A **JOVIAN** CHRONICLES PROJECT

SHIPS OF THE FLEET VOLUME TWO

JOVIAN CONFEDERATION

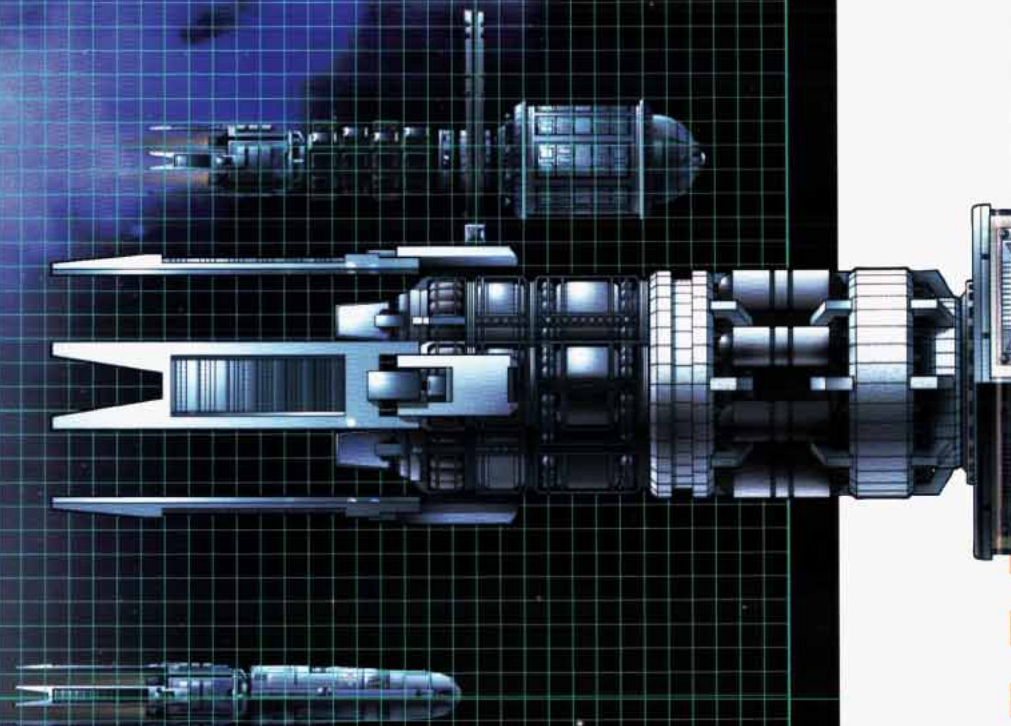JSS VALLEY FORGE

by **DREAM POD 9**

JOVIAN CONFEDERATION

Ships of the Jovian Confederation, **Volume Two™** is a **Silhouette™** sourcebook for Dream Pod 9's exciting **Jovian Chronicles™** science fiction game. This manual covers five warships of the Jovian Armed Forces (a frigate, a transport, a battleship, a carrier and a cargo vessel) with precise and detailed texts, backed by extensive illustrations and schematics.

Each ship is thoroughly detailed with full deck plans and layout diagrams. All main locations, such as the bridge, habitation modules, hangars, cargo bays and engineering room are described from both a roleplaying and technical standpoint. In-character texts and comprehensive listing show the crew and its daily tasks, taking the reader onboard the vessels as they defend the territory of the Confederation.

Within these covers you will find:

- Extensive information and game statistics for the Jovian Corsair-class frigate, Intrepid-class transport, Ypres-class battleship, Majestic-class carrier and Lennox-class cargo;

- Complete ship schematics, including deck plans and internal layout;

- Maintenance schedules, repair times and emergency procedures for all important systems.

JOVIAN
CHRONICLES

TABLE OF CONTENTS

TABLE OF CONTENTS

▶ 1.1 SHIPS OF THE JOVIAN CONFEDERATION

Space ships are the Jovian Confederation's first line of defense. Though both exo-armors and space fighters are impressive combat vehicles in their own right, they are incapable of operating on their own for extended periods of time, or of travelling too far from a base of operation. Only space ships have the range, endurance and firepower required to effectively patrol and defend the ever-shifting borders of the Confederation's large territory.

The Jovian Armed Forces began an extensive fleet expansion program in the late years of the first decade of the twenty-third century. The program came into being as a direct response to the aggressive stance adopted by the new government of Earth and the isolationist position adopted by most other factions in the Solar System. The high command of the JAF, with the tacit approval of the Agora, poured enormous sums of money into the development of several new types of vessels. At the end of the twenty-second century, a JAF General named Byron MacLeod presented an innovative proposal regarding standardized, mass-produced hull modules that could be readily repaired and upgraded. Despite some initial resistance, the project received the go-ahead, accelerating the ambitious program of modernization of the Jovian fleet that is still continuing today.

This manual, the second volume in the Ships of the Jovian Fleet series, examines five more space ships currently in service with the Jovian Armed Forces' naval arm. The ships described here are the Corsair-class frigate, Intrepid-class transport, Ypres-class battleship, Majestic-class carrier and Lennox-class cargo vessel. Each chapter includes partial floor plans and cut-aways, details of the specialized systems, interviews with crew members and a brief history of the vessels in that class. Though every effort has been made to ensure that the information is as accurate as possible, the security protocols of the JAF may require some oversimplification of the diagrams.

JOVIAN CONFEDERTION

Ships Recognition Chart

Ships shown to scale

▼ Gravity

⇦ In Flight

⬇ In Free Fall
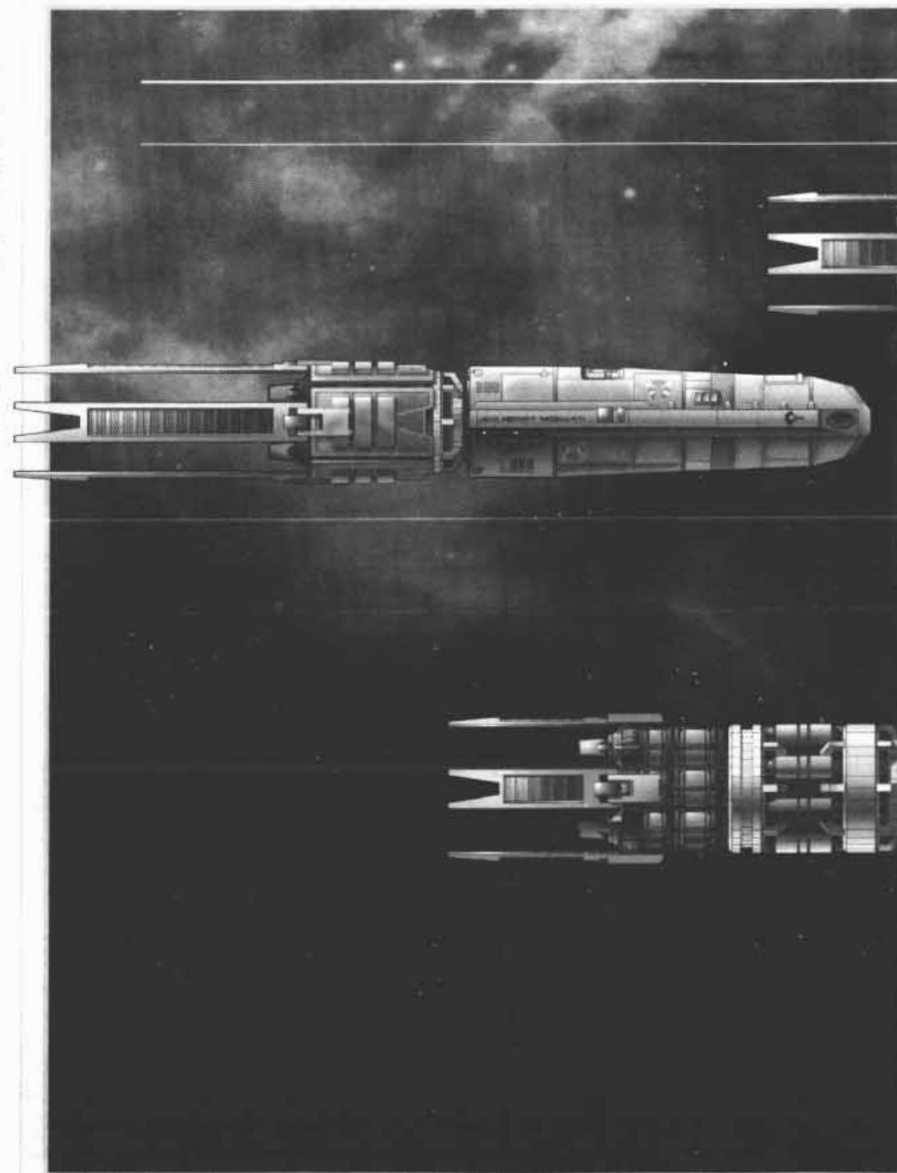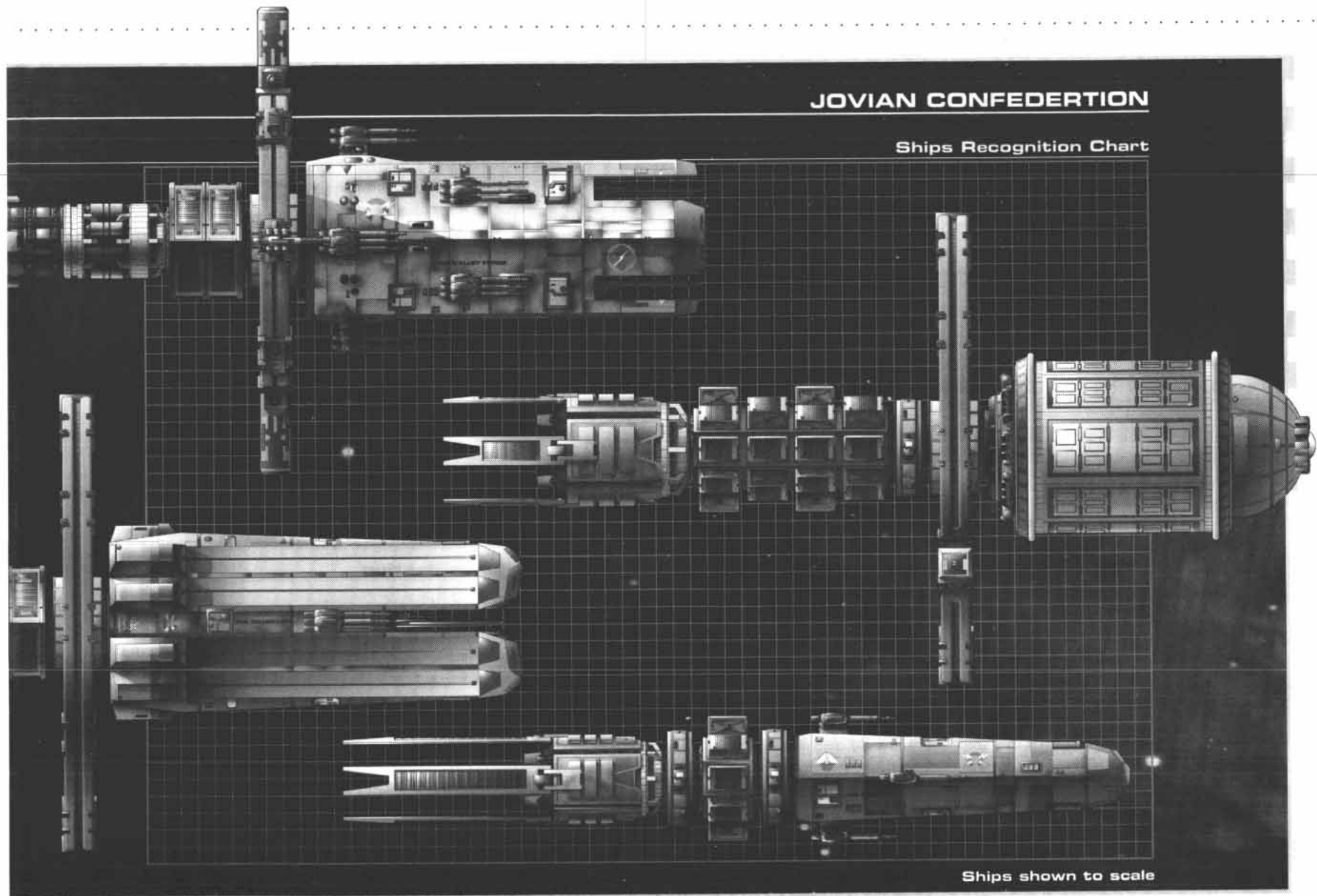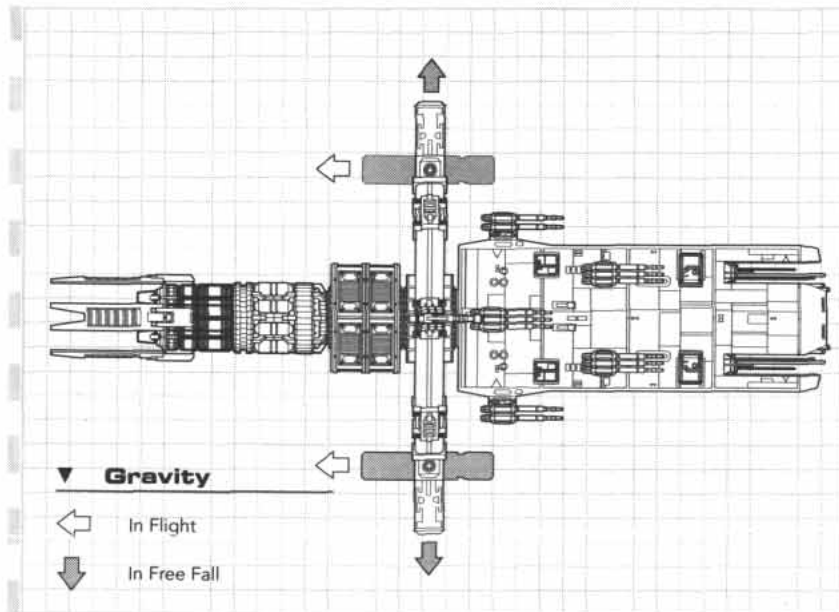
► 1.2 ANATOMY OF A SPACE SHIP

Though most large ships appear to be nothing less than mono-lithic flying cities, they are actually little more than a housing for the multiple systems that keep their crew alive for extended periods of time in the vacuum of space. The main structure of a vessel is composed of several vat-grown crystalline beams, lending it strength for a minimum of mass - always at a premium as far as spacecraft engineering is concerned.

Each section of the ship maintains its own life sustaining systems, each connected to all the others, which are further distributed in many nodes throughout the structure. This redundancy allows each room to maintain a viable atmosphere for at least a few hours on its own, though each node must normally be connected to the main system in order to function continuously as a full recycling unit.
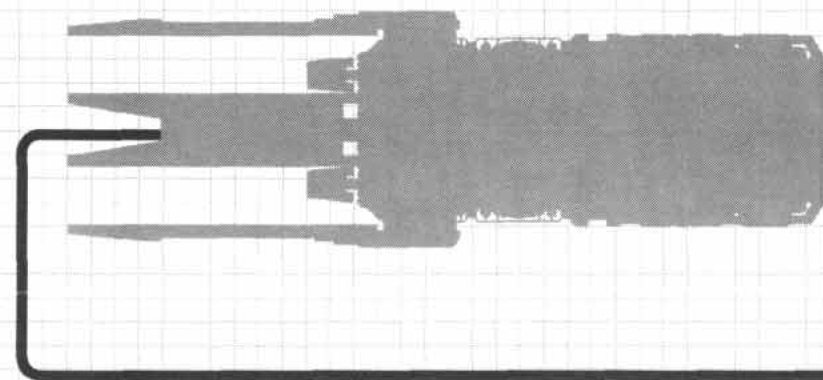
▼ Drive Section

This includes the ship's plasma combustion engines and their main reaction mass supply. It is seldom accessed in flight due to the high levels of radiation and heat present, which are dealt with by numerous heat sink panels and powerful screen generators.

▼ Cargo Rack

Most Jovian ship designs are intended to operate far from the scattered islands of civilization that form the Confederation. Many therefore feature auxiliary bays or cargo facilities where supplies such as food and spare parts can be stored in bulk.

ANATOMY OF A SPACE SHIP ◄

Ypres-class Battleship ☾
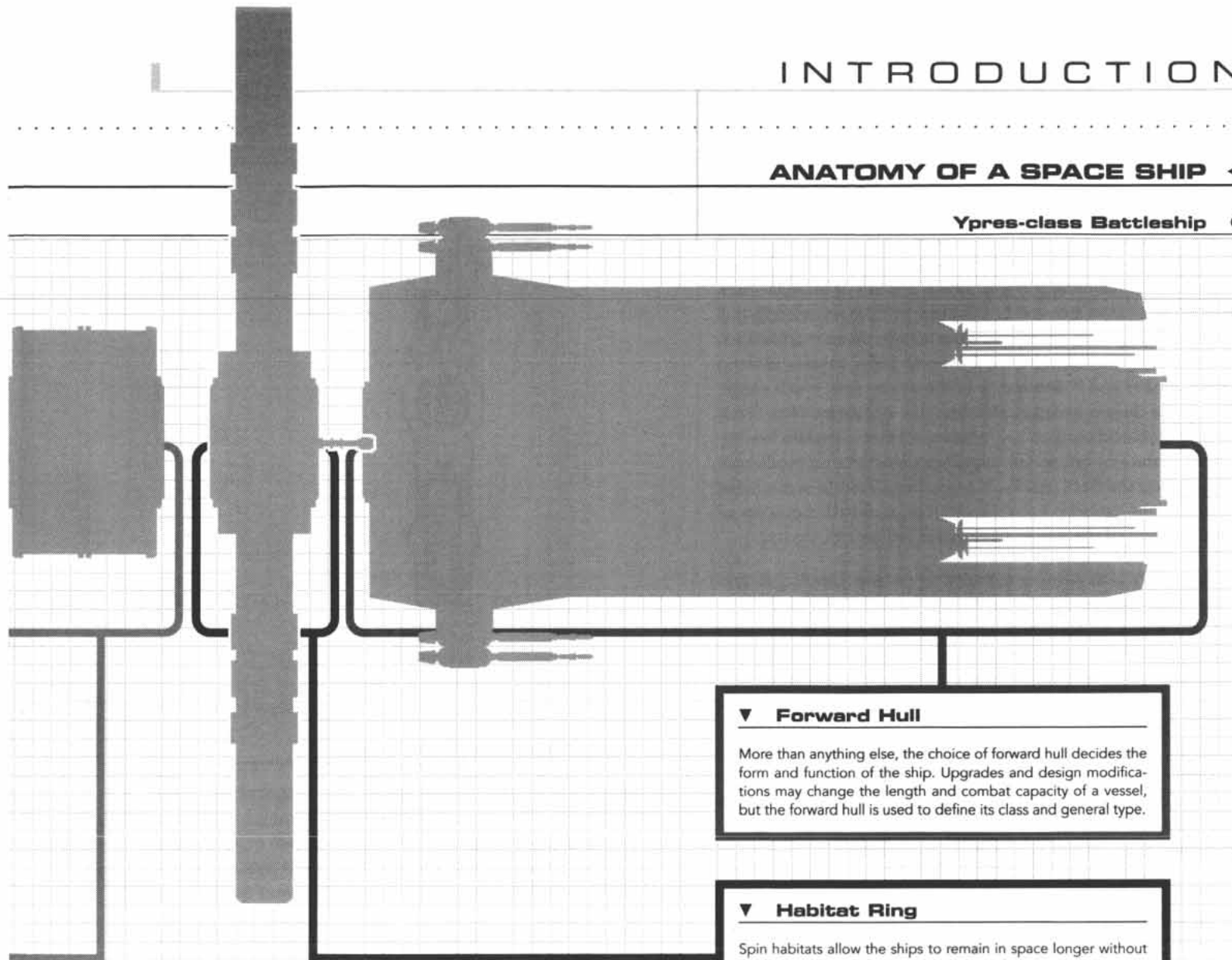
▼ **Forward Hull**

More than anything else, the choice of forward hull decides the form and function of the ship. Upgrades and design modifications may change the length and combat capacity of a vessel, but the forward hull is used to define its class and general type.

▼ **Habitat Ring**

Spin habitats allow the ships to remain in space longer without ill-effects on crew health. Military habitat designs generally incorporate an additional section called a structural ring that may be used to carry additional cargo, such as auxiliary fuel tanks.

▶ 1.3 SHIP MODULES

In order to save both time and money and to facilitate emergency repairs in deep space, Jovian engineers have always tended to use standardized systems on as many ships as possible. This has led to the gradual emergence of whole families of modular deck sections that could be readily adapted to fit most existing hull designs. Though not entirely self-contained, these modules are generic enough to be retrofitted even to older vessels, making design, repairs and maintenance of the Jovian fleet much easier. Most of the development work in this line of research has come from the MacLeod program, an initiative started in the late twenty-second century by retired General Byron MacLeod to modernize and upgrade the fleet rapidly at a low cost. Despite some initial resistance, the program has received the go-ahead, a process of modernization of the Jovian fleet that is still continuing today.

The following texts give an overview of various centrifuges and battle rings used by the Jovian Armed Forces. Centrifuges provide a type of artificial gravity when the ship's engines are not in use, allowing the crew to remain on station for longer periods of time. Battle rings are hybrid offspring of both the centrifuge and the modular cargo rack. Many of their structural elements are functionally identical to the ones used in the construction of centrifuges, though they need fewer of them as battle rings do not undergo the same amount of tensile stress. Battle rings carry weaponry and additional cargo, sometimes even auxiliary craft, and place them far from the main hull of the vessel in order to improve both their field of fire and their survivability.

The modules shown here are currently in use with the ships presented in this book, or were designed to be so. Many were intended for the multi-role ship design program of the JAF and share several design specifications. Each module is more or less self-contained, both in terms of hardware and game stats, so it is a relatively simple task to upgrade or modify existing ship designs by recalculating performances.
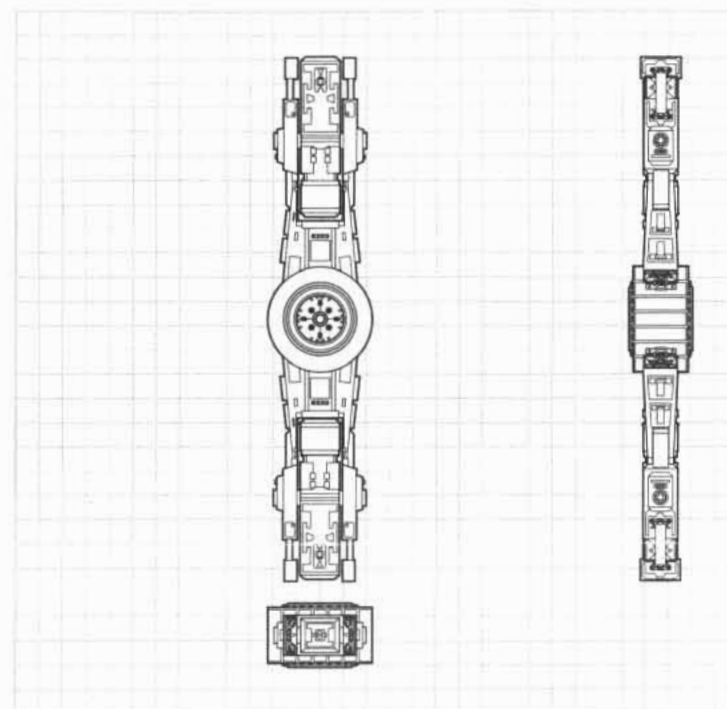
▼ 1.3.1 Twin-Arm Centrifuge

Deployable centrifuges started appearing on spacecraft in the middle of the twenty-first century, mostly on the ships flying long duration missions. It wasn't until the development of the powerful PCC drive, however, that the mass and power requirement of a permanent centrifuge structure was deemed worthwhile.

The twin-arm centrifuge shown here is one of the oldest designs still in existence. It was the first model to introduce the built-in gyro in its central housing, which removed the need for a second, counter-rotating centrifuge. Rugged and tough, this sturdy design has continuously evolved in the past years and will probably be used for a long time.
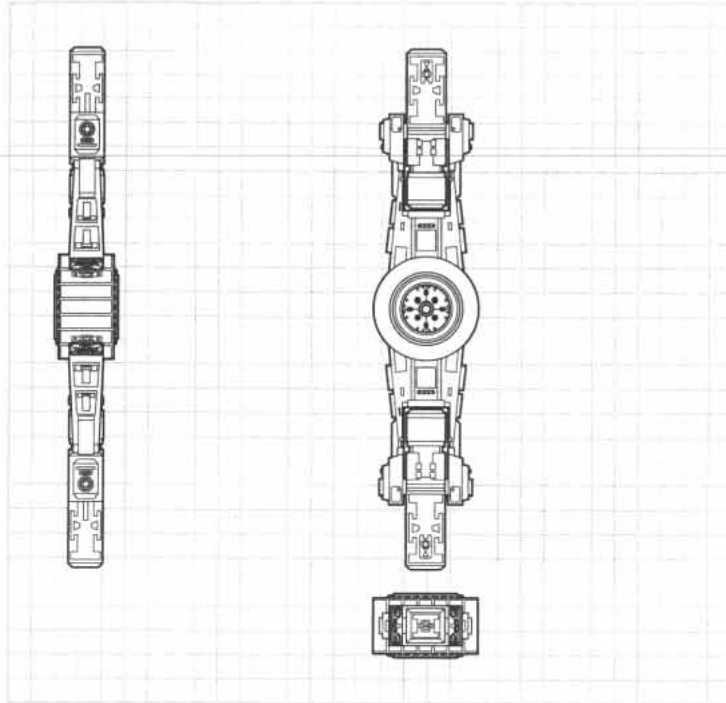
▼ 1.3.2 Mk II Twin-Arm Centrifuge

The Mk II centrifuge is also placed directly on the ship's axis and houses a gyroscopic assembly that balances the rotation of the overall structure. Transport tubes and accessways span its entire length, connecting the ship as a whole.

The centrifuge has shorter support arms. This is due to a stronger and more efficiently designed bearing mount, which requires less mass and material. Because of this, however, the two habitat modules are not entirely enclosed within its diameter and are thus more susceptible to physical damage such as collisions. Dock crew need to be even more careful than usual when mooring a ship with this type of centrifuge.
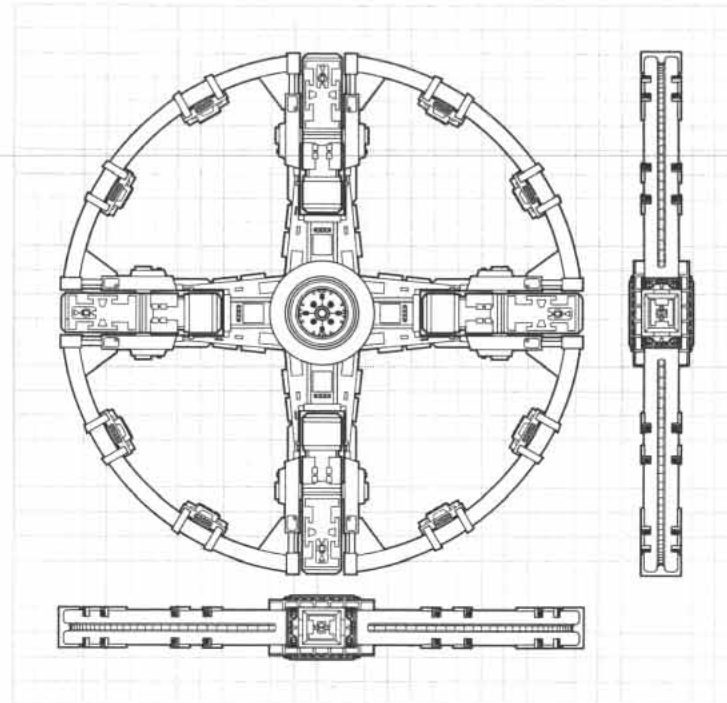
▼ 1.3.3 Heavy Habitat

The newer ship designs have greatly increased in size over the past few years. They tend to have large crews, and so a larger centrifuge is required to house them all. This mammoth design features no fewer than four habitat modules, all entirely enclosed within the diameter of the structural ring for additional protection.

The ring has eight hardpoints, each capable of holding one-eighth of the mass of the total structure. The hardpoints have standard holding clamps and can accept a large variety of payload pallets, enabling them to hold almost anything from a standardized cargo pod to an exo-armor. A narrow passageway runs through the ring and may be crawled through to access attached payloads in flight.
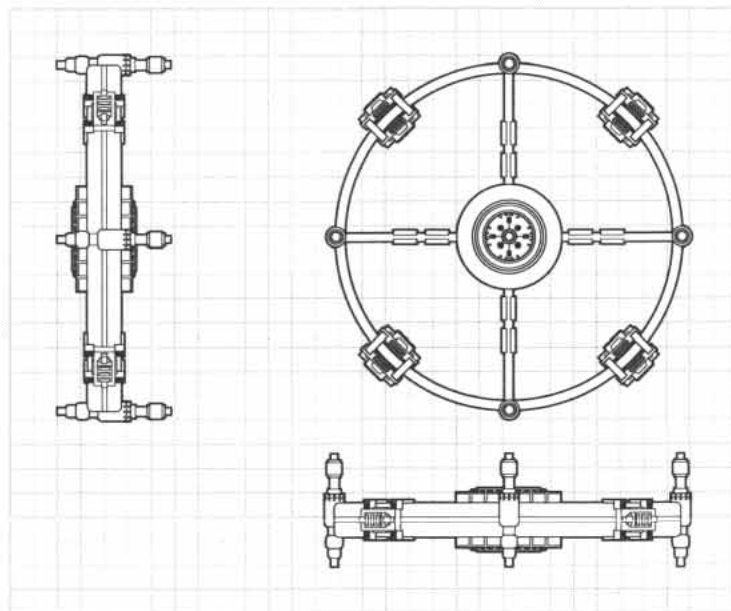
▼ 1.3.4 Corsair Battle Ring

Battle rings were a natural evolution of the centrifuge concept. They allow weaponry and sensors to be mounted far from the main hull of the spacecraft, giving the advantage of a wider field of fire and easier heat dispersion. This particular battle ring was designed for the Corsair program. It has no function other than to support the four particle accelerators away from the hull in order to give them a large field of fire.

Four hardpoints, each with double docking areas, were originally incorporated in the structure. It was thought at the time that they could carry additional fuel or even auxiliary spacecraft. In the end, however, the hardpoints proved too heavy and complex for the ship's intended mission profile and doomed this promising module. Only one prototype was ever built, and it was converted to the "B" configuration a year later.
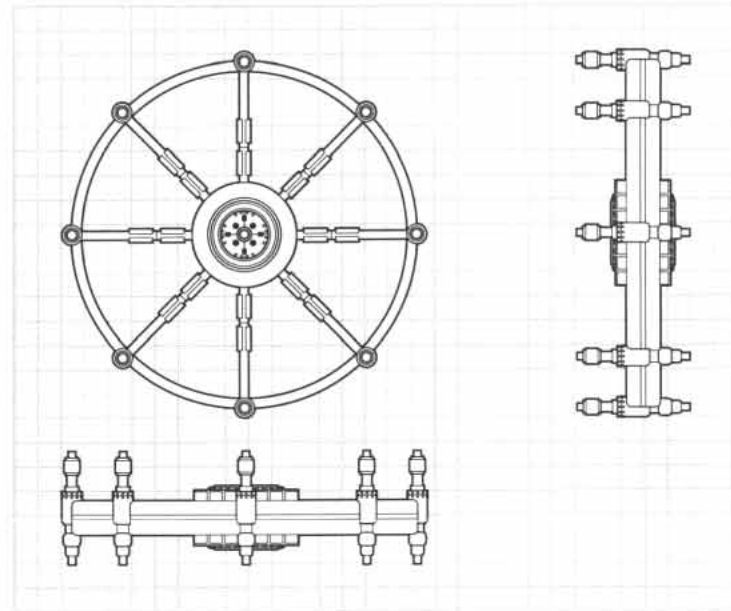
▼ 1.3.5 Heavy Battle Ring

A development of the previous battle ring, this module was designed for the larger attack ships of the Jovian fleet. It was equipped with no fewer than eight particle accelerators, equally spaced around its circumference. Spokes ran from the central core to each gun station; each containing an access elevator, power feeds, coolant lines and a set of heat sink panels. In addition to its structural function, the ring itself was used to dissipate the heat caused by the accelerators' systems.

Initial tests showed that such a module would have power and heat dispersion requirements far in excess of what most ships would provide. And although the whole assembly looked impressive, most military planners doubted it would be effective in combat. In the end, the heavy battle ring was never built, though the blueprints remain on file.
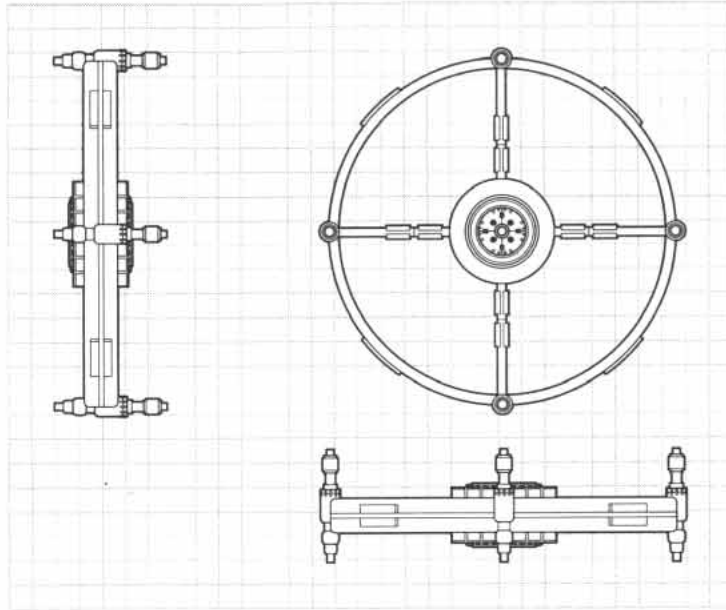
▼ 1.3.6 Corsair "B" Battle Ring

The four particle accelerators of the original Corsair design looked too promising to abandon, and the JAF's Naval Planning Committee asked for a revision of the original battle ring plan to see if it could still be somehow incorporated into the design. The engineers immediately began work, though many doubted it would be worth the time and resources.

The hardpoints were removed to save on mass and reduce the overall stress on the structure, which could then be made lighter. The space thus liberated allowed the installation of additional heat sink panels in both the outer and inner surface of the ring. This brought the heat dissipation rate nearly up to standard, though the entire system would always remain prone to overheating if used for extended periods of time. The revised design was later approved for use and was carried by the early Corsairs.
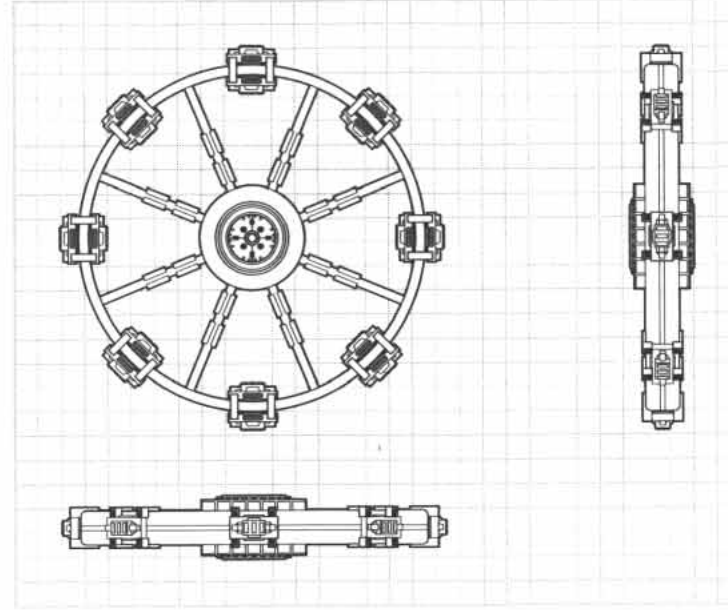
▼ 1.3.7 Transport Battle Ring

This battle ring is little more than a large structural support for multiple modular hardpoints. The basic framework is extremely similar to the one developed for the stillborn heavy battle ring, and may in fact have been created to recoup some of the time and resources invested. Confirmation could not be obtained from the office of Davenport Shipyards (the builders) at the time of publication.

The ring has a series of eight hardpoints, each capable of holding one-eighth of the mass of the total structure. The hardpoints have standard holding clamps and can accept a large variety of payload pallets, enabling them to hold almost anything from a standardized cargo pod to an exo-armor. A narrow passageway runs through the ring and may be crawled through to access attached payloads in flight.

▶ 1.4 DRIVE SECTION

Though they vary in output and efficiency, all current spacecraft drive units are based on the same basic technology: the Plasma Combustion Chamber, or PCC. This advanced fusion engine uses a combination of catalyzed fusion reaction and magnetic acceleration to propel nearly any type of reaction mass to a very high exhaust speed. The resulting radiation, mostly broadcast in the hard X-ray range, is kept at bay by powerful screen generators mounted between the drive section and the rest of the ship.

Each drive section contains the primary reaction mass tanks, main fusion core, exhaust coils and exhaust collimator plates. The latter two serve to accelerate and focus the exhaust stream so that its velocity and propulsive force are the highest possible. Most of the designs in service add an electromagnetic feedback generator around the exhaust, drawing on the fast moving, electrically-charged plasma to produce abundant amounts of electrical energy for ship systems, radiation screens and drive coils.

Though properly part of a ship's main hull, the engine mount has been designed as a mostly self-contained module for security and safety reasons. It can be entered by properly-garbed personnel through narrow access tubes, but most of the necessary maintenance is handled through teleoperated robots and manipulators. The engine mount contains the primary drive screen generators, the emergency flush tanks and the main reaction mass reserves for the plasma combustion chamber drives. All drive sections are attached to it by explosive bolts and can be forcibly jettisoned.

Though there has been a trend toward standardization in recent years, mostly to cut cost and improve safety by making spare parts and specific technical knowledge more readily available, several older models of drive are still in active service, especially on the ship classes that entered service before the turn of the new century. These drives are readily identifiable by their truncated drive fins and ribbed radiator surfaces, both of which have now been largely replaced by elongated drive fins.
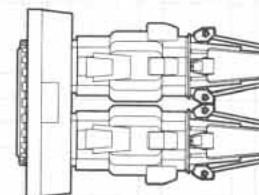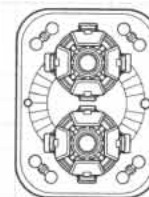
▼ 1.4.1 UY-688 Engine Cluster

The UY-688 is often referred to as the "classic" engine for Jovian military spaceships. Its basic plasma drive unit was introduced in the early years of the twenty-second century. It was first mounted in armored cylindrical housings, but this caused severe overheating problems due to a lack of heat radiating surfaces.

The problem was solved by placing the main fusion core and reaction chamber in a new housing. It was still cylindrical, but the fusion core was found within a large bulge in the middle of the assembly. Small movable drive fins were placed at the rear, replacing the fixed drive coils of previous models, and the outer surface was ribbed for additional heat dissipation. This engine drive mount is manufactured by several automated factories near Olympus and Newhome, though they are being slowly phased out; most of these factories only produce spare parts now.
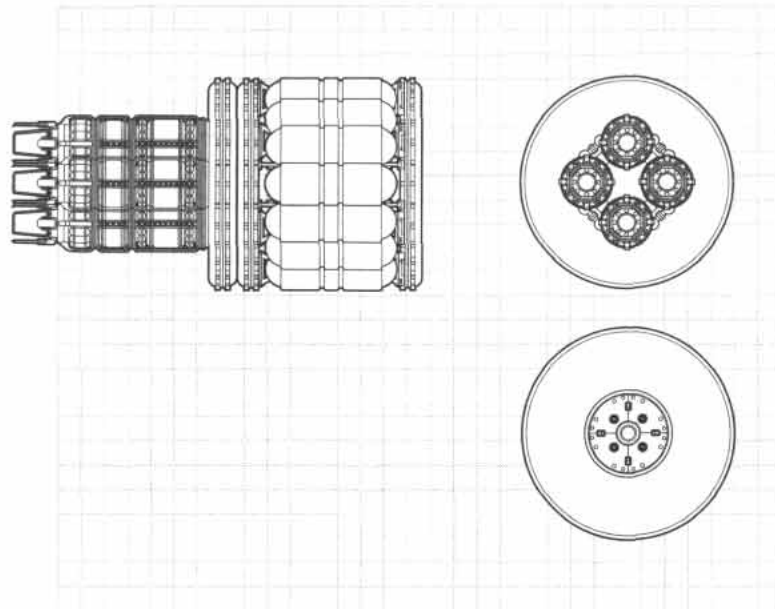
▼ 1.4.2 UY-890 Engine Cluster

This contemporary of the UY-890 engine is found on many current vessels. Though it was considered, for a time, the basic drive unit for the MacLeod ship building program, it was ultimately discarded in favor of the more advanced HT-8800 drive unit, which had less trouble with excess heat retention and was also more sturdy.

This type of cluster is distinguished by its large reaction mass reserve, held in twelve tanks equally spaced around the cluster's load-bearing core. The center portion of the assembly was a mass of girders and stiffeners that transmit the load from the rear engine mounting plate to the main hull adapter at the front. This drive is manufactured by several subcontractors under Lockwell Ltd.In addition to the drive fins, Lockwell is responsible for many of the drive internal systems, notably the exhaust collimators.
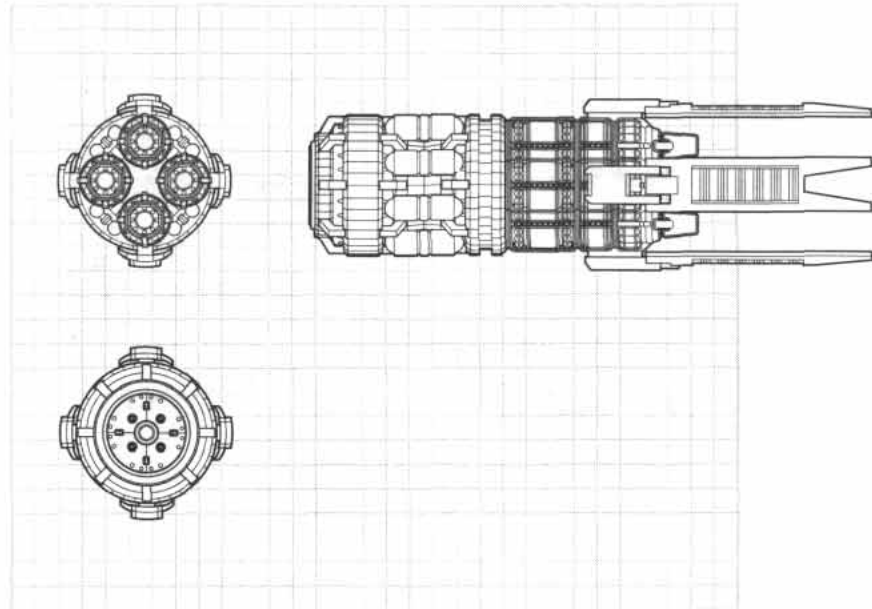
▼ 1.4.3 UY-890-AR Engine Cluster

The engine cluster shown above is similar to the one introduced previously, with a few differences. The most visible one, of course, is the ribbed engine mount between the main engine core and the main hull adapter. This space contains additional heat sinks that get rid of more heat per second and thus allow a slightly higher performance level. Part of the reaction mass tankage is fully enclosed within the engine mount, while the rest is held in pressurized cells arranged around the core. This arrangement allows the installation of armor panels over the drive, a configuration that became common among the ships built during the MacLeod program.

The cluster shown above is equipped with the shorter version of the standard drive fins manufactured by Lockwell, a well-established Jovian ship subcontractor.

▶ NEW BEGINNINGS

Newly-promoted Warrant Officer Adam Davis grunted as the transport grip jerked forward with a start, dragging him towards a new corridor. Like most of Khannan Station, the corridor leading to the outer docking ring was in micro-gravity, which made it a bit easier to carry his otherwise massive luggage case.

"Now the airlock is right over.... where?" he mumbled between his teeth, his eyes scanning the walls as they sped by for a sign, some clue that he was heading in the right direction. He was still looking around distractedly when he stumbled off the end of the track and barely avoided a person emerging from a crossway.

"Hey!" The young man clumsily dodged to the side and ended up hovering near the ceiling for his efforts. Just like Davis, he wore a JAF regulation duty uniform.

"Err, sorry. I guess I wasn't looking. Are you okay?" Davis asked sheepishly. He tried to keep a solid grip on the handholds as he reached out to pull the man back down to the floor.

"I'm fine, don't worry about it. This happens often out here." He smiled slightly to put Davis at ease, a gesture which had exactly the opposite effect. "You heading to the *Stede Bonnet*?"

"Yes. I'm the replacement for Officer Donnadieu. Are you..."

"You're taking Annie's post, eh? I'm Max Sandelin, but you can call me Max. I'm one of the ship's gunners." The young man pumped Adam's hand vigorously, the motion sending him slowly upwards until he came to rest about a foot off the floor.

"Err, okay... Max, then." Davis looked around helplessly, his mind in a whirl. After the fiasco on Station 118, he was leery of giving people the wrong impression, and nearly crushing his new crewmates was definitely not the image he wanted to present.

Not that Max Sandelin seemed to notice, however. He was now chattering happily, mostly to himself, about how great it was to get new people aboard, though he would miss Annie, but in many ways she was a bore, and did he know anyone aboard...

Adam did his best to tune out the constant flow of small talk and concentrated on navigating the ever-narrowing corridor.

*　　　*　　　*

The misunderstanding should have been easy to resolve, but Adam had severely underestimated Julie's reactions. Toolmaster Nikita Ganov was all flirt and no action, and despite his hormonal reactions, Adam instinctually knew nothing was ever going to happen between the two of them. They just happened to be friendly coworkers assigned to the same shift, that's all. When Julianne came back into his life so unexpectedly at Station 118, he didn't give a second thought to what she would think of his relationship with the *Sally Ride*'s lovely Toolmaster.

In hindsight, perhaps he should have. The incident with his traitorous M-link and its ill-timed reminder of a half-forgotten date had degenerated quickly, inspiring a series of arguments at first, actual fights later, and any hope of rekindling their once-promising relationship seemed lost. He had real feelings for Julianne, he realized, but she wasn't easily convinced he was sincere.

Adam didn't understand why she made such a big deal out of his flirtation with Nikita, anyway. It felt something that came from deep down, that she couldn't easily express, even to herself. When he tried to talk to Julianne about it, though, she closed down even more, putting up walls between them that he just couldn't cross.

In the end, despite his best efforts, he tired of her constant accusations, both spoken and implied. Rather than stay at Station 118 as an exo-armor technician, as he first planned, Adam had flown out with the tender *Sally Ride* when it left the station. He needed to put some space between himself and Julianne, and a few millions klicks fit the bill just right. Julianne had sent him a few messages, at first, and he did the same, but something had been lost between them.

*　　　*　　　*

"TCC to Davis... Traffic Control Center to Adam Davis. Anybody home?"

"What? Oh, hi Max. I was just, err... looking at some reports..." Davis quickly hid the tiny hologram in one of his jumpsuit's multiple pockets, shuffling datapads with his free hand.

The young gunner made a face to show he hadn't missed the gesture and wandered over to the other side of the cramped mess hall. He gathered a meal, grabbing a few food packets from cupboards, giving Adam time to regain his composure. He then made an exaggerated somersault in the low gravity and landed in his chair with a flourish. The stunt didn't attract much attention from the few crewmen present — they were too used to the exuberant personality of their star gunner by now — but a few did smile.

"Show off," Adam muttered. There was none of the clumsiness he thought he saw in their first meeting.

"It takes me a few days in space to regain my zeegee habits, but once I do..." Max grinned, the rest of the sentence lost as he wolfed down a stuffed roll. "Who was the girl?" he added, the words struggling to escape between bites.

"Just someone I knew. It doesn't matter now."

"Ahh, love troubles. That's why you exiled yourself to this virtual Oort of an outpost, eh?" Max juggled the food and drink containers as he spoke.

"I just thought it'd be best for my career, that's all."

"You lie about as well as a Venusian tells the truth. What's the real reason?"

Adam sighed. Max was nothing if not persistent, and he would come back to the charge until he got the whole story. Might as well get it out in the open now, he thought ruefully.

"Too many people, too many associations. One of my best friends got arrested for treason, the woman I liked spurned me and the woman that came between us tried to cheer me up once too often." He threw his hands up in disgust. "In the end, I had to get out. The *Bonnet* was the first position available."

The younger gunner stopped chewing and his face dropped. "Yikes. Sorry I asked..."

