrose. An emeritus professor of the Mekong Academy of Science's Department of Linguistics, Milrose is responsible for training the Black Talon operatives to mask their Terranovan accents and dialects and to affect those of a native Caprician — Gomorran or Liberati nomad. As a poignant demonstration of the importance of doing so, she can identify with a 90% accuracy novice agents' homelands and the regions where they have spent the most time in recent cycles — simply by listening to them speak for a few minutes. She is quick to point out that while the CEF probably doesn't employ many linguists, it doesn't take too much to give oneself away simply by not having quite the right accent.

◆ Attitudes

Milrose loves her job and she loves to talk to people, especially the staff and crew of Avalon Station. While she sometimes misses traveling to the most remote corners of Terra Nova to study the dialect of a new tribe discovered by her colleagues in the Department of Anthropology, the trade-off is an incredible opportunity for her. She enjoys most listening to recordings of Liberati nomads speaking their native Highlands or the Caprician dialect of Anglic. At present, she is in negotiations with the Westphalia Cabinet to transfer to the Loki system, but her requests have met with very little success.

◆ Combat Reactions

Professor Milrose spends most of her days in one of the most secure locations in the entire Helios system, surrounded by military personnel who are far more capable of handling a physically dangerous situation than she is. Consequently, she is unlikely ever to find herself in a combat situation, and should such an unlikely event transpire, there are within shouting distance dozens of men and women better qualified to take action than she.

□ Vital Statistics

Age:	55 cycles	Height:	184 cm	Weight:	66 kg	Hair:	Dark Brown	Eyes:	Brown
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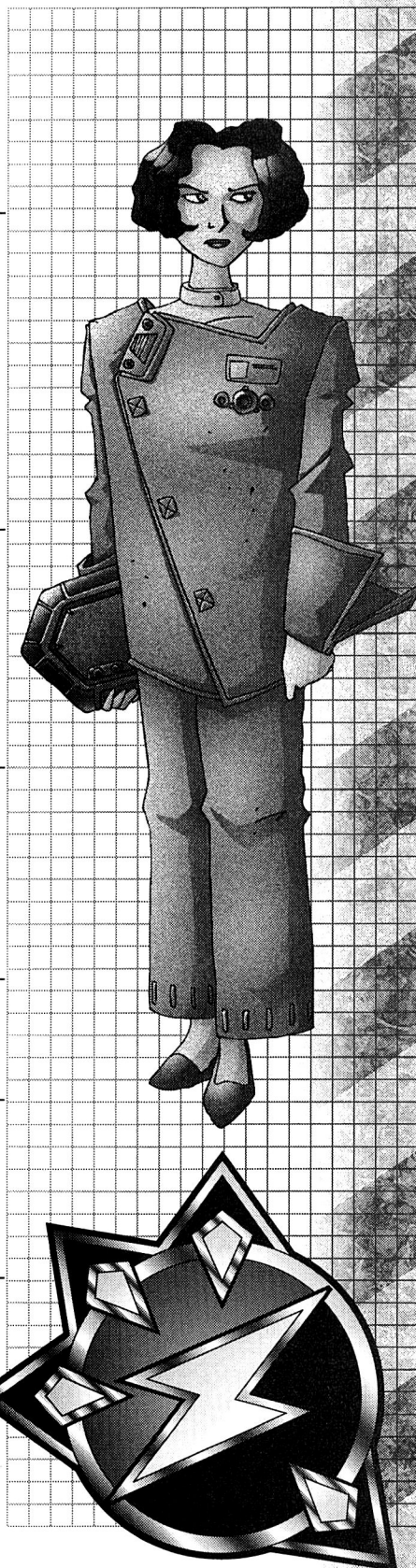
□ Attributes

AGI	0	APP	+1	BLD	-1	CRE	+1	FIT	0
INF	+1	KNO	+2	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	20	UD	3	AD	2

□ Skills

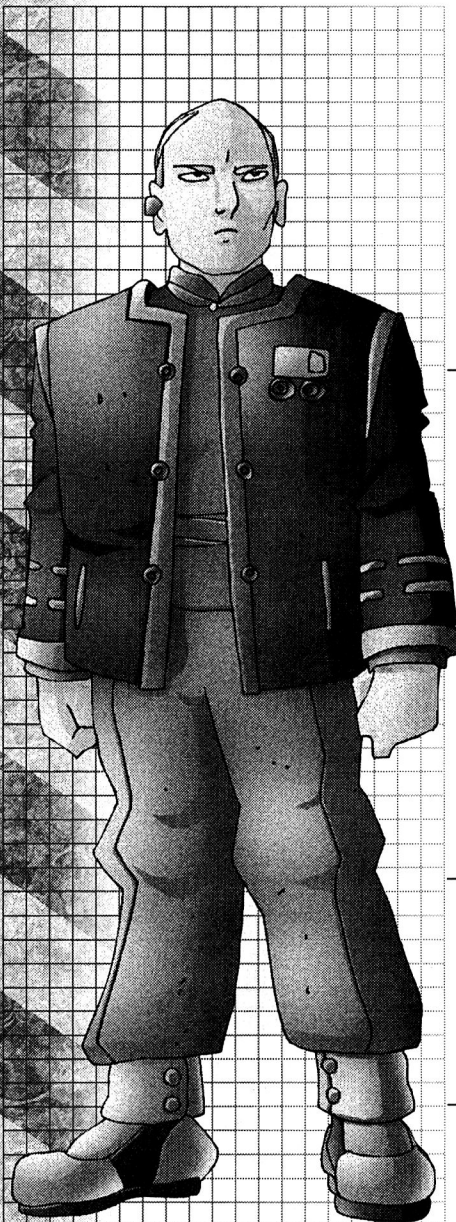
Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	+2	Etiquette	2	+1	Life Sciences	1	+2	Survival	1	+1
Business	1	+2	Foreign Lang.*	1	+2	Literature	2	+1	Teaching	3	+1
Computer	1	+2	Human Perception	2	0	Social Sciences**3	+2		Zero-G	1	0

*Atshi-Go, Caprician Highlands, Equatorial Hispanic, Indo-Arabic, Intralingua, Siberian and Mandanese. (Anglic and Universal French are native to Prof. Milrose.), **Linguistics Specialization





5.3.3 - Director Gerard Duniam



With a sense of youthful patriotism, and lacking any other direction in life, Gerard Duniam joined the Southern Republican Army in TN 1908. After basic training he was assigned to the Space Defense branch's Colonial Defense Corps, responsible for protecting the Republic's off-planet territories. Coming into contact with researchers on these bases, Gerard discovered an interest in space and space sciences and started work on a science degree by correspondence. Unfortunately his study was put on hold by the outbreak of the War of the Alliance and he was thrust into the desperate battle to defend Terra Nova's strategic space resources. Gerard rose to the occasion, ending the war with the Order of the Eagle and the rank of Sous-Sergent. With the war over, he left the army to finish his degree and pursue post-graduate study and joined the Space Directorate as a junior researcher in TN 1921. His service record and leadership abilities saw him find political favor and he began to move up the Directorate's hierarchy, along the way changing from research to administration. He became the director of the Port Oasis Launch Facility after the retirement of the previous director, Christine Edain, in TN 1939.

Profession

As the port director, Gerard is responsible for its day-to-day administration, as well as liaising with the army's Space Defense branch and private companies about their launch requirements. The relationship between the Directorate and these groups means that a good deal of diplomacy is required. Gerard's own field of scientific experience is astrophysics, specifically the nuclear processes of stars. Although the responsibilities of his position means his own research days are over, he keeps himself up to date with the field and corresponds regularly with the directorate's own scientists.

Attitudes

Like many in the Aerospace Directorate, Gerard believes in the peaceful exploration and exploitation of space. However, his own experience has shown him that this not always possible and he cooperates willingly with the Space Defense branch of the army. Because of his background, he is seen as a hawk in the directorate, but he genuinely hopes for the day when the military presence is not required. He likes to share his enthusiasm for space and when he has time he can be found in the port's visitor's center talking to tour groups about the Directorate's activities and his own experiences.

Combat Reactions

As a soldier in the CDC, Gerard has had extensive experience in low and zero gravity. The two and a half decades since he left the army have atrophied his abilities but he still practices judo a few hours a week as part of his fitness regime. He has no need to fight, however, since in the unlikely event of an attack on the launch facility, he would be hustled off to a secure location while the situation was dealt with by the commanders of the facility's large defense force.