Frigate, Corsair Class

Name	Launched	Current Status
JSS Henry Morgan	November 16, 2191	Alpha
JSS John Rackam	January 6, 2192	Beta
JSS Anne Bonny	June 14, 2192	Gamma
JSS Stede Bonnet	October 30, 2192	Alpha
JSS Edward England	May 6, 2193	Detached Duty
JSS Henry Every	November 14, 2193	Alpha
JSS Bartholomew Roberts	June 23, 2194	Gamma
JSS Howell Davis	December 6, 2194	Alpha
JSS Edward Low	July 21, 2195	Detached Duty
JSS Surcouf	January 2, 2196	Gamma
JSS Teach	May 9, 2196	Beta
JSS Jacques Fringuant	N/A	Building
JSS Blackbeard	N/A	Building
JSS Kirby	N/A	Building

CORSAIR-CLASS FRIGATE

JSS Henry Morgan (2213 Configuration)
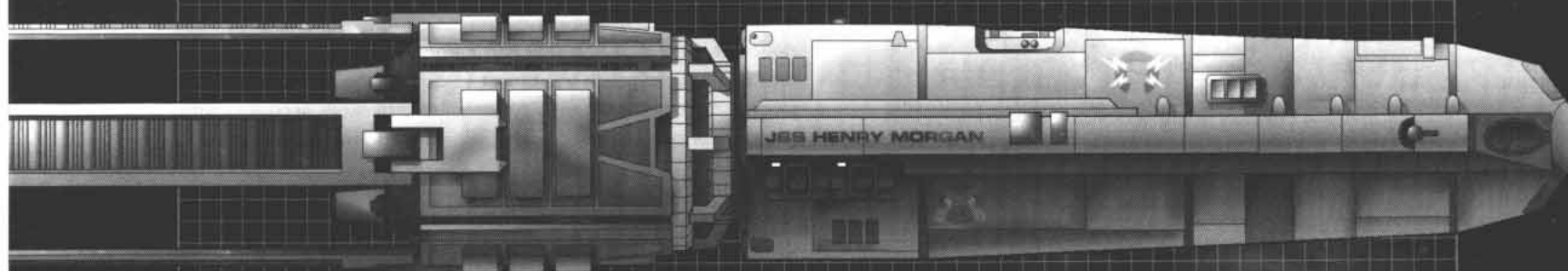
CORSAIR
CLASS

Despite a recent trend to the contrary, not all combat space ships need to be enormous in order to be a serious threat to their enemies. The Corsair-class frigate is one such ship, her twin launchers capable of sending hypervelocity heavy missiles through the hull of vessels many times her own size.

▶ 2.1 OVERVIEW

Space combat is a peculiar dance, where ponderous space ships act a slow ballet while smaller auxiliary combat vehicles such as exo-armors dart in to take out weapons and defenses. In between ponderous battleships and nimble exo-armors and interceptors, a niche waits to be filled. While both exo-armors and interceptors can carry and use powerful weapons, they remain limited in their overall payload capacity and combat endurance. There is a real need for a combat unit that can carry a large supply of missiles and close rapidly with the target to deliver the attack, while the target craft's point defense systems are otherwise occupied with the smaller combat spacecraft.

The Corsair-class frigate is a ship designed to exploit the destruction of the enemy's point defense assets. Direct-fire weaponry requires precise lock-ons, while autonomous hunter-killers such as the Space Dart missile can be easily targeted and destroyed. The Corsair thus uses missiles that are boosted to a very high velocities by a electromagnetic accelerator. The projectiles are too small and fast to be targeted by anything other than the PDS laser net of the intended victim (which is often the first target of fighter craft), and their high velocity gives them a range comparable to many support weapons and directed energy armament.

The ship's silhouette underwent several major changes through the years as the vessel was updated. At times, the overall appearance was profoundly modified, the removal of the original battle ring and the addition of a second torpedo launcher being the largest changes since the creation of the class. The current configuration is very lean and tight.

The Corsair is often nicknamed "the Squid" by crew and adversaries alike, because its short body and long drive fins vaguely resemble the marine animal when viewed from the side. The nickname also fits in well with the marine-themed names of the various vessels in the class, and is thus in wide use.

▼ 2.1.1 Capabilities

The Corsair is a small and slim spacecraft, easily recognized by the large blocky shapes of the two linear launchers on either side of the hull. The basic hull design has been considerably streamlined since the ship was first planned out, with many elements reduced or removed to make it speedier and more maneuverable — in short, more suited to its intended mission profile. The ship currently has no cargo rack or external habitat, and consists solely of the forward hull and a single-engine drive section buried within a well-armored drive mount.

Fast and maneuverable, the Corsair is equipped with powerful torpedoes for a main armament. These are heavy warheads coupled with a seeker device and limited range propulsion module, with most of the initial velocity acquired from the ship's electromagnetic launchers. The control systems and drive mechanisms aboard each torpedo are built around photon-based solid state circuitry so that the intense magnetic fields caused by the launcher do not affect the guidance system. Similarly, the main warhead is kinetic — twelve clusters of ball bearings arranged radially around the guidance package — rather than explosive, to prevent a premature explosion in the launcher.

Though it is equipped with a small auxiliary vessel bay, the Corsair does not usually carry support craft beyond two WMMU sets (see **Ships of the Jovian Confederation, Volume One**, page 141). The Work Man Maneuver Units are used to examine the hull, retrieve objects and perform general maintenance tasks around the ship. The WMMUs are not combat-capable, and are normally kept locked within their cradles in the wall of the forward bay. Some Corsairs also carry a few exo-suits if a marine contingent has been assigned to them.

The Corsair rarely operates alone. It has limited fuel and consumable reserves, and needs to be replenished often by a supply ship of some kind. They are sometimes used as escorts on low risk routes by military cargoes, which then carry the required stores.

▼ 2.1.2 Operational Role

The Corsair was developed in direct response to the battle performances of the smaller JAF ships as observed during the mid-2180s. Computer simulations and wargames had already pointed to a weakness in the JAF's usual battle plans: though the nimble exo-armors were quite adept at taking out the anti-missile defenses of enemy ships, neither they nor their interceptor cousins could carry enough ordnance to ensure the complete and assured destruction of the threat once those defenses were down.

The Corsair is a short-range attack craft, used for raids and skirmishes. The ship is always paired with auxiliary attack craft, such as exo-armors and interceptor fighters, that precede it in combat and take out the point defense systems of the target to allow the torpedoes to get through.

The JAF is still developing tactics for the vessel to better exploit its strengths while minimizing its weaknesses. It cannot linger long in battle, nor can it reach faraway engagements without tanker support. Its maneuverability and comparatively small size, however, make it harder to hit with large anti-ship weaponry and make it a credible threat to all spacecraft, regardless of their size. In many ways, the Corsair is a ship-sized interceptor.

There are currently 14 hulls assigned to the Corsair class, though not all have been completed. Alpha Division has four, Beta Division has two, and Gamma has three. Two Corsairs have been assigned to detached duties with a roving battle group, but the ship's lack of endurance continues to present serious logistic problems. Three vessels are currently being assembled in various shipyards across Jovian space.

CORSAIR-CLASS FRIGATE

▶ 2.2 SHIP SCHEMATICS

◑ Side View


```
0m    25    50         100        150        200        250        300        350
```
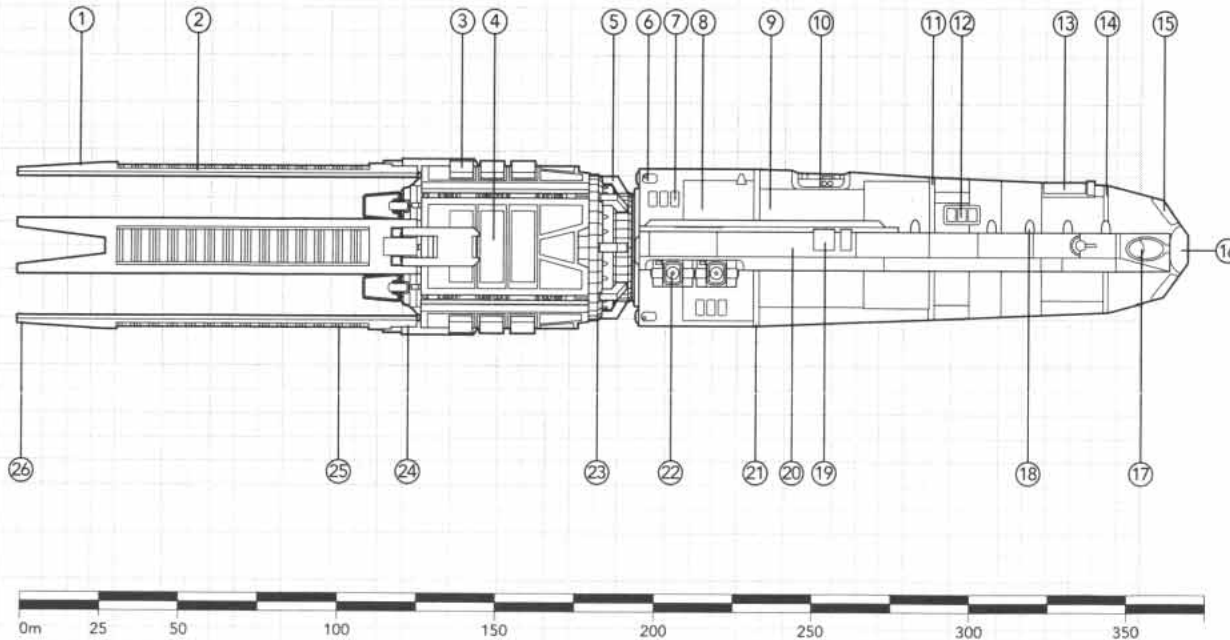
▼ Legend

1	Drive Fin	11	Mid-ship PDS Emitter Panel	21	Rear PDS Emitter Panel
2	Heat Sink Panel	12	Escape Pod Covers	22	Main Capacitor Housing
3	Aft Maneuver Jet Cluster	13	Auxiliary Craft Bay	23	Reaction Mass Housing
4	Armor Panel	14	Forward PDS Emitter Panel	24	Drive Fin Hinge
5	Engine Mount/RAM Hardpoint	15	Upper Optical Sensor Shield	25	Exhaust Collimator
6	Short Range Sensor Cluster	16	Missile Launch Tubes	26	Plasma Flow Sensors
7	Emergency Escape Boat Covers	17	Starboard Launch Port		
8	Lateral Phased Sensor Array	18	Structural Reinforcement Rib		
9	Primary Launcher Heat Sink	19	Primary Launcher Access Panels		
10	Upper Loading Door	20	Starboard Torpedo Launcher		

2.2 SHIP SCHEMATICS (CONT.) ◄

Front View ◐


```
0m    25    50
```
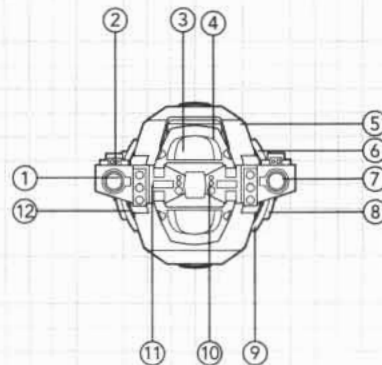
▼ Legend

1	Starboard Launch Port	11	Forward Maneuver Jet Cluster
2	Primary Launcher Heat Sink	12	Starboard Fire Control Sensors
3	Upper Optical Sensor Shield		
4	Auxiliary Craft Bay		
5	Lateral Phased Sensor Array		
6	Structural Reinforcement Rib		
7	Port Torpedo Launcher		
8	Launcher Capacitor		
9	Main Capacitor Mount		
10	Forward Missile Launch Tube		

Specifications

Name:	Corsair
Origin:	Jovian Confederation
Manufacturer:	Alliance Shipyards
Type:	Frigate
Control System:	Bridge w/astronomical display
Length:	375. 8 m (w/drive fins)
Width:	63.7 m
Empty Weight:	21,300 Tons
Loaded Weight:	30,000 Tons
Main Drive:	2 x 20 MW
Secondary Powerplant:	2 x 6900 kW
Main Thrusters:	2 x 21,000,000 kg
Apogee motors:	120
Acceleration:	1.4 g
Onboard Sensors:	Fire Control Radar, Infrared/Ultraviolet, Lidar, Low-light, Magnetometer, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS, 1 x missile bay, 2 x torpedo launchers
Additional Armament:	N/A
Defensive Systems:	mag screen, PDS
Equipment:	escape pods

► 2.2 SHIP SCHEMATICS (CONT.)

◑ Top View

Scale: 0m 25 50 100 150 200 250 300 350

▼ Legend

1	Drive Fin	11	Port Fire Control Sensors	21	Reaction Mass Housing
2	Heat Sink Panel	12	Upper Optical Sensor Shield	22	Drive Fin Hinge
3	Aft Maneuver Jet Cluster	13	Starboard Launch Port	23	Exhaust Collimator
4	Armor Panel	14	Forward PDS Emitter Panel		
5	Engine Mount/RAM Hardpoint	15	Structural Reinforcement Rib		
6	Primary Launcher Heat Sink	16	Launch Vent		
7	Loading Door	17	Mid-ship PDS Emitter Panel		
8	Access Panel to Correction Magnets	18	Rear PDS Emitter Panel		
9	Escape Boat Cover	19	Emergency Blast Panel		
10	Auxiliary Craft Bay	20	Hull Access Nodes		

2.2 SHIP SCHEMATICS (CONT.) ◄

Cutaway View (Forward Hull)

0m   25
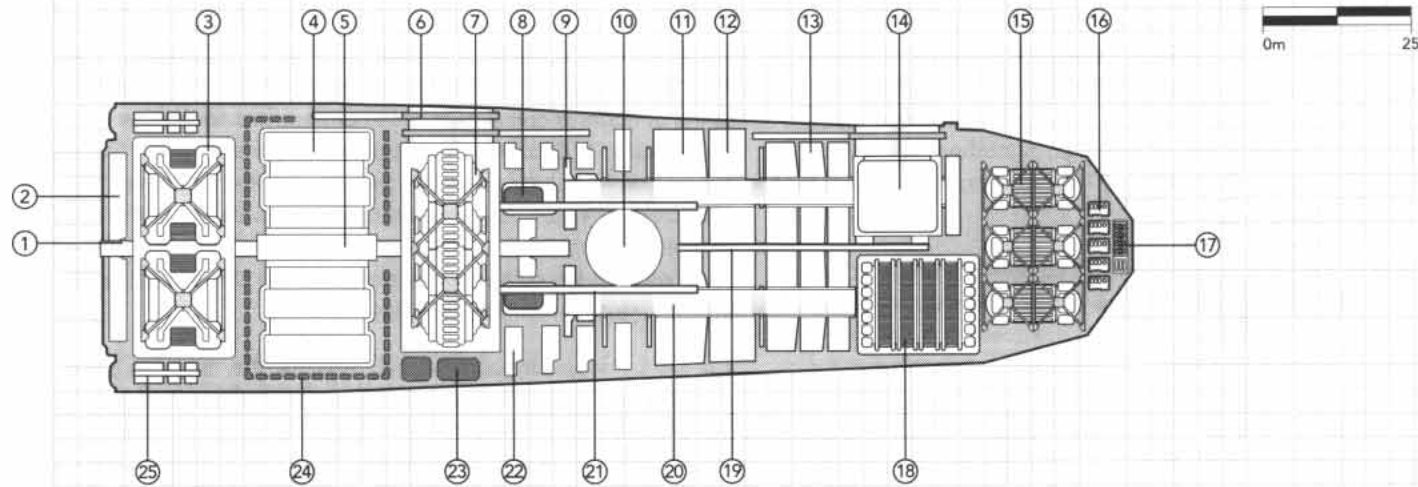
▼ **Legend**

1	Access to Drive Section	10	Bridge	18	Superconducting Batteries
2	Engineering Deck	11	Common Rooms	19	Shuttle Bay Elevator
3	Bulk Storage	12	Service Deck	20	Main Elevator Shaft
4	Torpedo Magazine	13	Crew Quarters	21	Service Elevator
5	Loading Mechanism Housing	14	Shuttle Bay	22	System Decks
6	Loading Doors	15	Heat Exchangers	23	Power Management Nodes
7	Gas Storage	16	Capacitor Array	24	Emergency Blast Panels
8	Power Systems	17	Forward Sensor Cluster	25	Sensor Service Decks
9	Transfer Room				

▶ 2.3 HISTORY

News of the formation of a new superpower in the inner system sufficiently worried the Agora for them to authorize a large budget allocation for modernization to the Jovian Armed Forces in June of 2185. General Charles C. Danduran, then in charge of fleet operations, commissioned a task force of naval specialists to evaluate the state of the JAF's current assets in regard to its capacity for national defense against a well-organized and modern space navy. The commission's findings, published as a series of recommendations in November 2186, did much to shape the modern JAF fleet.

The goal of the Corsair program was to create a unit that could keep up with Jovian combat craft and back them up with serious firepower. Since such a unit would be exposed to heavy enemy fire, casualties would have to be expected and accounted for in the design process. Cost thus became a critical factor; the new vehicle would need to be as inexpensive as possible. In the same line of thought, a minimal crew was desirable to limit human losses in combat. Though the latter request was a constant throughout the program, the low cost requirement was soon lost in the chaos of the development process.

By the spring of 2187, the first proposals were already pouring in. A heavy legless exo-armor was considered (JAW's little known EASX-01 program), then a bomber-style interceptor (Lockwell-Nagura IMX-99). The Dessa Systems research group recommended a computer-controlled long range missile with a sub-munition warhead, but worries over rogue units and limited endurance forced the JAF to abandon this line of thought.

The committee finally settled on Proposal 64-6A, which was a light conventional space ship equipped with a launch tube for boosted heavy missiles and a cluster of heavy energy weapons. The vessel would use the same engines as the other mid-size vessels of the Jovian navy, such as the Thunderbolt and Javelin, but would mass far less and thus be capable of a greater accel-

eration. Particle accelerators, taken from the specs of the Thunderbolt-class destroyer, would be placed on a circular structure around the hull. The crew was kept to a minimum, while considering the need to cover at least two watches.

The first vessel was assembled under high security at the Nova Systems Ltd. shipyards in the summer of 2191. Though it was technically a prototype, the ship had already flown for many thousands of hours in computer simulations and would thus be refurbished as Unit 001 of the new ship class at the end of the classification trial. The ship performed well, though it scored lower than expected. The particle accelerators proved to be a burden, both for maintenance and energy and heat dissipation requirements. They were to be subsequently deleted from the design during the first major revision of the class in 2197.

The Corsairs performed relatively well for the next few years, though they seemed to spend an inordinate amount of time in maintenance and refit programs. When the MacLeod modular ship program yielded its first hulls, to great effect, the JAF expanded the program to supply parts to refit the older vessels and bring them up to more modern specifications. The Corsair was one of the designs that benefited the most from the refit. The removal of its underused auxiliary bay modules and heavy cargo racks notably improved the ship's performance levels while reducing the crew's maintenance chores. The reduction in range was deemed more than acceptable, as this class had been intended as a combat vessel, not a patrol one.

The Corsairs took a small part in the various naval engagements fought by the JAF since 2210, and acquitted themselves well every time. Remarkably, despite their dangerous mission profile, no ship has been lost to battle yet, though the JSS Surcouf had to be towed out of a decaying orbit above Mars after suffering complete engine destruction in the Battle of Kurtzenheim. The robust little space ship will thus likely continue to serve the JAF for many years to come.

JSS HENRY MORGAN ◄

Corsair-class Vessels, 2191 ◐

▼ **Legend**

1 UY-388 Drive Units
2 JAF2197 Cargo Racks
3 Thunderbolt Particle Accelerators
4 Auxiliary Craft Bay
5 Torpedo Launcher
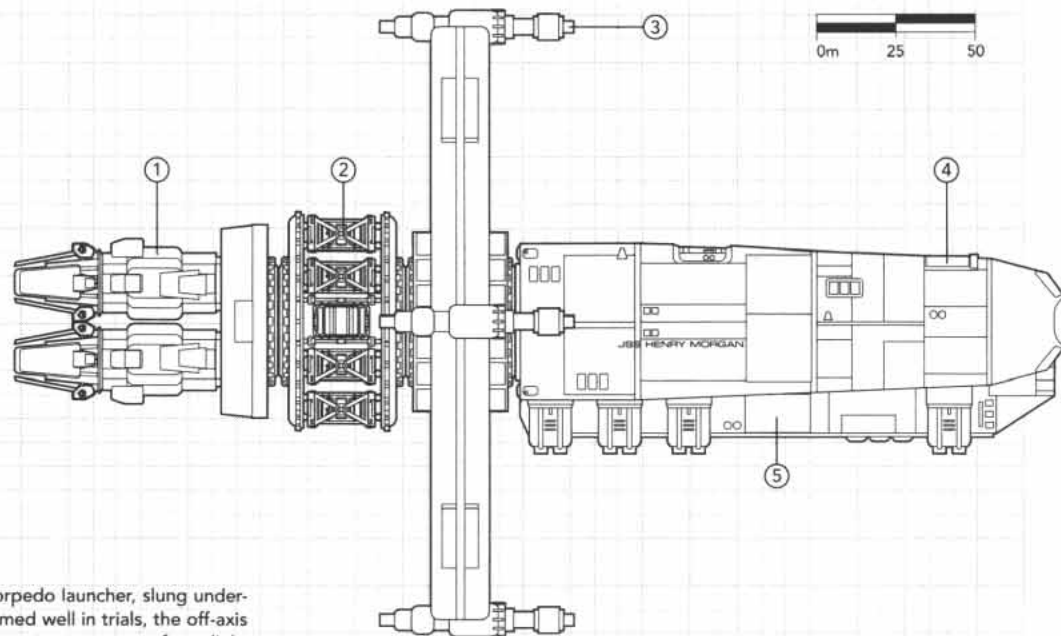
The original design featured only one torpedo launcher, slung underneath the forward hull. Though it performed well in trials, the off-axis position of the launcher forced the helmsman to compensate for a slight rotation every time the weapon was fired.

JSS Henry Morgan: launched November 16, 2191. The first ship of the class began the tradition of naming the vessels with the names of legendary pirates and cutthroats. This was deemed to fit well with the raid and quick-strike nature of the design and intended assignments.

JSS John Rackam: launched January 6, 2192. The second ship in the class, the John Rackam suffered from more than its share of problems. A glitch in the error tracking software of a testing machine led to the installation of a defective coil in the ship's launcher. A minute crack violently expanded when submitted to the weapon's intense electric and magnetic energies, shattering the launcher and killing two gunners.
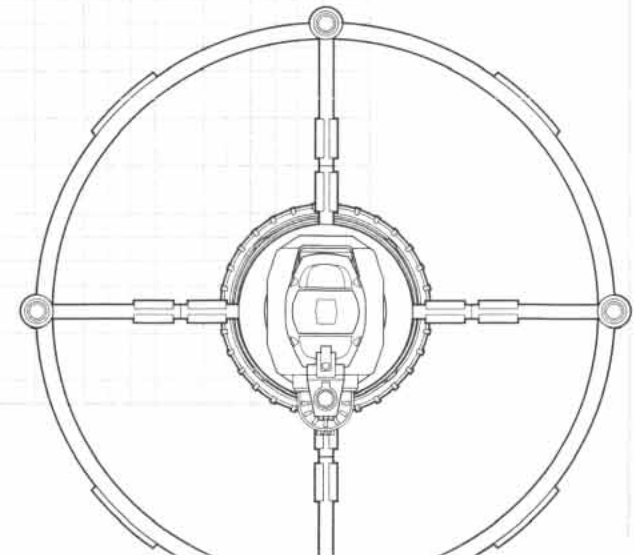
▶ JSS ANNE BONNY

◐ Corsair-class Vessels, 2197

```
Om    25    50
```
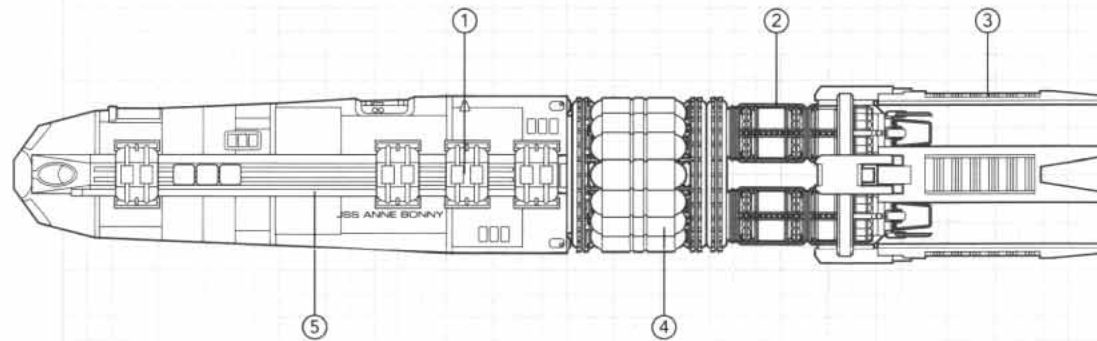

▼ Legend ▼

1	Primary Capacitor Banks
2	UY-890D Drive Unit
3	Lockwell DR-7 Short Drive Fin
4	Reaction Mass Tankage
5	Starboard Torpedo Launcher
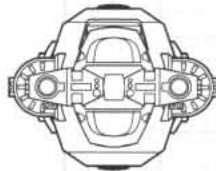
The various problems experienced by the single-launcher Corsairs led to the installation of a second launcher on the Bonny and all subsequent ships. The revised design also dispensed with cargo racks (judged unnecessary for the ship's planned mission profile) and used the new HT-8800 engines developed at the request of the military.

JSS Anne Bonny: launched June 14, 2192. The Anne Bonny has the distinction of currently holding the Bullseye Award for accomplishment in gunnery. Its crew has won the coveted JAF prize four years in a row.

JSS Stede Bonnet: launched October 30, 2192. The Bonnet, third to be built using the Block II revision, was the first of its class to mount the new Lockwell L-7 drive fins. Improved performance later led to the refit of such fins on virtually all ships of the class.

JSS EDWARD ENGLAND ◄

Corsair-class Vessels, 2206 ◐

▼ Legend ▼

1   Lockwell -7 Short Drive Fin
2   UY-890E Drive Unit
3   JAF2207 Cargo rack
4   Mk II Torpedo Launcher
5   Primary Capacitor Banks

0m   25   50
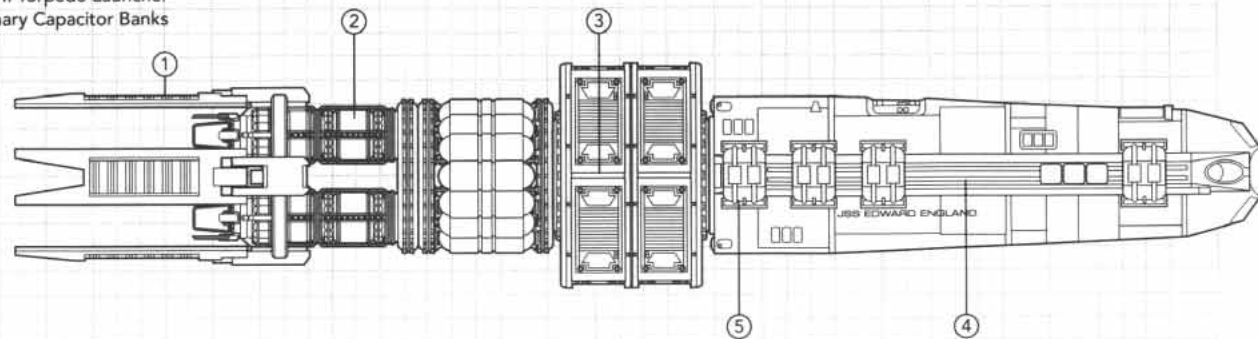
The last refit before the radical change brought on by the MacLeod program gave some additional cargo capacity to the ship. The vessel's main weapons were also greatly upgraded to the Mk II configuration, which was more efficient.

JSS Howell Davis: launched December 6, 2194. The last ships to come out of the shipyards made extensive use of components developed for the MacLeod program, taking advantage of both their low cost (due to mass-production) and cutting edge design.

JSS Edward England: launched May 6, 2193. The England was the fifth ship launched in the class, but it spent most of its service time stationed at a fixed defensive post. As a result, the hull showed little wear and tear, and it was decided to cancel the order for Hull 675678-12 and instead overhaul the ship with modern components.
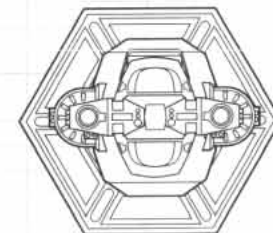
▶ 2.4 SHIP SYSTEMS

◑ schematics
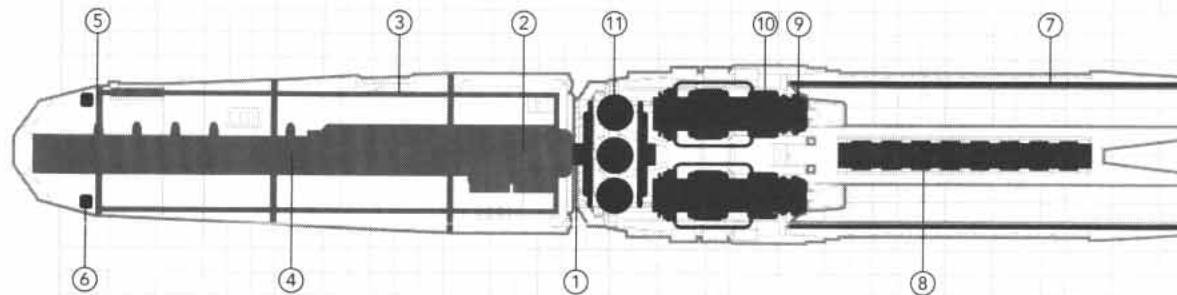
▼ Weapon Systems

1	Main Power Conduit
2	Capacitor Arrays
3	PDS Power Conduits
4	Torpedo Launchers
5	Phased Array Laser PDS Cells

▼ Propulsion Syst.

6	Plasma Arc RCS Cluster
7	EM Power Generation Syst.
8	Radiator Panels
9	Exhaust Collimator Coils
10	Plasma Combustion Chamber
11	Reaction Mass Plumbing

The internal layout of the Corsair class ships features the same general systems as the other Jovian ships, but they are placed very differently. While there is a tendency in modern Jovian ship engineering to place almost all fuel tanks and systems ahead of the crew compartment (to shield them with bulk mass in case of collision), the designers of the Corsair were forced to place the crew quarters midway along the forward hull.

The main torpedo magazine is located almost to the rear of the forward hull, sandwiched between the reaction mass reserve and the gas storage facilities. It is heavily armored and equipped with blow-away panels to channel the force of any explosion outward.

2.4 SHIP SYSTEMS ◄

schematics ◐
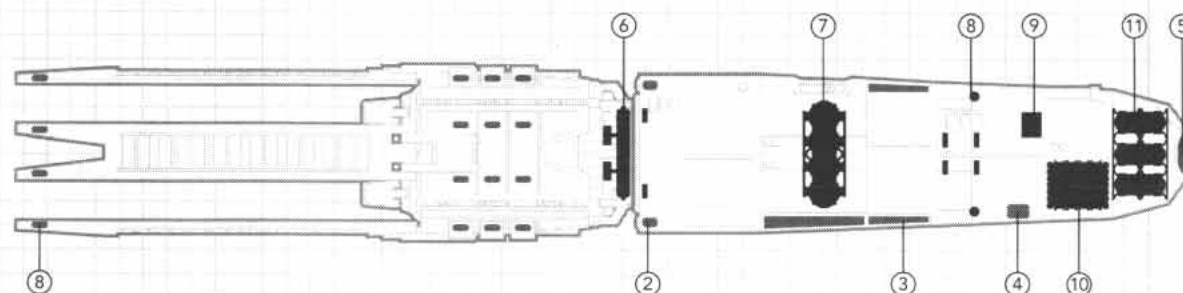
The ship's engineering and propulsion section is directly attached to the forward hull, with no storage facilities in between. Since the Corsair has been designed as a fast attack space craft, it will always be part of a battlegroup along with a supply ship bearing supplies for it, and as such has little need for cargo that might slow it down. Heavy duty screen generators take care of the increased radiation levels caused by this proximity.

The rear section is unmanned and contains the two standard main drives and most of their reaction mass tankage. Four outer armor shields do double-duty as emergency heat sinks and support mounts for the four Lockwell drive fins.

▼ **Sensor Systems** ▼

1	Plasma Flow Sensors
2	Short Wave Instrument Clusters
3	Phased Array Radar
4	Optical Sensor Cluster (retracted)
5	Laser Ranging and LIDAR Emitters

▼ **Life Support Syst.** ▼

6	Shield Generators
7	Gas Storage
8	Secondary Life Support Node
9	Shuttle Bay Life Support Node
10	Heat Exchangers
11	Superconducting Batteries

▼ 2.4.1 Torpedo Room

The torpedo room is where the ship's main weapons are brought from the armored magazines and loaded into the accelerators. Situated midway through the ship's hull, it is heavily shielded and armored to prevent accidental detonations and to protect the crew from the intense electromagnetic fields generated by the launchers.

The torpedoes are brought from the forward magazine via a mechanized conveyor belt through a set of double armored pressure doors. Built-in safety mechanisms prevent both doors from being open at the same time. The torpedoes are then picked up by a set of loading arms and quickly inspected for defects or damage by both an automated camera and an internal diagnostic system. Rejected torpedoes are normally dumped overboard through an emergency airlock, but this can be overridden from the gunnery station and the torpedo brought back to the magazine for later inspection by a human technician (if ammunition is in very short supply, for example).

The picture at left shows the main torpedo loading area at the "base" of the launcher (i.e, toward the rear of the ship). The actual loading area is somewhat more complex, with power cables and diverse monitoring and guidance devices, but the JAF maintains a tight control on its exact schematics for security reasons. The room with the slanted windows at the right of the picture is the gunnery control room, where the various systems of the launcher are monitored and maintained.

▼ 2.4.2 Bridge

The bridge of the Corsair-class vessels is probably the largest living space aboard the vessel. It is built around the standard Jovian "open space" spherical layout, with crew stations far from one another. In many ways, it would be better to refer to it as the ship's cockpit, since it shares many characteristics with interceptor and exo-armor cockpits.
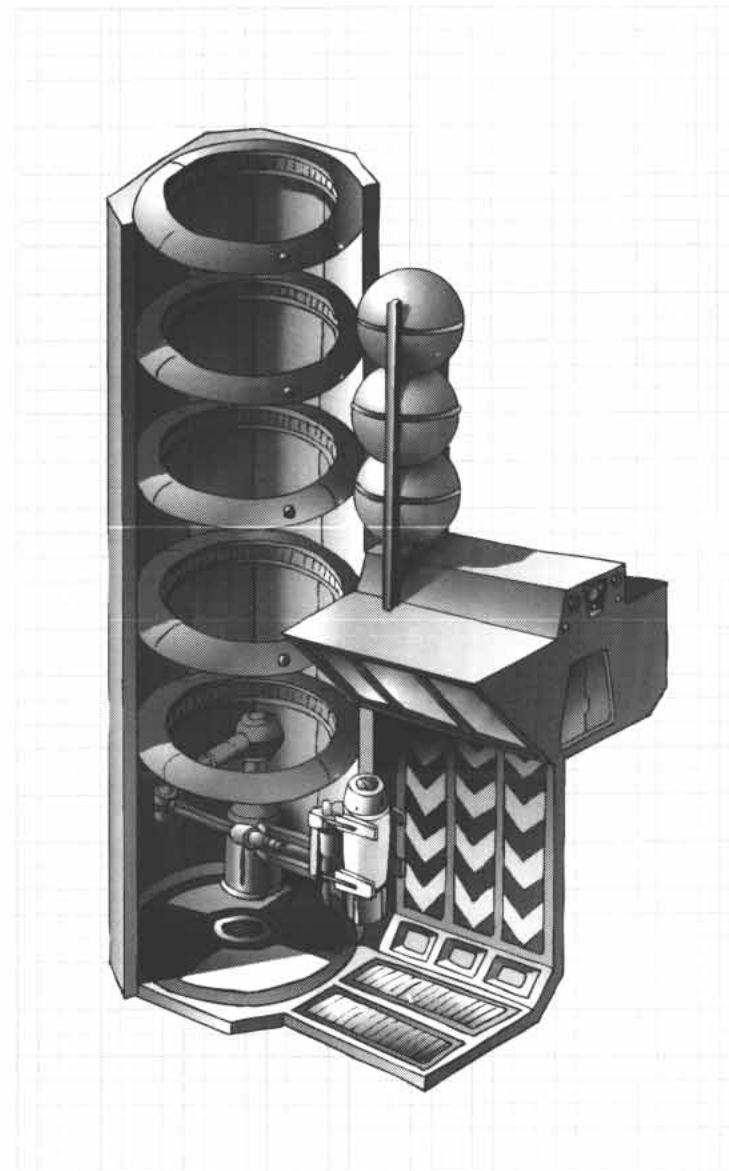
The Corsair's bridge is covered with a bubble-like canopy, a sophisticated projection system similar to the ones used on most ships' bridges; it can project not only a reconstructed view from any sensor cluster in any wavelength, but it can also overlay tactical information such as trajectories and IFF tags.

Each crew station is equipped with an ergonomic padded seat surrounded by readout panels that can be reprogrammed to fulfill the functions of any of the bridge's posts. The seat features attachment points for a sturdy padded harness for use during combat and alert situations (a thin seat belt is used otherwise to improve comfort). A panel in the base of the seat contains connectors for a space suit air hose and power leads, greatly extending the endurance of said suit.

▼ 2.4.3 Crew Cabin

Actually, "cabin" is somewhat of a misnomer for this crew quarter. Coffin or closet might be more appropriate, since this is approximately the size of the room. The cabin is intended to serve as a sleeping berth more than anything else, and though it is equipped with a complete computer terminal and minimal hygiene facilities, it is expected that the crew will spend most of their off-duty time in the small commons.

The cabin is intended for use both under acceleration and under micro-gravity. One side is a padded surface with built-in restraints, while the other walls have only a few cushions and pads to protect the occupant as he moves about.

Though the standard crew cabin does not have an independent life support system, it is reasonably airtight and can function as a short time emergency survival shelter (the exact length of time depending on the number of people jammed inside and the quality of the atmosphere).
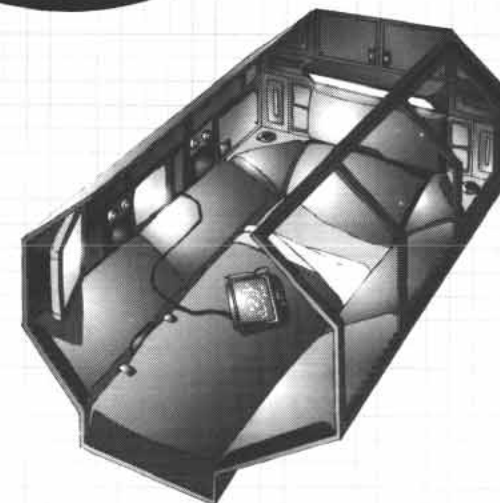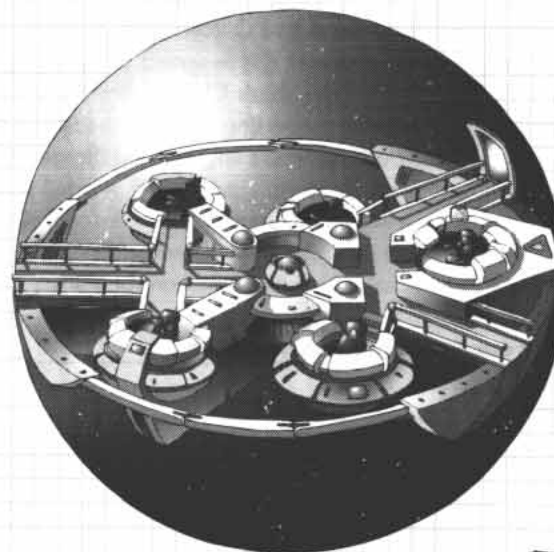
▶ 2.5 SHIP PERSONNEL

The Corsair has four internal departments. Operations, commanded by the ship's Executive Officer, handles the daily activities of the ship and any roles not assigned to the other departments. Gunnery, led by the ship's Chief Gunner, is in charge of weapon firing and maintenance. Engineering, headed by the Chief Engineer, handles both the ship's engines and the generator systems tied into the ship's power grid. Finally, a small Marine detachment led by a Marine Commander, often of Lieutenant or Chief Warrant Officer rank, is present for security purposes, though in practice they mostly act as damage control teams.

▢ Crew Organization Chart

Captain	
Executive Officer	
Sensor Operator	2
Comm Operator	2
Helmsman	2
Navigator	2
Medic	1
Computer Specialist	1
Chief Gunner	
PDS Specialist	3
Torpedo Specialist	6
Chief Engineer	
Bosun	2
Engineer	4
Marine Commander	
Marine	5

▼ 2.5.1 Interview with a Navigator

Name:	Devon Bailey
Rank:	Warrant Officer
Current Assignment:	JSS Henry Every

"Being a navigator on a small ship like the *Henry Every* entails more than just checking star charts and trajectories. We're actually helping to drive the thing, and many of us like to style themselves 'co-pilots' rather than just bridge crew. It sounds weird, given that the bridge is, well, a bridge. It's pretty huge — especially compared to the rest of the living quarters, and especially our cabins — but still, the nickname works well enough for us. After all, when you're strapped down at your post in a full pressure suit and surrounded by layer after layer of screens and displays, and you don't have time to look up, the bridge feels a lot smaller than it is.

"The helmsman tells me that flying a Corsair-class ship is a little like piloting a fighter. I once served as a SIO — that's short for Sensor & Intercept Officer, the back seat guy that handles the sensors and weapon systems — aboard an interceptor, and I have to agree with him. After all, I had similar duties as far as navigation goes in the fighter, so...

"The actual navigation work is somewhat limited. Unless additional remass tanks are attached to the hull, or a RAM booster added to the drive section, we generally don't go far enough for me to do much more than supervise the computers. Even then, if we do go far, it's only as part of a task force, so we just download the nav data from the other ships rather than calculate it ourselves. Hence, I tend to spend most of my time helping out the rest of the bridge crew in their tasks."

▼ 2.5.2 Interview with a Gunner

Name:	Jacob Derreger
Rank:	Sergeant
Current Assignment:	JSS Anne Bonny

"The term 'gunner' may be something of a misnomer in our case. Most of my crew's duties is centered around the torpedo launchers — though I guess you could call them missile guns if you want. These are sweet weapon systems, let me tell you. You know that we hold the Bullseye, eh? That's the JAF's main gunnery prize for accuracy. We can place a missile in the exact center of a practice target from more than 10,000 Kay away, and that's without computer assistance. We got some of the fastest mental calculators in the fleet on my team — no need for pansy handcomps for us!

"Unlike the gunners aboard most other warships, we rarely go near our weapons. That's because the launchers, though well-shielded, use rather dense magnetic fields. That's not very healthy for anything with a notochord, you know. So most of our maintenance is done through scutters, which are small remotes that can access most systems. You've probably seen them before: small cylinders, striped black and yellow, with compressed air jets at both ends and a cluster of tiny tool arms? Yup, that's them.

"We work from a cramped gunnery station placed midway in the ship, sort of jammed in between the magazines and the loading mechanisms. It's a bit bare, with the gunnery seats and not much else. The walls have access panels for the gunnery computers' logic systems and some handles and non-slip pads for zegee, but that's about it. We also have access to a shielded room in each of the launcher, mostly for supervising maintenance."

▼ 2.5.3 Interview with an Engineer

Name:	Claudia Bauer
Rank:	Sergeant
Current Assignment:	JSS Teach

"The Corsairs are okay, provided you're not really tall. Main engineering is this little series of cubicles at the end of the forward hull, just above the main tanks and the rear rad screen generators. It's just kinda wedged in, like the designers almost forgot about it and inserted it at the last minute. It's little more than a surveillance post for each kind of system, few of them anywhere near the place where we actually supervise them. For safety reasons, the room is heavily shielded, and we normally wear rad-proof coveralls. When you're that close to a fusion core, you want to make really sure you don't end up glowing in the dark! <laugh>

"Yes, being petite helps me in my job, but only as far as physical comfort goes. Though the ship is relatively small and cramped, — including our rooms, but everyone grumbles about that regardless of their height, believe me — we don't have to crawl around ductworks and access tubes. Most of the job is accomplished using either monitors or teleoperators anyway, so physical size doesn't matter much.

"Ever since they modernized the ship and took away the connectors and cargo racks, our duties have dropped to something resembling a normal human workload. Most of our work consists of making sure the fusion reactors run smoothly. There are two main things to watch for, eddies in the plasma chamber and the proper flow of the cryogenics through the pipes. We usually call it 'fire and ice' watch duty, for obvious reasons."

Corsair-class Frigate

Section: Torpedo Launcher

▼ Main Data:

TV:	37,000	Off. TV:	110,000	Def. TV:	800	Misc. TV:	1200	Cost:	37 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors:	0/4 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	53	Default Size:	33	Base Armor:	40	Light:	40	Heavy:	80	Overkill:	120

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 1,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup FireCon	-	Absorbs first "FireCon" hit			
HEP: Radiation	5	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	Torpedo Launcher	FF	x35	5	-2	0	30	HEAT, Missile	32	153,000	610

▶ Corsair-class Frigate

▼ Overall Data:

TV:	104,000	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	104 M	Indv lemon dice:3

▼ Movement Data:

Mode:	Space	Combat: 7 (0.7g)	Top:	14 (1.4g)	Maneuver:	-2	Range: 1,000 hrs	ReMass: 2,000 BP

▼ Sections:

1 x	Main Hull	2 x	Torpedo Launcher	2 x	Drive

▼ Off & Def Systems

1 x	Point Defense System (main hull)	2 x	Torpedo Launcher (launchers)	1 x	Missile Bay (main hull)

Section: Main Hull

▼ Main Data:

TV:	23,000	Off. TV:	25,000	Def. TV:	1250	Misc. TV:	44,000	Cost:	23 M	Indv lemon dice: 3
Crew:	13	Actions:	5	Sensors:	0/4 km	Comm.:	0/15 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	72	Default Size:	28	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 1000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Autopilot	-	Lvl 1 pilot	Reinf. Crew Comp.	2	Absorbs first two "Crew" hits
Backup Sys.	-	Comm, Fire Con, Life Sup, Sensor	Satellite Uplink	-	x1000 Comm range
Computer	2	CRE 0, KNO 0, PP 2	Cargo Bay	-	1,900 m³
Ejection System	-	60 places	Reinforced Armor	25	Front
HEP: All			Sick Bay	2	Zero-Gravity Medbay
HEP: Radiation	4	Screen			
Life Support	-	Full			
Passenger Accom	-	10,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a
1	Missile Bay	T	x30	5	-2	5	30	Mis, G, Concealed	14	6000	18

▶ Section: Drive Module

▼ Main Data:

TV:	3600	Off. TV:	0	Def. TV:	1800	Misc. TV:	9000	Cost:	3.6 M	Indv lemon dice: 3
Crew:	6	Actions:	4	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	46	Default Size:	20	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

Mode:	Space	Combat: 23 (2.3g)	Top:	46 (4.6g)	Maneuver:	-3	Range: 3,000 hrs	Mass:	9000 BP

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Sys.	3	Comm, Fire Con, Life Sup, Sensor			
Ejection System	-	12 places			
HEP: Vacuum	-	Sealed			
HEP: Radiation	4	Screen			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type:	-
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type:	-
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type:	-
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type:	-
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

► BULLSEYE

"All hands, this is the Captain. Prepare for thrust."

The Captain's voice, calm and cool, came over the ship's internal communication system. Sealed inside his suit, Adam couldn't help but grin at the announcement. The *Stede Bonnet* had now reached its assigned station and would begin the randomly-generated attack run assigned by the umpire computer within the next minute.

The young technician could imagine his friend Max sitting at his gunnery station, cracking his knuckles one by one like he always did before taking the controls and hitting whatever he had his targeting sights placed on. He hadn't thought he'd get so caught up in the ship's customs, but there he was, cheering with the rest of them. The *Bonnet* would get the Bullseye this year!

"Come on, man, don't let us down." Davis prayed, his eyes fixed on the forward bulkhead beyond which the rest of the crew would be busy monitoring the systems that would bring them the coveted JAF award.

*   *   *

Within the armored magazine located deep in the hull of the tiny spacecraft, a mechanism came to life. Electric motors whirred and shifted gears, causing a blunt cylinder to be extracted from its cradle and moved toward the left side of the vessel. It paused briefly to allow a small but thick door to open and let it in. The torpedo was then transferred through a second set of pressure

doors to the main firing chamber of the port launcher. Mechanical arms expertly evaluated the projectile, running system diagnostics and appraising the condition of its exterior while loading it in the maw of the accelerator. The whole process took no more than a few seconds, the only sounds slight vibrations transmitted through the structure.

*   *   *

"Port-side launcher loaded and ready," announced the computer. Max loved the voice speaking softly in his ear. He wouldn't admit it to anyone, but he thought the computer sounded somewhat sexy. His partner in space.

"All right, then, let's see if we can get ourselves a few rounds of free drinks..."

He cracked his knuckles — not an easy feat in a pressure suit — and reached for his control board. Moving quickly through the sub-menus, he activated the special targeting sub-routine he had written last night in a flash of inspiration. It might just be the ace in the hole they needed to win this thing. He smiled as he watched the targeting icons align themselves with the distant target drone.