Vital Statistics

Age:	59 cycles	Height:	178 cm	Weight:	92 kg	Hair:	Blond	Eyes:	Brown
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Attributes

AGI	0	APP	0	BLD	+1	CRE	0	FIT	0
INF	+1	KNO	+1	PER	0	PSY	0	WIL	+1
STR	0	HEA	0	STA	30	UD	5	AD	4

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	+1	G-Handling	1	0	Phys. Sciences*	2	+1	Swimming	1	0
Combat Sense	1	0	Hand-to-Hand	1	0	Security	1	+1	Teaching	2	0
Computer	1	+1	Leadership	2	+1	Small Arms	1	0	Zero	2	0
Etiquette	2	+1	Notice	2	0	Survival**	1	0			

*Astrophysics Specialization, **Space Specialization



Director Joachim Emerson - 5.3.4

Joachim Emerson, a native of the UMF, was born in Djakarta Point. The son of a mining engineer father and surgeon mother, he was raised in relative comfort: his parents were wealthy and he was educated well in a local university to become a medical professional like his mother. Bored with his comfortable but dull lot in his hometown, however, Joachim applied for something totally different upon graduation and served ten cycles aboard a medical corvette for the UMF Space Defense Corps in both war and peace. He rose steadily through the pecking order and has served most recently in various medical posts at Hutchinson Space Center, first in aerospace medicine and finally in an administrative post as the director of quarantine operations.

Profession

Joachim Emerson is a senior civil servant working as Director of Quarantine Operations at HSC. He has wealth of experience in aerospace medicine as well as on quarantine procedures. His current work is purely managerial and he spends his time in various meetings or behind mountain of paperwork. His current work involves developing a quarantine protocol for operatives returning from Caprice and beyond, which he takes to heart. Those who work under him complain that he is somewhat more strict and zealous in his effort than is necessary, and murmurs of dissent tend to follow in his wake at staff meetings.

Attitudes

Emerson is a pedantic, petty bureaucrat who clings to the rules and regulations beyond what most people consider normal — this habit stems from his service aboard the medical ships of the SDC, where he saw firsthand how desperately life depends on rules. At the same time he is skilled and demanding of everyone around him. Emerson thus has few friends, but many enemies. He has learned to deal with them by acting almost completely unemotional in conversation and by avoiding personal matters. He hides behind regulations if possible and skillfully uses them to deal with his enemies. His position gives him immense powers and he uses them whenever necessary. Emerson does not seem to have any hobbies per se. He always seems to be at work checking cameras, reports and tests on those in quarantine. His interest is so intense that some whisper of possible voyeuristic habits. All reports, however, reveal a squeaky-clean record — perhaps too spotless.

Combat Reactions

Emerson has no formal military combat training aside from what he learned in basic training, almost all of which he has forgotten. He thus has little understanding of how to use weapons. He does, however, have a superb understanding of their effects on the human body.

Vital Statistics

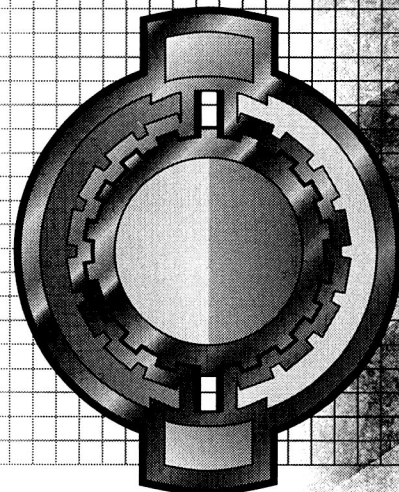
Age:	61 cycles	Height:	167 cm	Weight:	76 kg	Hair:	Brown	Eyes:	Brown
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Attributes

AGI	0	APP	0	BLD	+1	CRE	+1	FIT	0
INF	+1	KNO	+2	PER	0	PSY	-2	WIL	0
STR	0	HEA	-1	STA	25	UD	4	AD	4

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	4	+2	Electronics	1	+2	Medicine	3	+2	Zero-G	2	0
Business	2	+2	Etiquette	2	+1	Notice	1	0	*(Spec: Aerospace)		
Communications	1	+2	First Aid	2	+2	Psychology	1	+2			
Computer	2	+2	Life Sciences	2	+2	Space Pilot	1	+1			





5.3.5 - Captain Paol Hardig

Paol Hardig was born in Port Aurora in TN 1889. Raised in a climate of Massasdan Revisionism, Paol was always keen to go to the stars. The War of the Alliance proved to be Paol's chance, and he served the NLC as a gunner aboard a Valeria-class destroyer for the duration of the war. After demobilization, a nepotistic relative in Paxton Arms, who had a vested interest in the private transport cutter Carcosa, installed Hardig as that vessel's captain. Although slightly ashamed of how he got his command, Paol seized the opportunity with aplomb and proved to be a capable captain. Currently, he is a well-known figure in the Terranovan space community, instantly recognisable in his trademark canary-yellow jacket.

At university, some of Hardig's more madcap antics earned him the nickname of "crazy man." The "King" of the Carcosa nowadays seems unable to bear to be on the ground for too long. He is at his most serene, if not happiest, when in space and experiences violent mood swings while on terra firma. He seems driven largely by his new hobby, acquired some cycles ago, of drawing. Hardig has set aside an entire hold of the Carcosa for his artwork, where sketches and canvases float around with his freefall paint experiments. All of these seem to be directed at one purpose — to perfect the rendition of a cityscape that does not exist. When questioned about the lakeside city he is forever drawing, Hardig only replies that it is "home."

Profession

Paol Hardig is the captain of the Carcosa, a large, independently owned cargo clipper. He and his hired crew take on freelance haulage from place to place around the Helios system. Of much more interest to him is his painting, though he has no intention either to exhibit or to sell his work.

Attitudes

Paol is a friendly and charismatic man who has little trouble getting on people's good side — on a good day. On other occasions, Hardig's mood ranges from depressed to detached. He rarely becomes angry, instead frequently lapsing into a state of distant daydreams. He is more stable when in space and is usually very quiet. All this is at odds with the Hardig of old, who as a younger man was possessed of quite a wild demeanor. Old friends of the Carcosa's captain have remarked on this change in his behavior.

Combat Reactions

Paol has no combat experience outside of the occasional bar fight. Ordinarily quite docile, his reaction to a fight could vary from moment to moment. It is anyone's guess as to whether he might flee in terror, go into a wild attacking frenzy or curl up in a fetal ball and whimper.

Vital Statistics

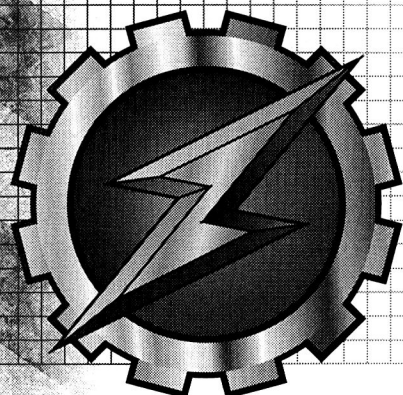
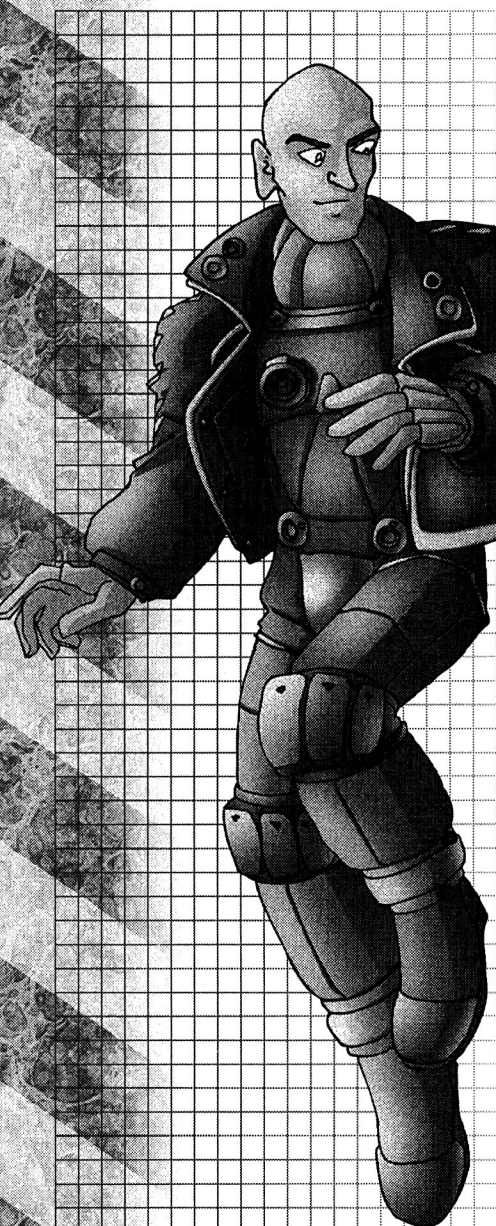
Age:	52 cycles	Height:	177 cm	Mass:	60 kg	Hair:	Bald	Eyes:	Blue
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Attributes

AGI	0	APP	0	BLD	-1	CRE	+1	FIT	0
INF	+1	KNO	0	PER	0	PSY	-3	WIL	0
STR	0	HEA	-1	STA	15	UD	2	AD	2

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Business	1	0	Gunnery (Space)	2	0	Notice	1	0	Visual Art	2	+1
Computer	1	0	Navigation (Space)	3	0	Physical Sciences	1	0	Zero-G	2	0
Electronics	1	0									