"Bridge, port launcher here. We are locked and loaded."

"You may fire when ready." Captain Dupré sounded slightly amused, as if he already knew the outcome of the matter and permitted the whole proceedings only to indulge his crew and allow them to show off their skills.

"That trophy's as good as ours." Max triggered the fire control.

The ship shuddered as the first torpedo left the launcher, the slight momentum caused by its departure canceled by a brief firing of the ship's aft maneuver thrusters. A low groan echoed through the material of Max's boots, the familiar throbbing pulse that signaled a successful launch. He felt his muscles unclench, the tension in his shoulders ebbing away before he realized that it was

there. The ship's structure had just resisted the tension caused in the launcher's magnets by the intense energy coursing through them, though not without protesting.

Max knew he had it nailed without looking at the readouts. With his previous performance in the short range trials, the *Bonnet* had enough points to actually win this year! He turned to Al Lieber, his loader, and grinned like an idiot. "Just sit back and enjoy the show. In about an hour we'll have won."

*   *   *

The torpedo flew across space like an arrow, its destination the 10-meter wide hoop hanging in low orbit above the swirling clouds of Jupiter. Max had given it the perfect trajectory, taking into account the gravitational field of the gas giant and the effects of its moons to ensure that the projectile would pass right through the center of the hoop and register a high score for his ship.

The target was in a fairly low orbit above the planet, and any missed shots — or any successful ones, for that matter — would quickly burn up without harming anyone. The distance involved, however, meant that it would take tens of minutes for the crew to know whether they had succeeded.

They were bitterly disappointed when the target drone reported that nothing had passed through.

*   *   *

"I don't understand. My program was flawless, my gunnery was flawless, everything was flawless. I don't get it." The young gunner was genuinely upset. Adam could sense his disappointment, a feeling shared by everyone aboard. The mess hall was packed with crewmen commiserating with one another.

"Well, you did your best. We all did." Adam shrugged, as if to dismiss the whole competition as just a stunt. "We'll get them next time."

"If there is a next time. If the Captain lets me touch a gunnery station again." Max slumped down in his seat, his face dejected.

Adam's reply was cut short by the arrival of Al Lieber. The crewman coasted to a stop near them, waving a flimsy plastic printout covered with numbers.

"Max — I've been checking a few things with the gang on the bridge. We just couldn't believe you would mess up so bad, not you, and so we figured something else might have happened. And then we hit on this." He waved the sheet again.

"What?" Max perked up slightly, grabbing at the sheet as Al waved it past his face again.

"There's something really weird going on. We received the telemetry for the torp all the way, and it was right on target. And then *they lost it*."

"So? It could be an onboard system failure. Even with a dead torp, it should've at least passed by the target..." Adam regretted the remark as soon as it left his mouth.

"That's the whole point! Nothing reached the hoop! And, get this — within one-point-two seconds, we registered a flash."

"What?" Adam was surprised. "But that means..."

"Yeah, it hit something on the way in. No wonder it never came close to the target!"

Max forced his dry throat to swallow, scanning the faces around him before finally asking the obvious question.

"But, then what did I hit?"

Transport, Intrepid Class

Name	Launched	Current Status
JSS Intrepid	May 5, 2150	Alpha
JSS Dauntless	April 12, 2151	Beta
JSS Zen	October 1, 2151	Gamma
JSS Fearless	December 8, 2152	Alpha
JSS Stalwart	July 23, 2170	Detached Duty
JSS Vengeance	December 1, 2170	Lost
JSS Indefatigable	May 9, 2171	Dry Dock
JSS Hardy	October 28, 2171	Lost
JSS Rugged	March 10, 2172	Gamma
JSS Gallant	May 2, 2172	Alpha
JSS Ferocious	January 5, 2173	Dry Dock
JSS Courageous	November 17, 2173	Gamma
JSS Formidable	October 12, 2174	Beta
JSS Resilient	September 11, 2179	Dry Dock
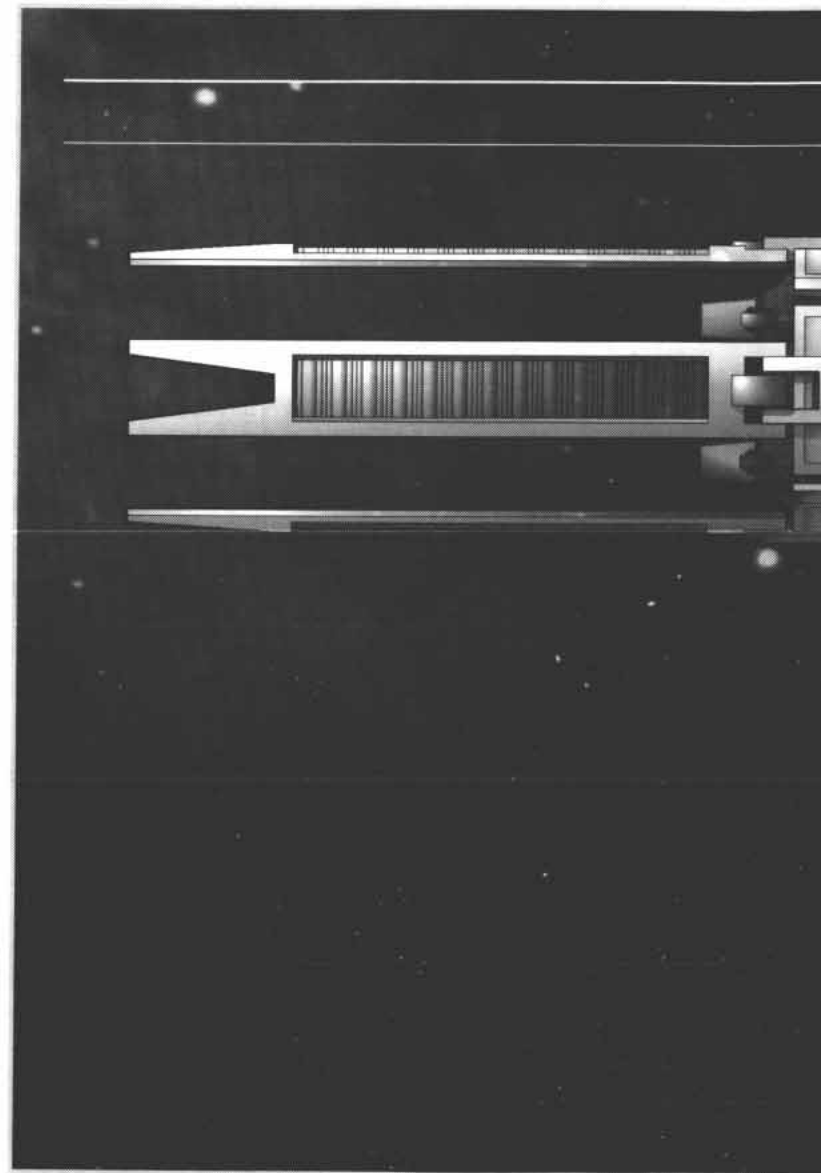
INTREPID-CLASS TRANSPORT

JSS Gallant (2213 Configuration)
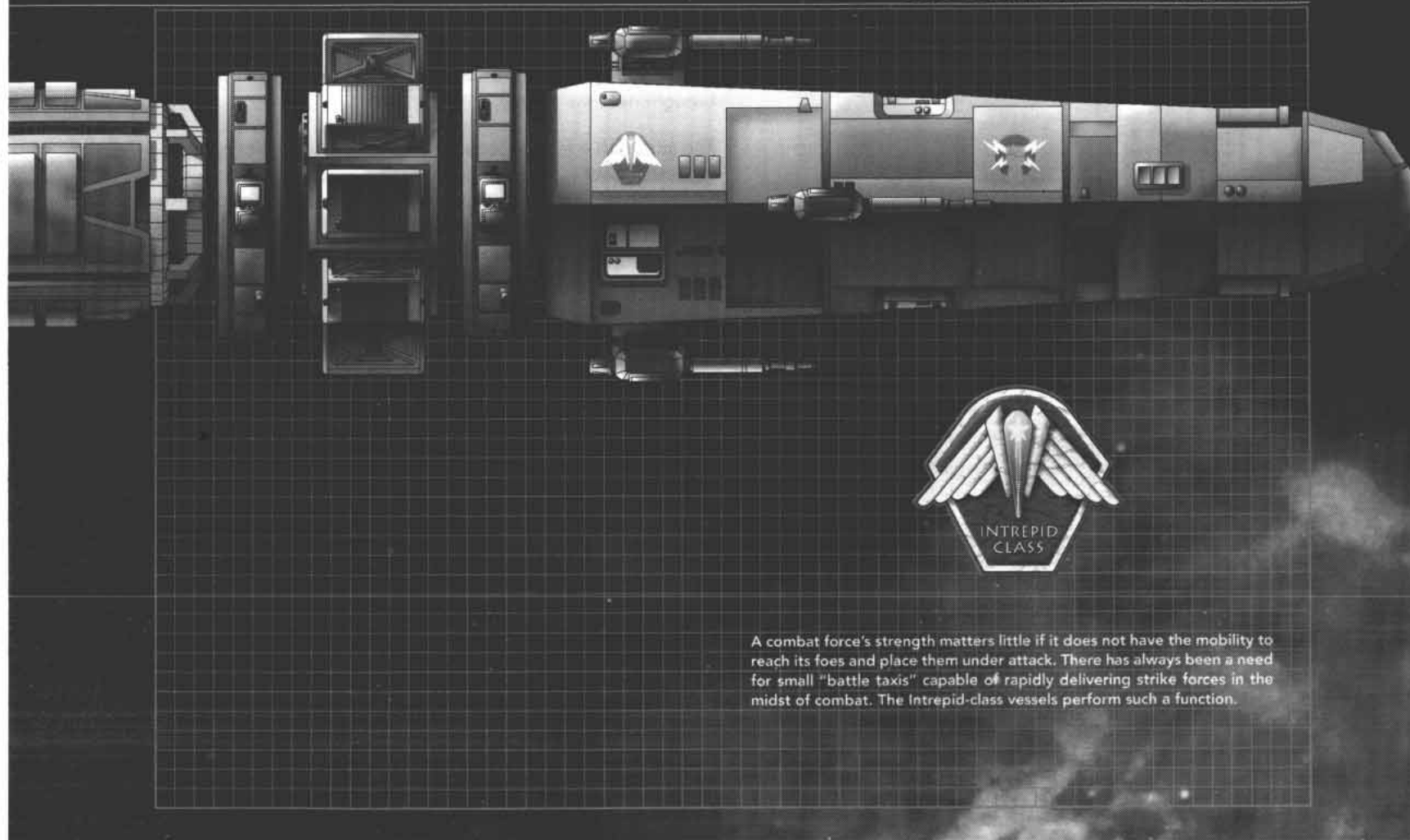
A combat force's strength matters little if it does not have the mobility to reach its foes and place them under attack. There has always been a need for small "battle taxis" capable of rapidly delivering strike forces in the midst of combat. The Intrepid-class vessels perform such a function.

INTREPID CLASS

▶ 3.1 OVERVIEW

Limited reaction mass reserve has always been a major tactical and logistical problem in the deployment of auxiliary combat spacecraft and troops, such as exo-armors, interceptors and marine assault squads. Though these units often carry impressive firepower, their high performances are generally not conductive to a very long range. In order to be of any use, they have to be brought near the enemy.

The Intrepid is a fast spacecraft transport designed to bring fighting units closer to the field of battle. It is little more than a glorified battle taxi, with little weaponry other than its point defense laser array and some kinetic kill cannons. The kickers — slang for the KKC, kinetic kill cannons — are there almost as an afterthought, just in case more firepower is needed.

The Intrepid was one of the first ships designed specifically for the JAF. It is a forebearer to the now common Forge and Valiant class of vessels, and many of its design features (notably the general lines of the hull) are echoed in the design of most current Jovian military vessels. Because of this, this relatively old spacecraft does not appear out of place amongst its younger brethren, hiding its outdated systems under a modern look.

▼ 3.1.1 Capabilities

The main purpose of the ship is to carry troop and combat craft into battle. The Intrepid is a "no frill" spacecraft, which may explain its long service record and relative obscurity in the annals of space combat. Most of the internal volume of the long, thin hull is taken up by the service cradles and the storage area, with the bridge and crew quarters being squeezed in almost as an afterthought between these and the various life and mechanical support systems that take up most of the forward hull. The main bay takes up only a comparatively small portion of the vessel, and has two large cargo hatches located on either side of the hull. It is generally used to carry vehicles that will not fit a standard cargo

container. In addition to its main bay, it has eight auxiliary bays in the connector modules of the Operation section in the middle of the vessel. These are large enough to accept one vehicle each (generally a shuttle or an interceptor) or several exo-suits, and all bays can be opened and closed separately.

Intrepids carry a minimal crew, though they have enough internal volume to house roughly half again as many personnel. The extra quarters are used for the crew and technicians of the carried craft, or extra quartermasters if the ship is transporting cargo. On at least two separate occasions, Intrepid-class ships served as rescue vessels and housed field hospitals in their main bays, using the extra living space as emergency rooms.

Though its main purpose is not combat, the ship is far from defenseless. In addition to the standard point defense system found on all space ships, composed of multiple laser cell panels scattered over the surface of the hull, the vessel carries a number of kinetic kill cannons mounted ahead of the main bay doors. The ships produced after 2170 also incorporate a cluster of standard JAF guided missile launcher tubes at the bow for use against installations and enemy vessels.

The Intrepids do not usually carry support craft beyond four Work Man Maneuver Units (see **Ships of the Jovian Confederation, Volume One**, p.141) and one standard M-pod. These are used to perform general maintenance tasks around the ship and to help launch and recover auxiliary craft. None of them are combat-capable, and they are normally kept locked within their cradles in the wall of the main bay.

▼ 3.1.2 Service Record

The Intrepid is an older ship design that was created not long after the founding of the Jovian Armed Forces. When it first entered service in 2155, it was equipped only with interceptors and space fighters, since exo-armors had not been developed yet. Most Intrepids were refitted with new style engines in the late

2190s to extend their service life, and again in 2211 to take advantage of the new drive pods perfected for the Valiant Improved and other Block III series ships.

Intrepids have been relatively obscure in the annals of the JAF, mostly because they rarely take part in the flashier space battles. They are more likely to be the vessels rushing in toward the end of the fighting to deliver squads of marines to take over disabled ships, or hanging on the outer fringes of the battlefield while their fighters engage the main enemy forces. Of the fourteen Intrepids built over the years, only two were lost in battle: the JSS *Vengeance*, whose name was later reassigned to a Valiant-class strike carrier, and the JSS *Hardy*.

Many of the first modules developed for the MacLeod program were taken from the blueprints of the older ships, and the Intrepid was no exception. The program later returned the favor by refitting the vessels and bring them up to more modern specifications. The Intrepid-class ships were called back to their home ports to receive a new cargo rack, new engine section and two additional kinetic kill cannons, made possible by an upgraded power grid.

There are currently twelve hulls assigned to the Intrepid class, though some are still undergoing modifications and upgrades in dry docks. Alpha Division has three, Beta Division has two, and Gamma has three. The JSS *Stalwart* has been assigned to detached duties with a roving battle group, and the three remaining vessels are currently undergoing refits and scheduled maintenance in various shipyards across Jovian space.

▶ 3.2 SHIP SCHEMATICS

◑ Side View

| | Om | 25 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 |
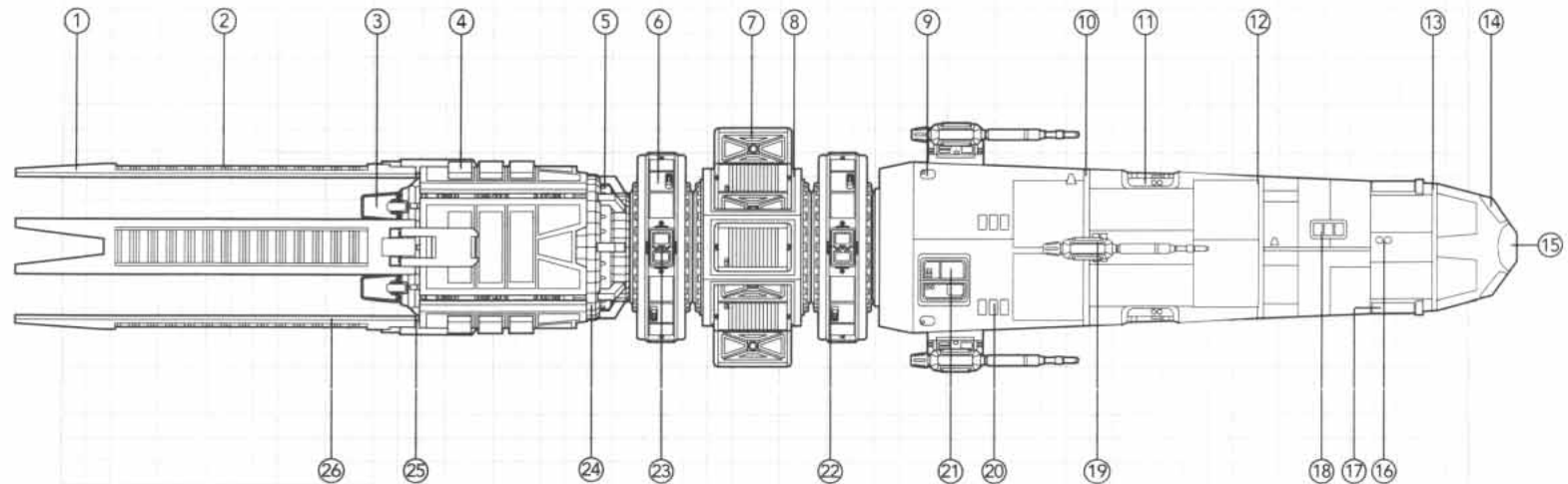
▼ Legend

1	Drive Fin	11	Loading Door	21	Main Bay Door
2	Heat Sink Panel	12	Lateral Phased Sensor Array	22	Hypergolic Maneuver Jets
3	Exhaust Collimator	13	Forward PDS Emitter Panel	23	Auxiliary Bay Door
4	Armor Panel	14	Upper Optical Sensor Shield	24	Reaction Mass Housing
5	Engine Mount/RAM Hardpoint	15	Missile Launch Tubes	25	Drive Fin Hinge
6	Connector Module	16	Maneuver Jet Cluster	26	EM Power Generator System
7	Cargo Container	17	Missile Loading Door		
8	JAF2212 Cargo Rack	18	Escape Boat Covers		
9	Short Range Sensor Cluster	19	KKC Turret		
10	Aft PDS Emitter Panel	20	Escape Pod Covers		

Front View ◐


```
0m    25    50
```

Specifications

Name:	Intrepid
Origin:	Jovian Confederation
Manufacturer:	Intrepid Consortium Ltd.
Type:	Transport
Control System:	Bridge w/astronomical display
Length:	480 m (w/drive fins)
Width:	76 m
Empty Weight:	28,000 Tons
Loaded Weight:	40,000 Tons
Main Drive:	2 x 20 MW
Secondary Powerplant:	2 x 5000 kW
Main Thrusters:	2 x 20,5000,000 kg
Apogee motors:	100
Acceleration:	1.0 g
Onboard Sensors:	Fire Control Radar, Infrared/Ultraviolet, Lidar, Low-light, Magnetometer, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS, 6 x kinetic kill cannon, 1 x missile bay
Additional Armament:	carried vessels
Defensive Systems:	mag screen, PDS
Equipment:	escape pods, vehicle bay

▼ Legend

1	Starboard KKC Turret	11	Connector Module
2	Cargo Container		
3	Loading Door		
4	Upper Gun Mount		
5	Upper Optical Sensor Shield		
6	Forward Missile Launch Tube		
7	Nose PDS Emitter Panel		
8	Fire Control Sensor		
9	Cargo Rack		
10	Lateral Phased Sensor Array		

▶ 3.2 SHIP SCHEMATICS (CONT.)

◑ Top View

▼ Legend

1	Drive Fin	11	Escape Boat Covers	21	Reaction Mass Housing
2	Heat Sink Panel	12	Missile Loading Door	22	Drive Fin Hinge
3	Exhaust Collimator	13	Upper Optical Sensor Shield	23	EM Power Generator System
4	Armor Panel	14	Forward PDS Emitter Panel		
5	Engine Mount/RAM Hardpoint	15	Lateral Phased Sensor Array		
6	Connector Module	16	KKC Turret		
7	Cargo Container	17	PDS Emitter Panel		
8	JAF2212 Cargo Rack	18	Escape Pod Covers		
9	Upper Hull Access Panel	19	Hypergolic Maneuver Jets		
10	Loading Door	20	Auxiliary Bay Door		

3.2 SHIP SCHEMATICS (CONT.) ◄

Cutaway View (Forward Hull) ◐

0m ▬▬▬ 25
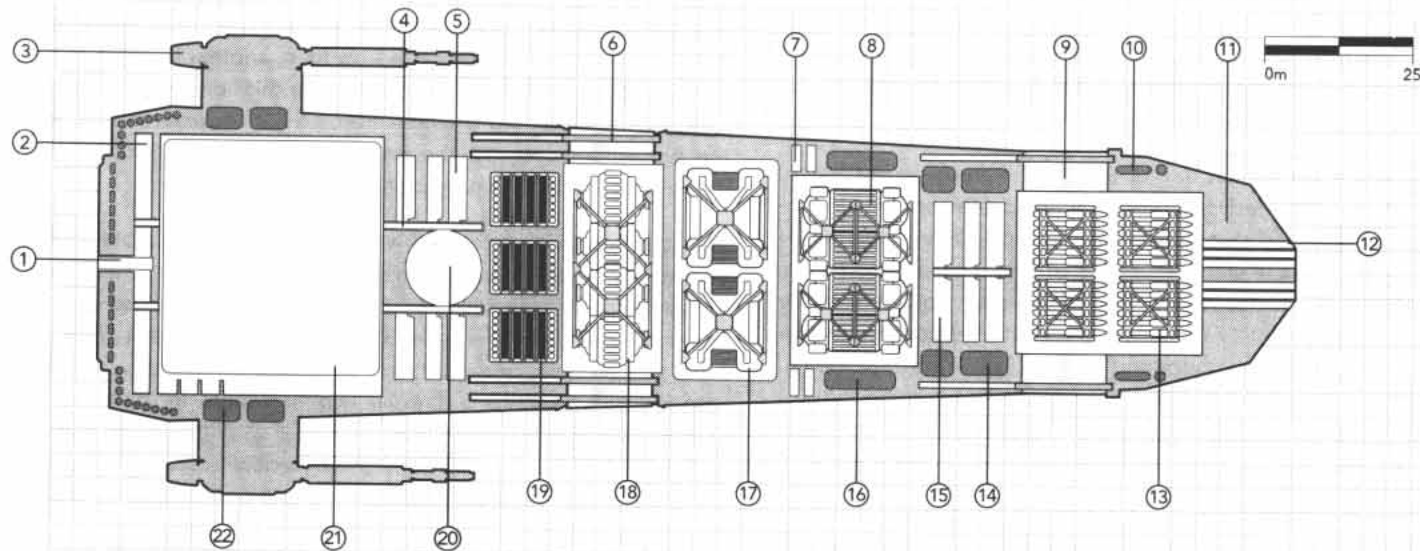
▼ Legend

1	Access to Ops and Drive Sections		16	Sensor Housing
2	Engineering Decks		17	Bulk Storage
3	Kinetic Kill Cannons		18	Gas Storage
4	Service Elevator		19	Superconducting Batteries
5	Crew Quarters		20	Bridge
6	Loading Door		21	Main Bay
7	Service Decks		22	Power Transfer Systems
8	Heat Exchangers			
9	Missile Loading Door			
10	Electronic Bay			
11	Forward Sensor Cluster			
12	Missile Launch Tubes			
13	Missile Magazine			
14	Power Management Node			
15	Forward Storage Decks			

▶ 3.3 HISTORY

Unlike many other Jovian ships, the Intrepid did not came into existence as a result of the formation of CEGA in the 2180s. Its origin lies earlier in time, in the middle of the twenty-second century, when the Confederation was just coming into its own following the slow degradation of communication between the various human colonies of the solar system.

The Jovians, isolated at the far end of human-colonized space, had little need for dedicated warships and protected their territories with converted merchant vessels and primitive, often makeshift, designs (such as the ancestors of what would become the Thunderbolt-class destroyer). One of the main concerns of the defense planners at the time was their total reliance on civilian vessel designs to carry troops and auxiliary fighter craft into battle. The Agora, however, was less than impressed by the request of the military for what the government considered a "new toy," considering that the Jovian colonies had no known enemy.

Within a few months, however, a growing faction of merchants, industrialists and military officers started to voice their concerns anew. There were intermittent conflicts between factions on Mars, and at least two battles had already occurred in the Belt between groups of settlers fleeing the Inner System (or so the story went at the time. It was later learned that one group was indeed fleeing, while the other was a pursuit group sent from one of the L-4 colonies. Both were destroyed in the ensuing conflict.)

Though Jupiter was a comfortable distance from these events, some sort of speedy transport could prove useful if the newly-established JAF decided it had to intervene somewhere. Most of the existing vessels were built for endurance rather than speed and maneuverability, and were thus poorly suited to the task. A new vessel would have to be designed and built. Despite considerable grumbling by the population, Resolution 90354 was passed for the commissioning of no less than six military transports, to be designated "Intrepid."

The first production model left its moorings in June 2150 for a series of qualification tests. Despite some early problems with the integration of military-specs hardware with circuitry and pumps taken from civilian ship designs, the JSS *Intrepid* managed to qualify and was formally accepted in the armed forces' ranks in a lavish ceremony in May 6th, 2151. By then, another Intrepid, the JSS *Dauntless*, had been launched and a third one was nearing completion. Mounting pressure from civilian representatives in the Agora, however, cut the program down to only four ships rather than the six originally planned.

The four Intrepids performed with distinction in the 2150s and 60s, mostly moving troops from one assignment to the other and delivering security forces at trouble points. The increasing number of refugees from the Inner System created unexpected tensions within Jovian society, however, and stricter controls were voted by the Agora regarding all incoming ships. Incidents like the Joansburg affair in 2168, where a ship commandeered by a group of Martian survivalists had to be forcibly boarded, led the Agora to authorize the purchase of ten additional Intrepid-class vessels, to be built in the period between 2170 and 2180.

The vessels performed well for the following ten years, though two ships were lost during that period. The JAF scheduled constant maintenance and refit programs for the vessels, considerably extending their service life to well above the planned original life span. When the MacLeod modular ship program was established, several systems developed for the Intrepid and other ships of its time were refurbished, streamlined and incorporated in the program to save time and cost (the now common connector module being one of them).

The refurbished Intrepid and its sister ships, now fitted with modern systems, are likely to remain in the JAF for many more years. Though proposals for a new attack transport have been regularly made to the naval board, they are unlikely to be accepted as long as the existing ships can adequately fulfill their duties.

JSS ZEN ◄

Intrepid-class Vessels, 2150-2170 ◐

1	UY-388 Drive Unit
2	Experimental Cargo Rack
3	Main Bay Hatch
4	Standard Connector Module
5	Engine Mount

0m   25   50
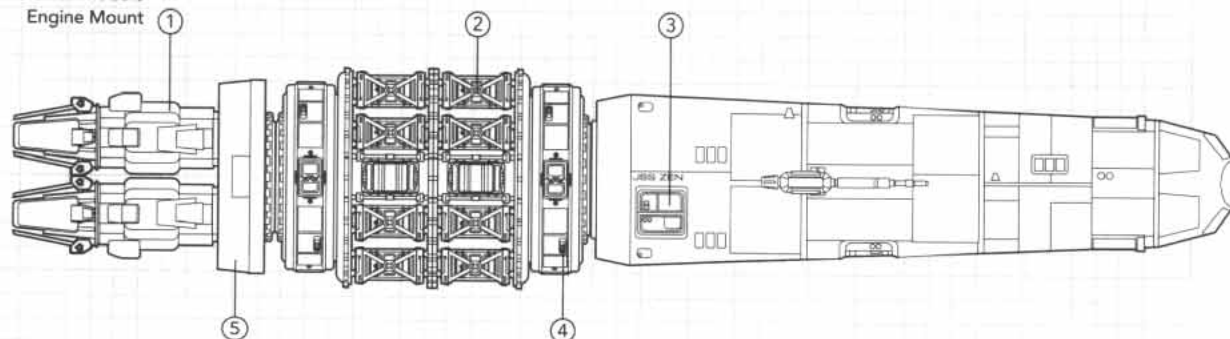
The first few Intrepids, once they were equipped with the standard Jovian military drive, looked very much like the rockets of old. They were among the first ships to be equipped with connector modules to gain additional bay volume for auxiliary craft; these were later modernized and incorporated in the MacLeod program.

JSS *Intrepid*: launched May 5, 2150. The first Intrepid shared many systems with the civilian vessels it had evolved from. Barely six months after its launch, the *Intrepid* was refitted with new engines and a reworked engineering section, both called for in the original plans but unavailable at the time.

JSS *Zen*: launched October 1, 2151. The third vessel in the class, despite its outwardly conventional appearance, was extremely different. A large number of new technologies were validated aboard this ship.
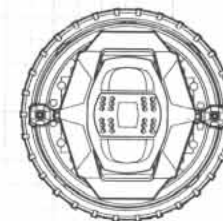
▶ JSS STALWART

◐ Intrepid-class Vessels, 2170-2200

0m   25   50

▼ Legend ▼

1	Kinetic Kill Cannon
2	JAF2207 Cargo Rack
3	UY-890 Drive Unit
4	Reaction Mass Tankage
5	Connector Module

JSS STALWART
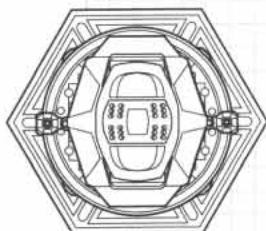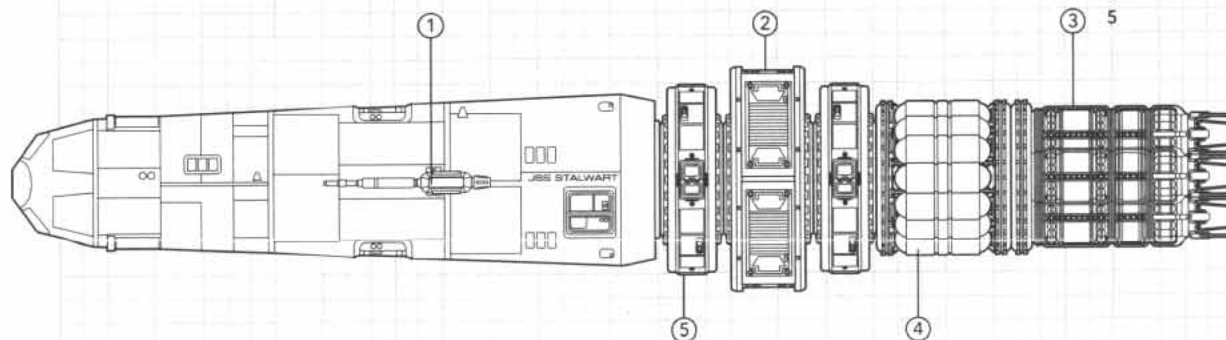
The next main revision of the Intrepid design occurred in the summer of 2180. Ships of the class were refitted with the UY-890 drives in an attempt to standardize the equipment used by the JAF. While the ships were already in dry-docks, an extended reaction mass tank section was added amidships to extend the vessels' endurance.

JSS *Stalwart*: launched July 23, 2170. The *Stalwart* is one of the most celebrated Intrepids in service, notably due to its flawless execution of a daring space rescue in 2189. The *Stalwart*'s crew transferred the passengers of a crippled liner to their hold using a series of space walks. The ship is now serving in detached duties.

JSS *Vengeance*: launched December 1, 2170. The integration of new drives with the older Intrepid systems was only half-successful. The *Vengeance*, in particular, suffered from constant power supply problems until it was lost in battle in 2183.

JSS COURAGEOUS ◄

Intrepid-class Vessels, 2201-2213

▼ Legend

1   Lockwell L-7 Extended Drive Fin
2   MacLeod Engine Mount
3   JAF2207 Cargo Rack
4   Refurbished KKC Mount
5   Improved AT-76 Search Radar

0m   25   50
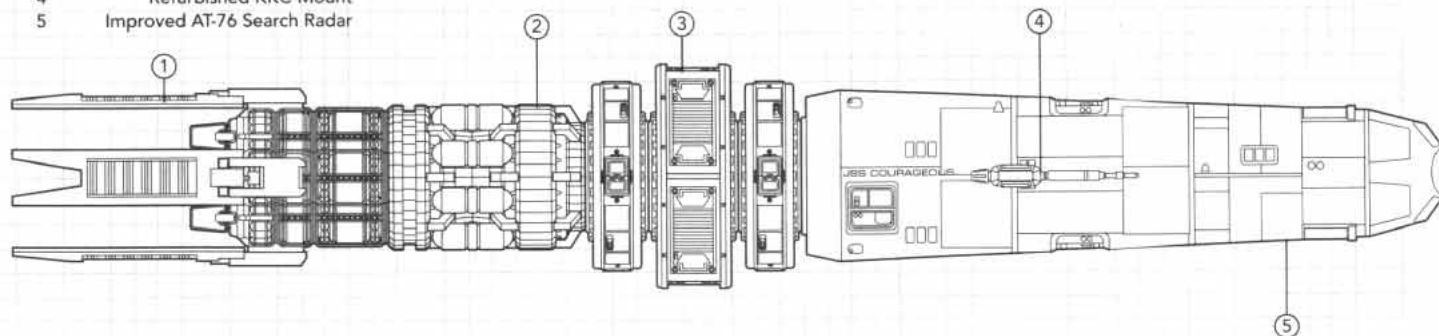
The last refit of the class came in the latter years of the 2210s, as relationships between CEGA and the Confederation were starting to grow colder. The JAF high command started devising contingency plans in case the Agora would vote for a swift retaliation against Terran interests. It was thus decided to modernize the aging Intrepids once more.

JSS *Courageous*: launched November 17, 2173. The *Courageous*, the last Intrepid-class transports to be assembled at the Mitsuhama Heavy Industries shipyards, received the new engine mount developed for the MacLeod program. The resulting more efficient power grid would later lead to the addition of two additional KKC mounts.

JSS *Resilient*: launched September 11, 2179. The *Resilient* was one of the last ships scheduled to be upgraded to the 2213 specifications. It is still currently in dry docks, awaiting the delivery of its new engines.
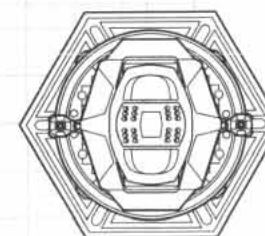
▶ 3.4 SHIP SYSTEMS

◐ schematics
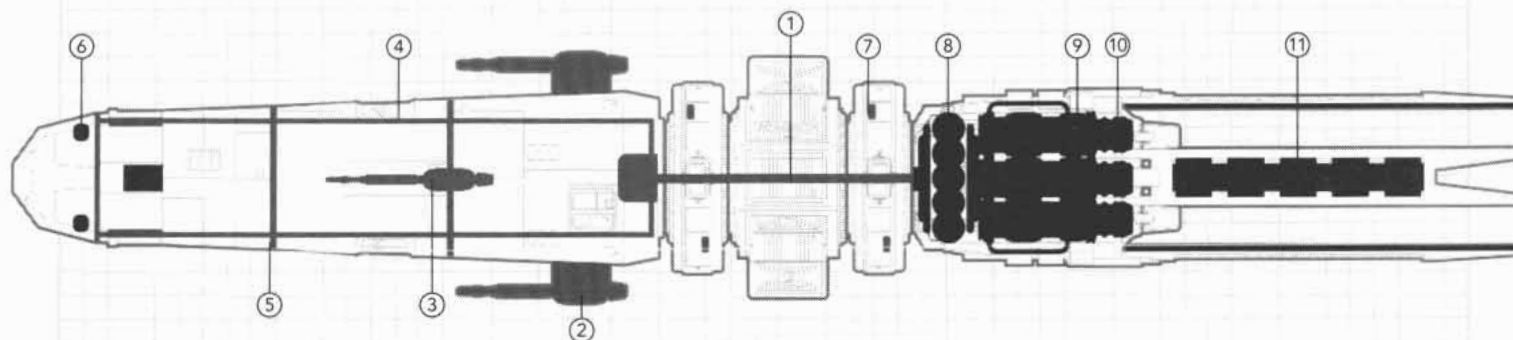
▼ Weapon Systems

1   Main Power Conduit
2   Hull Kinetic Kill Cannons
3   Lateral Kinetic Kill Cannons
4   PDS Power Conduits
5   Phased Array Laser PDS Cells

▼ Propulsion Syst.

6   Plasma Arc RCS Cluster
7   Hypergolic RCS Thrusters
8   Reaction Mass Plumbing
9   Plasma Combustion Chamber
10   Exhaust Collimator Coils
11   Radiator Panels
12   EM Power Generation System

The thin form of the Intrepid-class ship is sometimes confused with the larger Forge, but they are very different. The Intrepid has no external catapult, its forward hull featuring only the main deck hatches and a series of loading and service doors.

The internal organization varies slightly depending on when the ship was originally built. Recent models often feature guided missile launch tubes at the prow. The crew quarters are placed almost immediately afterward, with life and mechanical support systems sandwiched between them and the main bay.

3.4 SHIP SYSTEMS ◀

schematics ◐

The mid section of the ship is a standard JAF2212 cargo racks bearing eight cargo modules arranged symmetrically around the central core. This is flanked by two standard auxiliary bay modules. The entire section is sometimes referred to as the Supply & Service Module, or SSM. It is here that the consumables and spare parts for the crew are stored.

The drive section at the rear is a fairly typical model developed through the MacLeod program and retrofitted to the older hull. Since the ship may find itself in combat, the drive units are covered with four armor panels. Each panel also support a short Lockwell drive fin.

▼ **Sensor Systems**
▼

1	Plasma Flow Sensors
2	Short Wave Instrument Clusters
3	Laser Ranging and LIDAR Emitters
4	Phased Array Radar
5	Docking Sensors

▼ **Life Support Syst.**
▼

6	Screen Generators
7	Auxiliary Life Support Nodes
8	Secondary LS Nodes
9	Heat Exchangers
10	Gas Storage
11	Superconducting Batteries
12	Engineering LS Nodes

▼ 3.4.1 Crew Quarters

Most of the internal volume of the Intrepid-class ships is devoted to service and support systems and to the main pressurized bay. Squeezed in between the two, crowded around the bridge, the crew quarters seem like a reluctant addition to an already claustrophobic structure. The cabins are little more than cubbyholes in the walls that can be closed by a sliding polymer partition.

Each one contains a padded surface and attachment points for a standard microgravity sleep webbing. The head wall holds a small communication panel and computer terminal. The far wall is divided into shallow storage lockers that hold changes of clothing and personal items; lack of storage space is a chronic complaint of Intrepid crew. Hygienic facilities are kept to a minimum, with a micro-gravity recycler unit for each six cubbyholes. It is little more than a closet with the required plumbing and a dispenser/recycler for the wet towels that are used for washing.

▼ 3.4.2 Service Decks

Service decks run throughout the vessel's hull, giving access to the various systems that allow the ship to perform her functions. The service decks have been built for access, not convenience, and have low ceilings that make movement difficult when the ship is under acceleration. The difficulty is compounded by the many pipes and power conduits that snake their way on all sides, and the semi-obscurity due to the low number of light fixtures. Some service decks, especially near a life support node, are humid, sometimes with a rancid atmosphere.

The service decks can be reached through small access tubes that contain a ladder and are closed by automatic pressure doors every five meters (or every deck, whichever is the shortest distance). There are no monitoring systems in the tube, though the hatches that lead to them are normally kept locked (in practice, the most often used ones are generally kept open to facilitate maintenance).

▼ 3.4.3 Main Bay

The rear third of the forward hull is taken up by a fairly spacious cargo bay. The bay can be pressurized independently from the rest of the ship, and access to it is through airlocks only. Safety protocols dictate that pressure suits be worn at all time while in the bay, should a rapid decompression be required. For practical reasons, most crew prefer to keep it in vacuum to save time. The bay has few internal features beyond powerful flood lights, microgravity handles and tie-down hooks, airlock access doors and a number of mobile cranes. Over the years, oxidation due to fuel leaks and general wear and tear has discolored the walls, though their structural integrity is unaffected.
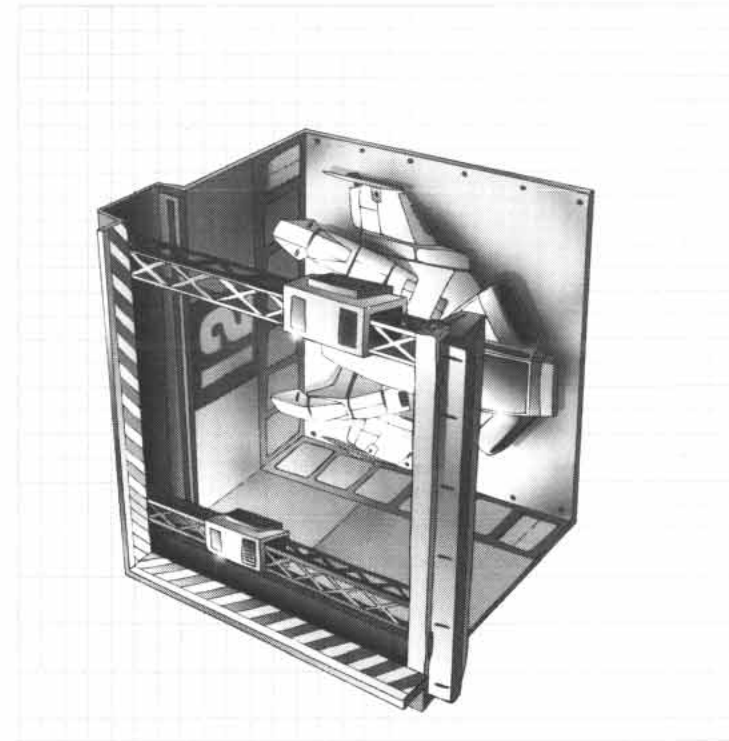
▼ 3.4.4 Main Deck Hatch

The Intrepid is an older craft, first fielded before the development of most modern combat spacecraft such as the exo-armor. As a result, its auxiliary combat vessels are simply "lowered in the water" through wide side hatches by cranes and hand lines, and recovered in much the same way. A skilled pilot could conceivably dock with the ship by carefully flying his craft through the door and into its cradle, but this is rarely done.

The main deck hatch is a standard sliding unit that is used on many other Jovian ship designs to close up their auxiliary craft bays. The door itself is powered by a self-contained, triple redundant hydraulic actuator system. If need be, however, it can be cranked open or shut by hand, though this operation requires six crewmen and several minutes. A smaller man-sized access hatch is inset within the door to permit movement to and from the bay.

▼ 3.4.5 Auxiliary Bay Module

Most Intrepid-class hulls feature one or two "connector" deck modules that flank the main cargo racks. The disk-shaped unit had originally been developed to serve as a modular "back bone" piece for semi-modular transport vessels such as the aging Ebiiru-class cargoes, but it was later adopted by the MacLeod program engineers and adapted so that it could be retrofitted to a large variety of ships and space installations.

The module contains auxiliary power systems and four small vehicle bays. The latter are generally referred to as auxiliary bays and house support craft such as shuttles and work pods. Each auxiliary bay has its own life support node and can thus be operated independently from the rest of the ship. It can be used as a temporary cargo bay or medical bay, and could be converted to receive passengers if need be (in an evacuation, for example). In extreme cases, the module could be conceivably detached from the rest of the ship and serve as a makeshift life boat, moving about with its built-in thrusters.
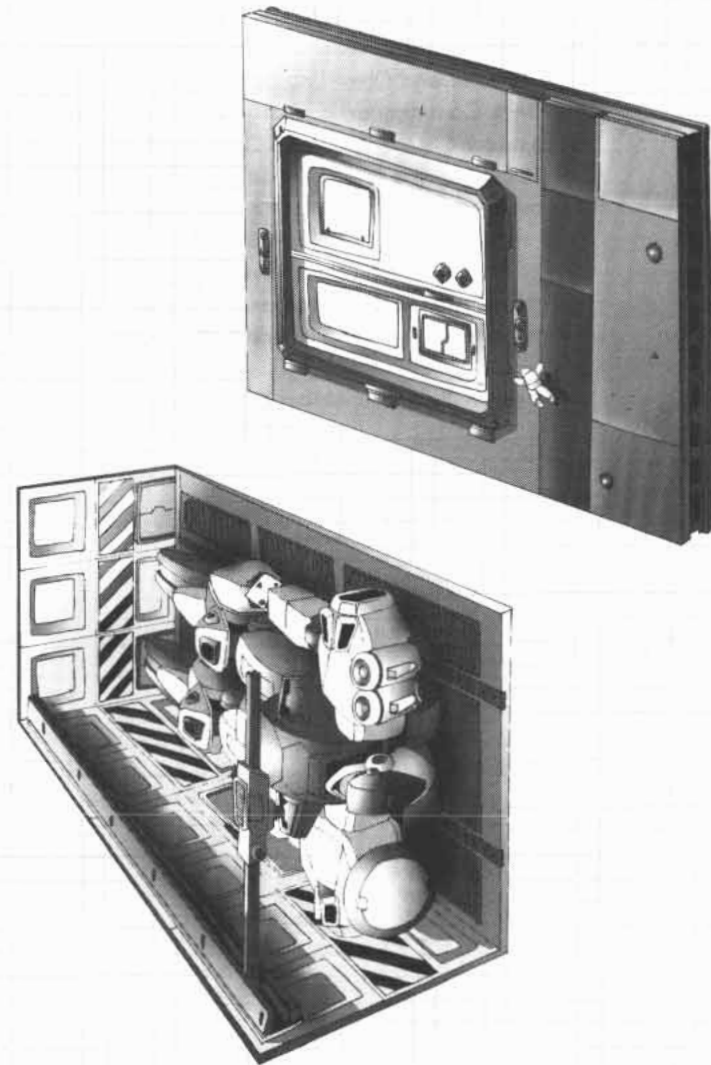
▶ 3.5 SHIP PERSONNEL

The Intrepid-class carrier divides the crew into four departments. The Executive Officer leads the operations department, while the Chief Gunner and Chief Engineer have their own departments. The Deck Commander, in charge of the Flight Deck, often has the same rank as the Executive Officer and has three subordinate Deck Officers, who look after any auxiliary spacecraft on board. Two other departments are often added to the roster, a marine force and a flight group. The commander of the ship's half platoon of marines is typically a Master Sergeant or Warrant Officer. The ship's fighters are under assignment of the Squadron Commander when conducting operations.

⊞ Crew Organization Chart

Captain	
Executive Officer	
Sensor Operator	3
Communication Specialist	3
Helmsman	3
Navigator	3
Quartermaster	3
Medic	3
EVA Specialist	3
Chief Gunner	
PDS Specialist	3
Missile Specialist	3
KKC Gunner	12
Chief Engineer	
Bosun	6
Engineer	12
Deck Commander	
Deck Officer	3
Deck Hand	12
Ordnance Specialist	3
Squadron Commander	
Flight Leader	2
Pilot	4
Marine Commander	
Squad Leader	2
Marine	12

▼ 3.5.1 Interview with an Interceptor Pilot

Name:	Gary "Taz" Novak
Rank:	Lieutenant
Current Assignment:	JSS Courageous

"The *Courageous*' an old ship, you know — all Intrepids are practically older than exos, for that matter. They were first designed when all the JAF had was a few exo-suits and a bunch of refurbished tugs with missiles they called 'fighters' (not kidding, by the way). That sad state of affairs is reflected in the general design of the ship. That's why they're mostly used to carry us comet boys and our flaming chariots of doom. Yes, that's what we call them. Pretty accurate, too. Anyway, the Intrepid doesn't have the reinforced deck to allow exos to walk around, so exos are rarely assigned to it.

"Flying from an Intrepid is not that bad, though I wish they'd refit catapults on them. As it stands, we simply drive out of the bay on pressurized helium jets (to avoid damaging something with a hot RCS exhaust). So we don't get the free delta-V the catapulted vehicles do, and we pay for it with a reduced endurance. Anyway, since we tend to be dropped further away from the battle and have more thrust than exos, that slow launching method isn't too much of a problem.

"Landing is also an harrowing experience — well, landing is somewhat of a misnomer, docking would be a closer term. You have to match velocity and vector with the ship, then fly along side until you can enter the bay. It's very dangerous if you're not careful. Heck, it's dangerous even if you are careful! And you can forget about doing it under fire, too — not that there's a reason to go back to the ship in the middle of a fire fight."

▼ 3.5.2 Interview with a Helmsman

Name:	Adam Rhoads
Rank:	Warrant Officer
Current Assignment:	JSS Stalwart

"My station on the bridge is more like a fighter's cockpit than a proper navigation station. Not that the ship maneuvers like a fighter, mind you. It's just that the bridge is of an older design, before they started going for that 'open area' look, and it's more cramped and utilitarian. Instruments and controls are top of the line, though. The ship is upgraded every few years when it comes back to dry-docks for maintenance and overhaul, and you can bet that if you don't keep up on your training, you won't recognize half the stuff they put in anyway.

"The ship is fairly long for its class and mass, so it gives a good moment arm to the RCS — that's Reaction Control System, you know, the small maneuver engines? Even a short half-second burst will set the ship spinning at a good rate, so you have to watch it. In the hand of a skilled operator — like me — this compensate somewhat for the lack of maneuverability of the vessel.

"The dangerous part of the job is launching and recovering our charges. It's the part I really hate, because we have to stand still and let them do all the work. If we apply even just a few Newtons, the inertia of the fighter will cause it to drift and possibly hit the hatch on the way out. The small clearance is enough to make any pilot nervous as it is. Yeah, I know — it's a poorly designed system. But you have to remember that the ship was created to carry mostly M-pods, exo-suits and marine squads. No one expected it to serve as a carrier!"

▼ 3.5.3 Interview with a Deck Officer

Name:	Zoë Marquis
Rank:	Warrant Officer
Current Assignment:	JSS Fearless

"I'm the gal responsible for the good and efficient operations of the main deck. Well, calling it a deck is something of a misnomer. It's a hangar, and a relatively small and cluttered one, too. We don't have the luxury of volume like the guys in a Forge or Valiant, so we have to be just a little more careful with what we're doing. Often, we have to make the returning fighters hover just outside and reel them in with lines and M-pods, and then carefully settle down in their cradle by hand.

"In many ways, being a deck officer on an Intrepid reminds me of a puzzle game I used to play when I was a kid. You had those holographic boxes, that had to be carefully fitted together in a limited amount of time. The longer you played, the more complex the shapes became and the less time you had. Well, it's a bit like that in the Intrepid's bay. There are all these fighters and shuttles, and they all have to fit — but you have to keep the hatches clear for the next arrival or departure.

"It's nerve-racking, and it can be pretty dangerous, too. Mass always retains its inertia, even in free fall. If a fighter isn't correctly secured in its deck cradle, the moment the bridge applies some thrust, the whole thing will crash at the rear of the bay. I've seen a guy get nearly crushed by a fighter once: the thing was moving slowly, but he didn't see it coming. No air to transmit sound, of course. By the time we managed to bring the machine to a full stop, the guy's helmet was starting to crack."

Intrepid-class Transport

▼ Overall Data:

| TV: | 110,000 | Off. TV: | - | Def. TV: | - | Misc. TV: | - | Cost: | 110 M | Indv lemon dice:3 |

▼ Movement Data:

| Mode: | Space | Combat: | 5 (0.5 g) | Top: | 10 (1.0 g) | Maneuver: | -3 | Range: | 3,000 hrs | ReMass: | 2,000 BP |

▼ Sections:

1 x		Main Hull	4 x		KKC Turret	1 x		Ops Section
8 x		Cargo Container	2 x		Drive			

▼ Off & Def Systems

1 x	Point Defense System (main hull)	4 x	Kinetic Kill Cannon (turrets)	1 x	Missile Bay (main hull)

Section: Main Hull

▼ Main Data:

TV:	74,000	Off. TV:	20,000	Def. TV:	1000	Misc. TV:	200,000	Cost:	74 M	Indv lemon dice: 3
Crew:	48	Actions:	6	Sensors:	0/4 km	Comm.:	0/15 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	70	Default Size:	42	Base Armor:	50	Light:	50	Heavy:	100	Overkill: 150

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | , - | Maneuver: | - | Range: | 3,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Autopilot	-	Lvl 1 pilot	Reinf. Crew Comp.	2	Absorbs first two "Crew" hits
Backup Sys	3	Comm, Fire Con, Life Sup, Sensor	Satellite Uplink	-	x1000 Comm range
Computer	2	CRE 0, KNO 0, PP 2	Cargo Bay	-	10,000 m³
Ejection System	-	160 places	Reinforced Armor	10	Front
HEP: All	-		Sick Bay	4	Zero-Gravity Medbay
HEP: Radiation	4	Screen	Tool Arm x 2	16	Hangar Cranes, cannot punch
Life Support	-	Full			
Passenger Accom	-	15,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a
1	Missile Bay	F	x30	5	-2	5	30	Mis, G, Concealed	14	6000	18

Section: Ops Section

▼ Main Data:

TV:	7000	Off. TV:	0	Def. TV:	2200	Misc. TV:	19,000	Cost:	7 M	Indv lemon dice: 3
Crew:	3	Actions:	2	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	-5	Type: Early Prodc.
Hull Size:	70	Default Size:	19	Base Armor:	75	Light:	75	Heavy:	150	Overkill: 225

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: | 3,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Sick Bay	4	Zero-Gravity Medbay
Cargo Bay	-	1,900 m³			
Ejection System	-	60 places			
HEP: All	-	Sealed			
HEP: Radiation	4	Screen			
Laboratories	-	Electronics 1, Mechanics 1, Investigation 1			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

Section: KKC Turret

▼ Main Data:

TV:	2800	Off. TV:	7400	Def. TV:	250	Misc. TV:	800	Cost:	2.8 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	14	Default Size:	14	Base Armor:	20	Light:	20	Heavy:	40	Overkill: 60

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: | 1,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup FireCon	-	Absorbs first "FireCon" hit			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Full			
Reinf. Crew Comp.	1	Absorbs first "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	KK Cannon	L/R	x30	7	-2	3	300	AP	12	3800	12

▶ Section: Cargo Container

▼ Main Data:

TV:	1400	Off. TV:	0	Def. TV:	160	Misc. TV:	3900	Cost:	700,000	Indv lemon dice: 3
Crew:	0	Actions:	0	Sensors:	-	Comm.:	-	Fire Control:	0	Type: Mass Prodc.
Hull Size:	10	Default Size:	10	Base Armor:	20	Light:	20	Heavy:	40	Overkill:	60

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: 3,000 hrs | Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Cargo Bay	-	2500 m^3 each			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Limited			
No Comm	4	Can't communicate			
No Sensors	-	Can't Scan			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

▶ Section: Drive Module

▼ Main Data:

TV:	3600	Off. TV:	0	Def. TV:	1800	Misc. TV:	9000	Cost:	3.6 M	Indv lemon dice: 3
Crew:	6	Actions:	4	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	46	Default Size:	20	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

| Mode: | Space | Combat: 23 (2.3g) | Top: | 46 (4.6g) | Maneuver: | -3 | Range: 3,000 hrs | Mass: | 9000 BP |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Sys.	3	Comm, Fire Con, Life Sup, Sensor			
Ejection System	-	12 places			
HEP: Vacuum	-	Sealed			
HEP: Radiation	4	Screen			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

▶ Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type: -
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: | - | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

▶ Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type: -
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: | - | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											

► A PECULIAR MATTER

"Falcon One-One, stand by for rendezvous, over."

"Acknowledged." Lieutenant Gary "Taz" Novak replied out of deeply ingrained habit, his mind already occupied with the various onboard systems of his Lancer fighter as he prepared for his final approach. The war machine was now following its mothership on converging vectors, inertia carrying it ever closer like it was on invisible rails. Neon-bright lines etched across the surface of the head-up display brought the laws of physics to surreal life, vectors, masses and velocities given physical form by the flight computer.

The Lancer of his wingman, Charles "Skidder" Lightbearer, was approaching on its own trajectory, nearly parallel to his but on the opposite side of the transport's hull. He was too far away to be visible with the naked eye, but a small data window showed an enhanced view that remained centered on Charles' machine. It was like watching a starfield with one eye through a telescope and the other open, but somehow seeing both pictures at the same time.

"This is *Courageous* TC to Falcon flight, we stand ready to receive you. Remain on present vectors."

*   *   *

The mission plan had been a simple one. The captain of a Corsair-class frigate had just lost the coveted Bullseye trophy again, and was looking for scapegoats to cover the failure of his crew. At least they had come up with an original excuse this time: some-thing had come between ship and target and intercepted the torpedo, never mind the astronomical odds of that happening in space. The Corsair was too far away to check out the bogie its crew claimed had robbed them of their rightful victory, so they went looking for someone who could.

Luckily for Captain Dupré, he was owed a few favors by the commanding officer of the JSS *Courageous*, an Intrepid-class transport that was on station in the area. The flight plan of one of the *Courageous*' regular patrols could be changed so that they could confirm or deny the existence of this oh-so-convenient mysterious object. All they had to do was launch a few seconds earlier and on a slightly different heading. Piece of cake. Nothing to it.

After some haggling, Dupré managed to close the deal. The Intrepid's captain was doubtful about the existence of that so-called 'mobile wall,' but the change of flight plan required no additional fuel and would likely not even make a difference. He could always cover up with another team later, and, all things considered, a favor's a favor. He owed the man big time: Dupré did stall his fiancee long enough for him to get the strippers out of the apartment, after all.

*   *   *

The flight out had been routine. Novak had expressed some reservations about the late change of flight plan, but quickly went over them regardless. He didn't believe they'd find anything of interest out there, but then again neither would they on their regular patrol run. Four hours of boredom on vector A or four hours of boredom on vector B; it all made little difference to him.

The two Lancer fighters had left the ship right on schedule, though Falcon One-Two had mis-timed its main engine firing at the midpoint and had to let them burn for a half-second more in order to get back into formation.

Novak had not missed the opportunity to rag on his old friend.

"Getting a little rusty, are we, Skidder-boy?"

A small data window popped up on the lower left side of the main heads-up display. The annoyed face of "Skidder" Lightbearer, framed by his flight helmet, appeared within.

"Har, har, very funny." He grimaced at Novak, glancing down and to the side to check on a readout. "No, there was a delay in the processing. I told the deck hands, I wrote it down in the flight log, and all they can say is 'we ran the diagnostics and everything is just peachy.' Maybe they just didn't look hard enough."

"I'll put it a word for you then." Novak frowned. The deck hands should have taken this more seriously. A pilot never jokes about the machine he trusts his life to. They were getting soft. These dead-weight assignments did that to everyone, eventually. Maybe he should put a little pressure on them. He was still mulling over the idea when Skidder interrupted him.

"Falcon One-One, this is Falcon One-Two. I've got a faint contact on my sensors, along roughly the predicted heading. Transmitting data now."

"No need, Skidder, I got it. What the..."

The Lancers had a higher velocity than their quarry and were overtaking it fast. Both pilots fired their forward reaction control systems to check their speed, giving them more time to observe the object.

"I'll call it in." Novak pressed the transmit icon. "*Courageous* TC, this is Falcon Flight. We've found something."

"Falcon Flight, this is *Courageous* TC. Please describe."

"It's an asteroid, about a hundred meters diameter. It's spinning slowly. We've got some heavy pixie dusting in front of our ships — there's a lot of fine debris around it. It's black as shadow, probably carbon surface."

The Lancers flew past, their RCS flaring briefly to rotate the fighters and keep them facing the intruder.

"TC, we just got a look at the other side. There's a huge crater, recent by the looks of it. Just a single one, no sign of secondary impacts. There's some sort of machinery lodged near it."

"Falcon One-Two here. My uncle was a miner. I know what that is: it's a wrecked attachment rig. That rock's a raw material shipment from a mining collector."

*   *   *

"Falcon One-One, this is *Courageous* TCC. Approach to ten meters and reduce relative velocity to zero, over."

Novak made sure the flight computer had received the instruction correctly and monitored it while it brought the Lancer close to the ship. The *Courageous* was now in visual range, the medium blue-gray color of its outer thermal coating faintly visible in the light of the distant Sun. Though its main engines were silent, the drive fins glowed brightly in the infrared spectrum as they labored to rid the ship of the waste heat generated by its fusion cores and the bodies of its crew.

The running lights of Falcon One-Two were now plainly visible to port, a tiny cluster of colored points that moved rapidly across a field of static stars. Its main strobe light flashed lazily every few seconds, echoed by the discrete "ping" of its associated transponder on the HUD.

Falcon One-One came to a perfect stop just outside the gaping main bay hatch of the *Courageous*. Deck hands, clad in bright orange space suits, were already flying out with mooring lines to tow the fighter back to its cradle. On the other side of the ship, another team would be doing the same to his wingman's Lancer.

Novak allowed himself to relax. "And that, boys and girls, is how it's done."

Battleship, Ypres-class

Name	Launched	Current Status
JSS Ypres	November 7, 2212	Gamma
JSS Valley Forge	October 21, 2212	Alpha
JSS Marianne	November 14, 2212	Gamma
JSS Verdun	January 6, 2213	Beta
JSS Jericho	March 2, 2213	Detached Duty
JSS Trafalgar	N/A	Building
JSS Marathon	N/A	Building
JSS Gettysburg	N/A	Commissioned

YPRES-CLASS BATTLESHIP

JSS Valley Forge (2213 Configuration)
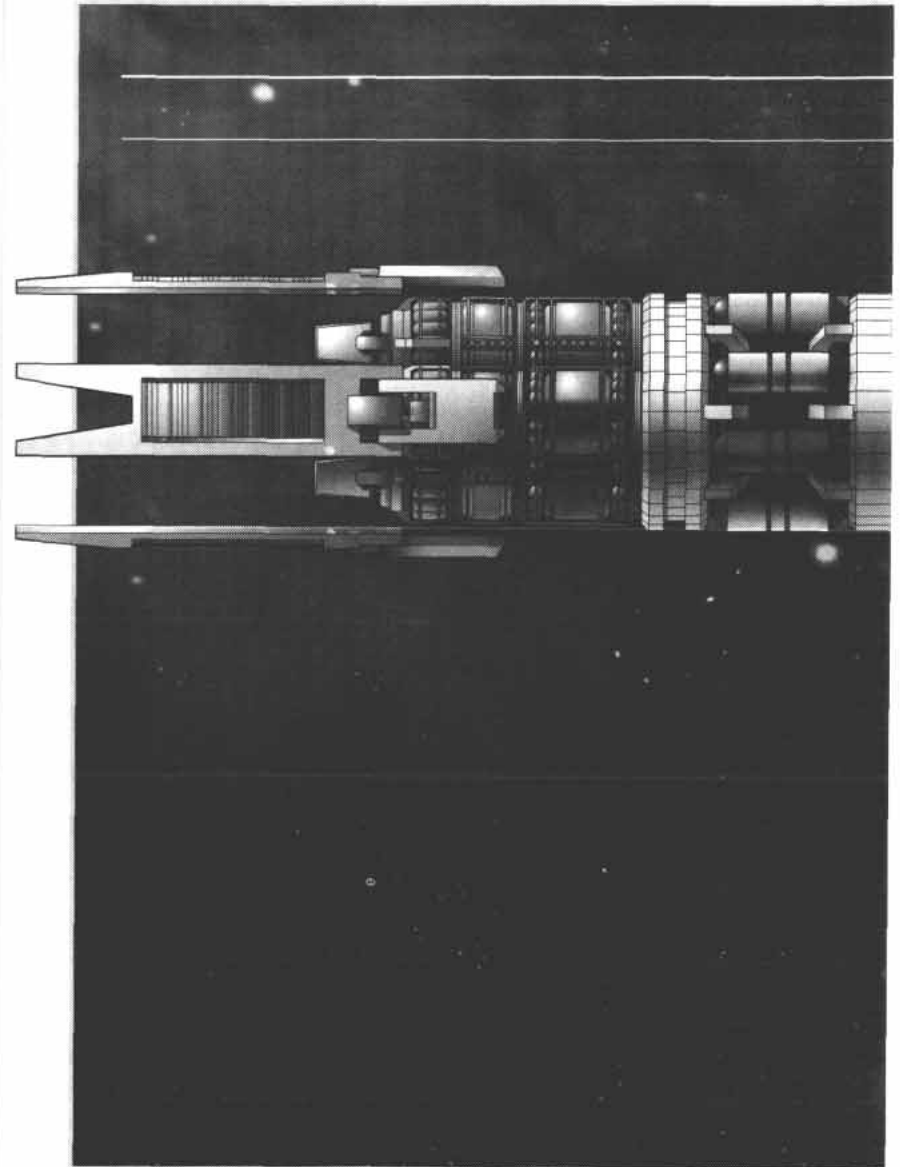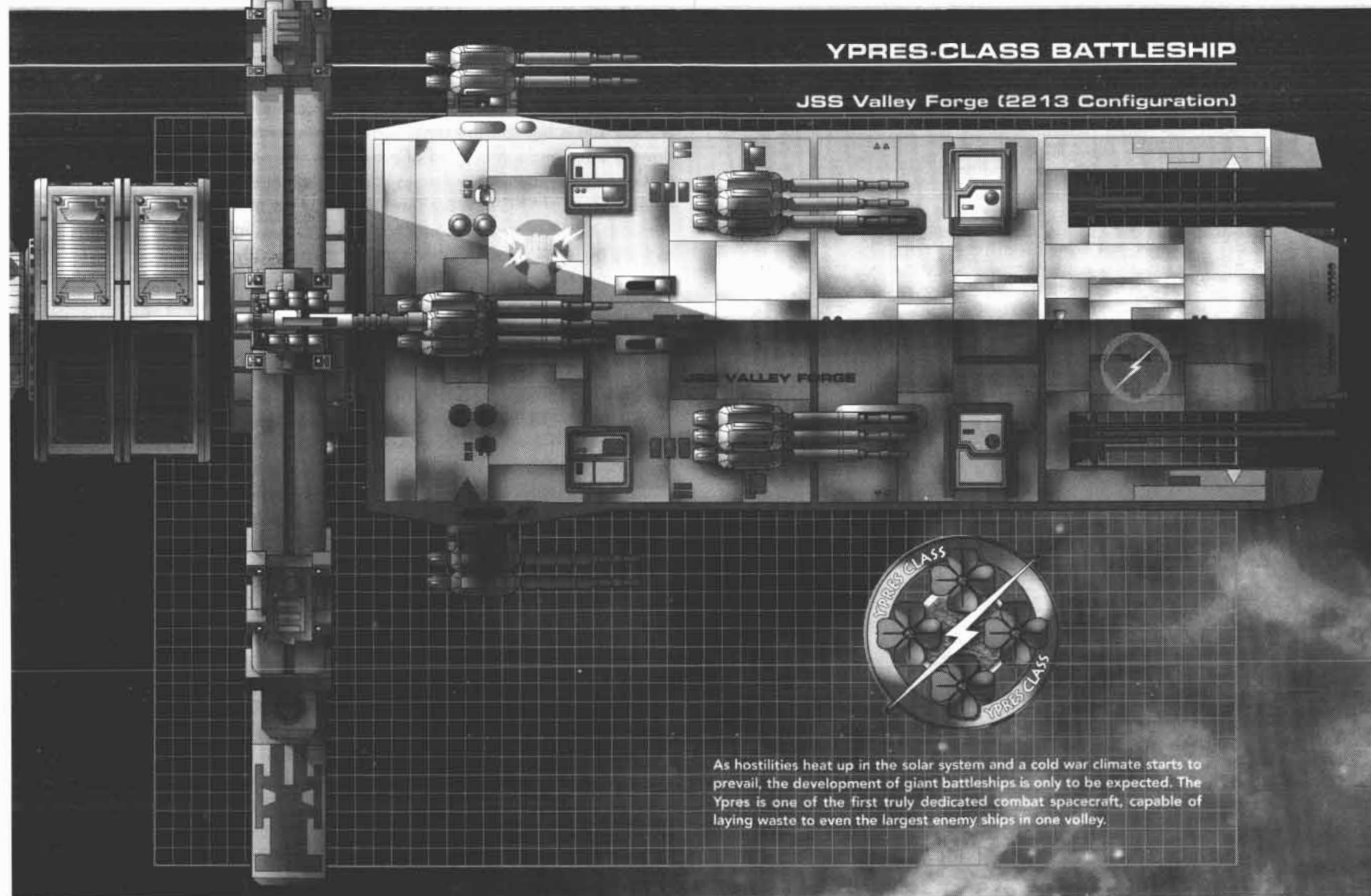
As hostilities heat up in the solar system and a cold war climate starts to prevail, the development of giant battleships is only to be expected. The Ypres is one of the first truly dedicated combat spacecraft, capable of laying waste to even the largest enemy ships in one volley.
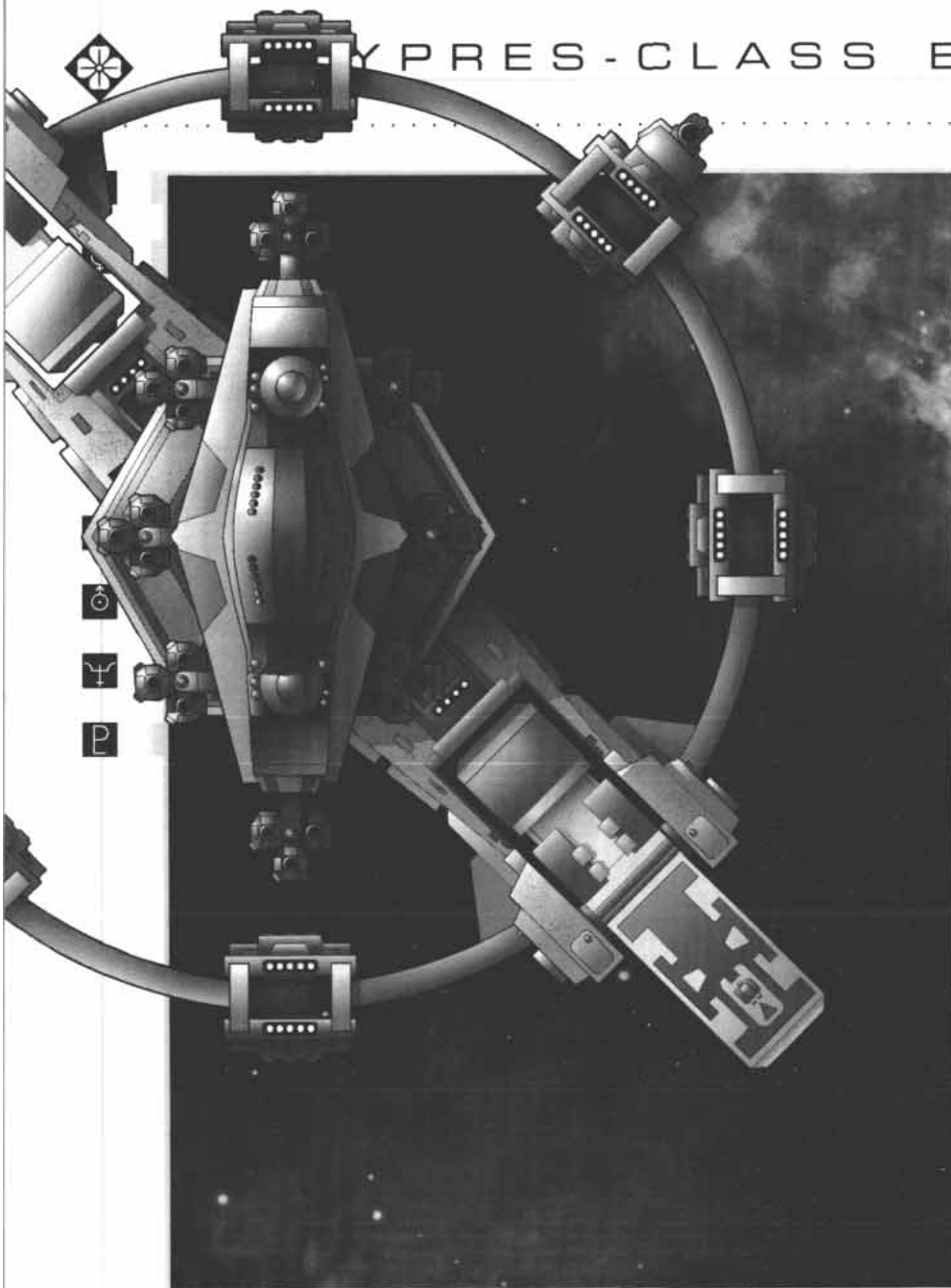
▶ 4.1 OVERVIEW

The Ypres-class battleship is a brutal vessel designed to provide awesome firepower to the Jovian fleet. Though it is equipped with hangars for onboard shuttles and marine exo-suits, the ship's tactical role is not to carry other vehicles into battle, but to lay down a thick enough blanket of projectiles and energy beams that enemy deployment becomes impossible. For this purpose, it has a score of KKC turrets as well as numerous missile tubes. The ship also has some extremely heavy weapons mounted in its hull, but their fixed positions makes them poorly suited to close range fast and furious space combat. They are ideal, however, for orbital bombardment and the destruction of very large orbital or slow-moving bodies, such as disabled ships, battle stations and rogue asteroids.

The Ypres is, for all intents and purposes, a "super-Valiant" designed to serve as the core ship of detached offensive task forces in the event of war. Though slower and far less maneuverable than other, smaller ships, the Ypres is versatile enough to undertake a large variety of missions, and is also tough enough to survive almost any situation the enemy or the universe cares to throw at it. It also never ventures out on its own, and its constant escort of destroyers, frigates and missile cruisers are just as dangerous as the command ship of the task force.

The external appearance of the vessel is quite distinctive. Though it is built around the now familiar configuration of forward hull, centrifuge and operation sections, the sheer size and bulk of the ship and the multiple weapon systems covering its armored skin ensure it will not be easily mistaken for anything but the newest and most aggressive spacecraft in the Jovian Armed Forces' fleet. Many generals would like to see the Ypres take up the position of flagship within each Division, replacing the aging Godsfire-class vessels in that role. Opponents say it is hubris to do so before the Ypres have had a chance to prove themselves, and certain fleet officers may well come to regret their words.

▼ 4.1.1 Capabilities

The Ypres is heavily armed and quite capable of defending itself in battle without assistance, though it never ventures out on its own. Its eight triple kinetic kill cannon turrets, all standard for the Jovian fleet, are capable of laying down a devestating cloud of hyper-velocity flechettes that lay waste to any incoming forces. Forward firing missile bays offer additional punch, but these weapons are mostly used to lay down support fire while the ship's escort exos and interceptors launch from the other vessels in the task force.

They are backed up by a pair of particle accelerators mounted on the outer edge of the main gravity wheel, providing them with an exceptional field of fire all around the vessel. The weapons are based on a design first developed for the aging Thunderbolt destroyer, ensuring that any potential problems have long since been worked out. The particle guns are tied directly to the ship's main power grid and are capable of a sustained rate of fire for nearly 600 seconds before maintenance is necessary, often more if coolant and core materials are replaced on the fly. Barring maintenance requirements and heat dissipation, the accelerators could theoretically fire for as long as power is fed from the reactors.

The real firepower of the ship comes from its twin spinal laser arrays, both of the same type as the one installed aboard the Valiant-class strike carrier. Their fixed position within the forward hull makes them poorly suited to ship-to-ship combat, however, and they are mostly meant for use against installations.

The Ypres carries a strong onboard marine contingent for security and defense. Hostiles trying to board the vessel will find themselves confronted by at least twenty-four Falconer and twelve Decker exo-suits. All marines aboard are extensively trained in microgravity combat and know the layout of the ship by heart. This allows them to serve as roving damage control teams in emergencies, should their services be needed.

The ship has two standard-sized shuttle bays in the forward hull, each with two access doors. Each one normally houses a single M-pod for maintenance tasks, along with a dozen M-bots and two WMMUs. The M-pods are used to maneuver the ship's cargo containers and carry supplies to repair teams on the hull, and are completely unarmed. The doors visible near the prow are actually heavily armored blast doors that are used to load supplies aboard, notably gas reserves.

▼ 4.1.2 Operational Role

The Ypres serves as the core of a multi-disciplinary strike force, supporting it during the approach with heavy suppressive fire from its multiple cannon batteries. The ship's limited maneuverability and lack of onboard support craft force it to remain on the outer edge of the fighting until space is cleared of the smaller units, lest it be flanked. Once the coast is clear, however, the Ypres can wade in and quickly dispose of enemy vessels with its intense firepower.

Assignment to one of those mammoth vessels is generally the culmination of a career. Much like the Godsfire and Valiant crews before them, the people running the largest ship in the Jovian fleet have an intense pride about their job and will often perform aboave and beyond its requirements.

The utilization of standardized components, including many from the now standard Valiant-class strike carriers, have enabled the Olympus autofacs and shipyards to turn out the new battleships at a rapid rate. Five vessels, among them the *Valley Forge*, *Marianne* and the class ship *Ypres*, have been completed and sent to their assigned posts. By the time the first phase of the project is completed in 2215, all three Divisions will have a pair of these vessels.

▶ 4.2 SHIP SCHEMATICS

◐ Side View

| 0m | 25 | 50 | 100 | 150 | 200 | 300 | 350 | 400 | 450 | 500 |
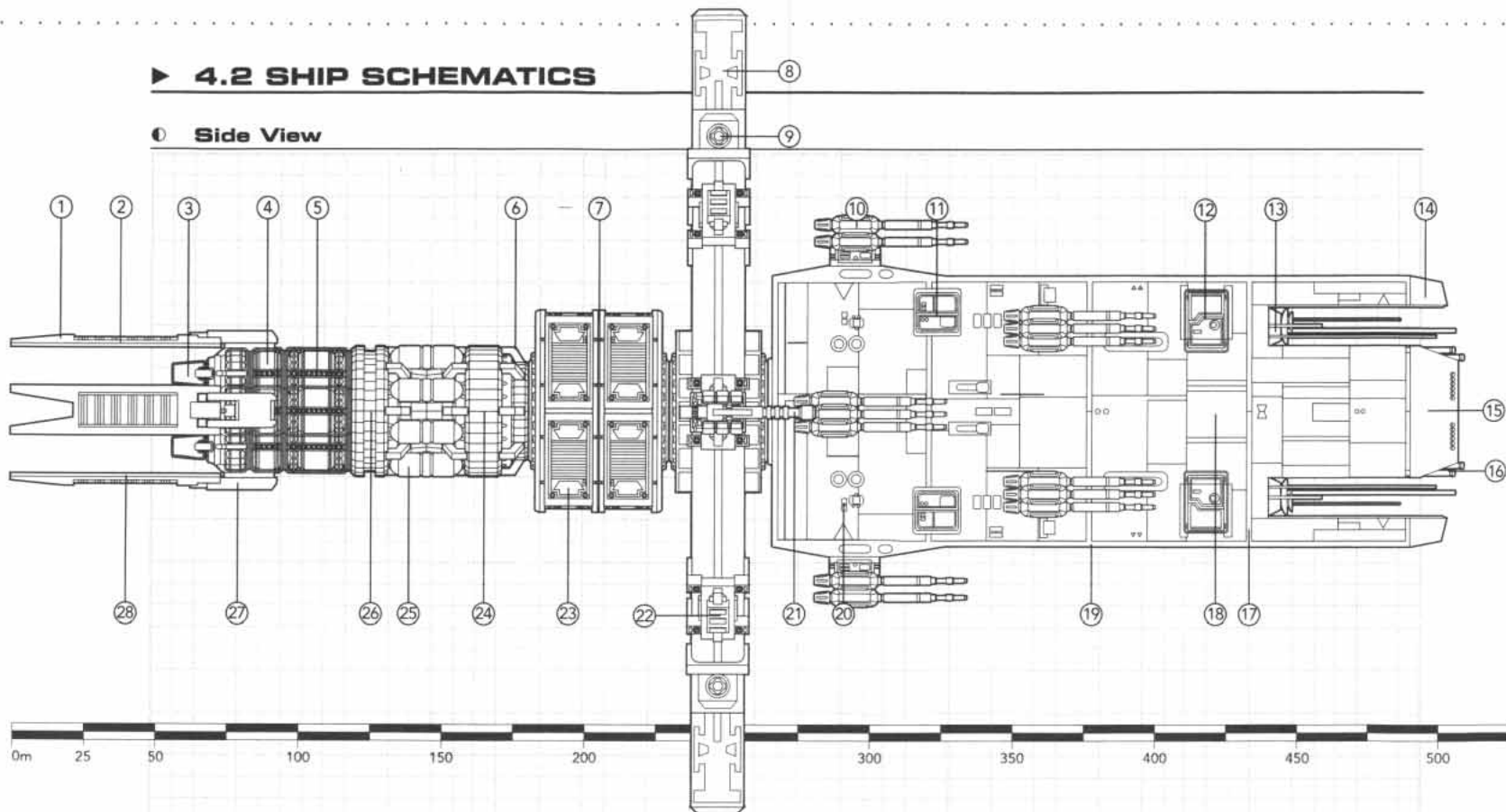
▼ Legend

1	Drive Fin	11	Escape Boat Covers	21	Starboard Particle Accelerator
2	Heat Sink Panel	12	Upper Loading Door	22	Hardpoint
3	Exhaust Collimator	13	Sensor Array (retracted)	23	Cargo Container
4	Fusion Core Housing	14	Upper Optical Sensor Shield	24	Tank Housing
5	Support Strut	15	Missile Launch Tubes	25	Reaction Mass Housing
6	Short Range Sensor Cluster	16	Spinal Laser Tubes	26	Engine Mount/RAM Hardpoint
7	JAF2207 Cargo Rack	17	Forward PDS Emitter Panel	27	Drive Fin Hinge
8	Habitat Module	18	Lateral Phased Sensor Array	28	EM Power Generation System
9	Habitat Rotation Motor	19	KKC Turret		
10	Auxiliary Craft Bay	20	Docking Port		

Front View ◐

Specifications

Name:	Ypres
Origin:	Jovian Confederation
Manufacturer:	Olympus Shipyards
Type:	Battleship
Control System:	Bridge w/astronomical display
Length:	510 m (w/drive fins)
Width:	285 m (w/centrifuge)
Empty Weight:	75,900 Tons
Loaded Weight:	110,000 Tons
Main Drive:	4 x 22 MW
Secondary Powerplant:	6 x 6900 kW
Main Thrusters:	4 x 22,000,000 kg
Apogee motors:	96
Acceleration:	0.8 g
Onboard Sensors:	Fire Control Radar, Infrared/Ultraviolet, Lidar, Low-light, Magnetometer, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS, 24 x kinetic kill cannon, 2 x missile bay, 2 x spinal laser, 2 x particle accelerator
Additional Armament:	N/A
Defensive Systems:	mag screen, PDS
Equipment:	escape pods, vehicle bay, centrifuge

▼ Legend

1	Starboard Particle Accelerator		11	Structural Reinforcement Rib
2	Structural Ring		12	Docking Port
3	Hardpoint		13	Short Range Sensors
4	Maintenance Hatch		14	Spinal Laser Tubes
5	Habitat Module "A"			
6	Habitat Heat Sink			
7	KKC Turret			
8	Lateral Phased Sensor Array			
9	Forward Missile Launch Tube			
10	Sensor Array			

▶ 4.2 SHIP SCHEMATICS (CONT.)

❶ Top View


```
0m    25    50    100    150    200    250    300    350    400    450    500
```
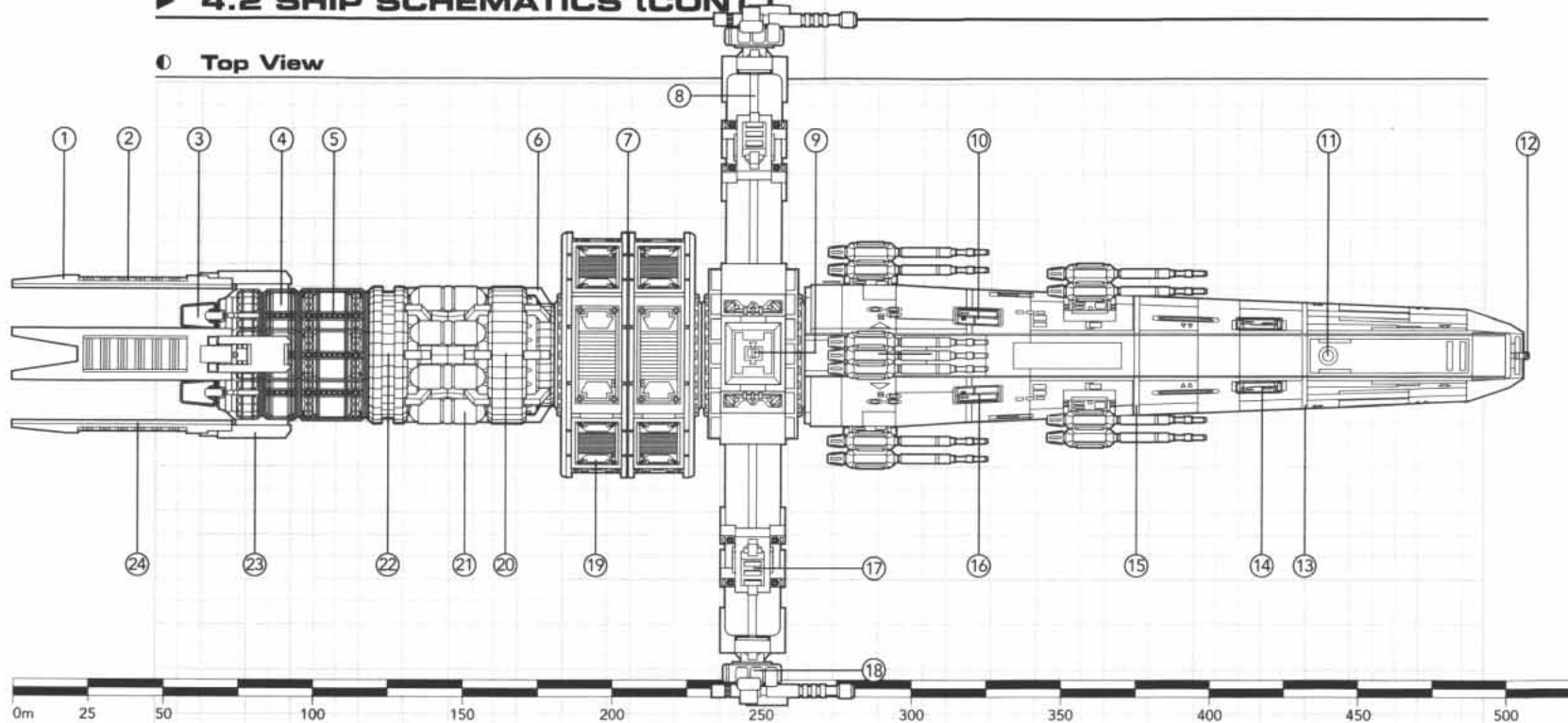
▼ Legend

1	Drive Fin	11	Maneuver Jet Housing	21	Reaction Mass Housing
2	Heat Sink Panel	12	Upper Optical Sensor Shield	22	Engine Mount/RAM Hardpoint
3	Exhaust Collimator	13	Forward PDS Emitter Panel	23	Drive Fin Hinge
4	Fusion Core Housing	14	Upper Loading Door	24	EM Power Generation System
5	Support Strut	15	Midship PDS Emitter Panel		
6	Short Range Sensor Cluster	16	Escape Boats Covers		
7	JAF2207 Cargo Rack	17	Hardpoint		
8	Structural Ring	18	Starboard Particle Gun Mount		
9	Habitat Emergency Hatch	19	Cargo Container		
10	Auxiliary Craft Bay	20	Tank Housing		

Cutaway View (Forward Hull) ◐

▼ **Legend**

1	Access to Ops and Drive Sections	9	Bulk Storage	17	Main Sensor Array
2	Engineering Decks	10	Heat Exchangers	18	Power Management Node
3	Service Elevator	11	Gas Storage	19	Superconducting Batteries
4	Kinetic Kill Cannons	12	Capacitor Array	20	Transfer Deck
5	Shuttle Bay	13	Optical Sensor Cluster	21	Service Elevator
6	Officer Quarters	14	Spinal Laser	22	Bridge
7	Main Elevator	15	Missile Launch Tubes	23	Power Transfer Systems
8	Service Decks	16	Missile Magazine	24	Main Power Station

▶ 4.3 HISTORY

The Ypres is a direct result of the somewhat poor performance delivered by the Jovian fleet during the few great engagements that dotted the early 2210s. The Godsfire-class supercarrier, which was long thought to surpass everything currently in service on all sides, proved painfully slow and inadequate in actual combat. All observers agreed that the hybrid carrier/battlecraft was a "jack of all trades, master of none," and that a fleet incorporating both a dedicated battleship and a carrier would probably be more useful. The Agora, under the strong recommendation of President Itangre, approved the allocation of funds to the project on December 6, 2210.

The first recommendations of the naval evaluation committee suggested a large vessel reminiscent of the Godfire-class' original "slab" configuration. The Godsfire's lack of a proper gravity simulation facility was seen as a weakness, and the presence of a centrifuge module was among the prime requirements for the new design. Most of the armament would be centered around the proven kinetic kill cannons in use on most of the fleet's ships; they would be backed by guided missiles and a cluster of particle accelerators.

To cut down on time and development costs, it was decided to use as many proven sub-systems as possible. Standard life support nodes were selected, while many of the local sensor arrays were borrowed from other Jovian ship designs. For example, the KJ-658 short-range pursuit radar found on the Athena-class destroyer was installed in both the prow and bow housings. The main sensor cluster developed for the Valiant — in fact, much of that ship's forward hull and structural design — was adapted and integrated into the new ship. A cluster of particle cannons taken from the Alexander destroyer was installed in the second prow housing. The production lines for the various modules used in the MacLeod program were put to good use, with additional parts ordered and delivered right on schedule.

The name ship of the class, the Ypres, left its mooring on the morning of November 7th, 2212, two weeks after the launch of the Valley Forge, the second hull commissioned for the battleship program. There was a strong rivalry between the teams working on the ships, which might account for the fact that the Valley Forge was finished first, well ahead of schedule. That spirit of competition seems to have taken hold among the crews as well, and the Ypres crew will likely try to accomplish spectacular feats to redeem themselves in the future.

Both the Ypres and the Valley Forge held shakedown cruises for the better part of 2212, making sure all systems were properly integrated and the crew trained to handle them. Two additional KKC turrets were soon installed in side mounts after the crew reported the excellent performances of the ship's power grid. The vessels' temporary cargo racks, taken from reserves until their newer racks arrived from the sub-contractors, were replaced by more recent models.

Eight Ypres-class ships have been ordered in total, one for each JAF division and two "expeditionary" units. Of those, five are currently in service, two in construction and one on order. Logistical problems may occur in the future, however, as shipyards compete for the limited supplies available from the orbiting autofacs. Additional raw material has already been ordered, but their delivery is, as always, subject to the laws of orbital mechanics.

Despite its relative success, the Ypres program is not without opposition. Detractors of the project, led by Agora representative Aaron Lesterman, point to the high cost of the ship and to what they perceive as flaws in the basic theory. They often mention the great battleships of the ancient Earth navies and how they became obsolete when faced with increasingly sophisticated aircraft and missiles. The same thing, they argue, will be brought upon the Ypres and its sisters, only this time at the hands of enemy interceptors and exo-armors.

4

JSS YPRES ◀

Ypres-class Vessels, 2211-2212 ☽

▼ **Legend** ▼

1	UY-890 Drive Unit
2	Extended Reaction Mass Tankage
3	JAF2197 Cargo Racks
4	Thunderbolt Particle Accelerators
5	Twin Arm Centrifuge

0m 25 50
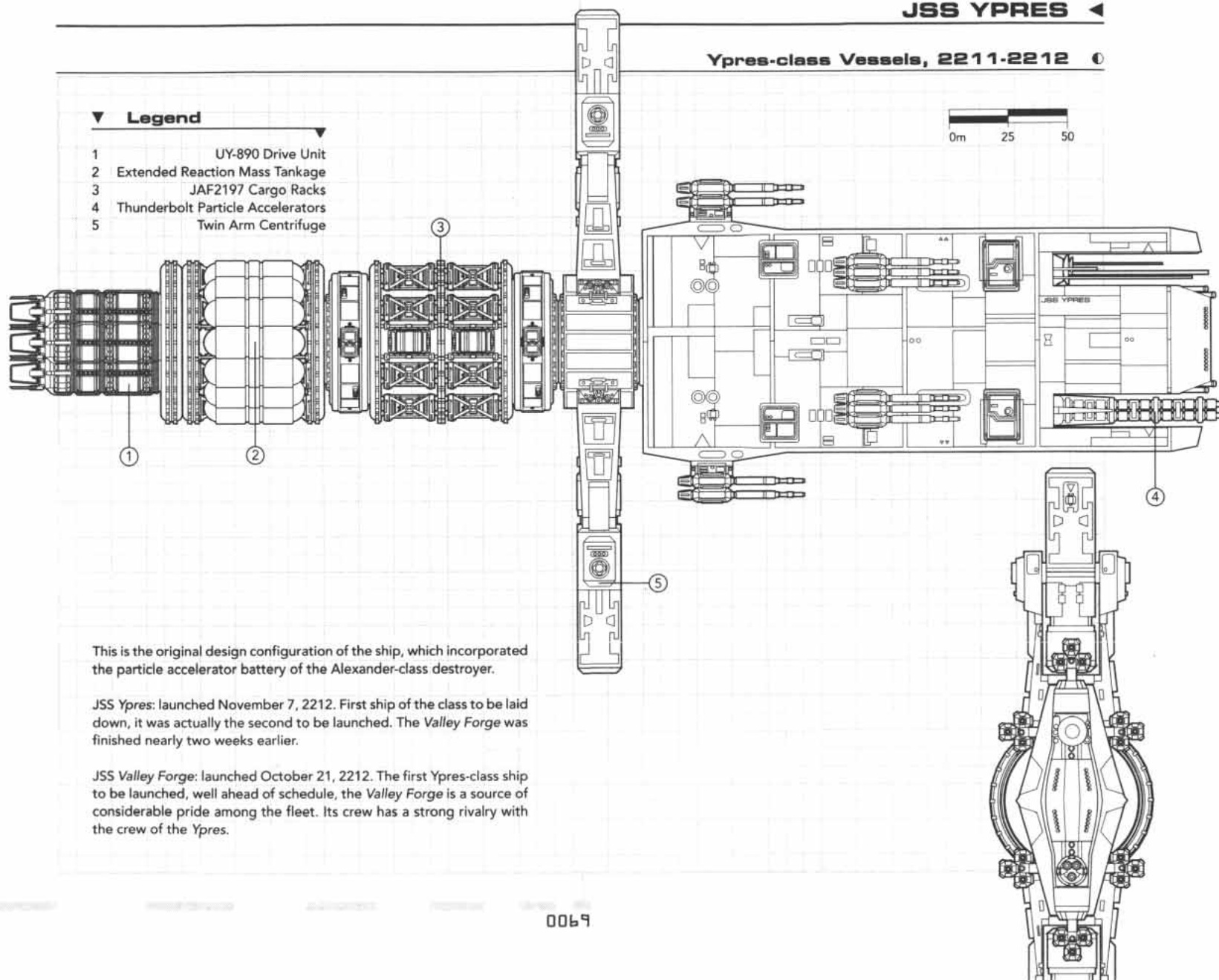
This is the original design configuration of the ship, which incorporated the particle accelerator battery of the Alexander-class destroyer.

JSS *Ypres*: launched November 7, 2212. First ship of the class to be laid down, it was actually the second to be launched. The *Valley Forge* was finished nearly two weeks earlier.

JSS *Valley Forge*: launched October 21, 2212. The first Ypres-class ship to be launched, well ahead of schedule, the *Valley Forge* is a source of considerable pride among the fleet. Its crew has a strong rivalry with the crew of the *Ypres*.