Captain Ronan "Panzer" Briggs - 5.3.6

Captain Ronan Briggs made a name for himself commanding a CEF armor company during the War of the Alliance, where he quickly fell in awe of Heavy Gears. Left behind when the CEF pulled out, Briggs spent some time in the newly formed city of Port Arthur before striking out with a small mercenary Gear cadre. His record in brushfire conflicts and with the Khayr ad-Din Army, plus his CEF experience, marked him as a candidate for the Black Talon Program, an assignment he eagerly accepted. He was given command of a Talon team and was involved in many deep strike missions on both Terra Nova and Caprice. He was seriously wounded during an evac on Caprice and was not expected to survive the flight back to Terra Nova. Panzer Briggs not only survived the trip but his recovery has been faster than anticipated. Anxious to return to combat, he was extremely dismayed to find that he was replaced as commander of his team. Talon Command felt that he was not quite fit for combat and assigned him to Avalon Station, temporarily, as an instructor.

◆ Profession

Ronan Briggs is a professional soldier and an able commander, and he excels at small unit tactics. His knowledge of CEF armor and strategies has proven to be invaluable in defending his new home, a fact that has marked him as a traitor by his former comrades. Temporarily assigned as an instructor on Avalon Station, Panzer Briggs works hard to relay his experiences to the other Talon teams and to help them to survive their increasingly dangerous missions. His favorite course to run teams through is the Zero-G Obstacle course, one that he gleefully uses to teach humility.

◆ Attitudes

Briggs maintains a very serious and professional disposition when on duty, but is more relaxed and jovial when off. He tends to be gruff, demanding and a perfectionist when instructing and has gained a reputation as a hard-edged old man as a result. Talon teams have likened him to a wicked stepmother, a badge he is proud of. While he is patient when dealing with people, he has no tolerance for hot-dogging Gear pilots. In the field he is very informal and almost the opposite of what he is like in training.

◆ Combat Reactions

In a fight, Briggs is ruthlessly efficient in eliminating his opposition. He rarely fights on another's terms, preferring to set the pace of the battle. He tries to avoid endangering civilians and hates those who fail to do so. Adapting to combat situations is natural to him and he has no problem in using another's tactics, if they work. Despite his injuries he is still a formidable foe, both in his Gear and out, and he likes that this surprises most people.

□ Vital Statistics

Age:	45 Earth Yrs	Height:	180 cm	Weight:	89 kg	Hair:	Bleached	Eyes:	Grey
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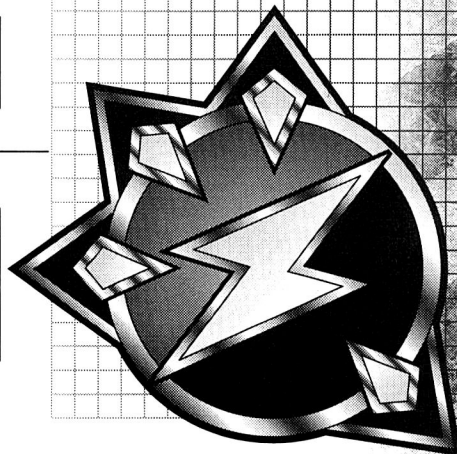
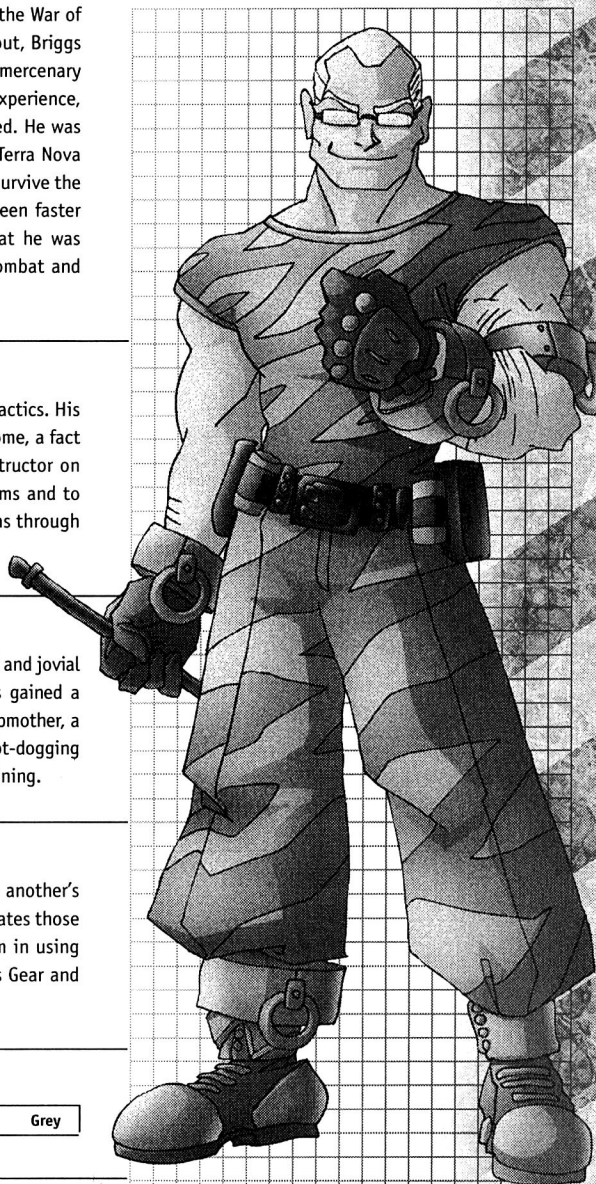
□ Attributes