▶ JSS MARIANNE

◑ **Ypres-class Vessels, 2211-2212**

```
0m    25    50
```

▼ **Legend** ▼

1	Improved Sensor Array
2	Centrifuge w/Twin Habitats
3	JAF2207 Cargo Racks
4	Extended Reaction Mass Tanks
5	UY-890 Engine Mount
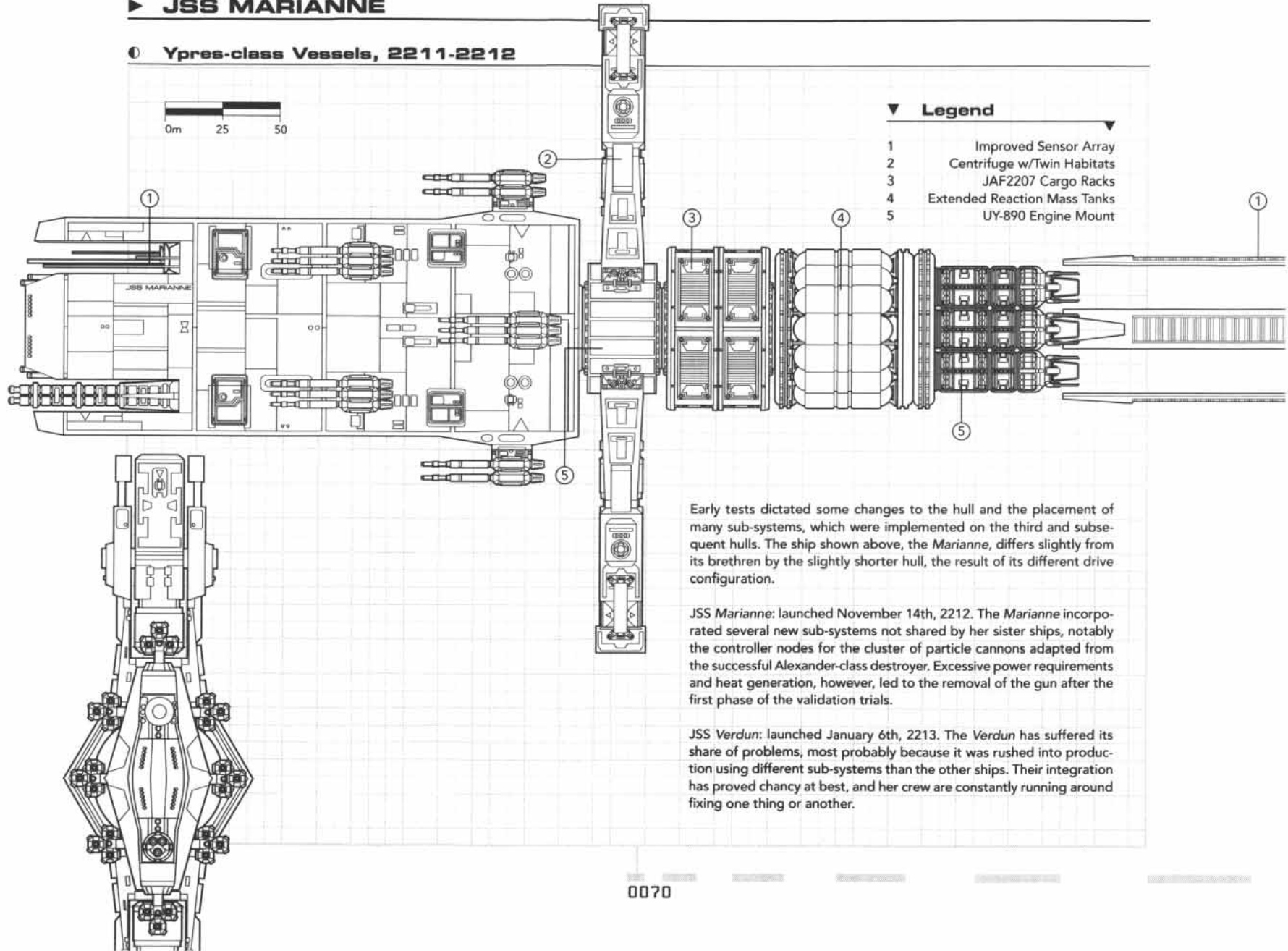
Early tests dictated some changes to the hull and the placement of many sub-systems, which were implemented on the third and subsequent hulls. The ship shown above, the *Marianne*, differs slightly from its brethren by the slightly shorter hull, the result of its different drive configuration.

JSS *Marianne*: launched November 14th, 2212. The *Marianne* incorporated several new sub-systems not shared by her sister ships, notably the controller nodes for the cluster of particle cannons adapted from the successful Alexander-class destroyer. Excessive power requirements and heat generation, however, led to the removal of the gun after the first phase of the validation trials.

JSS *Verdun*: launched January 6th, 2213. The *Verdun* has suffered its share of problems, most probably because it was rushed into production using different sub-systems than the other ships. Their integration has proved chancy at best, and her crew are constantly running around fixing one thing or another.

JSS GETTYSBURG ◄

Ypres-class Vessels, 2213+? ◑

▼ Legend ▼

1 Lockwell Extended Drive Fin
2 Armor Panel
3 Tender-type Engine Mount
4 JAF2212 Cargo Rack
5 Second Centrifuge

0m   25   50
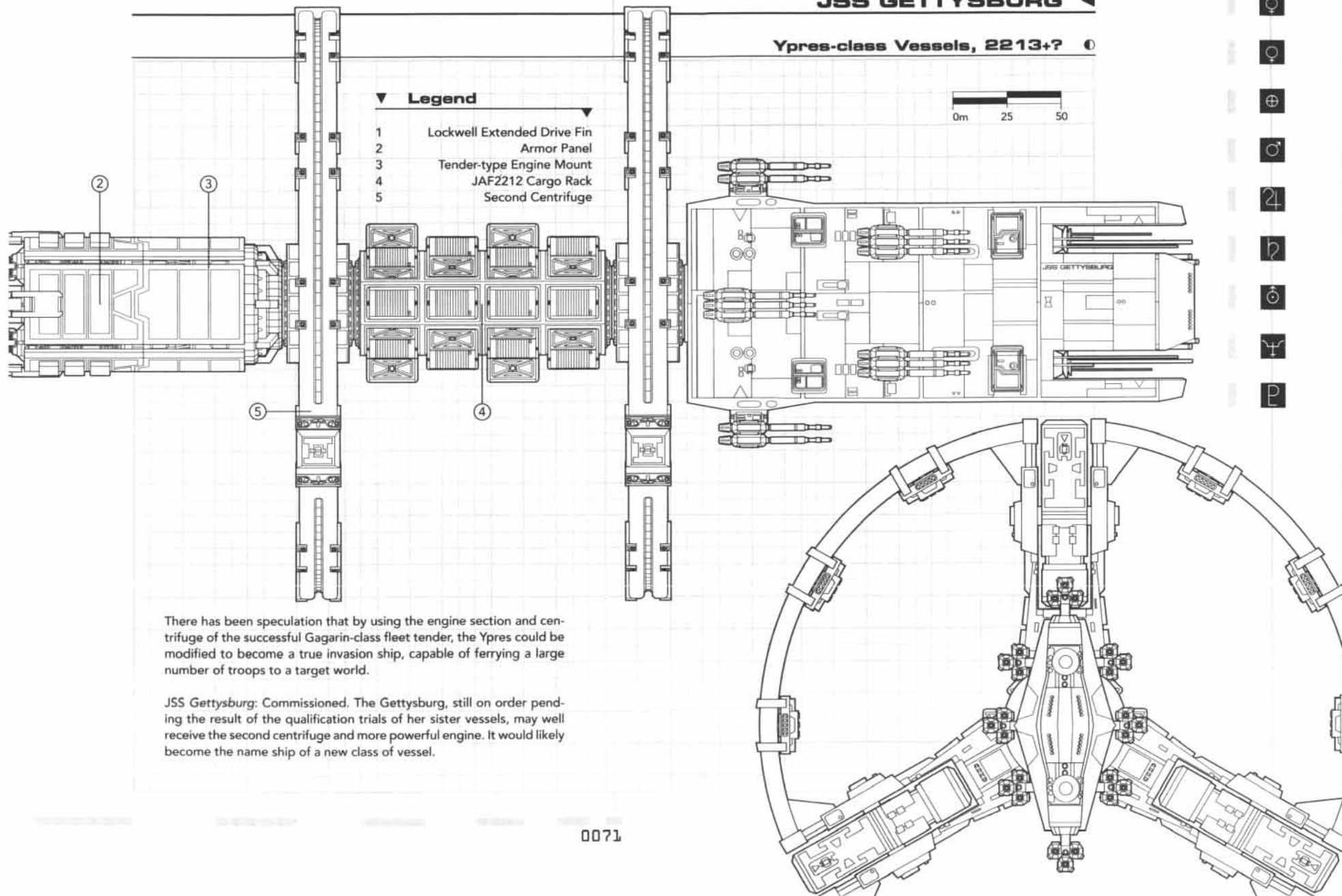
There has been speculation that by using the engine section and centrifuge of the successful Gagarin-class fleet tender, the Ypres could be modified to become a true invasion ship, capable of ferrying a large number of troops to a target world.

JSS Gettysburg: Commissioned. The Gettysburg, still on order pending the result of the qualification trials of her sister vessels, may well receive the second centrifuge and more powerful engine. It would likely become the name ship of a new class of vessel.

▶ 4.4 SHIP SYSTEMS

◐ schematics
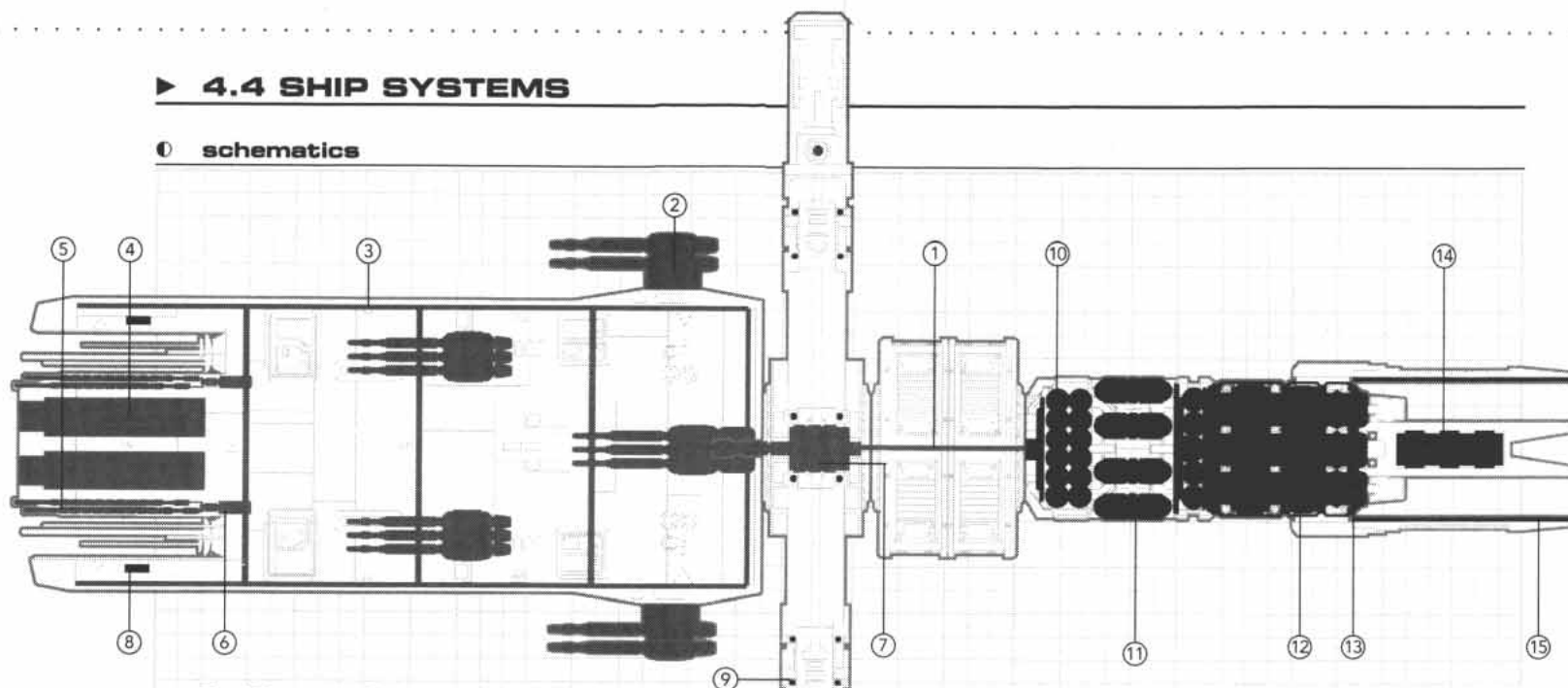
▼ Weapon Systems ▼

1	Main Power Conduit
2	Kinetic Kill Cannons
3	Phased Array Laser PDS Cells
4	Missile Bay
5	Spinal Lasers
6	Capacitor Arrays
7	Particle Accelerator

▼ Propulsion Syst. ▼

8	Plasma Arc RCS Cluster
9	Hypergolic RCS Thrusters
10	Reaction Mass Plumbing
11	Main Reaction Mass Tanks
12	Plasma Combustion Chamber
13	Exhaust Collimator Coils
14	Radiator Panels
15	EM Power Generation System

The ship's main purpose is immediately apparent from the multiple gun turrets mounted on the forward hull. Though the spinal lasers are fixed forward, the kinetic kill cannons can swivel through a wide arc. Both particle cannons can rotate in place, which, combined with the circular motion of the gravity wheel and their position far from the hull, allow them to cover almost the entire area surrounding the ship. There remains a blind spot at the back, however.

The interior layout is fairly typical, with missile launchers and sensor systems at the front, followed by hangar bays for shuttles, assault pods and other auxiliary vehicles. Reaction mass and gas reserves are located right behind, along with heat exchangers and life support systems. The main crew duty area takes up the middle rear of the forward hull, sandwiched between the rear auxiliary bays and other support machinery. Its position, literally buried in the hull, offers it excellent protection against damage.

4.4 SHIP SYSTEMS ◄

schematics ◑
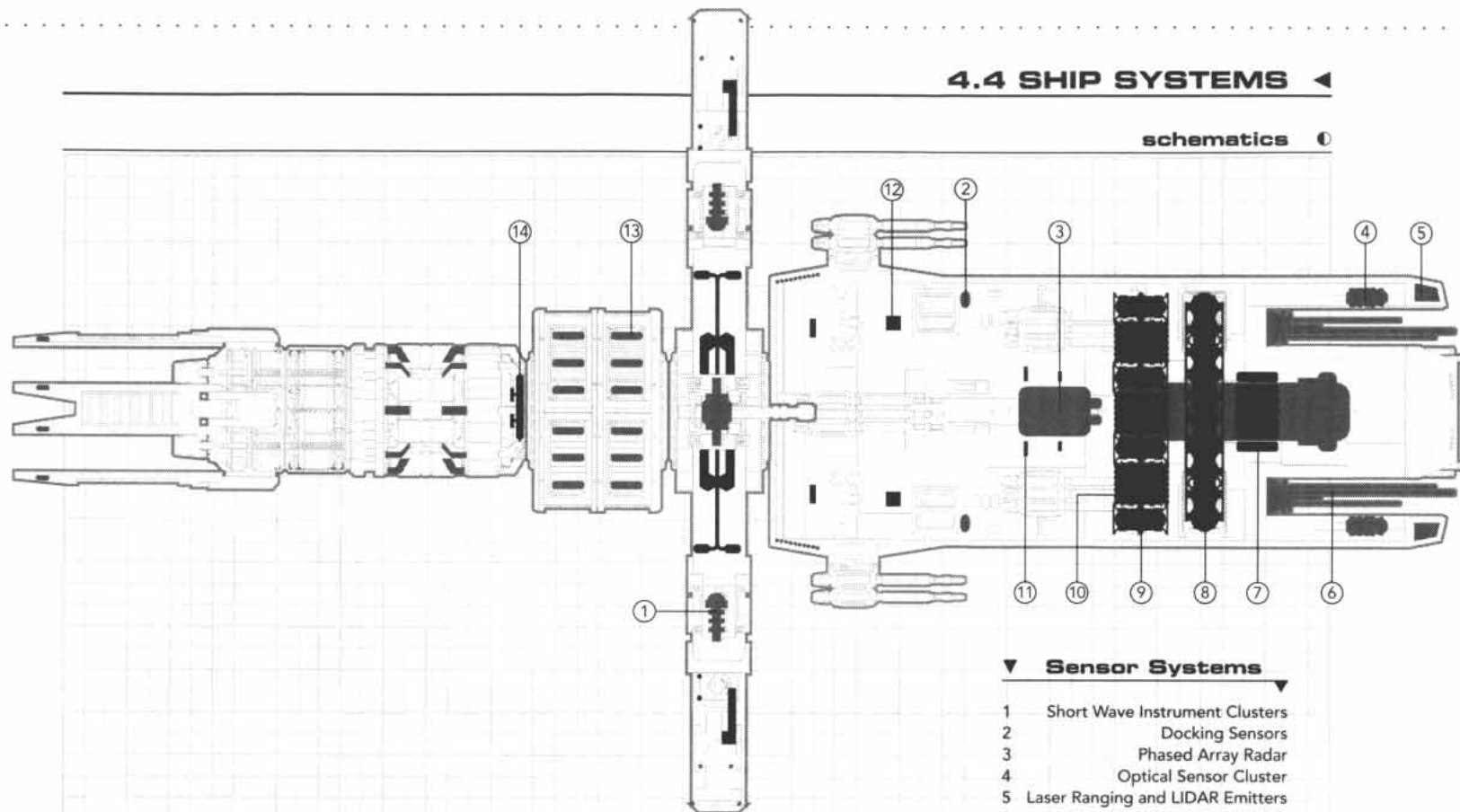
A standard gravity wheel is located amidships and houses much of the crew's living quarters. The rear cargo rack contains basic supplies and consumables for the crew. More are stored within the main hull and the ship often travels with supply vessels, so these are generally used as emergency reserves only.

The extended rear hull contains additional reaction mass reserves to allow the vessel to operate on its own for long periods of time. The entire engine block is almost exactly the same as the one used by the Gagarin-class tenders, making engineer training much easier. The drive is protected from enemy fire by eight interlocking armor panels. Four Lockwell drive fins are placed at the rear of the ship.

▼ Sensor Systems ▼

1	Short Wave Instrument Clusters
2	Docking Sensors
3	Phased Array Radar
4	Optical Sensor Cluster
5	Laser Ranging and LIDAR Emitters
6	Main Sensor Array (retracted)

▼ Life Support Syst. ▼

7	Forward Heat Exchangers
8	Gas Storage
9	Superconducting Batteries
10	Heat Exchangers
11	Secondary LS Nodes
12	Shuttle Bay LS Node
13	Auxiliary LS Nodes
14	Shield Generators

▼ 4.4.1 Power Management Node

The enormous amount of power required by the weaponry and detection systems of the ship is supplied by the main fusion reactors and stored in banks of capacitors and superconducting batteries to use as needed. The Power Management Nodes (PMNs) are switchboards for the ship's power grid, directing energy where it is needed and balancing the reserves against expenditures and supplies. Each node is connected to at least two power conduits (see below), though some can handle up to five or six.

Power Management Nodes are self-contained modules encased in laminated armor. Most of the nodes' systems are tightly packed and inaccessible by a human being. Maintenance and routine repairs are taken care of by remotes that are sent into the node through a small access airlock. Should a node be completely wrecked (as a result of combat, for example), it is usually simpler to remove the entire unit and replace it with a new one.

▼ 4.4.2 Power Conduit

The hull is crisscrossed with power conduits and coolant pipes that lead to and form the armament and other power-hungry systems. To facilitate maintenance, the main lines are placed along long and narrow crawlways so that engineers and damage control teams can access them for easy repairs. These tubes are barely wide enough to fit a person wearing a rad-proof pressure suit, and require considerable agility and flexibility to move through at any speed.

Each power conduit presents itself as a silvered metal tube, broken every three meters by an access panel held in place by four oversized rotating locks. One side of the tube contains the power feed, the opposing one the coolant lines. The "floor" of the tube is covered by a rubberized coating to provide grip, with recessed handholds every meter. There is no special provision for life support or lighting within the tubes, as they are normally used only by maintenance robots.

▼ 4.4.3 Gunnery Station

The Ypres' multiple weapon systems are controlled from here. Though all offensive systems are constantly monitored by the main tactical computer network (to ensure efficient coverage and avoid redundant firepower applications), each gunnery station can function independently from one another. The cramped room contains the gunner's seat and main display, plus one or two other workstations for an engineer and "loader" (actually a floating backup crewman whose task is to assist the other two). The guns are controlled through a set of cursors that are used to place a targeting box over the enemy craft. The gunner only has to point at the target's image to lock it in the computer.
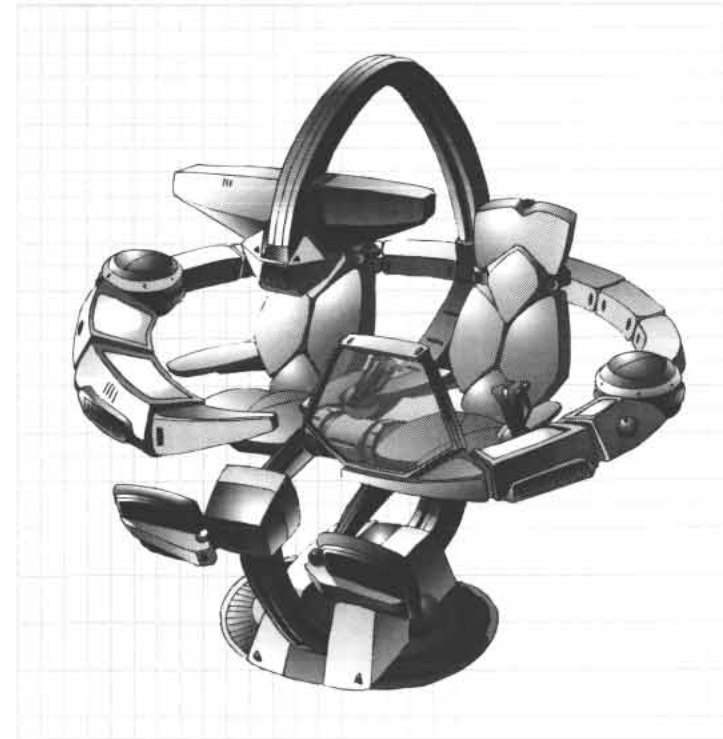
▼ 4.4.4 Brig

All capital ships feature a brig, a small reinforced room where prisoners are kept. Smaller ships generally do not have that luxury and must lock undesirables in standard cabins with disabled terminals. The Ypres' brig is a relatively large complex located far from the bridge and the armory. It is divided into two sections, a guard station and the holding cells proper. The guard station is little more than a terminal controlling the cells and the conditions within. There are two cameras and several microphones for surveillance. The latter are extremely sensitive, and are capable of picking up even whispered words.

The brig features an independent life support system so that the prisoners can survive in case of hull breach of other system failure; prisoners cannot be trusted with space suits, but neither can they be left to die. Obviously, this feature allows the brig to be used as an emergency shelter as well. A simple recycling unit is found behind a sliding panel located in the far wall of the room for basic hygiene.

▼ 4.4.5 Damage Control Locker

A well-trained damage control crew can limit the collateral damage and allow a ship to limp home rather than die a lonely death in the vacuum. Each damage control team is assigned a certain area of the vessel. They learn its various pathways and systems by heart, and can move quickly even through darkness and variable gravity conditions. Though they carry most of their equipment with them, the rest is stored in Damage Control Lockers (DCLs), small rooms that serve as home base for the various teams.

A standard DCL is little more than a roomy closet. Each contains a full set of tools, power cutters and fire fighting equipment, plus a complete database of that particular area of the ship. A dedicated expert system is on hand to monitor the team's progress and inform them of the nature of the problem (if known) or the characteristics and schematics of the problem area.
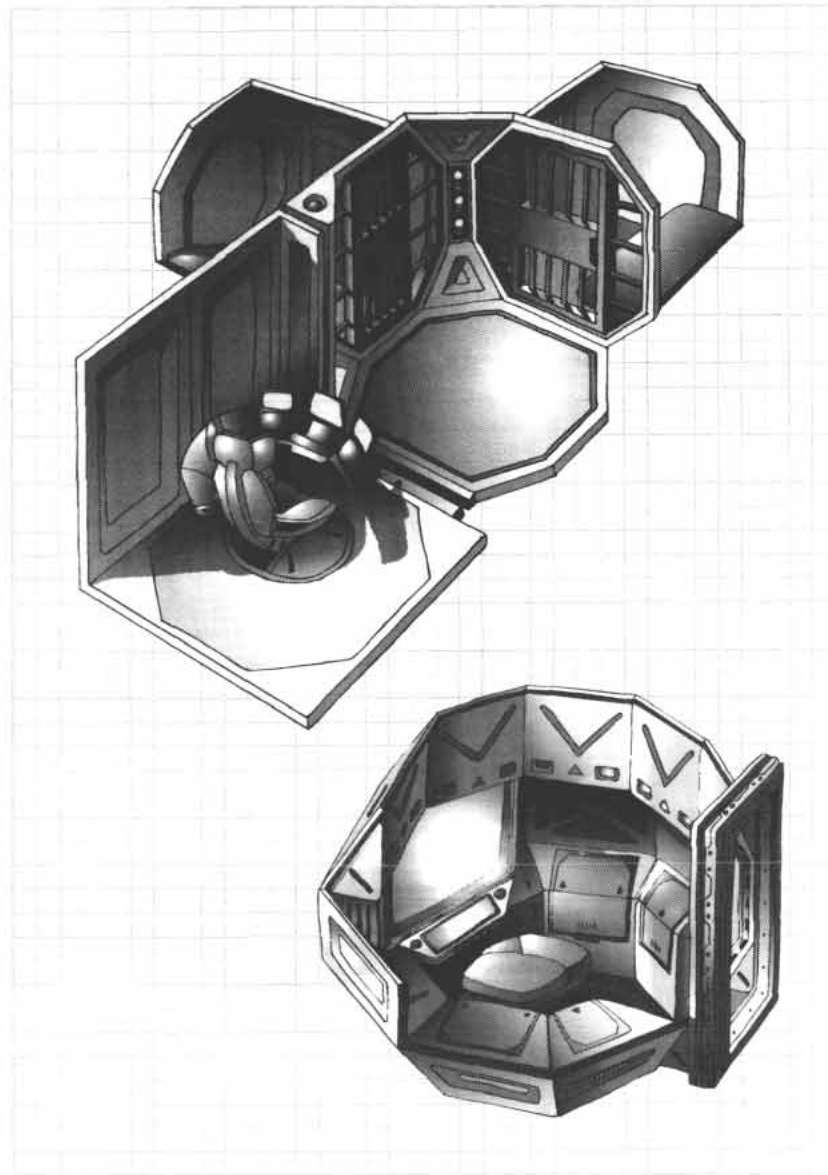
▶ 4.5 SHIP PERSONNEL

The vessel has four internal departments. Operations, commanded by the ship's Executive Officer, handles the daily activities of the ship and any roles not assigned to the other three departments. Gunnery, led by the ship's Chief Gunner, is in charge of weapon firing and maintenance. Engineering, headed by the Chief Engineer, handles both the ship's engines and the ship's power grid. Finally, there is the Marine detachment led by a Marine Commander, often of Lieutenant or Chief Warrant Officer rank.

▥ Crew Organization Chart

Captain	
Executive Officer	
Sensor Operator	6
Comm Operator	6
Helmsman	6
Navigator	6
Quartermaster	3
Medic	3
Steward	12
Investigation Specialist	3
Computer Specialist	6
EVA Specialist	12
Chief Gunner	
PDS Specialist	12
Missile Specialist	12
KKC Gunner	36
Radiator Specialist	6
Particle Gunner	12
Chief Engineer	
Bosun	6
Engineer	24
Generator Specialist	6
Marine Commander	
Squad Leader	8
Marine	40

▼ 4.5.1 Interview with a Security Officer

Name:	Samuel Keats
Rank:	Major
Current Assignment:	JSS Ypres

"The Ypres' a big ship. It can be just as dangerous to us as it is to the enemy. We have to keep it under tight reins, and make sure it functions as a well-oiled machine at all times, even the more stressful ones. To accomplish this, one needs to maintain constant respect and discipline. Sure, modern armed forces are a lot more liberal today than they were even only a few hundred years ago, but the troops still need to follow orders when the situation demands it. My job is not to be liked by the crew, merely respected.

"There's a lot to learn before taking the mantle of Security, and plenty of skills to put into application. You have to know something about human nature in order to do the job right. Learn to see trouble before it explodes. If possible, you have to figure out something's wrong before the parties involved even realize it, and discretely defuse the situation before it evolves into something nasty. The very best security officers are the ones that seemingly never have anything to do.

"The important thing is to be prepared to face any kind of situation, and when faced with a problem to know just how much pressure to apply to remove it. You might be called to defuse a fight, or investigate a theft, or root out a mole in the crew. And, sometimes, you'll have to use your smarts as well, if it really comes down to it. You might find yourself in the middle of a murder investigation — long term isolation makes people do dark things sometimes..."

▼ 4.5.2 Interview with a Marine

Name:	Annette Foiles
Rank:	Master Sergeant
Current Assignment:	JSS Valley Forge

"Yes sir, I'm part of the marine contingent stationed on the *Valley Forge*, the best damn ship in the whole JAF fleet! We're well trained, we're sharp, we're tough as nails, and we're ready for anything the universe cares to throw at us. We've got the best weapons money can buy: hand lasers, flechette guns and gauss shotguns for 'soft' duty, Pouncers and Deckers and Falconers 'suits for the heavier stuff. 'Bout the only thing we're missing is nukes, and something tells me that could be arranged if we really needed them. <wink>

"Unlike the marines on most other ships, our main task is not boarding enemy craft — it's defending our own boat against boarding actions by hostile forces. Our battleship is just too big and slow to catch up to anything, so we leave that task to the smaller guys and just blast our targets into paste instead. Works both ways, though. Being big and slow and mean makes us a juicy objective, and a couple of assault pods is generally a cheap way to get rid of a big ship, if you can get them on the hull — easier than blowing it up.

"There's a good side to the job, in that we spend a lot of time training. Ypres-class ships are too large to commit to anything but large ops, so we sit on patrol and flag-showing deployment a lot of the time. Some would call it easy duty, but it's not. You have to keep in top shape, else you'll pay for it when the time comes. We work hard to be what we are. And that's why we're the best, and we're not shy about saying it."

▼ 4.5.3 Interview with a Chief Gunner

Name:	Robin Pruett
Rank:	Lieutenant
Current Assignment:	JSS Marianne

"If there's something the Ypres-class ships don't lack, it's guns. In addition to the multiple kicker batteries and PDS arrays, we've got access to smart missiles, particle guns and heavy lasers. The onboard sensors and fire control computers are capable of keeping track of several million objects at the same time, so we get a pretty good view of the battlefield around us. With the sensor capacity of the ship, you'd think we'd be swamped with the weapons targeting every bolt and bit of debris floating around, but we aren't. The computers, when properly coached, will classify and prioritize the blips in order of decreasing threat, and show us only the ones that really matter.

"I don't personally man any gun station, though I've trained with all of the weapon systems available to the ship — one of the basic requirements of the job, in addition to the years of loyal and efficient service <laugh>. My station is on the bridge. From there, I assign targets and orders to the various gunnery posts across the ship.

"The job is not an easy one, despite public perception. Modern space gunnery is a lot more involved than just putting the targeting box on the blip and pressing a button. It's no use being able to hit a pebble at a few thousand klicks if you don't notice the missile coming up your... Anyway, let's skip that. Let's just say there's more to it and leave it at that."
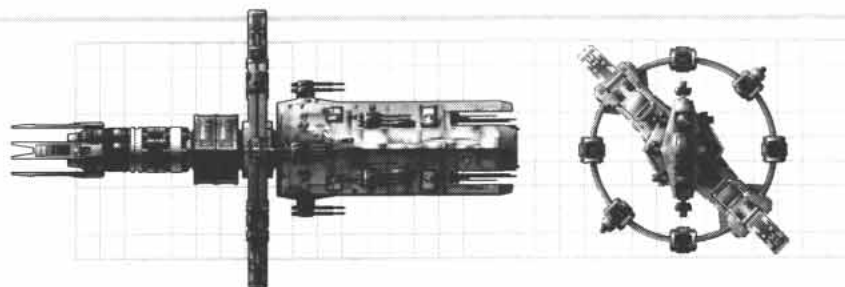
Ypres-class Battleship

▼ Overall Data:

| TV: | 210,000 | Off. TV: | - | Def. TV: | - | Misc. TV: | - | Cost: | 210 M | Indv lemon dice:3 |

▼ Movement Data:

| Mode: | Space | Combat: 4 (0.4 g) | Top: | 8 (0.8 g) | Maneuver: | -5 | Range: 3,000 hrs | ReMass: 2,000 BP |

▼ Sections:

1 x	Main Hull	8 x	KKC Turret	1 x	Habitation Ring
1 x	Ops Section	8 x	Cargo Container	4 x	Drive

▼ Off & Def Systems

1 x	Point Defense System (main hull)	24 x	Kinetic Kill Cannon (turrets)	1 x	Missile Bay (main hull)
2 x	Particle Accelerator (habitat)				

Section: Main Hull

▼ Main Data:

TV:	60,000	Off. TV:	37,000	Def. TV:	4100	Misc. TV: 140,000	Cost:	60 M	Indv lemon dice: 3
Crew:	96	Actions:	7	Sensors:	0/4 km	Comm.: 0/15 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	102	Default Size:	39	Base Armor:	120	Light: 120	Heavy:	240	Overkill: 360

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: 3,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Autopilot	-	Lvl 1 pilot	Reinf. Crew Comp.	2	Absorbs first two "Crew" hits
Backup Sys	3	Comm, Fire Con, Life Sup, Sensor	Satellite Uplink	-	x1000 Comm range
Computer	4	CRE 0, KNO 0, PP 4	Cargo Bay x 2	-	1,900 m² each
Ejection System	-	160 places	Reinforced Armor	30	Front
HEP: All	-		Sick Bay	12	Zero-Gravity Medbay
HEP: Radiation	4	Screen			
Life Support	-	Full			
Passenger Accom	-	30,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a
2	Missile Bay	T	x30	5	-2	5	30	Mis, G, Concealed	14	6000	18
2	Spinal Laser	FF	x80	3	-2	0	3	HEAT, PH9	6	1100	4

Section: KKC Turret

▼ Main Data:

TV:	8000	Off. TV:	23,000	Def. TV:	250	Misc. TV:	800	Cost:	8 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors:	-3/2 km	Comm.: -3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	19	Default Size:	20	Base Armor:	25	Light:	25	Heavy:	50	Overkill: 75

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: 1,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup FireCon	-	Absorbs first "FireCon" hit			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Full			
Reinf. Crew Comp.	1	Absorbs first "Crew" hits			
Weapon Link	-	All kinetic kill cannons			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
3	KK Cannon	L/R	x30	7	-2	3	300ea	AP	12	3800	12

Section: Habitat Ring

▼ Main Data:

TV:	54,000	Off. TV: 11,800	Def. TV:	1000	Misc. TV: 150,000	Cost:	54 M	Indv lemon dice: 3
Crew:	12	Actions:	4	Sensors:	-3/2 km	Comm.: -3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	60	Default Size:	37	Base Armor:	50	Light:	50	Heavy:	100	Overkill: 150

▼ Movement Data:

| Mode: | Towed | Combat: | - | Top: | - | Maneuver: | - | Range: 3,000 hrs | Re. Mass: | - |

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Reinf. Crew Comp.	3	Absorbs first two "Crew" hits
Cargo Bay	-	40 m²	Sick Bay	4	Medbay
Ejection System	-	256 places	Tool Arm x 6	30	Hardpoints; cannot punch
HEP: All	-	Sealed			
HEP: Radiation	6	Screen			
Laboratories	-	Cooking 1, Electronics 1, Mechanics 1			
Life Support	-	Full			
Passenger Accom	-	28,000 m²			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
2	Particle Cannon	T	x35	5	-2	0	inf	AD5, Haywire, HEAT, PH2	9	3300	n/a

▶ Section: Ops Section

▼ Main Data:

TV:	7000	Off. TV:	0	Def. TV:	2200	Misc. TV:	19,000	Cost:	7 M	Indv lemon dice: 3
Crew:	3	Actions:	2	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	-5	Type: Early Prodc.
Hull Size:	72	Default Size:	19	Base Armor:	75	Light:	75	Heavy:	150	Overkill:	225

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Sick Bay	4	Zero-Gravity Medbay
Cargo Bay	-	1,900 m²			
Ejection System	-	60 places			
HEP: All	-	Sealed			
HEP: Radiation	4	Screen			
Laboratories	-	Electronics 1, Mechanics 1, Investigation 1			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

▶ Section: Drive Module

▼ Main Data:

TV:	3600	Off. TV:	0	Def. TV:	1800	Misc. TV:	9000	Cost:	3.6 M	Indv lemon dice: 3
Crew:	6	Actions:	4	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	46	Default Size:	20	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

Mode:	Space	Combat: 23 (2.3g)	Top:	46 (4.6g)	Maneuver:	-3	Range: 3,000 hrs	Mass:	9000 BP

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Sys.	3	Comm, Fire Con, Life Sup, Sensor			
Ejection System	-	12 places			
HEP: Vacuum	-	Sealed			
HEP: Radiation	4	Screen			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

▶ Section: Cargo Container

▼ Main Data:

TV:	1400	Off. TV:	0	Def. TV:	160	Misc. TV:	3900	Cost:	700,000	Indv lemon dice: 3
Crew:	0	Actions:	0	Sensors:	-	Comm.:	-	Fire Control:	0	Type: Mass Prodc.
Hull Size:	10	Default Size:	10	Base Armor:	20	Light:	20	Heavy:	40	Overkill:	60

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Cargo Bay	-	2500 m^3 each			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Limited			
No Comm	4	Can't communicate			
No Sensors	-	Can't Scan			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

▶ Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type:	-
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

▶ FIREWORKS

"So you're telling me we got a rogue supply rock inbound, is that right?"

Colonel Vianney massaged his temples wearily. He had been pulled out of bed by a priority communiqué from the *Courageous*, and he was still trying to wake up. He stared at the screen, waiting for the answer.

"Yes sir." The transmission was good, digital data carried over laser beams between the distant ship and the station, but the time lag caused by the distance made for painful breaks in the conversation. "It seems to be an unusually dark C-type rock, the kind we process for carbon and water. It's one of ours, sir. It has towing hooks fixed in tightly, and corresponds to the reports filed on a routine shipment from Newhome."

"So why wasn't it detected before? Those things are supposed to be on a flight plan." There was another maddening pause as the information sped on its way across the Jovian sub-system.

"It is likely this one was, sir. But sometimes things happen, and an object slips out." The Captain looked off to one side of the screen, probably consulting a list that wasn't visible from Vianney's vantage point. "There are currently seven objects listed as 'missing' in the flight plan database, though most of them deviated too far away to be our visitor. Three are C-type supply rocks."

Vianney checked his own terminal and obtained much the same answer. "So we have a straggler, here." He frowned as an unpleasant thought came to mind. "But a tug should have met it once it came in-system. I find it strange that no one reported losing a supply asteroid. And I find it even stranger that it wasn't detected until now."

"With all due respect, sir, it might not necessarily be malicious intent. Space is pretty vast, and finding a sooty rock against a black backdrop near Jupiter, even if it's glowing in IR, is pretty difficult, even with top-of-the-line tech. It might have been missed."

"Spare me the lecture on sensor detection, Captain. I haven't been behind a desk for that long." He could feel a headache coming on. "Very well, get back on your regular patrol route. I'll get Khannan TC on the horn and ask them to take care of it."

"Acknowledged, sir. *Courageous* out."

Vianney slumped into his chair. One more thing to take care of. So much for his restful night.

*   *   *

"We have a preliminary report, Colonel."

"Thank you. Send it over to my monitor." Vianney had managed to get himself showered and dressed, and was now moodily contemplating a squeeze bulb full of coffee. An orbital simulation, drawn in exaggerated line and time scale, appeared on the wall in front of him.

"We calculated a probable trajectory based on the available data. The rock was inbound on a highly elliptical orbit, with a perigee on the upper fringes of the atmosphere. The drag slowed it down a bit — that's standard practice for supply rocks, sir." In the animation, the rock passed near Jupiter and lost speed, tumbling across the wall in slow motion.

"Normally, a tug is sent to rendezvous with the rock as it comes back up to take it to a processing facility. In this case, however,

the assigned tug didn't show up, and that freak hit from the *Bonnet* gave the rock some speed. It will eventually burn up, but its current trajectory might take it close to one of our shipyards. We don't think it will impact, but it might damage the power grid. We advise destroying it, just to be safe."

"Thank you. Vianney out." He considered the still-playing animation for a few seconds, then reached for his M-link. At least it would give the *Valley Forge* a chance to have some fun and practice a bit. Something was bothering him, though, an unresolved, nagging element in the whole affair. No tug ever missed a rendezvous and then failed to report it. He made a note to have its owners investigated. Best not to take chances.

*   *   *

The ponderous bulk of the Jovian battleship *Valley Forge* swung slowly around, bringing its main drives to bear in preparation for the burn that would place it on an interception trajectory. Her many gun turrets twitched slightly as the gunners tested their motion, making them look like the antennae of a giant hunting insect tracking a prey.

The bridge was a hive of activity. Captain Lessard looked around with discrete pride, satisfied with the quiet efficiency of the people he had chosen and trained for so many months. Once more, they had an opportunity to prove themselves the best damn crew in the entire JAF.

"All hands, this is the Captain. Listen up. We've been handed a chance to serve the Confederation and practice a bit at the same time. A tug missed its rendezvous and we now have a raw material shipment gone awry. We will fire all weapons to obliterate it. Let's not disappoint the folks at the shipyard — be ready to give them a fireworks display they'll remember for a long time."

Lessard flipped the comm off, and nodded to the First Officer. "Fire at will."

The hull of the battleship shuddered as magnetic coils accelerated minute pieces of metal to hypersonic velocities and missiles were flung from their launch tubes. In the far distance, flashes of light danced across the surface of the rogue asteroid as the kinetic energy of the hail of projectiles was converted into photons and heat. The arrival of the missiles a few seconds later caused larger explosions that made it difficult to assess the situation at first.

"Sensors here." The young bridge officer sounded nervous. "Reporting minimal damage to the target, sir. No appreciable change in velocity or vector."

"What?!"

The young man swallowed with difficulty and did his best to avoid the accusatory stare of the master of the *Valley Forge*. "It appears more than half our salvoes, err... failed to connect, sir."

There was an embarrassed murmur from the bridge crew. Lessard turned sharply toward his First Officer, who was doing his best to maintain his composure and not doing a very good job of it.

"It might well be hardware faults, sir. These are brand new systems, not all fully integrated..."

The Captain muttered dark curses under his breath. "Well, integrate them now and get rid of that damn rock."

The second salvo managed to do little more than blow up more dust.

Fleet Carrier, Majestic-class

Name	Launched	Current Status
JSS Majestic	February 6, 2213	Beta
JSS Regal	April 5, 2213	Alpha
JSS Imperial	May 12, 2213	Gamma
JSS Victorious	June 8, 2213	Alpha
JSS Illustrious	August 12, 2213	Detached Duty
JSS Exalted	N/A	Building

JSS Honorable	N/A	Building
JSS Glorious	N/A	Commissioned
JSS Sovereign	N/A	Commissioned
JSS Triumphal	N/A	Commissioned
JSS Brilliance	N/A	Commissioned
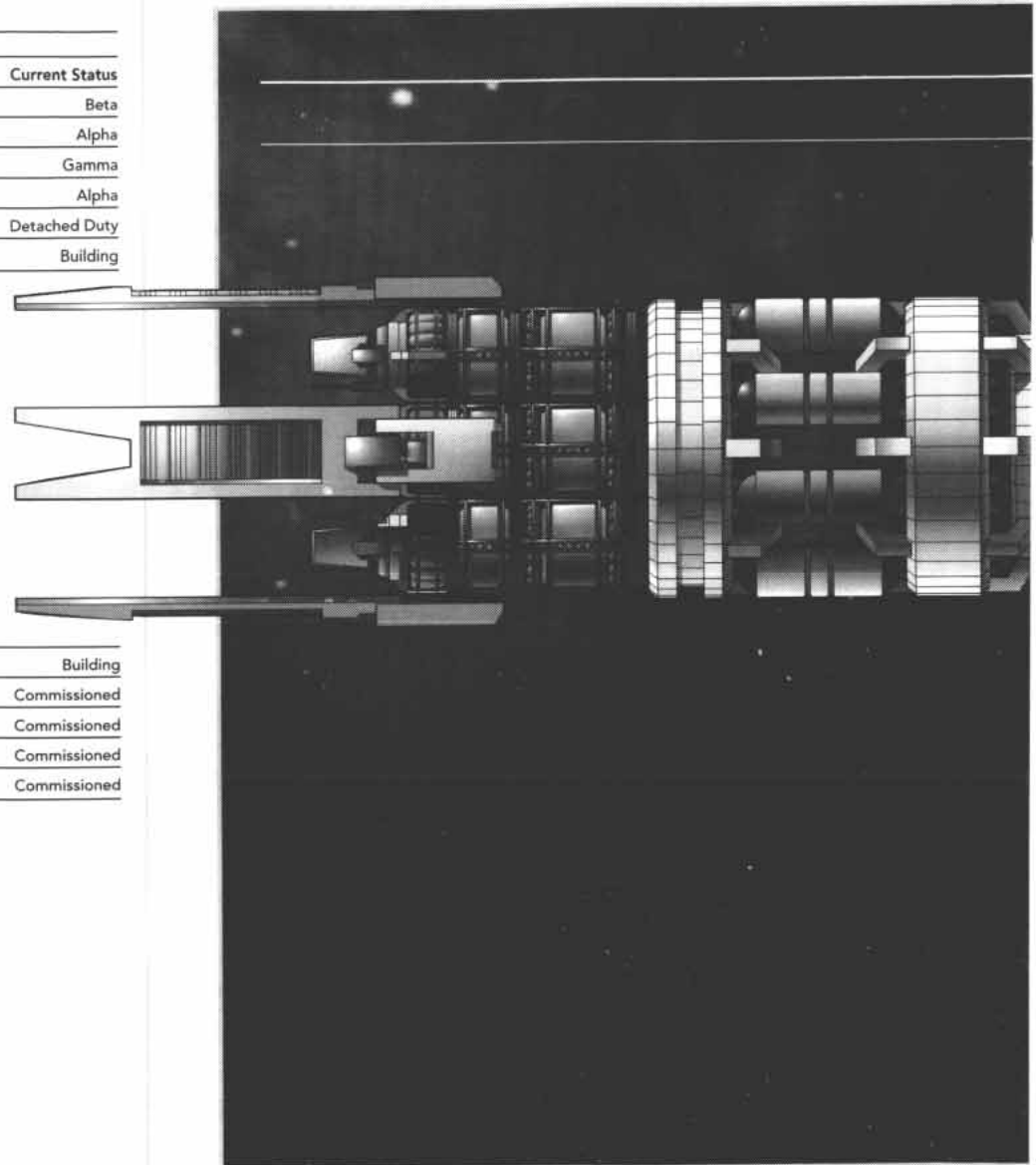
MAJESTIC-CLASS FLEET CARRIER

JSS Sovereign (2213 Configuration)

JSS SOVEREIGN
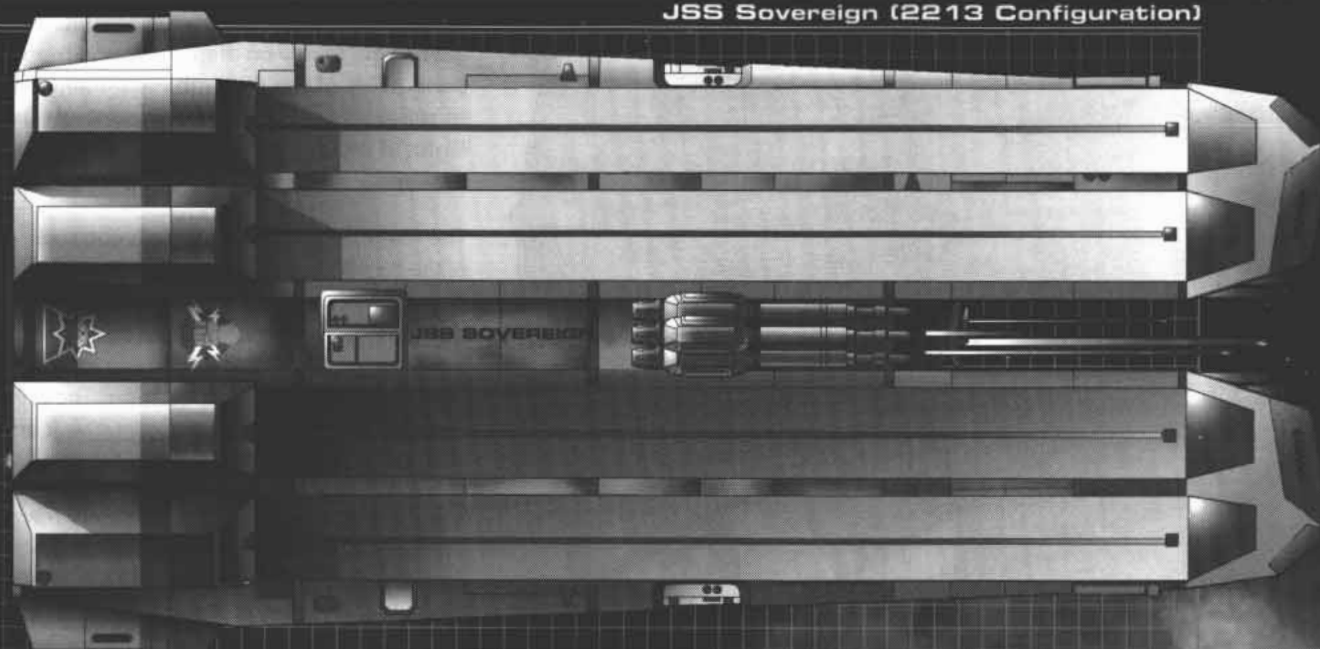
MAJESTIC CLASS

Auxiliary combat craft, such as exo-armors and interceptors, are now an unavoidable part of modern space combat. Due to their limited endurance, these craft need motherships to bring them to and from battles, and to provide them with maintenance and supplies. As time passes, these carriers will likely become larger and larger, until they are quite literally mobile space stations.

► 5.1 OVERVIEW

The success of auxiliary battlecraft such as exo-armors has been well-proved through numerous engagements in the first decade of the twenty-third century. As a result, the Jovian Armed Forces have come to rely on them more and more, replacing their traditional ships of the line with multi-role, versatile vessels capable of transporting (and, more importantly, maintaining) at least a flight of either exo-armors or interceptors in addition to their own armament.

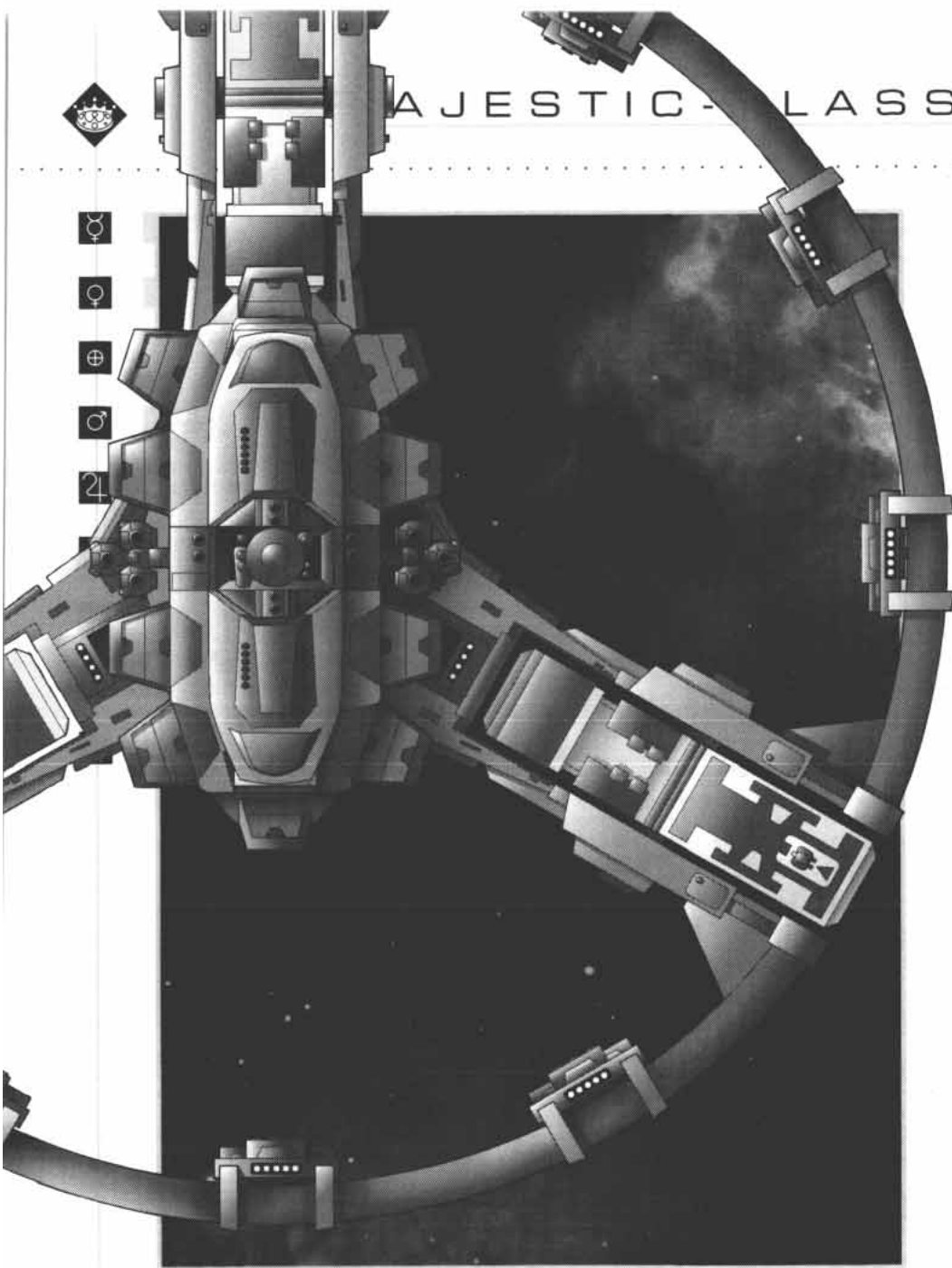The Majestic-class fleet carrier is one such vessel. A development of the surprisingly successful Valiant class, the Majestic shares many systems with it, including parts of the forward hull and much of the main hangar structure. Like all recent Jovian spaceships, the Majestic uses modular systems to reduce construction time and costs and insure rapid completion. The presence of so many systems from the MacLeod program give it an unmistakable "family resemblance" to the rest of the Jovian fleet.

The Majestic is armed with relatively few weapons, though the presence of the double super-laser at the prow certainly makes it capable of mass destruction. The rest of the vessel's offensive firepower, however, is about equivalent to a light destroyer. The real sting of the Majestic is the many squadrons of exo-armors and fighters carried within its bays.

▼ 5.1.1 Capabilities

The Majestic is primarily a transport and mobile base for an entire wing of exo-armors or fighters. It has few weapons of its own (in comparison with its size), relying instead on the many flights of exo-armors carried within its cavernous hold for both offense and defense. Additional storage space for shuttles and marine exo-suits is found in the spine modules. Each fleet carrier can be fitted with a large variety of cargo and fuel modules to augment its endurance, though they must be installed at a well-equipped service facility.

The ship's immense forward hull mounts an impressive twelve catapult launch systems. They are the same systems that are currently mounted on the ships of the Valiant class. Each catapult is a large massdriver geared for a high mass, low velocity operation; it is connected to a launch cradle that can fit both exo-armors and fighters (pending some adjustments to its structure by the deck crew).

The minimal flight staff consists of no less than forty-eight pilots, including squadron leaders, and twenty-four vehicles, two per launch bay. At least twelve more vehicles, with their crew, can be conceivably carried within the main hold, though maintenance and storage would suffer. This arrangement gives considerable rest time to the pilots and ensures that no exo-armor will remain grounded for lack of a crew. It also allows the ship to implement an intensive patrol or battle schedule while still keeping the crew at peak physical and mental strength.

The patrol schedules follow the standard JAF procedures, with two vehicles being sent on a four-hour mission at a time (plus the time required to get on station and back — see **Ships of the Jovian Confederation, Volume One**, p. 92). Four vehicles are generally maintained in a ready-5 state on the catapult, with at least half the remaining craft kept able to launch within a few minutes if the need arises.

Since Majestics are not intended to serve on their own, they do not normally follow a patrol schedule involving more than three missions per day. Most of the ship's military intelligence needs are provided by the escorts flying on the outer edges of the formation and their own daughtercraft. Their auxiliary craft are thus almost always available and kept in top condition.

In addition to its complement of combat vessels, each Majestic-class ship carries a large number of M-bots, M-pods and other support craft. The standard minimum complement is four M-pods and at least ten M-bots; additional units, such as WMMUs, may be carried according to the mission profile.

▼ 5.1.2 Operational Role

Each Majestic will be assigned to a task force that will be put on regular patrol orbits through the Jovian system and beyond. In many ways, they will take over the functions of the Godsfire-class ships, which may be completely upgraded and rebuilt to an even more formidable configuration in the next five years, depending on the needs of the Confederation.

There are currently eleven hulls assigned to the Majestic class, though only five have been completed. Two more are under construction, while the rest will be started only if the JAF naval command deems it necessary. The first five vessels have all been constructed at various Newhome shipyards, an unusual departure from the established JAF procedure. In order to silence the accusations of favoritism, all subsequent ships will have at least a third of their internal systems installed in orbital factories and depots near their assigned post. This will also help to make room in the busy Jovian shipyards for new ships.

Alpha Division has received two of the new ships, while Beta and Gamma Division must make do with only one each for the moment. The *Illustrious* is currently officially noted as "assigned to detached duties" because although the ship has been launched, some work remains to be done aboard. Two more vessels are currently being assembled in shipyards near Newhome, though numerous systems will be added during a stopover at a shipyard near Jupiter.

▶ 5.2 SHIP SCHEMATICS

◐ Side View

Scale: 0m 25 50 100 150 200 250 300 350 400 450 500
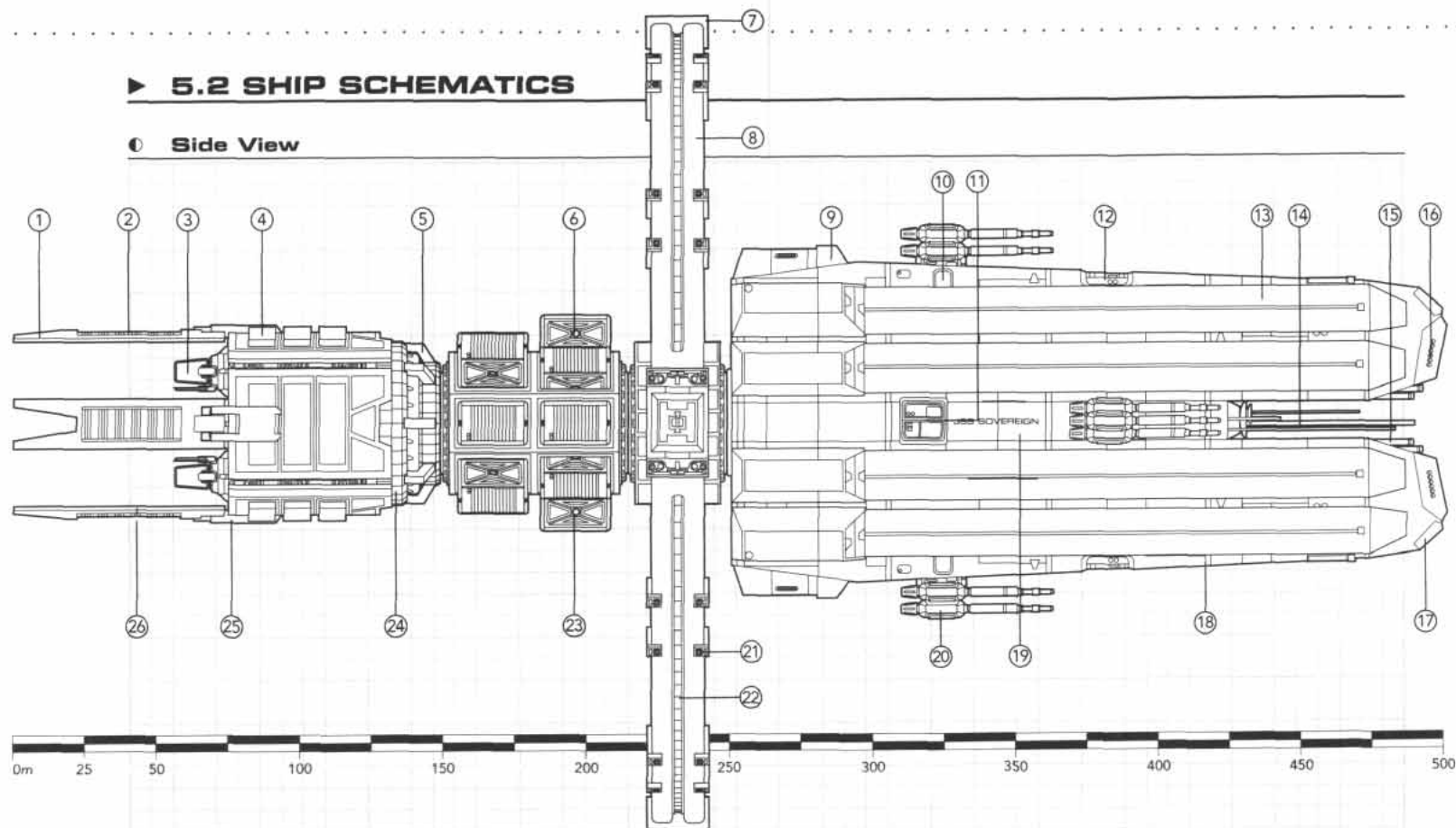
▼ Legend

1	Drive Fin	11	Auxiliary Craft Bay	21	Microwave Sensor Cluster
2	Heat Sink Panel	12	Upper Loading Door	22	Structural Ring Heat Sink
3	Exhaust Collimator	13	Runway	23	Rotor Assembly
4	Armor Panel	14	Main Sensor Array (retracted)	24	Reaction Mass Housing
5	Engine Mount/RAM Hardpoint	15	Spinal Laser Tubes	25	Drive Fin Hinge
6	Cargo Container	16	Missile Launch Tubes	26	EM Power Generation System
7	Habitat Shield	17	Lower Optical Sensor Shield		
8	Structural Ring	18	Forward PDS Emitter Panel		
9	Short Range Sensor Cluster	19	Lateral Phased Sensor Array		
10	Upper Deck Access Block	20	KKC Turret		

5.2 SHIP SCHEMATICS (CONT.) ◀

Front View ◐

Specifications

Name:	Majestic
Origin:	Jovian Confederation
Manufacturer:	Sanderholmes Shipyards
Type:	Fleet Carrier
Control System:	Bridge w/astronomical display
Length:	508 m (w/drive fins)
Width:	285 m (w/centrifuge)
Empty Weight:	120,000 Tons
Loaded Weight:	180,000 Tons
Main Drive:	5 x 22 MW
Secondary Powerplant:	4 x 6000 kW
Main Thrusters:	4 x 22,000,000 kg
Apogee motors:	110
Acceleration:	0.6 g
Onboard Sensors:	Fire Control Radar, Infrared/Ultraviolet, Lidar, Low-light, Magnetometer, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS, 12 x kinetic kill cannon, 4 x missile bay
Additional Armament:	carried vessels
Defensive Systems:	mag screen, PDS
Equipment:	escape pods, vehicle bay, centrifuge

▼ Legend

1	Structural Ring	11	Main Sensor Array
2	Short Range Sensor Cluster	12	Spinal Laser Tubes
3	Hardpoint	13	Upper Optical Sensor Shield
4	Structural Reinforcement Rib	14	Habitat Heat Sink Panel
5	Habitat Access Port	15	Runway
6	Maintenance Hatch	16	Missile Launch Tubes
7	Upper KKC Turret		
8	Launch Bay Airlock		
9	Habitat Module "B"		
10	Escape Pod Covers		

▶ 5.2 SHIP SCHEMATICS (CONT'D)

◑ Top View

0m   25   50   100   150   200   250   300   350   400   450   500

▼ Legend

1	Drive Fin	11	Upper Loading Door	21	Structural Ring Heat Sink
2	Heat Sink Panel	12	Upper Phased Sensor Array	22	JAF2212 Cargo Rack
3	Exhaust Collimator	13	Missile Loading Door	23	Reaction Mass Housing
4	Armor Panel	14	Lower Optical Sensor Shield	24	Drive Fin Hinge
5	Engine Mount/RAM Hardpoint	15	Escape Boats Covers	25	EM Power Generation System
6	Cargo Container	16	Midship PDS Emitter Panel		
7	Habitat Shield	17	Runway		
8	Structural Ring	18	Upper Deck Access Block		
9	Launch Bay	19	Short Range Sensor Cluster		
10	KKC Turret	20	Microwave Sensor Cluster		

5.2 SHIP SCHEMATICS (CONT.) ◄

Cutaway View (Forward Hull) ◐

0m   25
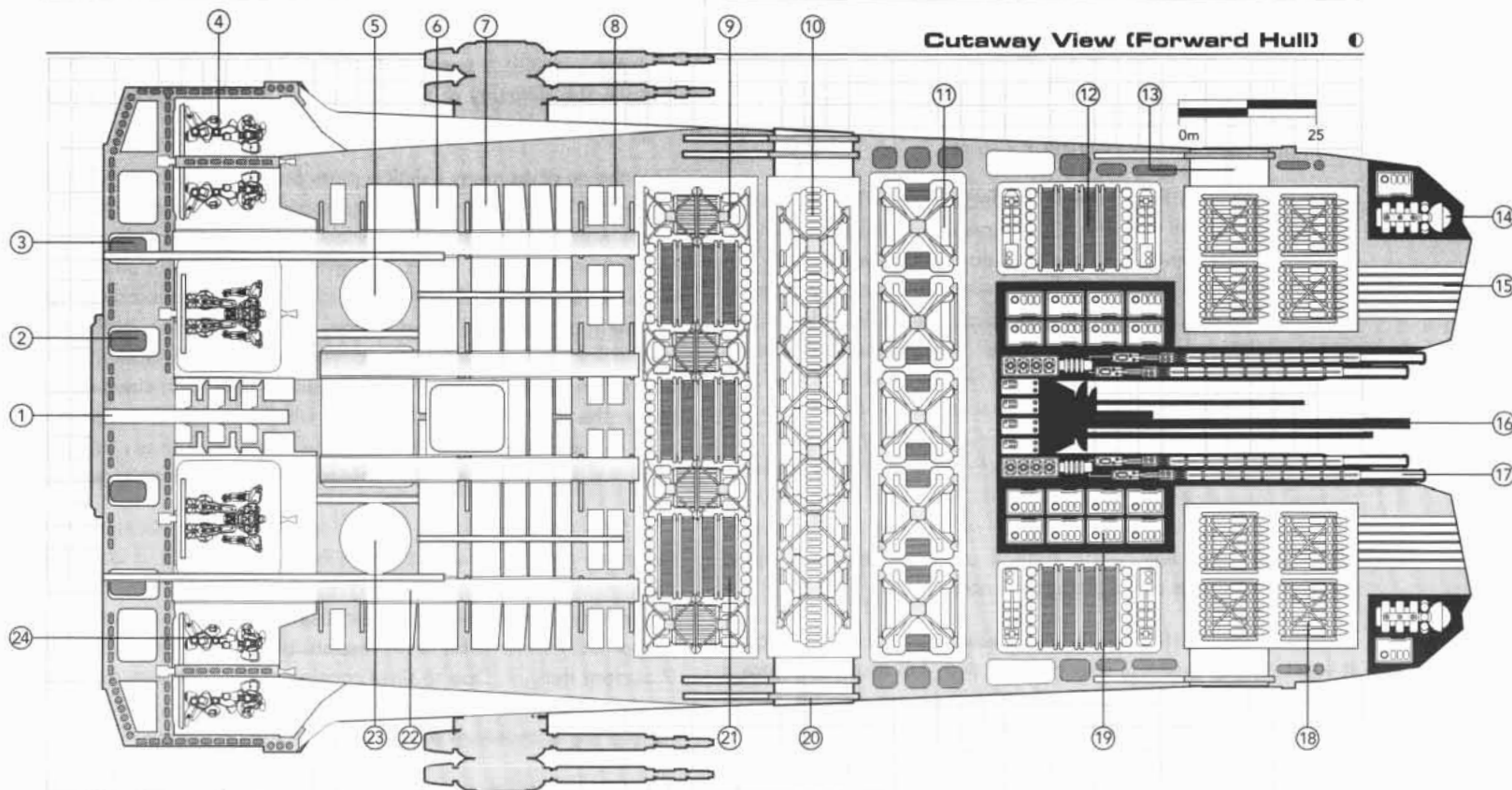
▼ Legend

1	Access to Ops and Drive Sections	9	Heat Exchangers	17	Spinal Laser
2	Main Power Station	10	Gas Storage	18	Missile Magazine "B"
3	Life Support Node	11	Bulk Storage	19	Capacitor Array
4	Launch Bay	12	Forward Superconducting Batteries	20	Loading Door
5	Bridge	13	Missile Magazine "A"	21	Superconducting Batteries
6	Common Rooms	14	Optical Sensor Cluster	22	Main Elevator
7	Crew Quarters	15	Missile Launch Tubes	23	Traffic Control Center
8	Service Decks	16	Main Sensor Array	24	Main Vehicle Bay

▶ 5.3 HISTORY

With the battleship duties of the Godsfire-class ships taken over by the new Ypres-class design, and the carrier duties by ships such as the Forge and the Valiant, one can ask why a new super carrier would be needed by the Jovian Fleet. The answer, as often happens, is entirely political in nature.

Counselor Mor Harkan of the Jovian federation of Newhome has long been a thorn in the side of Jovian president Alexandra Itangre. His constant demands for more attention and powers for the Trojan State is something she could do without, especially since he has much backing among the local corporations. In order to placate the latter and remove power from the arguments of Harkan when he rails about the relative weakness of the JAF's Beta Division, Itangre has arranged for the naval command to commission a new class of combat ship. Though few people know it, all contracts are guaranteed to go to Newhome's shipyards, despite outward assurances that the regular bidding process will take place for every ship and sub-system. The whole matter is kept extremely secret, and only a few people outside of the JAF high command and the President's office are in the know.

The basic specification for the new vessel was the ability to carry at least twenty vehicles into combat with full reserves, more if possible. Thrust levels should allow it to keep up with the rest of the Jovian fleet; though maneuverability was certainly desirable, it was not a primary design requirement. A centrifuge and at least one set of standard JAF cargo racks were among the requested features to increase the range of the vessel. Armament was to be kept light, though some kind of anti-ship weapon was to be mounted on the spine for extreme range combat.

The ship designers based their work on existing parts wherever possible in order to save time. Given the numerous encounters with CEGA forces in the last five years, the Agora has placed a high priority on increasing the size of the Jovian fleet, and the Majestic program is no exception. Dr. Charles H. D'Artaud, the project's chief director, borrowed many hull elements from the successful Valiant strike carrier (itself a recent design). He merged them with modular parts developed from the MacLeod program to come up with a basic set of blueprints in only ten months, despite the difficulty of the task and at least one known espionage attempt.
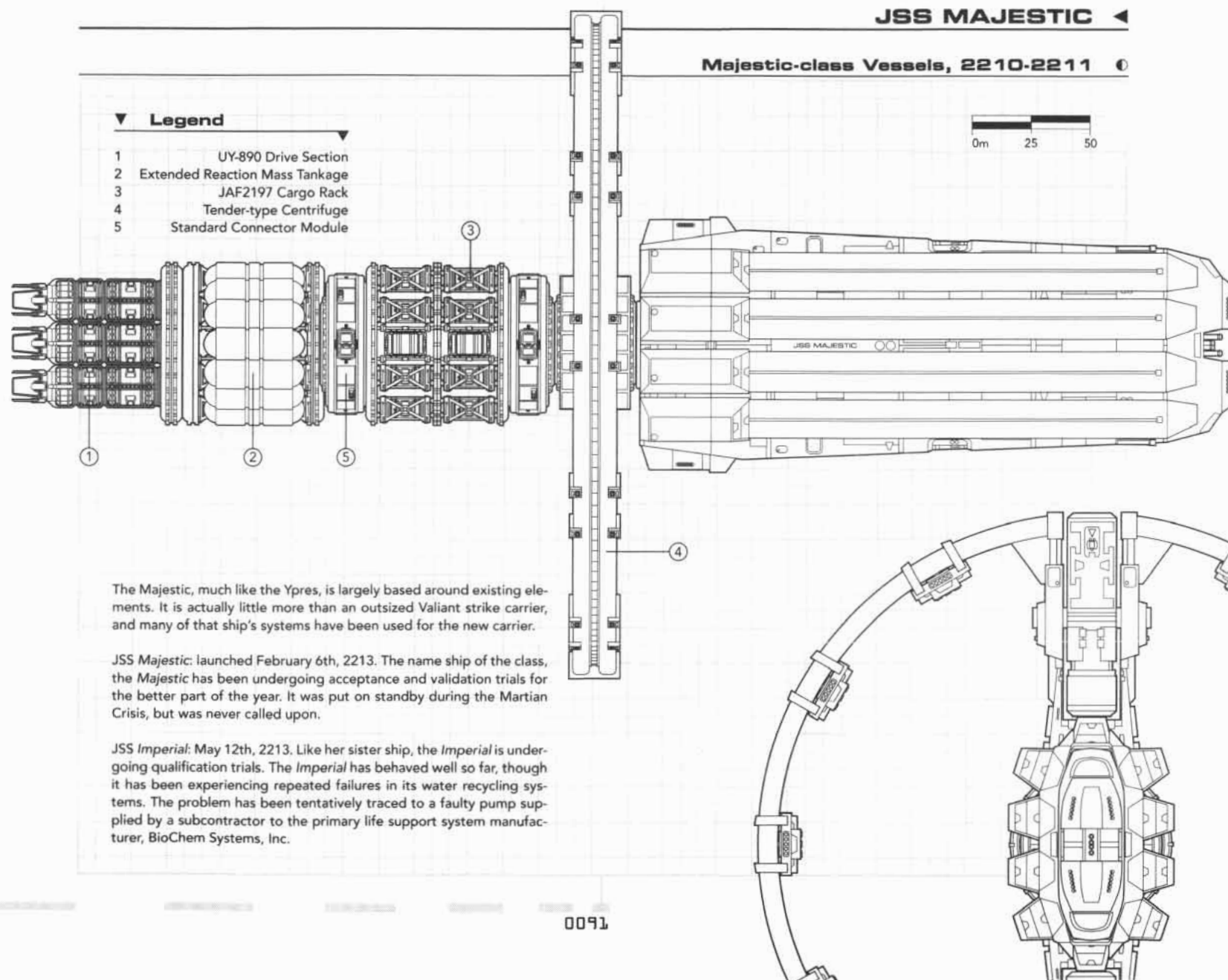
The choice of so many existing parts proved to be both a blessing and a burden. Templates and tools already existed in many cases, and parts were simply added to the autofacs' manufacturing queues. In some cases, however, the parts were already in wide demand and the sub-contractors were hard-pressed to supply them on schedule or on budget — and too often, both. The growth of the main hull spars proved exceptionally bothersome at first, requiring the assembly of a brand new, over-sized nano-vat at the Sanderholme Shipyards, which had never handled a ship of that length before. Once the spars were ready and assembled, however, the ships came together exceptionally quickly.

The first vessel of the class, the name ship JSS *Majestic*, was launched amidst great fanfare on February 6, 2213. It was proclaimed a great personal victory by Counselor Harkan, though the loyalty of many of the project's sub-contractors lies with the person they know to be really responsible for their good fortune: President Itangre. Due to time considerations, she was not able to attend the launch of the vessel, but her holographic speech roused the enthusiasm of all present at the ceremony.

The Majestic ships are currently still in validation trials, though they are expected to pass them quickly due to the number of standardized systems used in their design. Once all reports have come back to the naval evaluation committee, they will decide the final configuration that is to be implemented on all ships. Though nearly ten vessels have been commissioned, naval experts hint that because of their high cost, few will be actually built, perhaps two at most per JAF Division.

JSS MAJESTIC ◄

Majestic-class Vessels, 2210-2211 ◐

▼ Legend

1 UY-890 Drive Section
2 Extended Reaction Mass Tankage
3 JAF2197 Cargo Rack
4 Tender-type Centrifuge
5 Standard Connector Module

0m   25   50

The Majestic, much like the Ypres, is largely based around existing elements. It is actually little more than an outsized Valiant strike carrier, and many of that ship's systems have been used for the new carrier.

JSS *Majestic*: launched February 6th, 2213. The name ship of the class, the *Majestic* has been undergoing acceptance and validation trials for the better part of the year. It was put on standby during the Martian Crisis, but was never called upon.

JSS *Imperial*: May 12th, 2213. Like her sister ship, the *Imperial* is undergoing qualification trials. The *Imperial* has behaved well so far, though it has been experiencing repeated failures in its water recycling systems. The problem has been tentatively traced to a faulty pump supplied by a subcontractor to the primary life support system manufacturer, BioChem Systems, Inc.

MAJESTIC-CLASS FLEET CARRIER

▶ **JSS ILLUSTRIOUS**
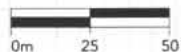
◐ **Majestic-class Vessels, 2211-2212**

0m 25 50

JSS ILLUSTRIOUS

⑤ ④ ③ ② ①
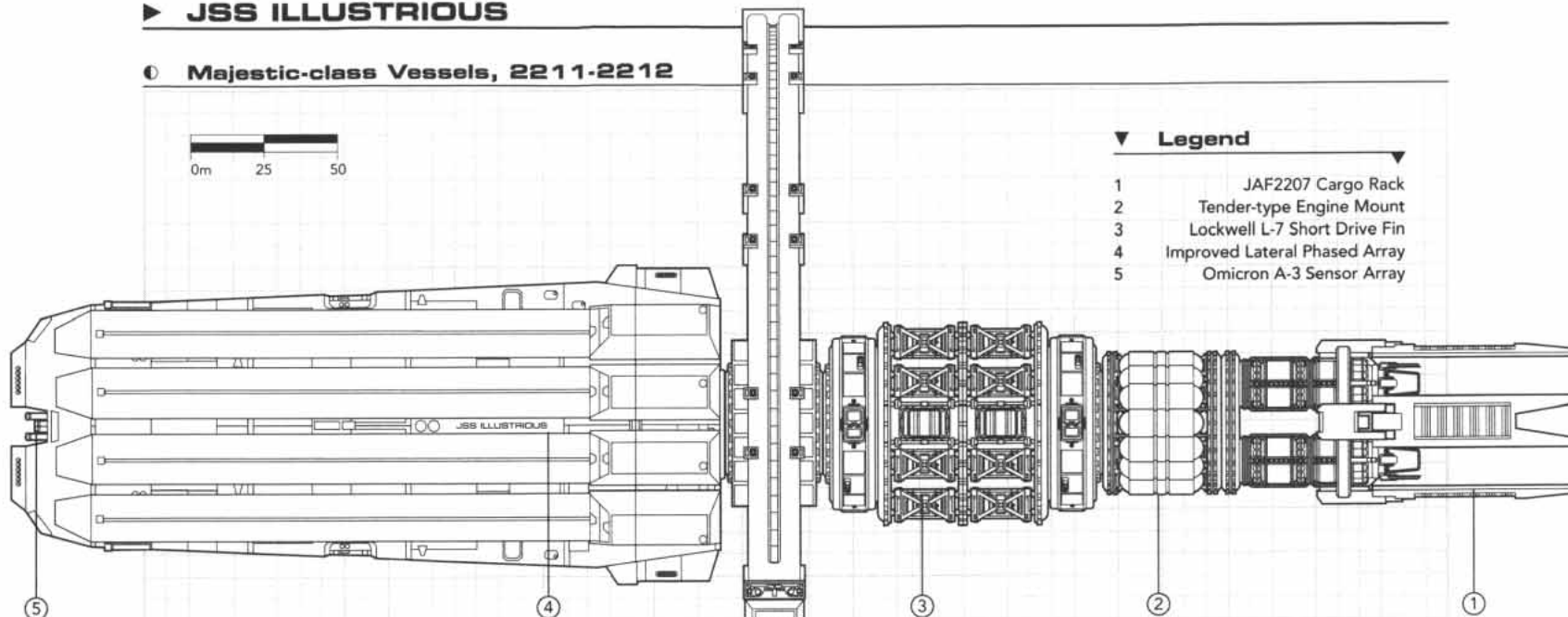
The design underwent a rather lengthy revision in November of 2211, following the incident around Europa. It was somewhat late to incorporate all the changes in the ship already in construction, but the vessels did receive different engines than the first ones out of the yards.

JSS *Illustrious*: launched August 12th, 2213. The *Illustrious* was launched before it was fully completed in order to make room in the dry docks for other vessels, the situation being made more pressing by the battle of Kurtzenheim. It is scheduled to return for completion of the work in late 2213.

JSS *Exalted*: building, 2213. The work on the *Exalted* is proceeding according to schedule, and the ship is expected to be launched by November, barring any problems in the assembly. In order to save time, its engine section is being manufactured off site by a sub-contractor and will be towed to the assembly site in late September.

JSS SOVEREIGN ◄

Majestic-class Vessels, 2213 ◐

▼ **Legend** ▼

1	Tender-type Engine Mount
2	Heavy Centrifuge
3	Omicron A-6 Sensor Array
4	Kinetic Kill Cannon Turret
5	Enlarged Forward Hull

0m   25   50

JSS SOVEREIGN
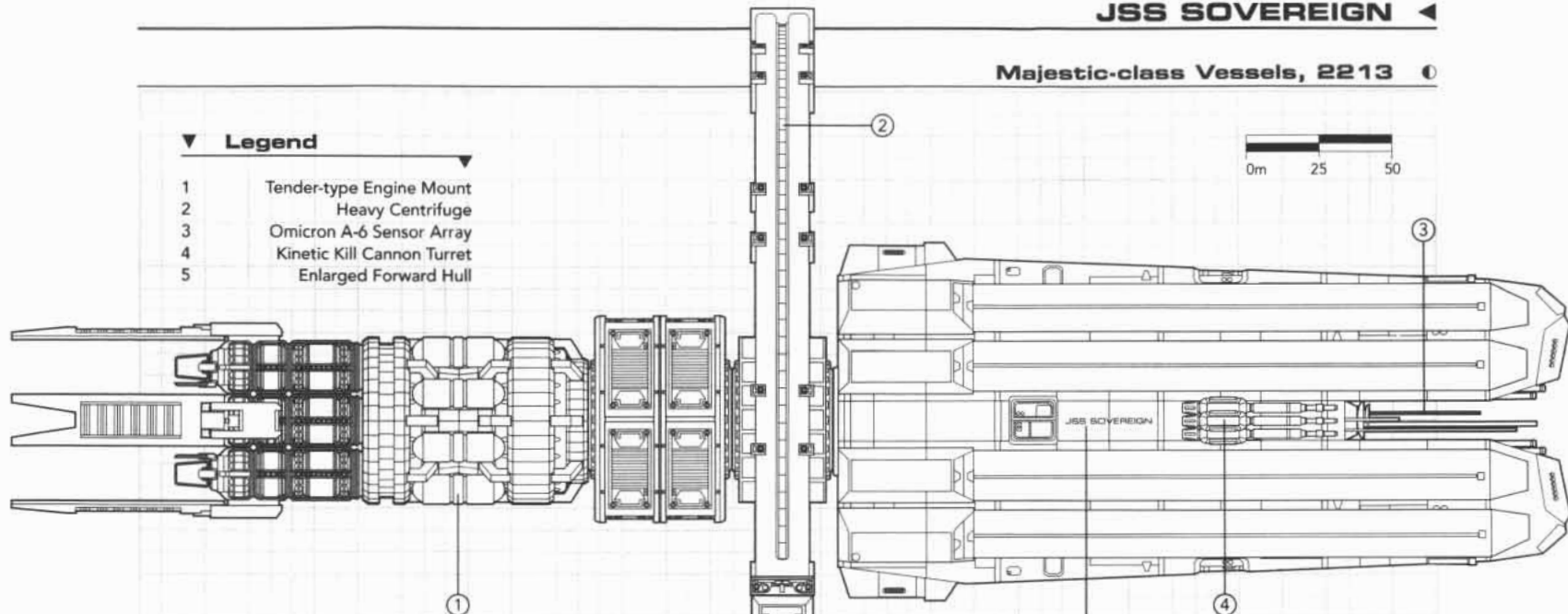
The fifth and sixth hulls in the Majestic line have been scheduled to receive the HT-8800 drive system, owing to their availability. Many modifications were made to the design of Hulls #5 and subsequent versions, most notably enlarging their forward hull to accommodate more sensors and a shuttle bay.

JSS *Sovereign*: Commissioned, 2213. Should the first two Majestic-class carriers fully qualify for service in the JAF at the end of their current trial period, the *Sovereign* will enter construction in early 2214.

JSS *Triumphal*: Commissioned, 2213. The *Sovereign*'s sister ship will be assembled at the Vanguard Mountain naval shipyards in the first quarter of 2214. The shipyards are currently undergoing a complete refitting in order to accommodate the large size of the new vessel.
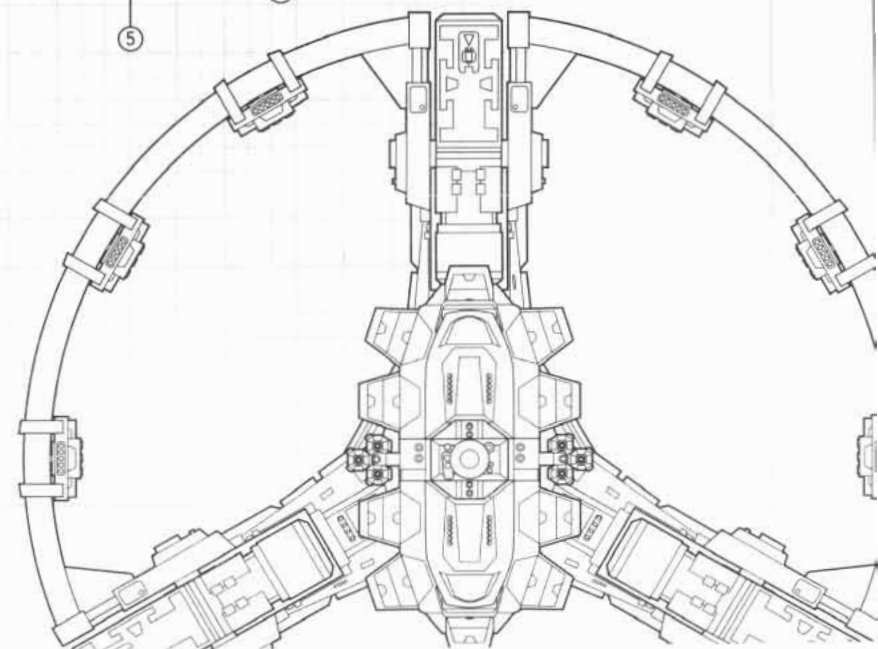
▶ 5.4 SHIP SYSTEMS

◑ schematics

▼ Weapon Systems

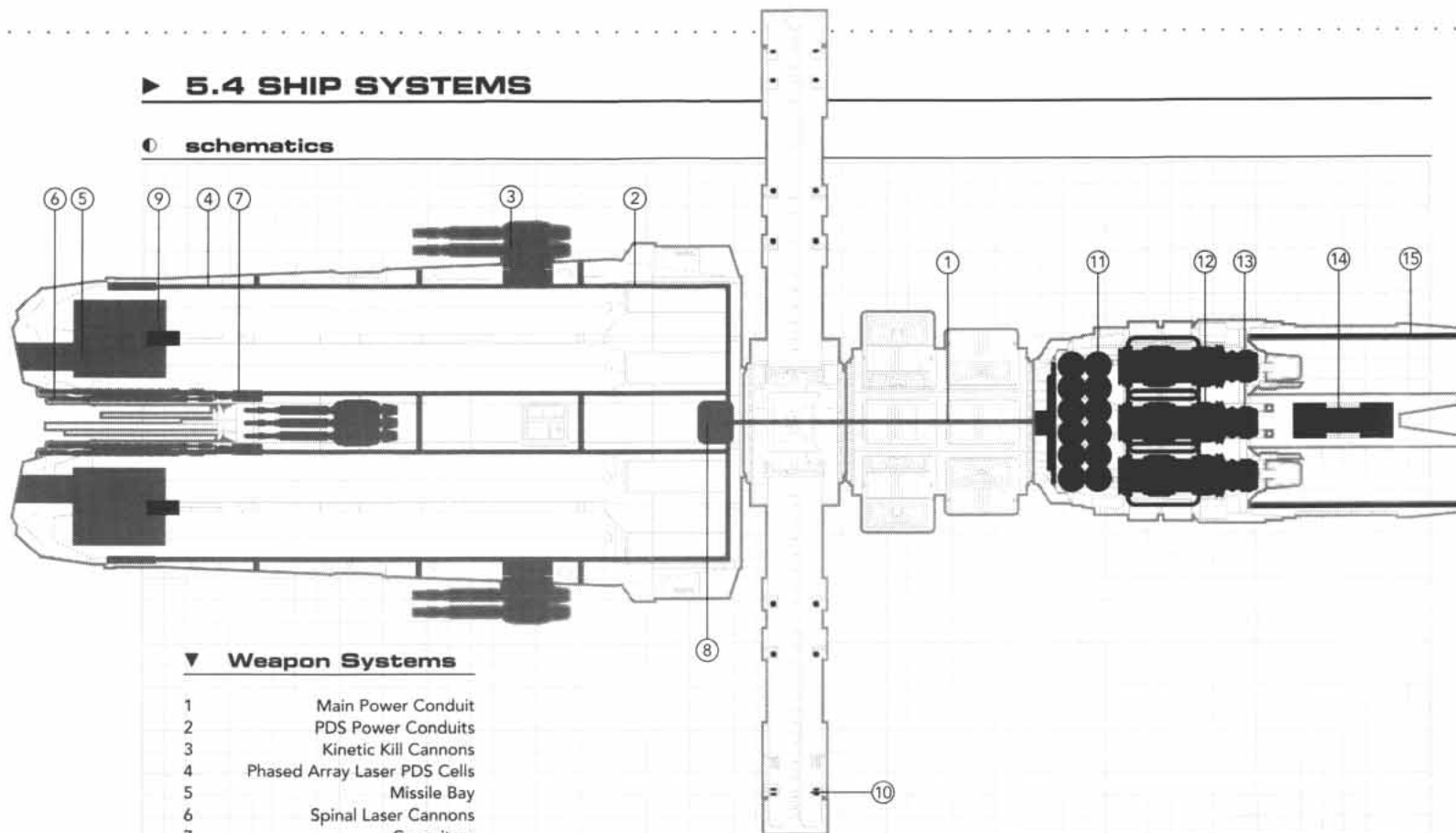|	
1	Main Power Conduit
2	PDS Power Conduits
3	Kinetic Kill Cannons
4	Phased Array Laser PDS Cells
5	Missile Bay
6	Spinal Laser Cannons
7	Capacitors
8	Power Distribution Node

▼ Propulsion Syst. ▼

9	Plasma Arc RCS Cluster
10	Hypergolic RCS Thrust.
11	Reaction Mass Plumbing
12	Plasma Combustion Chamber
13	Exhaust Collimator Coils
14	Radiator Panels
15	EM Power Generation

The middle section of the ship is a standard centrifuge module. Some of the ships currently in service have received the newer model with four habitats, though about half still retain the model with only three habitats. A set of standard modular cargo racks is attached immediately behind it, their content depending on the ship's current mission.

The rear section of the vessel is composed of a cluster of standard drive modules. Due to the recent and somewhat rushed nature of the Majestic program, the ships are sporting a large variety of fusion drives and reaction mass tankage configurations. These will be standardized by the next refit, expected in five years.

▼ Sensor Systems ▼

1   Optical Sensor Cluster
2   Phased Array Radar
3   Docking Sensors
4   Secondary Phased Array
5   Laser Ranging and LIDAR Emitters
6   Main Sensor Array (retracted)
7 Microwave Pulse-Ranging Antennae

▼ Life Support Syst▼

8   Forward Heat Exchangers
9   Local Support Systems
10   Gas Storage
11   Superconducting Batteries
12   Heat Exchangers
13   Main Bay LS Nodes
14   Screen Generators

The middle section of the ship is a standard centrifuge module. Some of the ships currently in service have received the newer model with four habitats, though about half still retain the model with only three habitats. A set of standard modular cargo racks is attached immediately behind it, their content depending on the ship's current mission.
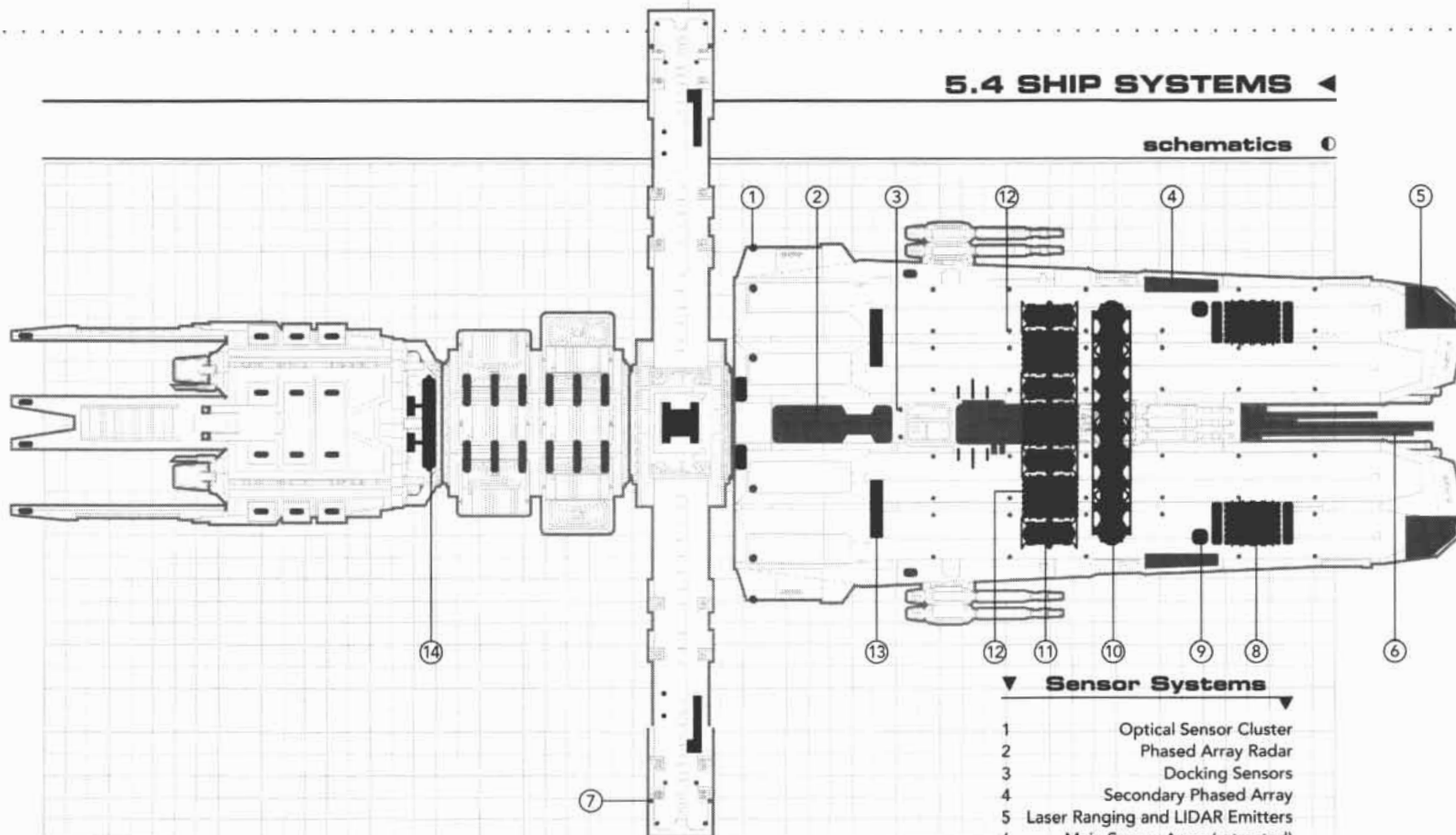
The rear section of the vessel is composed of a cluster of standard drive modules. Due to the recent and somewhat rushed nature of the Majestic program, the ships are sporting a large variety of fusion drives and reaction mass tankage configurations. These will be standardized by the next refit, expected in five years.

▼ 5.4.1 Sensor Holds

The various sensor systems of a spacecraft are its eyes and ears, and are vital to its operation. For this reason, numerous sensor clusters and packages are scattered over the surface of the vessel, covering all angles in most of the electromagnetic spectrum. Some of the more specialized sensors, however, are concentrated in sensor holds in the forward hull.

There are three separate sensor holds in the forward hull, one placed in the middle, the other two in the upper segments of the prow. The central hold contains the ship's primary sensor antennae, hidden in large armored tubes. They can be extended to clear the hull for a better reception and to increase the aperture of the system. The two side holds contain large aperture telescopes for the visual and near visual EM range. The telescopes can be extended outside on short arms for a wider field of vision. A dedicated capacitor array nearby ensures the circulation of the instrument coolant to and from the nearest heat exchanger.

▼ 5.4.2 Runway

The ship's runways cover most of the forward hull, giving the vessel a sharp, geometric appearance. The term "runway" is, of course, a misnomer. Since they serve a similar function to the planet-bound runways, however, the term seemed appropriate and was thus adopted throughout the fleet. Departing vessels are accelerated by a catapult system contained within the runway, allowing them to gain velocity at no cost in reaction mass.

Each runway is a flat area with a track for the main catapult dolly running down its center. Just underneath the track, a series of magnetic coils hold a runner which is attached to the dolly by a strong cable through a complex series of pulleys and shock dampers. The dolly's track originates inside the hangar, allowing it to be attached to the launching vehicle while it is still within the hull. Each runway is lined with PDS laser cell panels for defense, though they can also serve as landing lights if used on low power.

▼ 5.4.3 Traffic Control Center

The Traffic Control Center (TCC) is the heart of the ship's fighter screen. All combat spacecraft are directed from this large room, from launch to recovery. The TCC is, in effect, a larger version of the communication room found aboard smaller carriers such as the Forge-class ships. It shares a lot of architectural elements with the standard Jovian ship bridge, and in fact can function as an auxiliary or battle bridge in case of emergency. When in use, the room is darkened and illuminated only by the glow of the various tactical displays and overall area situation holographic maps. The position of all craft within a few tens of thousands of kilometers around the ship is known and their vectors tracked at all times.

▼ 5.4.4 Briefing Room

The briefing room, also called the ready room, is where the pilots receive their pre-flight briefings. In between missions, the room is also used for meetings, training and recreation. Each wall is a holographic screen that can display one large view or be divided into several smaller data windows. Deck operations are generally displayed at all times in a window on one side. Another window contains the flight and maintenance schedule for the day, listing the crew assigned to each spacecraft, its current location and mission status.