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

□ Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	2	+1	Hand-to-Hand	2	+1	Leadership	2	+1	Tactics	2	+1
Dodge	2	+1	Heavy Gear Pilot	3	+1	Melee	2	+1	Teaching	2	+1
First Aid	2	+1	Human Per.	2	+0	Notice	2	+1	Zero Gee	2	+1
Gunnery (HG)	3	+1	Intimidate	2	+1	Small Arms	2	+1			

*NOTE: Briggs suffers a -1 AGI penalty due to his previous injuries.





5.4.1 - Ground Crew



"Ground crew" is a catchall term for the hundreds to thousands of people who work with space vessels, maintaining and fixing them with their very own hands before launch and after landing. Endless man-hours are spent ensuring every system works. Their work is repetitive but extremely demanding since even a single misplaced tool or forgotten procedure can lead to catastrophic failure during lift-off. Because space launches are still relatively infrequent, ground crews typically take immense pride in each launch and often gather to see them from spaceport observation decks. The first launch of a new vessel as well as the first launch after a long overhaul is traditionally wildly celebrated, a real source of pride following weeks of hard work.

Attributes ☐

AGI	0	APP	0	BLD	0	CRE	+1	FIT	0
INF	0	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

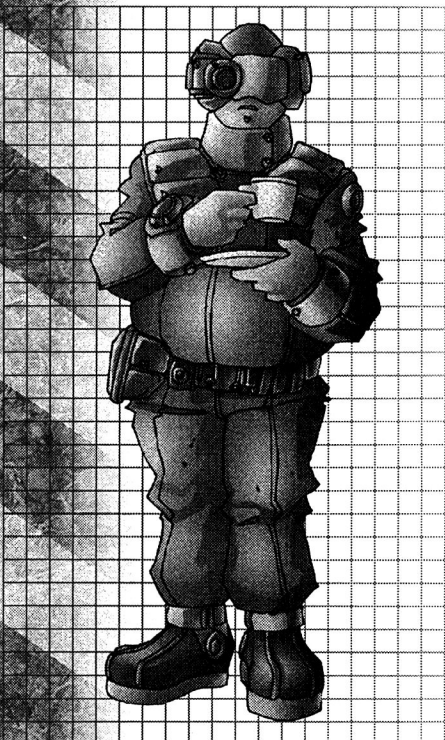
Skills ☐

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	+1	Computer	1	+1	Electronics	2	+1	Notice	1	+1
Communications	1	+1	Drive	1	0	Mechanics	2	+1	Tinker	2	+1

Typical Equipment ☐

Spaceport ground crew protective clothing (Armor Rating 5, 10 versus acid and fire), data glove, tech gear, electronics tool kit, mechanical tool kit

5.4.2 - Mission Control Operator



Computers do most of the work in mission control but operators are still needed to ensure that everything works out smoothly. Most of the duty is the routine work of monitoring and guiding space traffic. It primarily involves the supervision of the expert systems dedicated to the task, and real-time data imaging systems allow the operators to simulate variable alternatives rapidly. In case of emergency the operators must take over from the computers and provide instruction and guidance to spacecraft crews in trouble. In such times, crisis teams are formed and the entire ground control staff works out a variety of scenarios and hypotheses while consulting the crew stranded in space. Operator life is mostly boring, but the few emergencies are definitely hair-raising.