The briefing room is generally used when the ship is under acceleration. Its high ceiling, required by the oversized holographic display placed on the front wall, makes it more difficult to move about in micro-gravity. Handholds are placed along the walls, walkways and ceiling; they automatically retract when not in use. Discrete seat belts are built into the chairs, though they are not noticeable unless they are pulled out.

▼ 5.4.5 Workshop

Rather than carry many extra tons of spare parts, which might or might not be used, the ship is equipped with extensive workshops to repair or manufacture the required parts as they become needed by the maintenance crews. Each workshop features a large number of automated machine tools and precision autofacs that hold the specifications of all parts in memory. Only the most sensitive and specialized parts, such as the microscopic computer nodes and chips, are held in storage.

The microgravity stations are sealed transparent bays with built-in gloves. Items to be repaired are slipped inside through a zippered opening, and can then be disassembled without fear of small parts flying off. Tools can also be left floating free inside the enclosure rather than having to be tethered. Machine tools are housed within similar enclosed bays for safety and tidiness reasons; articulated arms hold the part while it is being machined.
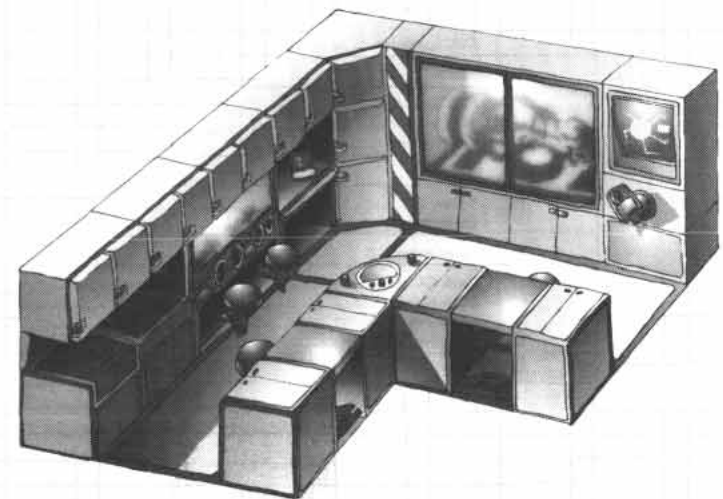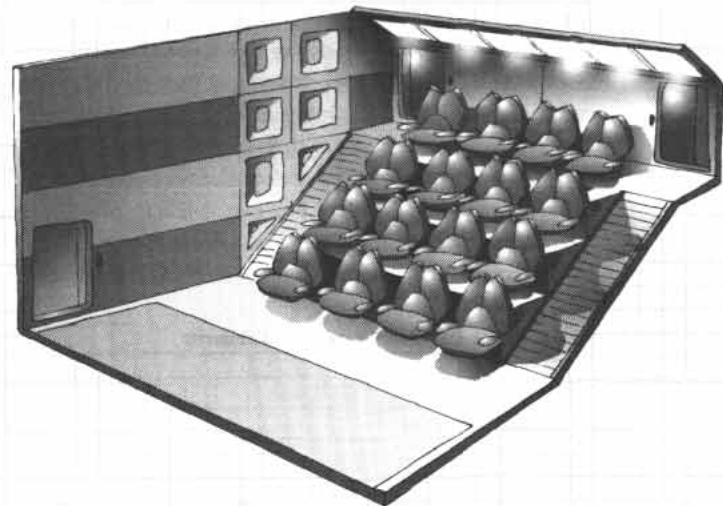
▶ 5.5 SHIP PERSONNEL

The Majestic-class carrier divides the crew into six departments. The Executive Officer leads the operations department; the Chief Gunner and Chief Engineer also have their own departments. The commander of the ship's marines is typically a Master Sergeant or Warrant Officer. The ship's fighters are under assignment of the Squadron Commander when conducting operations. The Deck Commander, in charge of the Flight Deck, often has the same rank as the Executive Officer and has six subordinate Deck Officers, who look after the fighters when they are on board.

▢ Crew Organization Chart

Captain	
Executive Officer	
Sensor Operator	6
Comm Operator	6
Communication Specialist	6
Helmsman	6
Navigator	6
Quartermaster	3
Medic	3
Steward	6
EVA Specialist	6
Chief Gunner	
PDS Specialist	6
Missile Specialist	12
KKC Gunner	24
Chief Engineer	
Bosun	6
Engineer	24
Deck Commander	
Deck Officer	6
Deck Hand	60
Ordnance Specialist	12
Actuator Specialist	12
Squadron Commander	
Flight Leader	8
Pilot	40
Marine Commander	
Squad Leader	2
Marine	12

▼ 5.5.1 Interview with a Captain

Name:	Joseph Umbanda
Rank:	Captain
Current Assignment:	JSS Imperial

"Being given command of such an impressive ship is a great honor for any captain. It generally follows a long career — twenty-one years in my case — and will generally be the last assignment before retiring. This is, of course, very flattering, but the job comes with large strings attached. The care of a super-carrier is a huge responsibility. In addition to the lives of the crew, for whom I am personally responsible, there is also the immense investment in resources, both in time and money. One needs strong shoulders, and a good staff, in order to carry that responsibility.

"I usually spend between 12 to 14 hours per day on the bridge while the ship is in space. Most of my meals are taken there as well, brought up by a steward. For safety reasons, the food is often composed of microgravity-friendly dishes, to avoid problems with flying items should we need to come to a stop. They are more like snacks, actually. <smile> The rest of the day is spent either in my office near the bridge, doing administrative tasks, or in the centrifuge gym, working off the effects of all those hours in microgravity.

"The captain is both father and mother figure to the crew. We need to remain detached enough to inspire respect and loyalty, but without appearing cold and distant. I like to do some of the more important announcements myself over the comm, and I will invite promising young officers to my table whenever possible."

▼ 5.5.2 Interview with a Comm Officer

Name:	Corrine Mansen
Rank:	Warrant Officer
Current Assignment:	JSS Exalted

"Communications are crucial to the performance of a modern combat force, especially when there are a lot of units on the field. It is important to make sure that all orders get out to the right person, that electronic warfare does not hinder the cohesiveness of the fighting force outside and that all appeals for help are heard. That's our main job at the TCC (that's short for Traffic Control Center). We've got, quite literally, a God's eye view of the battle field from the input of all the units patched in to us, and so we can better appraise the situation and offer advice.

"I work in TCC, where all the flight groups are coordinated. Though most people think we do all the plotting and keep an eye on each and every ship, that's not the case. There's just too much data flooding in for a human mind to process, much less acquire. No, what we do is supervise the computers and expert systems that keep track of each vehicle out there. The systems are pretty good — they call upon us whenever there's a decision to make or they face a situation they don't understand.

"Our most important job, however, is hard to quantify in exact terms. Sure, a computer can transmit a warning in a very human-sounding voice, but there is some intangible psychological benefit to knowing there's a human being at the other end of the line, keeping an eye on your six. It's very comforting when you're out there riding a fusion torch under heavy enemy fire, or so I've been told."

▼ 5.5.3 Interview with an Exo Pilot

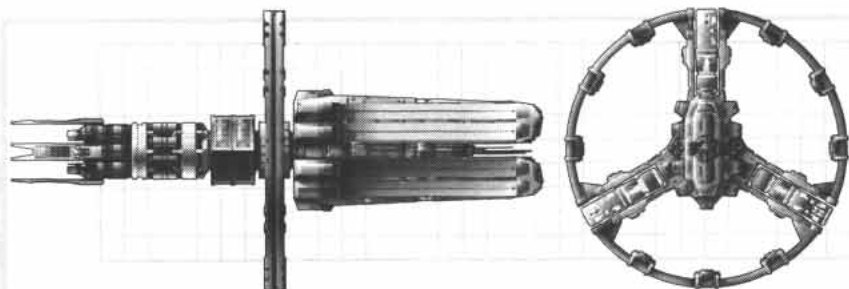|	
Name:	Emma "Halo" Dalton
Rank:	Lieutenant
Current Assignment:	JSS Majestic

"Flying off the deck of a Majestic-class ship is a bit like launching from an asteroid base. Once your vehicle is in place on the catapult, and you're rotated from the main hangar to the launch bay outside, all you can see is the runway streching above you and the hull, with a bit of space above your head. The ship is *that* big. When you're launching from one of the port or starboard catapults, there are tracks on either side of you, and when all exos are launching at the same time the effect is incredible!

"The return is even more tricky — the ship is large enough to have a small gravity of its own, and you have to take it into account whenever you move. You have to line up the exo with the hangar's bat door, pull in and keep your arms and legs straight, something like the launch position. Then, just let the deck crew haul you in. It sounds awkward, but it works well.

"Though one can be fooled by the sheer size of the ship, the interior of the bay is still pretty cramped. There are rows after rows of cradles, each one capable of holding a vehicle under acceleration. With a light touch on the controls, and some very careful movement, you can walk around the bay when the ship is accelerating, just like a normal hangar. Since we've got arms and hands, we usually help the deck crew settle us in the cradle when we return. It's just like backing into a closet while wearing a really bulky space suit, that's all! <laugh>"

Majestic-class Carrier

► Section: KKC Turret

▼ Main Data:

TV:	8000	Off. TV:	23,000	Def. TV:	250	Misc. TV:	800	Cost:	8 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	19	Default Size:	20	Base Armor:	25	Light:	25	Heavy:	50	Overkill:	75

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 1,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup FireCon	-	Absorbs first "FireCon" hit			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Full			
Reinf. Crew Comp.	1	Absorbs first "Crew" hits			
Weapon Link	-	All kinetic kill cannons			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
3	KK Cannon	L/R	x30	7	-2	3	300ea	AP	12	3800	12

Majestic-class Carrier

▼ Overall Data:

TV:	230,000	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	230 M	Indv lemon dice:3

▼ Movement Data:

Mode:	Space	Combat: 3 (0.3 g)	Top:	6 (0.6 g)	Maneuver:	-5	Range: 3,000 hrs	ReMass: 2,000 BP

▼ Sections:

1 x	Main Hull	4 x	KKC Turret	1 x	Habitation Ring
1 x	Ops Section	16 x	Cargo Container	4 x	Drive

▼ Off & Def Systems

1 x	Point Defense System (main hull)	4 x	Kinetic Kill Cannon (turrets)	4 x	Missile Bay (main hull)

Section: Main Hull

▼ Main Data:

TV:	89,000	Off. TV:	61,000	Def. TV:	2800	Misc. TV: 204,000	Cost:	89 M	Indv lemon dice: 3
Crew:	100	Actions:	7	Sensors:	0/4 km	Comm.:	0/15 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	100	Default Size:	44	Base Armor:	100	Light:	100	Heavy:	200	Overkill:	300

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Autopilot	-	Lvl 1 pilot	Reinf. Crew Comp.	2	Absorbs first two "Crew" hits
Backup Sys	3	Comm, Fire Con, Life Sup, Sensor	Satellite Uplink	-	x1000 Comm range
Computer	4	CRE 0, KNO 0, PP 4	Cargo Bay x 2	-	1,900 m³ each
Ejection System	-	160 places	Main Bay	-	30,000 m²
HEP: All	-		Catapult x 12	-	(450/mass) m/s²
HEP: Radiation	4	Screen	Tool Arm x 2	16	Hangar Cranes; cannot punch
Life Support	-	Full	Laboratory	-	Communication 4
Passenger Accom	-	30,000 m²	Sick Bay	12	Zero-Gravity Medbay

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a
4	Missile Bay	T	x30	5	-2	5	30	Mis, G, Concealed	14	6000	18
2	Spinal Laser	FF	x80	3	-2	0	3	HEAT, PH9	6	1100	4

► Section: Habitat Ring

▼ Main Data:

TV:	67,000	Off. TV:	0	Def. TV:	1000	Misc. TV: 200,000	Cost:	67 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	60	Default Size:	40	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Reinf. Crew Comp.	3	Absorbs first two "Crew" hits
Cargo Bay	-	80 m³	Sick Bay	4	Medbay
Ejection System	-	512 places	Tool Arm x 4	30	Hardpoints; cannot punch
HEP: All	-	Sealed			
HEP: Radiation	6	Screen			
Laboratories	-	Cooking 1, Electronics 1, Mechanics 1			
Life Support	-	Full			
Passenger Accom	-	56,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Ops Section

▼ Main Data:

TV:	7000	Off. TV:	0	Def. TV:	2200	Misc. TV:	19,000	Cost:	7 M	Indv lemon dice: 3
Crew:	3	Actions:	2	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	-5	Type: Early Prodc.
Hull Size:	72	Default Size:	19	Base Armor:	75	Light:	75	Heavy:	150	Overkill:	225

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Sick Bay	4	Zero-Gravity Medbay
Cargo Bay	-	1,900 m²			
Ejection System	-	60 places			
HEP: All	-	Sealed			
HEP: Radiation	4	Screen			
Laboratories	-	Electronics 1, Mechanics 1, Investigation 1			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Cargo Container

▼ Main Data:

TV:	1400	Off. TV:	0	Def. TV:	160	Misc. TV:	3900	Cost:	700,000	Indv lemon dice: 3
Crew:	0	Actions:	0	Sensors:	-	Comm.:	-	Fire Control:	0	Type: Mass Prodc.
Hull Size:	10	Default Size:	10	Base Armor:	20	Light:	20	Heavy:	40	Overkill:	60

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Cargo Bay	-	2500 m^3 each			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Limited			
No Comm	4	Can't communicate			
No Sensors	-	Can't Scan			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Drive Module

▼ Main Data:

TV:	3600	Off. TV:	0	Def. TV:	1800	Misc. TV:	9000	Cost:	3.6 M	Indv lemon dice: 3
Crew:	6	Actions:	4	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	46	Default Size:	20	Base Armor:	50	Light:	50	Heavy:	100	Overkill:	150

▼ Movement Data:

Mode:	Space	Combat: 23 (2.3g)	Top:	46 (4.6g)	Maneuver:	-3	Range: 3,000 hrs	Mass:	9000 BP

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Sys.	3	Comm, Fire Con, Life Sup, Sensor			
Ejection System	-	12 places			
HEP: Vacuum	-	Sealed			
HEP: Radiation	4	Screen			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type: -
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill:	-

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		
-			-		

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

▶ COSMIC BILLIARDS

The *Stede Bonnet*'s entire crew had been monitoring the exchange between Khannan Station and the *Valley Forge*. The conversations and reports echoed through the halls, piped over the internal comm system. They somehow felt responsible for the current state of affairs, and intended to see it through.

They had been witness to the *Valley Forge*'s less than stellar performance. Their failure to stop the progress of the rogue projectile had put everyone on edge at Khannan Station, and what was at first a routine interception was now slowly turning into an embarrassing emergency. Captain Dupré had immediately put them all to work on the problem. Ever since the presence of the asteroid had been confirmed, they had followed its progress across the sky. They had a hammer to hit the rock with; the only problem was finding where, and how, to apply it in order to get the maximum effect in a minimum of time.

In the mean time, Dupré had ordered the navigator to take the *Bonnet* into a lower orbit, a maneuver meant to gain speed and overtake the rock. The ship was now between the asteroid and the shipyard, slowing down again as its fusion drive pushed it out to a higher orbit again.

Those not directly involved in running the ship's essential systems were gathered in the mess hall, brainstorming possible solutions. There was a jumble of voices as possible courses of action were proposed, examined, critiqued and ultimately discarded by the participants.

"Can't we just blow it up?"

"I don't think we've got enough torps for that..."

"Naw, there's too much mass..."

"Exos out of the shipyard, high velocity pass..."

Adam wondered why no one had hit on the most obvious strategy: use a torp to push the rock out of the way. If it worked once, it would work again.

"No way, can't be done with just one torp." Al interrupted. "They impact hard, especially if we disable the warhead to get a maximum energy impact, but you still won't get enough delta-V in one hit. I don't think we made much of a change with the first one."

"Okay, so we send two then. Or three. Or more. We do have twin launchers."

"A double impact might send the rock rotating, or something even worse. You have to go one hit at a time, measure the new vector, and correct again."

"I don't think we have enough time for that."

Max had stayed silent up to now, scribbling furiously on his datapad. Suddenly, he spoke up. "What if we hit it not from the side, but head-on? That'll slow it down, give us more time to assess the situation, and its orbit will drop. Plus, since the vectors are opposed instead of perpendicular — remember, we're now in front of it — we'll get a greater delta-V change!"

Adam and Al exchanged a glance. "It might work," Al admitted reluctantly. "The question is, can we hit it hard enough and often enough to get the kind of change we need?"

"We'll have to find out the hard way."

*   *   *

In the end, everyone agreed it was the simplest solution. There was no time to fly to the asteroid, and at any rate the ship wasn't equipped with a reinforced bow for pushing. The high-powered tugs from the shipyard lacked the range, and were probably too small to matter anyway.

Max had quickly cleaned up his sketches, and had gone up to the bridge to report their findings. The Captain had rapidly gone through the proposal, asking questions here and there. He had come to a similar conclusion on his own, though the difficulty of continuously hitting the center of mass in order to get the maximum effect was worrying him.

Max assured him that it was the least of their worries.

*   *   *

"Remember, you have to make sure each torp hits square on the center of mass, or it won't work."

"I know what I'm doing," Max muttered, his eyes intent on the board in front of him. His hands flew over the controls, tweaking the collimators that would make minute adjustments to the torpedoes' paths as they left the launchers.

"Okay, here goes."

The ship shuddered as the coils energized, the magnetic forces accelerating the torpedo toward the target. The tiny missile's rocket engine ignited a fraction of a second later, a brief flare in the vastness adding yet more velocity. There was a bright flash in the distance as the torpedo impacted on the dark surface.

The ship's sensor officer consulted his readouts. "Confirming first hit. No appreciable rotation detected, and we do have a measurable effect."

"This is the Captain. Good job, Sandelin. Fire at will."

"Acknowledged." Max cracked his knuckles. All he had to do now was keep hitting the same spot.

*   *   *

The *Bonnet* submitted the asteroid to a steady battering for the next ten minutes. Though each impact contributed only a minute amount of energy compared to the whole mass, their combined effect slowed the rock and gave it the kick it needed to drop out of the way and onto a new, lower trajectory.

In the end, it was close, but the rock cleared the shipyard with just enough space to spare.

"This is the bridge. We confirm that the asteroid has changed trajectory and is now clear of the safety zone. Good job, everyone."

The crew cheered, their cry of joy echoing throughout the hull of the tiny combat vessel.

At his gunnery station, Max just smiled.

Cargo, Lennox Class

Name	Launched	Current Status
JSS Lennox	May 6, 2179	Retired
JSS Baskin	March 12, 2180	Retired
JSS Ferguson	April 8, 2180	Retired
JSS Clark	September 2, 2180	Retired
JSS Lewis	May 3, 2181	Retired
JSS Caldwell	November 7, 2193	Alpha
JSS Crocker	July 6, 2194	Beta
JSS Blackstone	August 14, 2194	Gamma
JSS Hobbs	September 1, 2194	Detached Duty
JSS Kitts	March 1, 2195	Alpha
JSS Collins	July 6, 2195	Beta
JSS Elliot	September 3, 2201	Gamma
JSS Ferrel	October 22, 2201	Detached Duty
JSS Sanders	November 17, 2201	Alpha
JSS Walgreen	July 6, 2202	Beta
JSS Mitchell	September 20, 2202	Gamma
JSS Callahan	January 12, 2208	Detached Duty
JSS Clements	N/A	Building
JSS Haneygan	N/A	Building
JSS Barnett	N/A	Building
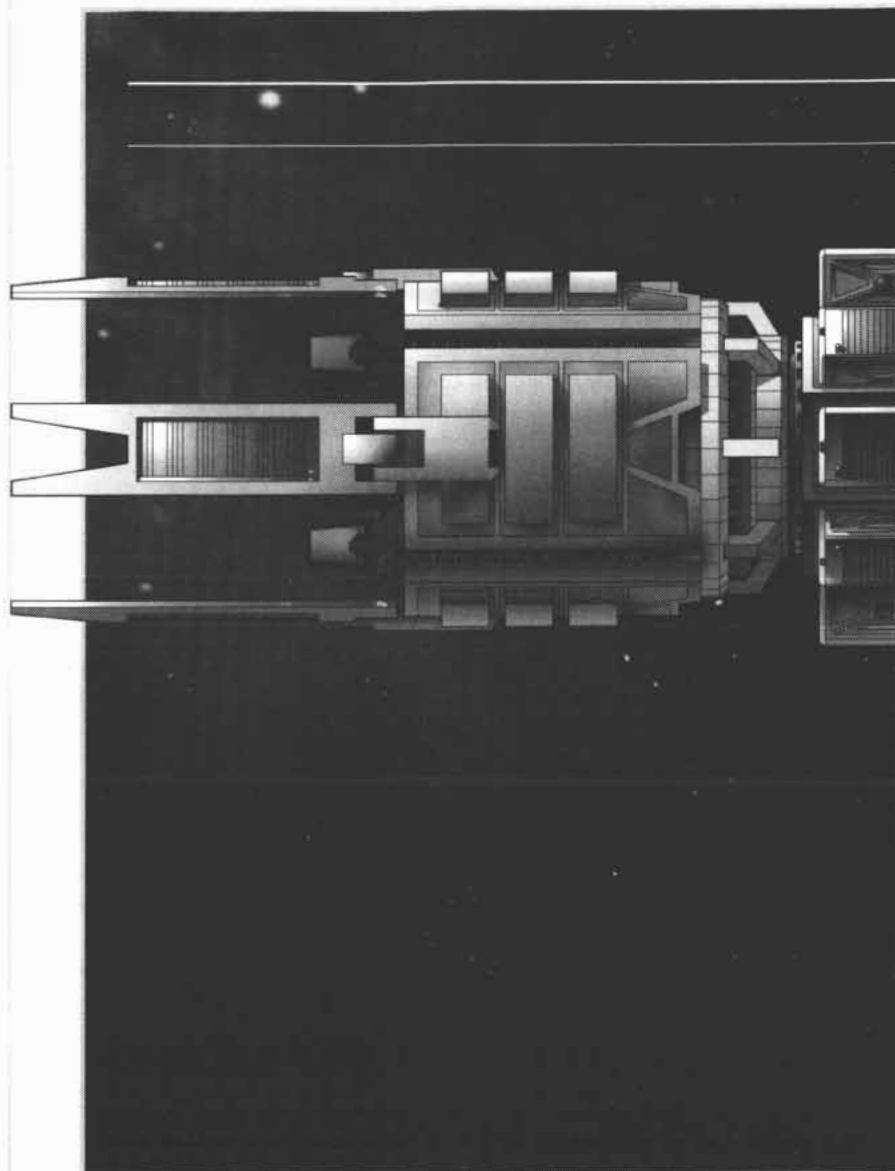
LENNOX-CLASS CARGO

JSS Callahan (2213 Configuration)

LENNOX CLASS
SPACESHIP
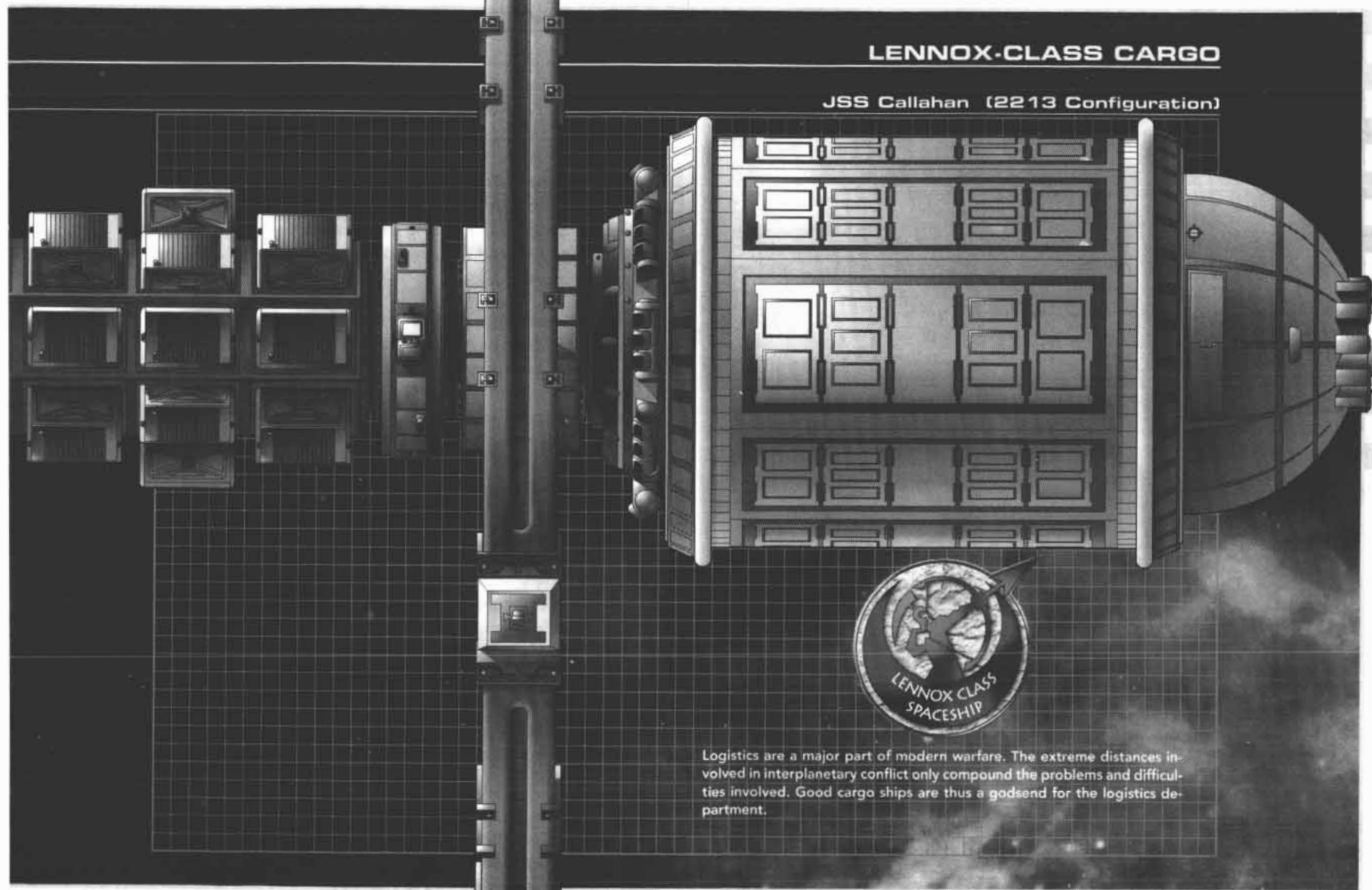
Logistics are a major part of modern warfare. The extreme distances involved in interplanetary conflict only compound the problems and difficulties involved. Good cargo ships are thus a godsend for the logistics department.
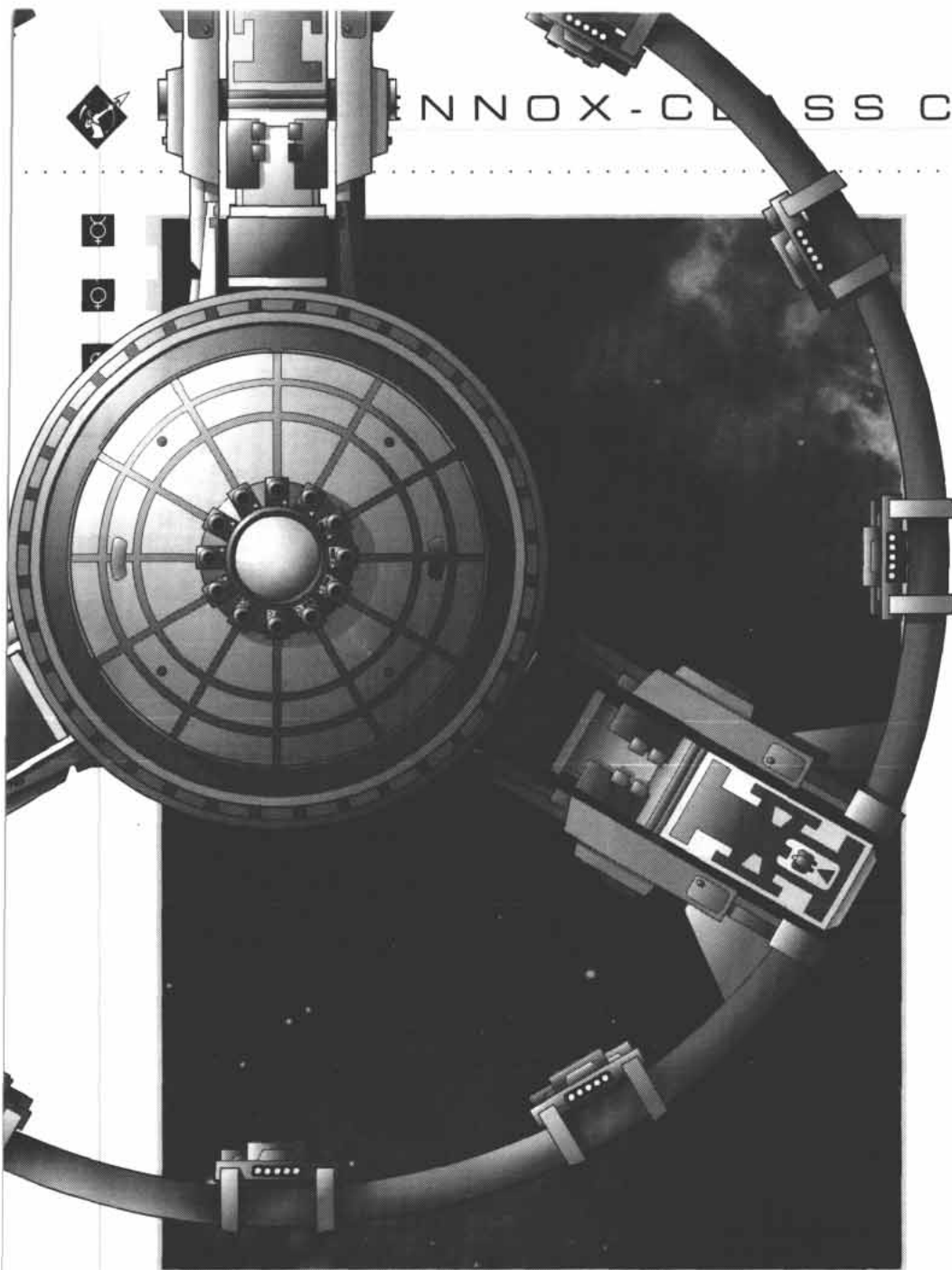
▶ 6.1 OVERVIEW

Many of the cargo vessels used by the Jovian Armed Forces are practically identical to their civilian counterparts, though they may carry one or two auxiliary combat craft for protection. Many Ebiiru and Scout-class ships, for example, have served or are serving in the JAF as transports. The Lennox-class ships, however, were built expressly for the JAF, using elements developed for other programs. Somewhat over-engined for a civilian or utilitarian vessel, the Lennox is capable of hauling almost any type of material and supplies at high speed, a highly desirable feature for a military logistic transport.

The first Lennoxes were relatively crude, little more than cylindrical storage modules with engines at one end and a bridge at the other. More Lennoxes were built at the start of the twenty-third century, at about the same time as the new MacLeod ship construction program was established. The Lennox's designers contributed greatly to it, using the ship's forward hull as the basis of what would become the Yuri Gagarin-class tender's command module. The revisions necessary to upgrade the ship's systems to 2202 standards served double-duty and were retrofitted in the various Lennoxes being built or in dry dock at the time.

The newer vessels (and their refurbished older siblings) share many of the external features of the ships built during the MacLeod Modular Ship Program, to which they contributed many elements. Long heat-sink fins now project out of the rear section, while a reinforced, triple habitat gravity wheel is built midway along the hull. The forward section has been redesigned along the lines of the forward section of the Gagarin-class tender.

The Lennox-class cargo ship, now in a larger, sleeker configuration, continues to serve the logistic needs of the Jovian Armed Forces in the second decade of the twenty-third century. They may ply the space lanes for many years beyond that, as older ships are decommissioned and sold to private interests that will keep them flying for many more decades.

▼ 6.1.1 Capabilities

The Lennox is primarily a transport vehicle. In addition to its rear-mounted modular cargo racks, the ship features a roomy pressurized cargo bay, enabling it to carry around one million cubic meters worth of material (minus any structural elements required to keep it in place, of course). Unless the cargo is exceptionally dense, or the ship is intended to be equipped with high acceleration boosters, mass has little relevance, other than to affect acceleration and thus travel time.

The current configuration of the ship has a connector module placed just aft of the main centrifuge. Each of the four bays houses a single M-pod along with the tools and fuel tanks required to keep it operational for extended periods of time. It is customary to equip one of the four vehicles with a different set of tools than the grapplers normally installed, generally welding and cutting implements. This is not a rigid rule, however, and some ships have standardized M-pods. No Lennox ever ventures out of port without at least two flight-ready auxiliary craft.

In addition to the M-pods, the ship has a large complement of M-bots of all types, most controlled from the teleoperation stations in the main bay. The ship's computer keeps a remote handling program running to take over in case of emergencies. Most auxiliary machines, however, are directed by their onboard autonomous systems and instructed to ask for help only when confronted with situations outside their own immediate operating protocols.

The ship is definitely not a combat vessel. It is completely unarmed, save for the various laser cell panels that line the forward hull for particle defense. As a result, its crew try to keep as far as possible from any combat zone. The Lennox could conceivably be converted into a Q-ship, a converted merchant vessel equipped with hidden weapons and auxiliary craft to lure in enemy vessels hunting for soft targets. So far, there is no such program in existence. It would be relatively easy, however, to pack multiple exo-armors into the main bay.

▼ 6.1.2 Operational Role

Lennoxes are dedicated transport and supply vessels, and as such keep a relatively low profile. They are rarely incorporated into task forces, and instead fly either solo or as part of a supply convoy that is heavily escorted by warships. Not being combat vessels, they are usually kept well out of the battle zone, flying on vectors that will take them to a rendezvous with the fleet once the hostilities are concluded.

Lennoxes have been flying with all three Divisions for the past thirty years under various configurations. They are being upgraded on a regular basis, like all ships of the Jovian fleet, but their status as second line ships makes this less of a priority than for offensive vessels. As a result, they tend to be replaced rather than refurbished once their operational life span comes to an end. The older vessels (those built before 2190) are now all decommissioned, serving with civilian corporations and private shipping lines.

There are currently 19 hulls assigned to the Lennox class, making it a common sight in the Jovian fleet. The ships were built in "waves," each one corresponding to a revision of the design. Three ships are attached permanently to each of the JAF's Divisions, while five others are part of a separate supply division that is attached to specific task forces as the need arises. The remaining five ships have been decommissioned and sold to the civilian sector.
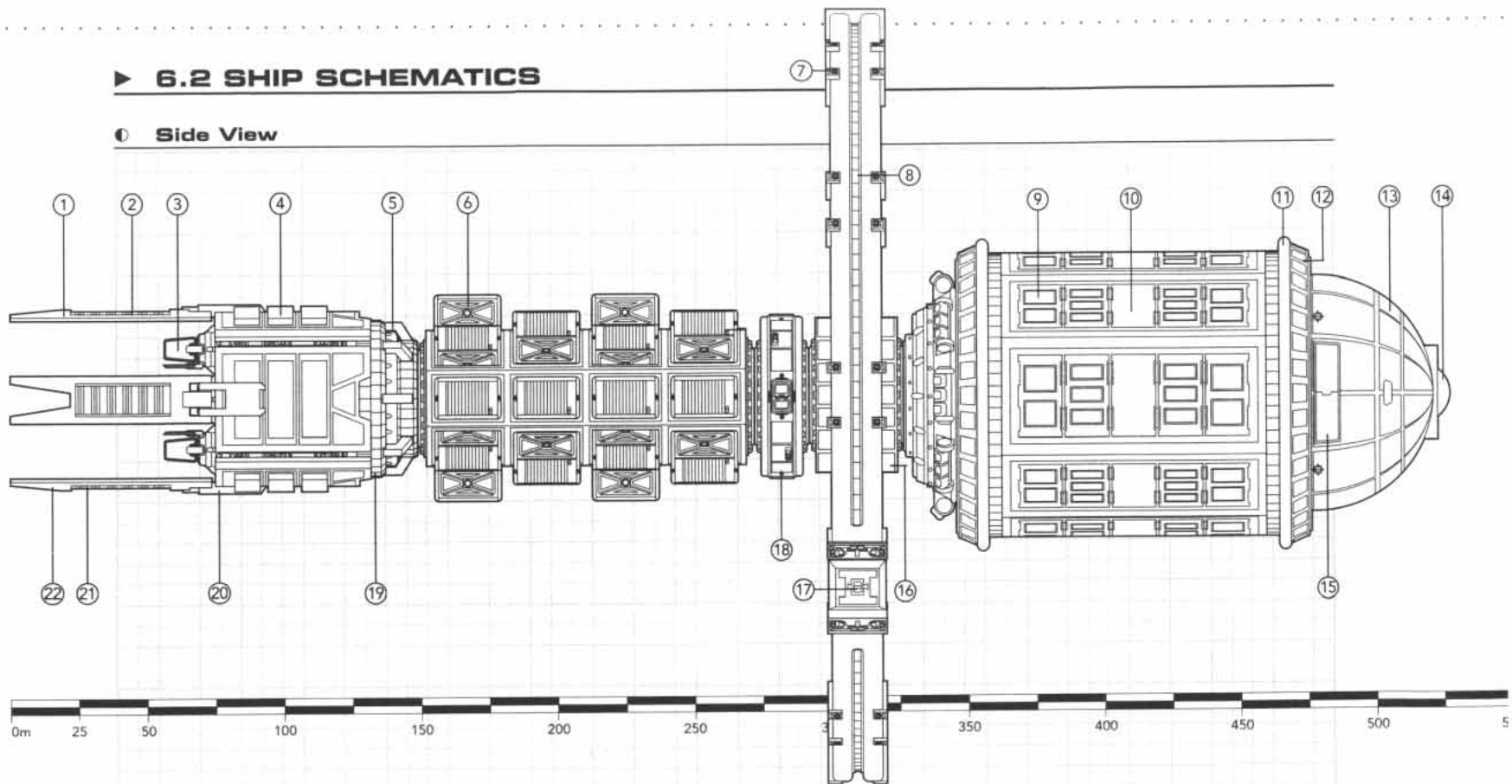
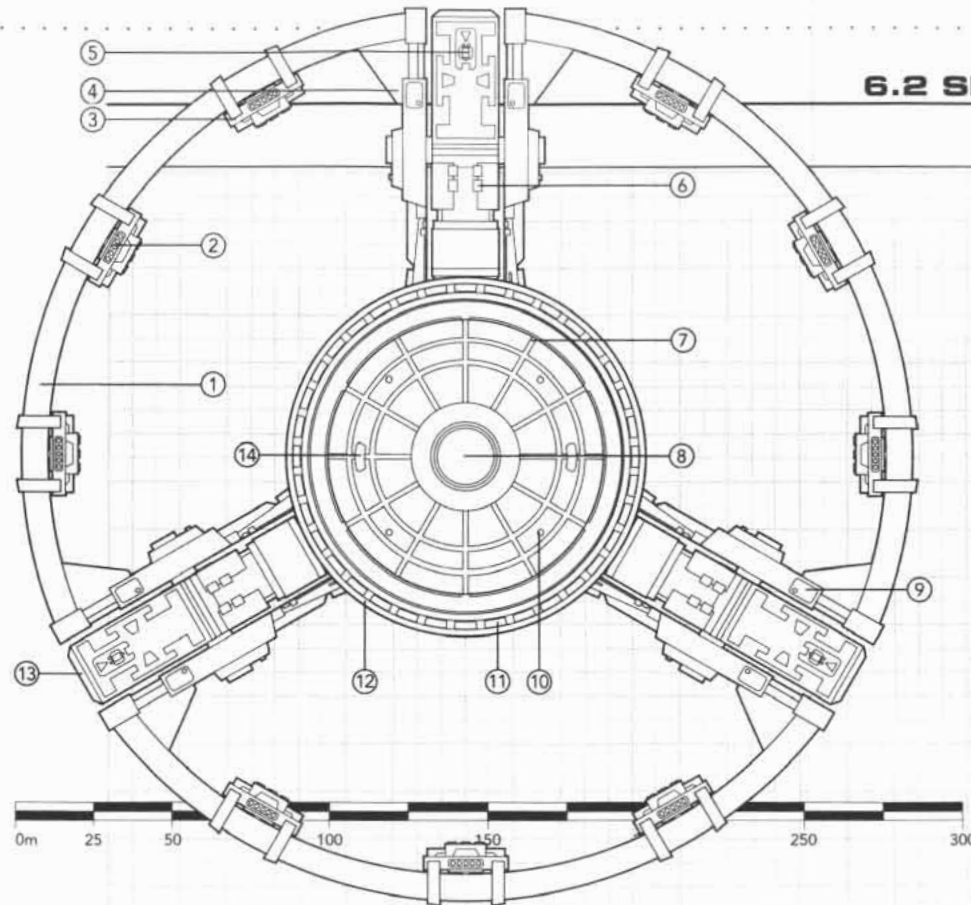# LENNOX-CLASS CARGO

▶ **6.2 SHIP SCHEMATICS**

◑ **Side View**

▼ **Legend**

1	Drive Fin	11	Forward PDS Emitter Ring	21	EM Power Generation System
2	Heat Sink Panel	12	Heat Sink Array	22	Plasma Flow Sensors
3	Exhaust Collimator	13	Lateral Phased Sensor Array		
4	Armor Panel	14	Nose PDS Emitter Panel		
5	Engine Mount/RAM Hardpoint	15	Auxiliary Craft Bay		
6	Standard Cargo Container	16	Rotor Assembly		
7	Microwave Sensor Cluster	17	Emergency Escape Port		
8	Structural Ring Heat Sink	18	Standard Connector Module		
9	Heat Sink Panel	19	Reaction Mass Housing		
10	Main Bay Loading Door	20	Drive Fin Hinge		

6.2 SHIP SCHEMATICS (CONT.) ◄

Front View ◐

Specifications

Name:	Lennox
Origin:	Jovian Confederation
Manufacturer:	various shipyards
Type:	Cargo
Control System:	Bridge w/astronomical display
Length:	534.7 m (w/drive fins)
Width:	285 m (w/centrifuge)
Empty Weight:	58,500 Tons
Loaded Weight:	80,000 Tons
Main Drive:	5 x 19 MW
Secondary Powerplant:	4 x 2000 kW
Main Thrusters:	5 x 20,000,000 kg
Apogee motors:	60
Acceleration:	1.2 g
Onboard Sensors:	Fire Control Radar, Infrared/Ultraviolet, Lidar, Low-light, Magnetometer, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS
Additional Armament:	carried vessels
Defensive Systems:	mag screen, PDS
Equipment:	escape pods, cargo bay, centrifuge

0m 25 50 100 150 250 300

▼ Legend

1	Structural Ring	11	Heat Sink Array
2	Short Range Sensor Cluster	12	Forward PDS Emitter Ring
3	Hardpoint	13	Habitat "C"
4	Structural Reinforcement Rib	14	Observation Deck
5	EVA Port		
6	Escape Pod Covers		
7	Lateral Phased Sensor Array		
8	Nose PDS Emitter Panel		
9	Maintenance Hatch		
10	Forward Maneuver Jet Cluster		

▶ 6.2 SHIP SCHEMATICS (CONT.)

◐ Top View

Om	25	50	100	150	200	250	350	400	450	500

▼ Legend

1	Drive Fin	11	Command Section	21	Collar Assembly
2	Heat Sink Panel	12	Nose PDS Emitter Panel	22	Short Range Sensors
3	Exhaust Collimator	13	Lateral Phased Sensor Array	23	Drive Fin Hinge
4	Armor Panel	14	EVA Ports	24	EM Power Generation System
5	Engine Mount/RAM Hardpoint	15	Bay Door Track		
6	Cargo Container	16	Rotor Assembly		
7	Standard Connector Module	17	Fusion Cores Heat Sink Array		
8	Plasma Maneuver Jet	18	Emergency Escape Port		
9	Forward PDS Emitter Ring	19	Hypergolic Maneuver Jet		
10	Forward Heat Sink Array	20	Standard JAF2212 Cargo Rack		

6.2 SHIP SCHEMATICS (CONT.) ◄

Cutaway View (Forward Hull)

0m — 25
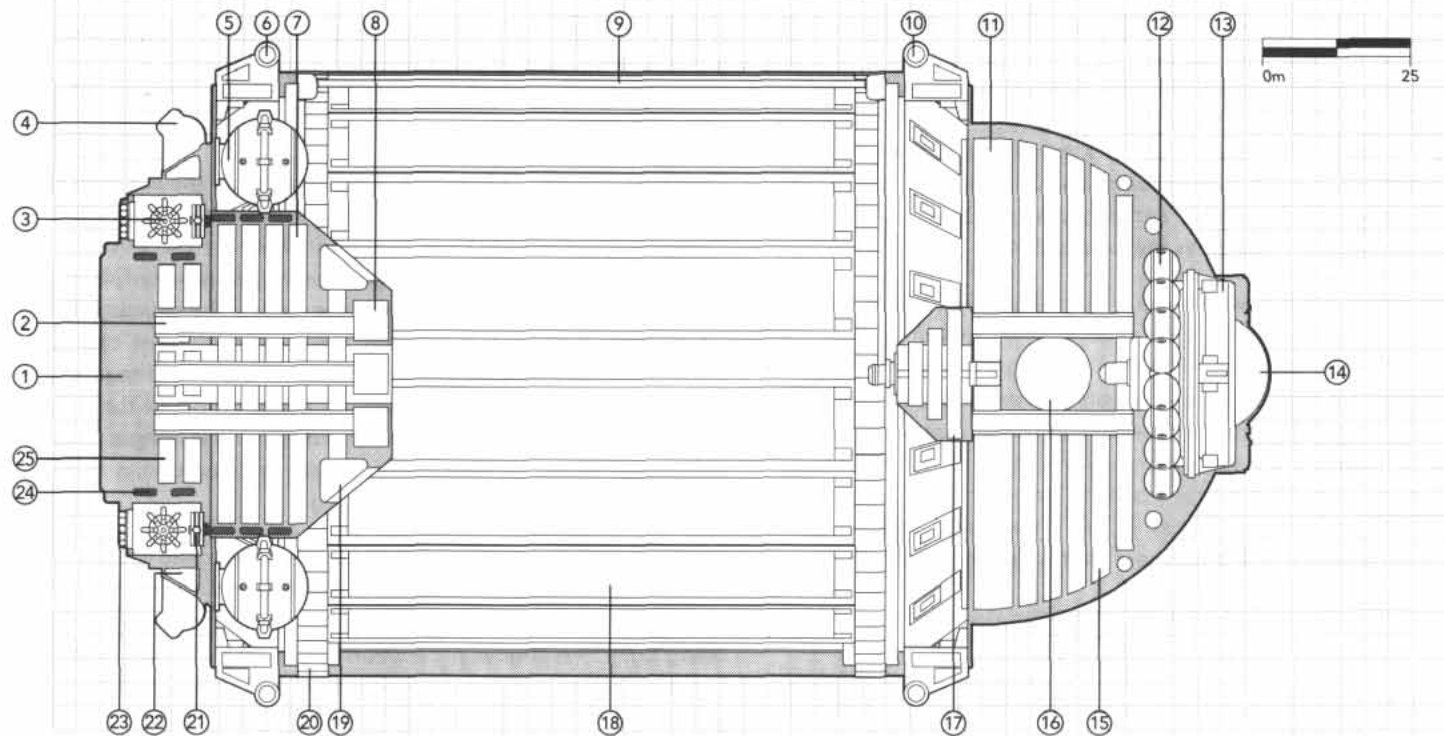
▼ **Legend**

1	Access to Ops and Drive Sections	10	Forward PDS Emitter Ring	18	Main Bay Door
2	Main Elevator	11	Shuttle Bay	19	Observation Room
3	Forward Hull Fusion Core	12	Emergency Gas Tanks	20	Door Guidance Track
4	Plasma Arc RCS Cluster	13	Electronic Housing	21	Screen Generator
5	Gas Storage	14	Forward Sensor Cluster	22	Maneuver Jet Heat Sink
6	Aft PDS Emitter Ring	15	Crew Quarters	23	Emergency Flush Tanks
7	Service Decks	16	Bridge	24	Power Management Node
8	Aft White Rooms	17	Service Deck	25	Engineering Decks
9	Bay Transfer Tube				

▶ 6.3 HISTORY

One of the main problems facing the Jovian colonists was the incredible distances between the various landmarks of the Jovian sub-system. The colony cylinders and other stations had to orbit in precisely calculated paths so that their screens would function at peak efficiency against the dense radiation belts, while the resources the fledgling society needed to survive were dispersed across the many moons and the atmosphere of the gas giant. Transport was a constant problem, one compounded by the confederation with Newhome and Vanguard Mountain, which were as far away from Jupiter as the next planets.