Attributes ☐

AGI	0	APP	0	BLD	-1	CRE	+1	FIT	0
INF	+1	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	20	UD	2	AD	2

Skills ☐

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	+1	Drive	1	0	Foreign Language	2	+1	Notice	1	+1
Communications	2	+1	Electronics	1	+1	Navigation (Space)	1	+1	Space Pilot	1	0
Computer	1	+1	Etiquette	1	+1						

Typical Equipment ☐

Data glove, communicator headset, personal computer, data imaging system



GAMEMASTER RESOURCES

5

Rocket Scientist - 5.4.3

Rocket scientists are the brains behind the craft that make space travel possible. Highly trained and cross-educated in electronics, chemistry and physics, these men and women are truly specialists in their field, specializing in everything from fusion tube technologies to flight control systems to life support and waste reclamation. While a number of scientists work in research and development, the remainder serve in either operations or quality assurance. Every possible scenario must be calculated and drilled, while every emergency situation must be accounted for and a solution detailed. Despite millennia of experience in space rocketry, space travel is still a complex business.

Attributes

AGI	0	APP	0	BLD	0	CRE	+1	FIT	0
INF	0	KNO	+1	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

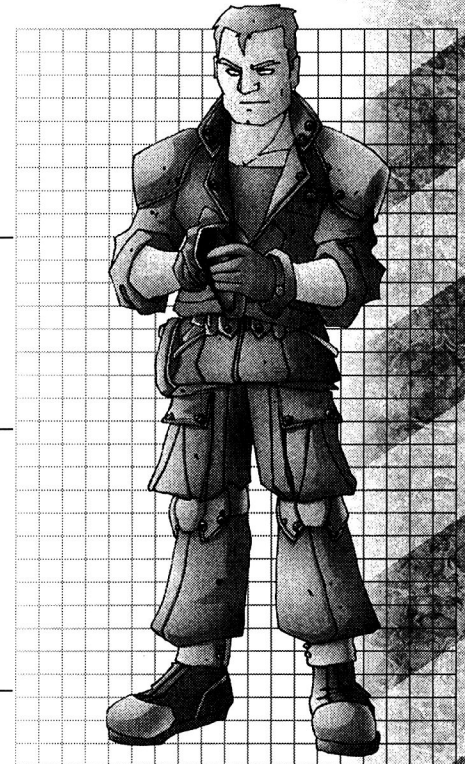
Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	+1	Electronics	1	+1	Mechanics	1	+1	Tinker	1	+1
Computer	1	+1	First Aid	1	+1	Notice	1	0			
Drive	1	0	Leadership	1	0	Phy. Sciences*	3	+1			

*Specializes in a particular field

Typical Equipment

Casual-wear or work suit, lab coat, datapad, personal computer, tool kit



Shuttle Pilot - 5.4.4

Even with the advent of automated control technologies, the ability to launch into orbit, perform operations and then return to a planet's surface still requires special skill and nerves. As a result, most shuttle pilots come from a small pool of highly experienced and well-educated pilots; some are civilian, but most are military officers, either retired or still in active service. These men and women are required to train extensively for days on end before a launch, maintaining their piloting and mission proficiency. No launch can afford to be considered entirely routine, as many millions of credits are often resting on the success of the mission.

Attributes

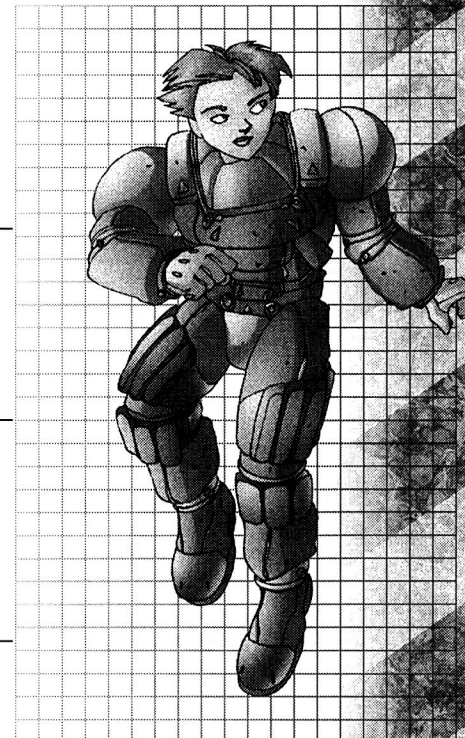
AGI	+1	APP	0	BLD	-1	CRE	0	FIT	+1
INF	0	KNO	+1	PER	+1	PSY	0	WIL	0
STR	0	HEA	0	STA	20	UD	2	AD	2

Skills

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Aircraft Pilot	2	+1	Electronics	1	+1	Nav. (Space)	1	+1	Survival (Space*)	1	0
Communications1	+1		G-Handling	1	+1	Physical Sciences1	+1		Zero-G	1	0
Computer	1	+1	Mechanics	1	+1	Space Pilot	2	0	(*Specialization)		

Typical Equipment

Flight suit, uniform, datapad



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SPACE VEHICLES COMPENDIUM ONE

SPACESHIP COMPENDIUM

Swinging his high-intensity spotlight to illuminate the smooth section of wall they'd been sent to investigate, Marten opened a channel. "Here we are. Looks like some vacuum welding... See the marks on the plate? Fused particulates."

Hemming's lamp joined in as she pulled her Gear to a stop. She raised her eyebrows when she saw the faint marks Marten gestured at. "Doesn't look too serious," she stated. "Will something that minor really affect the Gatedrive?"

The translucent image of Marten's weathered face in her cockpit smiled. "Don't let Di Smit hear you ask that. This is her baby — this is one of the biggest particle beam cannons ever built. It's almost 300 meters long and 60 wide. This is the hand of God, Hemming. It let humans walk clear across the universe in the blink of an eye. It might be the single most important invention in history... It's why we're out here," Marten glanced towards the entrance, towards distant Terra Nova, adding, "and it's why we're out here. Never take it for granted."

Terra Nova has a relatively small space fleet for a sovereign world in command of its own fate. Nevertheless, in recent times, the personnel and vehicles of this fleet have been called upon to embark on one of the most pivotal, important tasks in the strife-rich history of the human race. Spaceship Compendium I: Terra Nova takes a look at these people, their ships and some of the infrastructure that supports them.

This sourcebook contains:

- A detailed look at one of Terra Nova's Gateships, the UMFGS Laban Emuros
- Spacecraft for both military and civilian operations
- Terranovan launch facilities, including an Aurora-class landship mobile launch facility
- Detailed deckplans and maps of several ships and facilities
- Sample campaign seeds
- New equipment and NPCs

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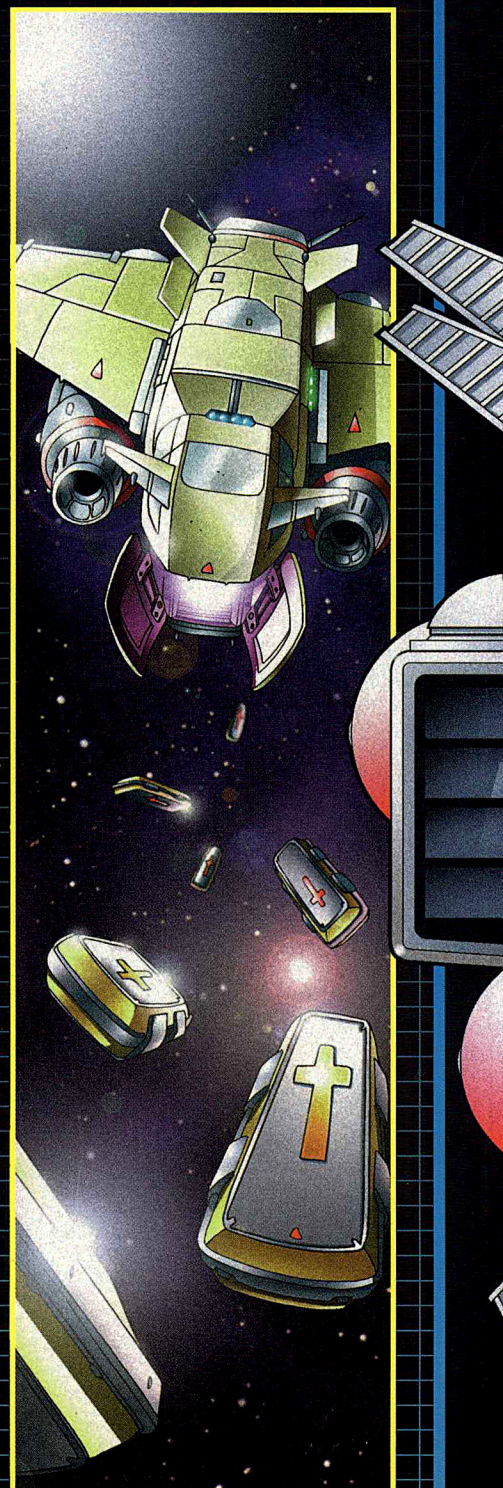
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