The first Lennoxes were conceived in the early 2170 as generic cargo vehicles that could be used both by civilian and military organizations, thus providing the fledgling JAF with an inexpensive reserve of support space craft and experienced crew. The ship was intended from the beginning to serve as a high speed cargo vessel, and was thus slightly over-engineered when compared to other ships of the time. The increased thrust would also allow it to serve as a makeshift tug if necessary, and the prow featured a reinforced ring where struts could be attached.

The designers set down a series of specifications for a spacecraft that could carry a large variety of cargo, from inert bulk material to items that required life support. A roomy bay (by the standards of the times) was placed at the front of the ship, while cargo containers would hold the rest at the rear, between the habitats and the drive section.

One of the new centrifuges with articulated arms was added to the mid-section for improved crew comfort during long flights. The articulated habitat concept still met with some resistance at the time, and the designers thus added maneuver plasma drives to the secondary fusion cores near the prow. Though they took up some mass that could otherwise have been used for cargo, they would allow the forward section to act as a lifeboat of sorts.

All these design elements radically increased the cost of the vessel, and by the late 2170s it became evident that selling them to private interests would not be possible. The ships would eventually make their way to the public sector, but only after serving in the JAF for a few years. Though there was some grumbling coming from the accounting department, the design was validated in the early months of 2178 and construction of the first hull started later that year.
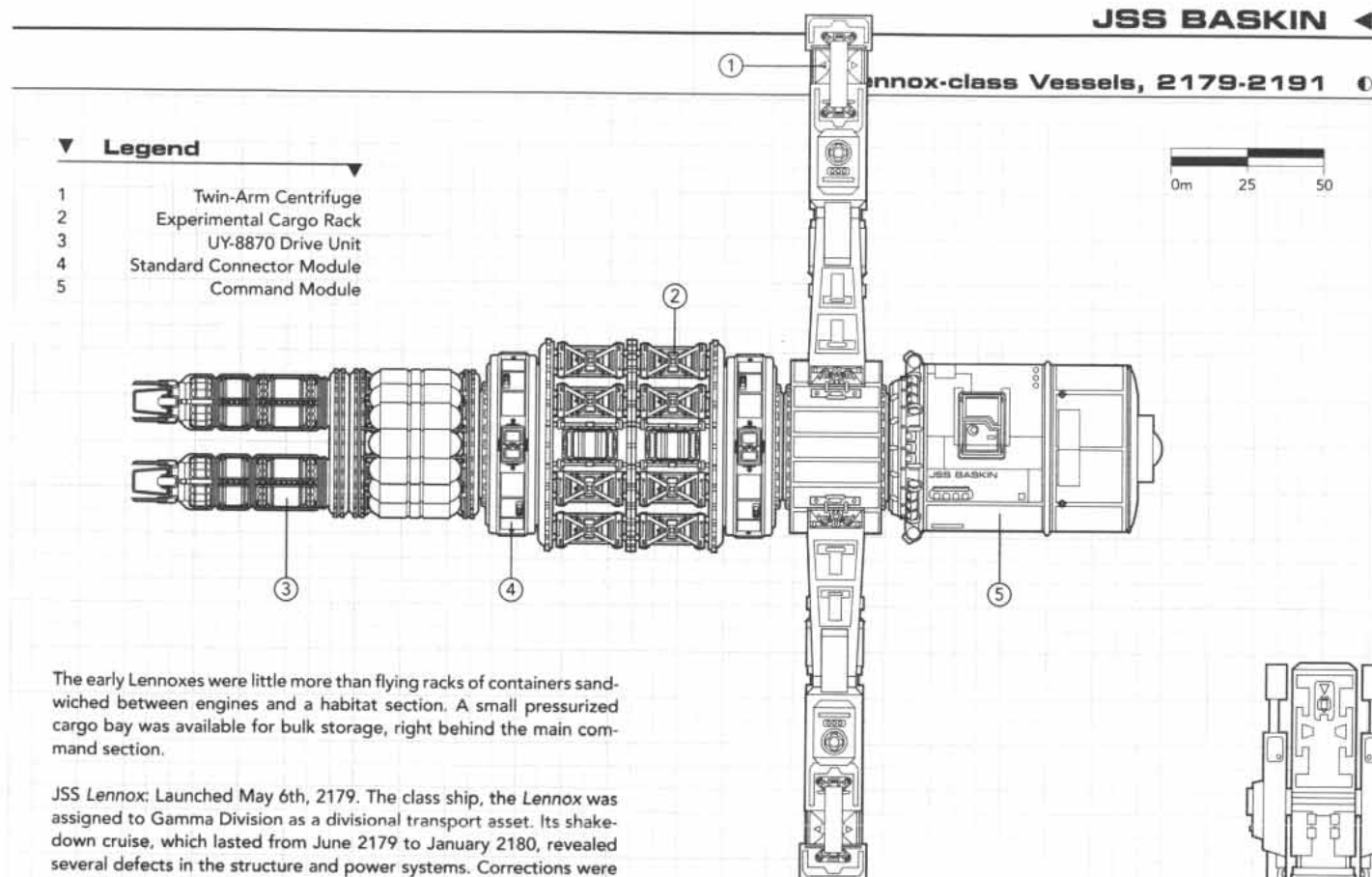
The class ship, the JSS *Lennox*, was launched on the morning of May 6th, 2179 amid little fanfare. It was immediately assigned to Captain Lenora Arteuil, an experienced officer, for a series of worthiness trials that lasted nearly eight months and revealed several shortcomings in the basic design of the vessel. The structure was inadequate in many sub-sections, and applying thrust caused micro-fractures to appear in at least three support ribs. The power grid also failed on several occasions, though most of the malfunctions were minor and none ever put the ship in danger. Captain Arteuil would later report the vessel as "a junk heap in the making, but nothing that can't be fixed."

Once repairs were completed, the Lennox was assigned to Gamma Division as a divisional transport asset. The findings of Arteuil's crew were examined and changes hastily made to the other ships being built. The original production run would be limited to only five ships at first, and new ones would not be built until nearly ten years later, when a major refit program returned all Lennoxes to their dry docks.

The ships served the Jovian Armed Forces quietly for the next few years, moving people and high priority cargo between the various bases and outposts established by the Confederation throughout the Jovian sub-system and the Belt. No ships were lost during that period, though the JSS *Caldwell* suffered a catastrophic collision with a small meteor in 2298 that left it adrift on a highly eccentric orbit for more than fourteen weeks before it could be towed back to a repair facility.

JSS BASKIN ◄

Lennox-class Vessels, 2179-2191

▼ Legend

1 Twin-Arm Centrifuge
2 Experimental Cargo Rack
3 UY-8870 Drive Unit
4 Standard Connector Module
5 Command Module

0m   25   50

The early Lennoxes were little more than flying racks of containers sandwiched between engines and a habitat section. A small pressurized cargo bay was available for bulk storage, right behind the main command section.

JSS *Lennox*: Launched May 6th, 2179. The class ship, the *Lennox* was assigned to Gamma Division as a divisional transport asset. Its shakedown cruise, which lasted from June 2179 to January 2180, revealed several defects in the structure and power systems. Corrections were hastily made to the other ships in construction at the time, and not one launch was delayed by more than a week.

SS *Baskin*: Launched March 12th, 2180. One of the first ships sold to a non-military organization, the *Baskin* was registered by Segmund Shipping, a large conglomerate with offices in Olympus and New Home. Many of Segmund's employees were ex-JAF personnel on reserve duty. The *Baskin* was renamed *Sedlun* after being sold in 2195, and was subsequently retired in 2208.
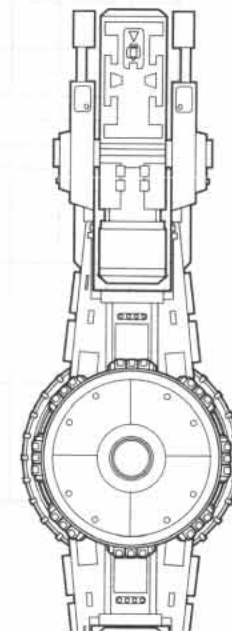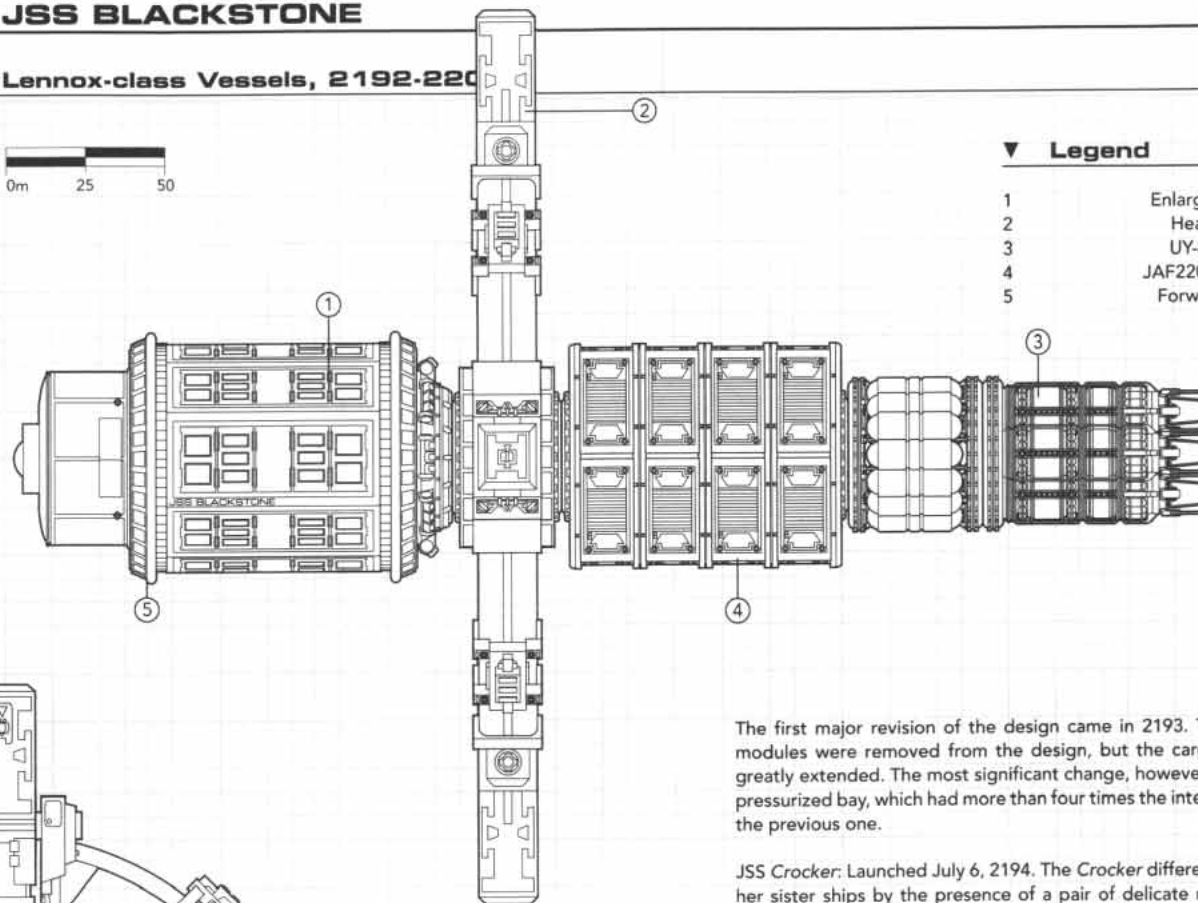
▶ JSS BLACKSTONE
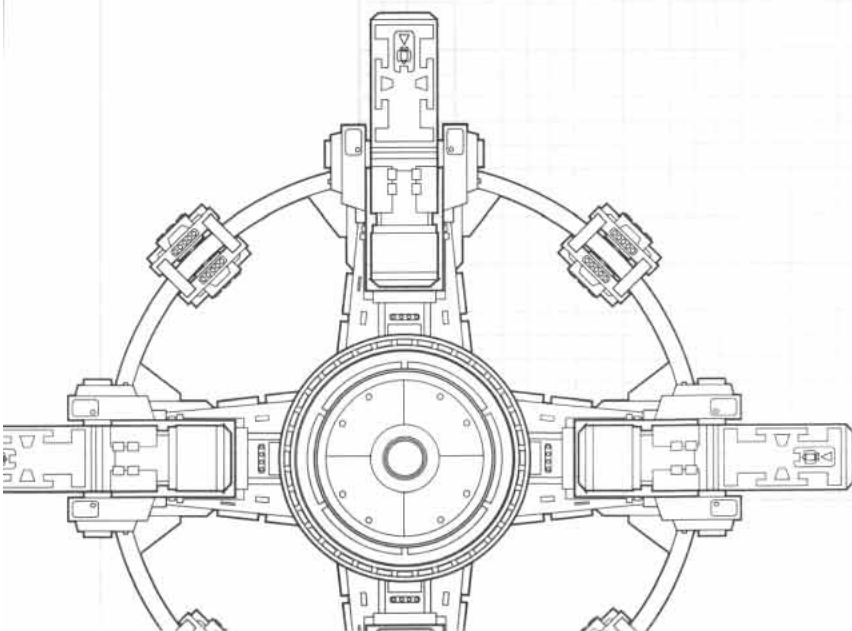
◑ Lennox-class Vessels, 2192-220[...]

0m   25   50

1	Enlarged Cargo Bay
2	Heavy Centrifuge
3	UY-890 Drive Unit
4	JAF2207 Cargo Rack
5	Forward PDS Array

The first major revision of the design came in 2193. The connector modules were removed from the design, but the cargo racks were greatly extended. The most significant change, however, was the new pressurized bay, which had more than four times the internal volume of the previous one.

JSS *Crocker*: Launched July 6, 2194. The *Crocker* differed slightly from her sister ships by the presence of a pair of delicate magnetometer booms extending from her front section. The instruments, installed by the Jovian Institute of Science, were designed to study the interaction of the hull with the interplanetary medium.

JSS *Blackstone*: Launched August 14, 2194. The *Blackstone* quickly made a reputation for itself as a "bad luck ship" where accidents were commonplace. The gruesome death of a crewman in the winter of 2196 did nothing to change this. The vessel is currently assigned to a regular shuttle run between the outer Jovian moons.
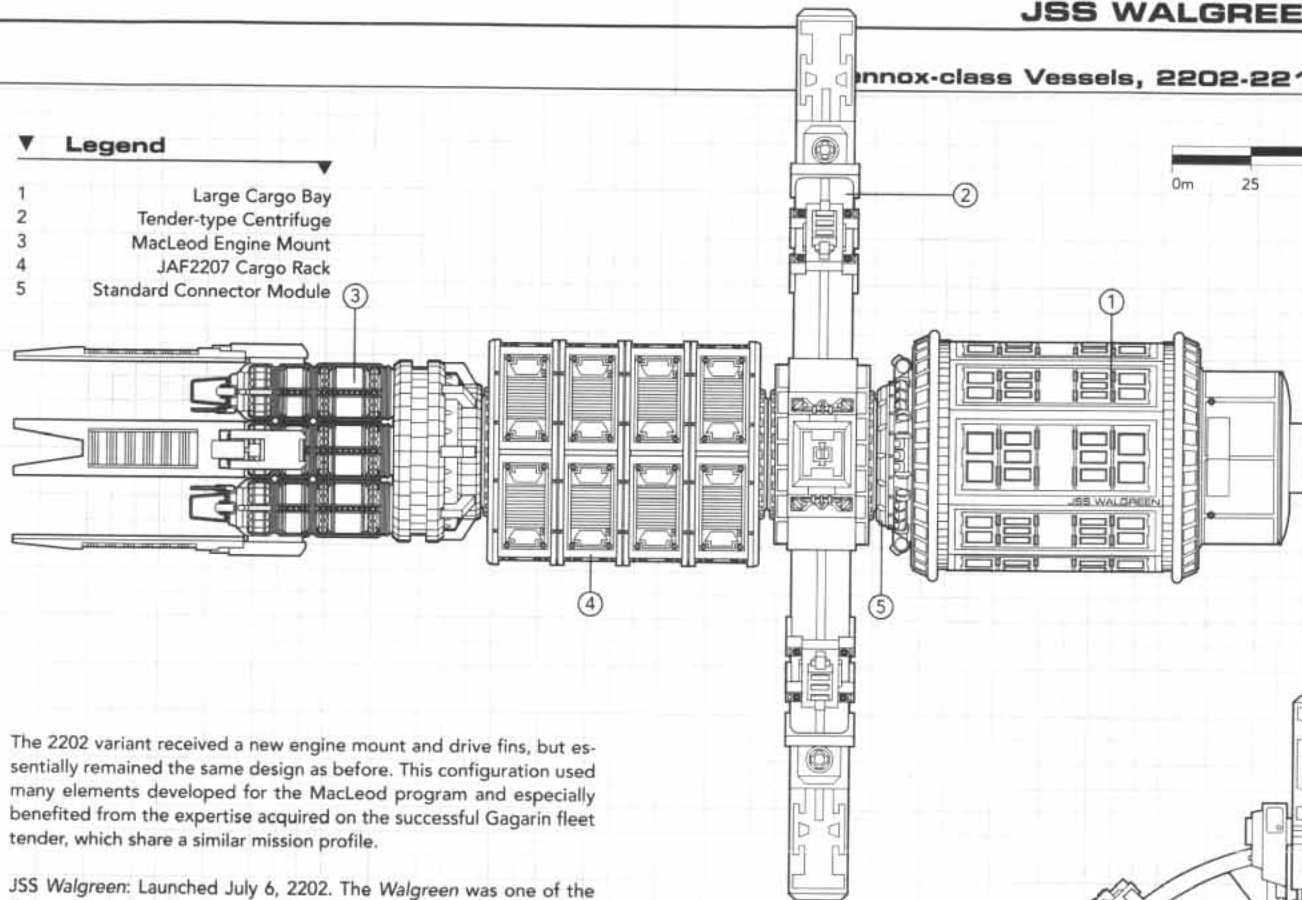
JSS WALGREEN ◀

ennox-class Vessels, 2202-2213 ◐

▼ **Legend**

1   Large Cargo Bay
2   Tender-type Centrifuge
3   MacLeod Engine Mount
4   JAF2207 Cargo Rack
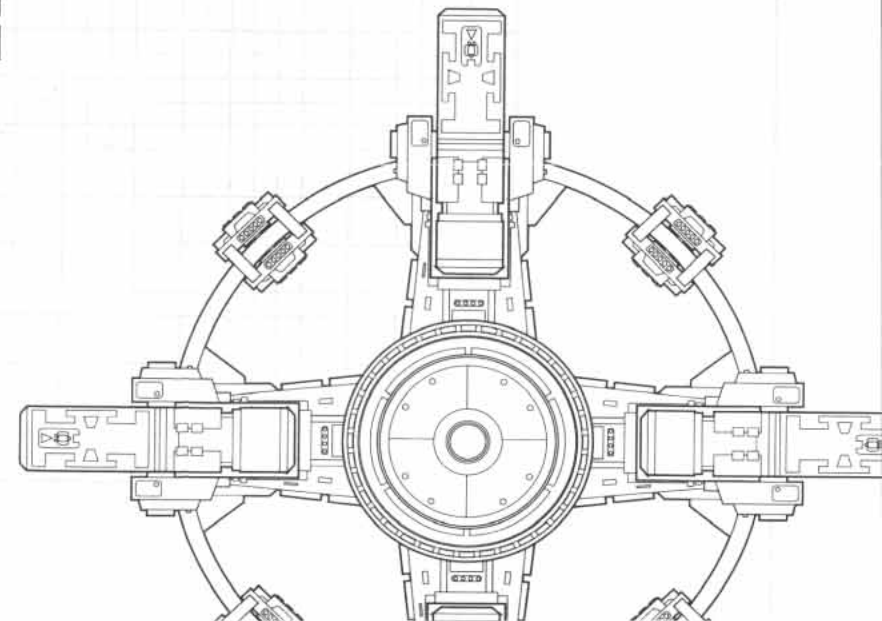5   Standard Connector Module

0m   25   50

The 2202 variant received a new engine mount and drive fins, but essentially remained the same design as before. This configuration used many elements developed for the MacLeod program and especially benefited from the expertise acquired on the successful Gagarin fleet tender, which share a similar mission profile.

JSS *Walgreen*: Launched July 6, 2202. The *Walgreen* was one of the first vessels built using the new design. The addition of drive fins helped minimize the heat dissipation problems that had burdened the class up to now.

JSS *Mitchell*: Launched September 20, 2202. The unremarkable *Mitchell* has been anything but flashy in its ten-year old career. The ship has never suffered a major malfunction, and hasn't missed a launch window or ETA ever since it was placed on the little used inner moon run. Many joke that you can set your watch by the *Mitchell*.
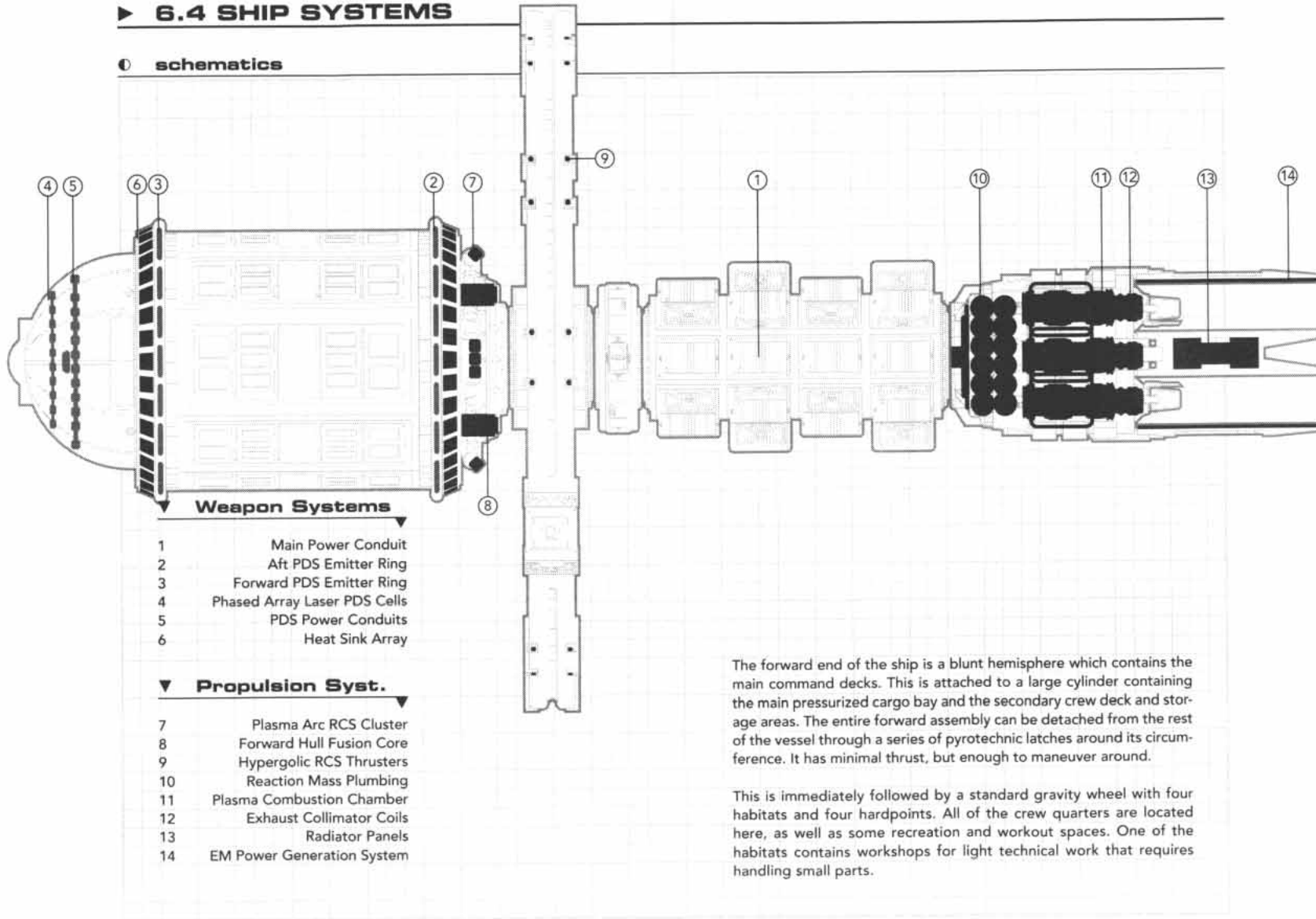
▶ 6.4 SHIP SYSTEMS

◐ schematics

▼ Weapon Systems ▼

1	Main Power Conduit
2	Aft PDS Emitter Ring
3	Forward PDS Emitter Ring
4	Phased Array Laser PDS Cells
5	PDS Power Conduits
6	Heat Sink Array

▼ Propulsion Syst. ▼

7	Plasma Arc RCS Cluster
8	Forward Hull Fusion Core
9	Hypergolic RCS Thrusters
10	Reaction Mass Plumbing
11	Plasma Combustion Chamber
12	Exhaust Collimator Coils
13	Radiator Panels
14	EM Power Generation System

The forward end of the ship is a blunt hemisphere which contains the main command decks. This is attached to a large cylinder containing the main pressurized cargo bay and the secondary crew deck and storage areas. The entire forward assembly can be detached from the rest of the vessel through a series of pyrotechnic latches around its circumference. It has minimal thrust, but enough to maneuver around.

This is immediately followed by a standard gravity wheel with four habitats and four hardpoints. All of the crew quarters are located here, as well as some recreation and workout spaces. One of the habitats contains workshops for light technical work that requires handling small parts.

6.4 SHIP SYSTEMS ◄

schematics ◐
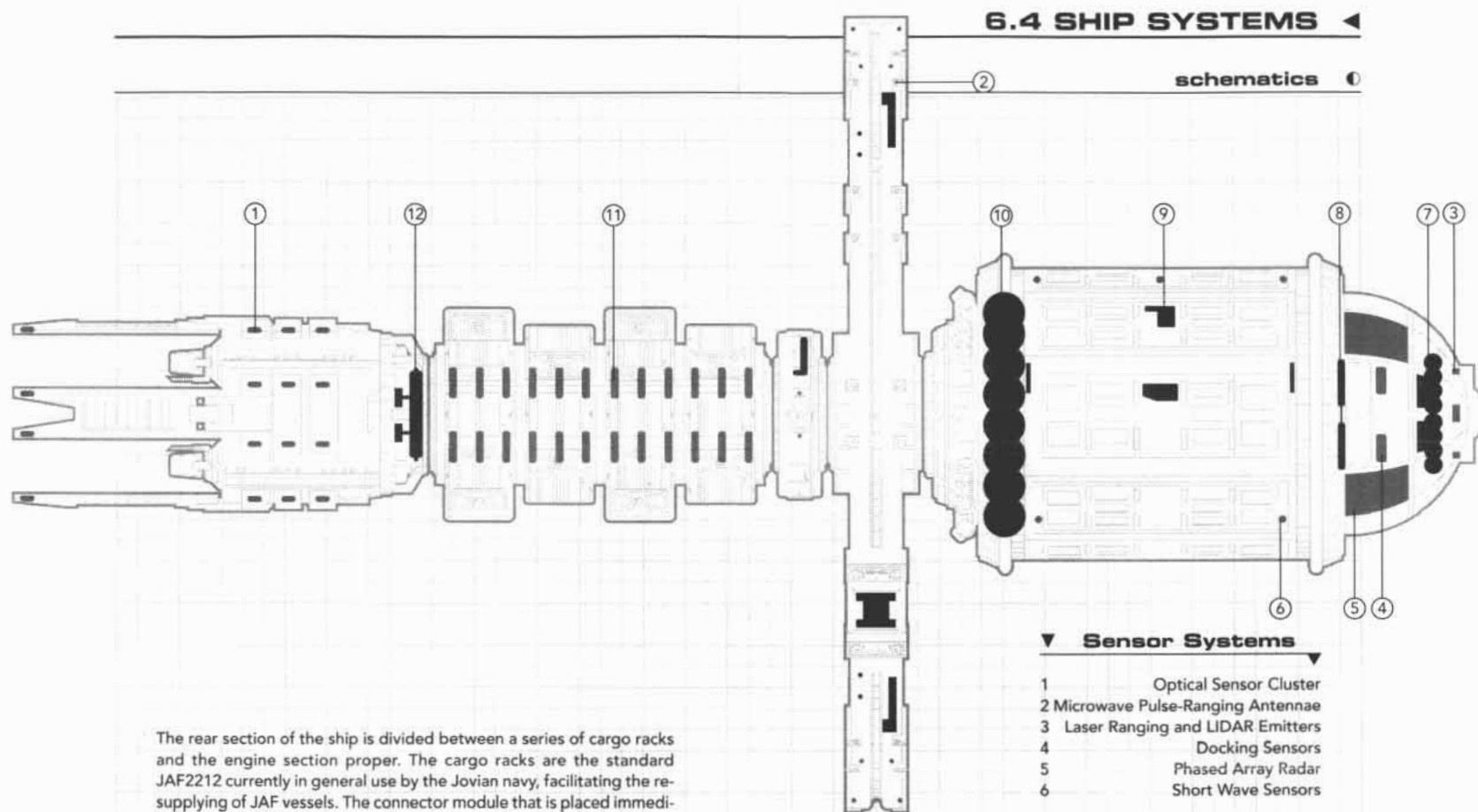
The rear section of the ship is divided between a series of cargo racks and the engine section proper. The cargo racks are the standard JAF2212 currently in general use by the Jovian navy, facilitating the re-supplying of JAF vessels. The connector module that is placed immediately ahead of the cargo racks houses the various M-pods and other support vessels that are used to move the containers about.

The engine cluster is the standard unit developed for the MacLeod program. Only a little under half of the Lennoxes currently in service have these engines, however. In addition to the benefits of low costs and high reliability, these drives can survive a considerable amount of punishment and can also be donated to a military vessel in an emergency.

▼ Sensor Systems ▼

1	Optical Sensor Cluster
2	Microwave Pulse-Ranging Antennae
3	Laser Ranging and LIDAR Emitters
4	Docking Sensors
5	Phased Array Radar
6	Short Wave Sensors

▼ Life Support Syst. ▼

7	Emergency Flush Tanks
8	Life Support Nodes
9	Superconducting Batteries
10	Main Gas Storage
11	Cargo LS Nodes
12	Shield Generators

## ▼ 6.4.1 Pressurized Bay

The forward hull of the Lennox is built around a comparatively large cargo bay designed to house fragile cargo that requires peculiar environmental conditions, such as livestock and living plants. Such shipments are rare, since it is usually much cheaper to grow the resources locally, but it may happen (in response to an emergency or a disaster, for example).

When life support needs to be maintained, this bay is pressurized at the same temperature and atmospheric content as the rest of the vessel. The gases required for this operation are held in spherical storage tanks that ring the tail section of the bay.
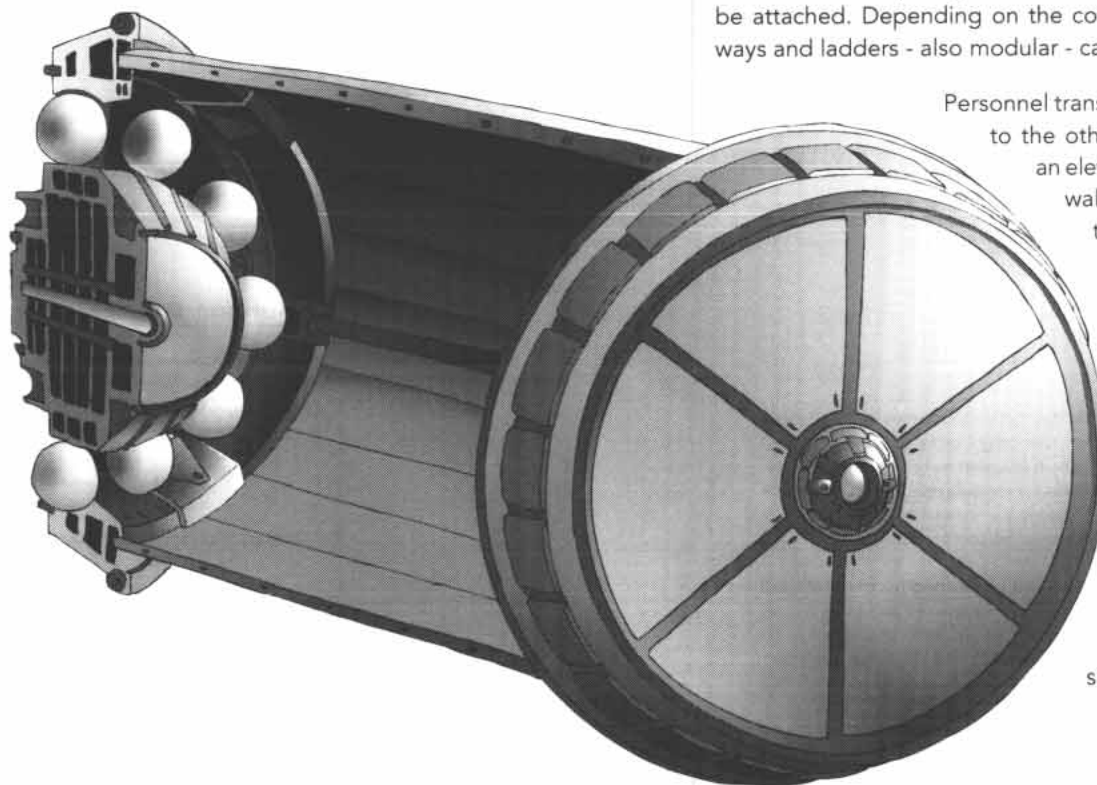
Whenever the space needs to be opened to vacuum, powerful compressors liquefy the air and send it back to the storage tanks to serve for further pressurization sequences. Though there is always some loss in the process, the tanks hold enough of the gases for several trips.

The main load-bearing structures are arranged in the outer surface of the bay to avoid the need for internal stiffeners and maximize the available internal volume. The interior wall has several latches and depressions built into it which fit into corresponding structural "shelf" pieces that can be installed to further divide the interior as needed. The latter are very light and strong, and are little more than open girders to which boxes and containers can be attached. Depending on the configuration produced, walkways and ladders - also modular - can be installed.

Personnel transfer from one end of the ship to the other is accomplished through an elevator tube that runs along the wall on one side of the bay. The tube contains one main elevator shaft and two ladder wells, all of which can be pressurized independently. Emergency airtight doors are placed every ten meters and operate automatically in the event of pressure loss. They are spring-powered and can be cranked open by hand using a circular latch inset in the tube wall on either side of the door.

▼ 6.4.2 Galley

All spaceships are equipped with a galley of some kind. The Lennox is no different, though its galley is somewhat small and primitive given the size of the crew. The small room features a pantry, oven, dishwasher — all greatly automated — and full running water, both hot and cold. The water is dispensed through spigots that can fit standard drink bulbs. Though a set of tiny foldable tables is available in the center of the room, meals are generally eaten in the commons with the rest of the crew.

Each crew member is responsible for his own cooking and cleaning up, though it is not unusual for one person to be designated cook for a day, with a duty rotation schedule. Meals can be put together in minutes by selecting food packets and placing them in the oven. More elaborate fare can be prepared from onboard stores, but doing so in micro-gravity is generally more trouble than it is worth. The galley is equipped with additional air circulation fans to catch any airborne crumbs, and it is not unusual to find small items stuck in the filters.

▼ 6.4.3 Life Support Node

For safety purposes, the life support equipment of a space ship is not a centralized system, but is divided into smaller nodes found throughout the inhabited sections of the hull. This way, should a section be damaged or destroyed, the rest of the crew compartments will not be deprived of the essentials.

Each life support node is placed within an easily accessed alcove adjacent to a main corridor and protected by clearly-marked panels. In addition to the basic life support package, the node features recharge points for space suits and emergency equipment. These panels can be locked with a special key (which is actually a simple tool-like device), and often are when passengers are aboard, to prevent accidents. On military vessels, or vessels without passengers, the nodes are kept unlocked for faster access in case of emergencies.
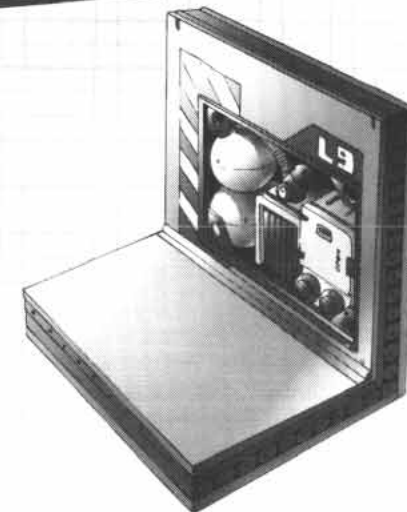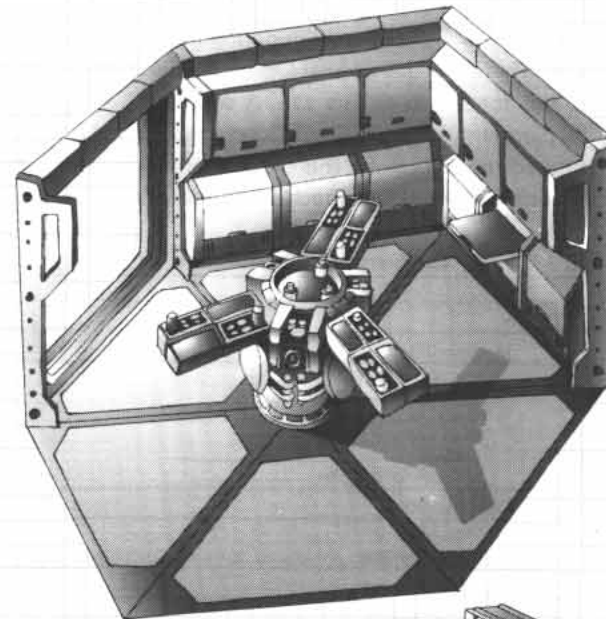
▶ 6.5 SHIP PERSONNEL

There are only three crew departments on the Lennox-class vessels. There are the normal Operations and Engineering departments for a ship of this size. A separate Supply and Resource department, led by a Chief Quartermaster, supervises the cargo and ensures its safety. This department has a senior officer commanding three juniors, each responsible for one watch rotation.

⊞ Crew Organization Chart

Captain	
Executive Officer	
Sensor Operator	3
Comm Operator	3
Helmsman	3
Navigator	2
Medic	1
Computer Specialist	1
Chief Engineer	
Engineer	6
PDS Specialist	3
Chief Quartermaster	
Quartermaster	3
EVA Specialist	6

▼ 6.5.1 Interview with a Captain

Name:	Henry J. Gainer
Rank:	Captain
Current Assignment:	JSS Lewis
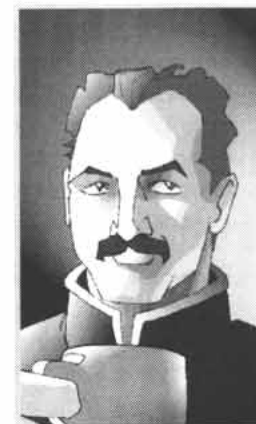
"Some say being the captain of a cargo ship is the last stop before retirement, and I guess it's true for some of us. I don't mind much myself, though. After flying combat spacecraft for fifteen years, I'm ready to settle down a bit. It's a good idea, when you think of it: you don't want a young hot-blooded officer, eager to prove himself, at the command of a supply ship. There are some people out there saying that the post is also used as punishment, or to remove troublesome officers. While I find it hard to believe, I did come across a few... let's say, 'out of place' officers. But most of them are people just like me, putting time in until retirement.

"There are exceptions, of course. It may happen that a young promising officer is reassigned to a Lennox cargo for a little while, usually so they can gain experience or, more likely, get back in the saddle after a fall of some kind. They can rely on the advice and counseling of older officers, and it gives them time to get their act together without the pressures associated with a combat posting.

"Yes, it does sound a little soft. But life in space turns out good, hardy people — idiots and careless ones do not last, and in most cases have already been filtered out of the gene pool, if you'll excuse my bluntness. If some crewmembers cause problems, or suffer from them, it's usually worth it to spend the time to take care of these people. A fine steel may come out with just a little tempering."

▼ 6.5.2 Interview with a Quartermaster

Name:	Ned Hogan
Rank:	Warrant Officer
Current Assignment:	JSS Kitts

"One of our primary tasks is to track the parts and supplies on board the ship, but it's by no means the biggest. Since the crew is somewhat small, there's not much in the way of special requirements, and the consumables are easily tracked using the computers. No, the big task is making sure the cargo weathers the trip in good shape. Some of it is nothing to handle, generally tools and specialized spare parts that don't give a damn if they're exposed to vacuum. Keep 'em under wraps, away from light, rads and poppers, and they'll be fine. Poppers? Never been crew, have you? It's what we call micro-meteors, because they pop out of nowhere.

"Naw, the real problem is the 'lesser' cargo. That's crew slang for LSR, 'Life Support Required.' It can be anything from livestock, plants, fragile goods, etc. Even artwork. Lesser cargo is usually rare, because it's a lot cheaper to just send seeds or pictures or blueprints than to send the real thing. But when you have a disaster area, or a new colony, well, sometimes it's faster and easier to ship the goods than wait until they grow locally. Not often, but it happens.

"Beside pampering the cargo, we make sure everything has its place in the holds and nothing moves, so that the ship is properly balanced for thrusting. In fact, you could say we're the cargo holds' medics. We monitor it for problems, and fix them when — and preferably before — they occur."

▼ 6.5.3 Interview with an EVA Specialist

| Name:	Bridget DuCharme
Rank:	Corporal
Current Assignment:	JSS Ferrel

"I'm a busybee, one of the people you see outside in spaceports, flying M-pods and pushing and pulling boxes around. I don't really know where the nickname came from — I've never seen a bee myself, except in the databank — but I guess it fits. Seen from afar, seeing us crawl and fly across the bay, moving material and securing straps, must be a lot like looking into a tiny hive. The color of our suits sure helps further the illusion, at any rate. I mean, bright yellowish-orange? <smile> All jokes aside, though, it's important to be seen. When you handle a multi-ton container, you don't want to get accidentally brushed by a hot exhaust just because someone didn't see you.

"Most of our work takes place, as to be expected, when the ship is in port. We're kept very busy from the moment the first docking latch clamps down, right up to departure. The hold quartermaster directs the loading and unloading by radio, keeping track of what is where with the computer. We direct the on-site robots to make sure everything is correctly secured, though the hold is always re-inspected later on by a human, just to make sure.

"Once in flight, we don't have much to do beyond the occasional repair. As a result, we usually do double duty as bosuns, making sure the hull is in top shape, and taking care of minor problems in the life support systems. After all, we work with life support all the time, so might as well put that knowledge to good use, eh?"
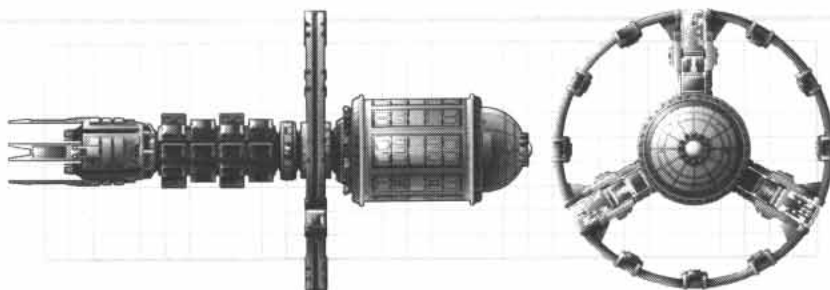
Lennox-class Cargo Vessel

▼ Overall Data:

TV:	305,000	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	305 M	Indv lemon dice:3

▼ Movement Data:

Mode:	Space	Combat: 5 (0.5 g)	Top:	10 (1.0 g)	Maneuver:	-5	Range: 3,000 hrs	Re.Mass:2,000 BP

▼ Sections:

1 x	Command Module	1 x	Cargo Bay	1 x	Habitation Ring
5 x	Ops Section	40 x	Cargo Container	4 x	Drive

▼ Off & Def Systems

1 x	Point Defense System (command)	1 x	Point Defense System (cargo bay)	

▶ Section: Command Module

▼ Main Data:

TV:	95,000	Off. TV:	13,000	Def. TV:	2200	Misc. TV: 270,000	Cost:	95 M	Indv lemon dice: 3
Crew:	6	Actions:	3	Sensors: 0/4 km		Comm.: 0/15 km	Fire Control: 0		Type: Early Prodc.
Hull Size:	72	Default Size:	45	Base Armor: 75		Light: 75	Heavy: 150		Overkill: 225

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Autopilot	-	Lvl 1 pilot	Reinf. Crew Comp.	2	Absorbs first two "Crew" hits
Backup Sys	3	Comm, Fire Con, Life Sup, Sensor	Satellite Uplink	-	x1000 Comm range
Computer	4	CRE 0, KNO 0, PP 4	Cargo Bay x 2	-	7,500 m³ each
Ejection System	-	60 places	Reinforced Armor	25	Front
HEP: All	-	Sealed	Sick Bay	4	Zero-Gravity Medbay
HEP: Radiation	4	Screen			
Life Support	-	Full			
Passenger Accom	-	10,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a

▶ Section: Work Bay

▼ Main Data:

TV:	36,000	Off. TV:	13,000	Def. TV:	700	Misc. TV: 95,000	Cost:	36 M	Indv lemon dice: 3
Crew:	12	Actions:	6	Sensors: 0/2 km		Comm.: 0/12 km	Fire Control: 0		Type: Early Prodc.
Hull Size:	60	Default Size:	33	Base Armor: 50		Light: 50	Heavy: 100		Overkill: 150

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Manip. Arm x 2	25	Hangar cranes; cannot punch
Cargo Bay	-	1,000,000 m³	Passenger Accom	-	2 x 2,000 m³
Ejection System	-	100 places			
HEP: All	-	Sealed			
HEP: Radiation	6	Screen			
Laboratories	-	Electronics 2, Mechanics 2			
Life Support	-	Full			
Tool Arm x 3	30	Hangar cranes; cannot punch			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
1	PDS (ranged)	T	x10	1	+1	6	inf	AM, Heat	15	7400	n/a
	PDS (shield)	FF	x20	M	+1	0	inf	Def., E-shield, Heat	3	75	n/a

▶ Section: Habitat Ring

▼ Main Data:

TV:	77,000	Off. TV:	0	Def. TV:	1000	Misc. TV: 230,000	Cost:	77 M	Indv lemon dice: 3
Crew:	3	Actions:	3	Sensors: -3/2 km		Comm.: -3/10 km	Fire Control: 0		Type: Early Prodc.
Hull Size:	67	Default Size:	42	Base Armor: 50		Light: 50	Heavy: 100		Overkill: 150

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Reinf. Crew Comp.	3	Absorbs first two "Crew" hits
Cargo Bay	-	60 m³	Sick Bay	4	Medbay
Ejection System	-	384 places	Tool Arm x 9	28	Hardpoints; cannot punch
HEP: All	-	Sealed			
HEP: Radiation	6	Screen			
Laboratories	-	Cooking 1, Electronics 1, Mechanics 1			
Life Support	-	Full			
Passenger Accom	-	42,000 m³			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Ops Section

▼ Main Data:

TV:	7000	Off. TV:	0	Def. TV:	2200	Misc. TV:	19,000	Cost:	7 M	Indv lemon dice: 3
Crew:	3	Actions:	2	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	-5	Type: Early Prodc.
Hull Size:	72	Default Size:	19	Base Armor:	75	Light:	75	Heavy:	150	Overkill: 225

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Life Sup	-	Alternate systems	Sick Bay	4	Zero-Gravity Medbay
Cargo Bay	-	1,900 m³			
Ejection System	-	60 places			
HEP: All	-	Sealed			
HEP: Radiation	4	Screen			
Laboratories	-	Electronics 1, Mechanics 1, Teaching 1			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Drive Module

▼ Main Data:

TV:	3600	Off. TV:	0	Def. TV:	1800	Misc. TV:	9000	Cost:	3.6 M	Indv lemon dice: 3
Crew:	6	Actions:	4	Sensors:	-3/2 km	Comm.:	-3/10 km	Fire Control:	0	Type: Early Prodc.
Hull Size:	46	Default Size:	20	Base Armor:	50	Light:	50	Heavy:	100	Overkill: 150

▼ Movement Data:

Mode:	Space	Combat: 23 (2.3g)	Top:	46 (4.6g)	Maneuver:	-3	Range: 3,000 hrs	Re.Mass: 9000 BP

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Backup Sys.	3	Comm, Fire Con, Life Sup, Sensor			
Ejection System	-	10 places			
HEP: Vacuum	-	Sealed			
HEP: Radiation	4	Screen			
Life Support	-	Full			
Reinf. Crew Comp.	2	Absorbs first two "Crew" hits			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section: Cargo Container

▼ Main Data:

TV:	1400	Off. TV:	0	Def. TV:	160	Misc. TV:	3900	Cost: 700,000 M	Indv lemon dice: 3
Crew:	0	Actions:	0	Sensors:	0/2 km	Comm.:	0/10 km	Fire Control: 0	Type: Early Prodc.
Hull Size:	10	Default Size:	10	Base Armor:	20	Light:	20	Heavy: 40	Overkill: 60

▼ Movement Data:

Mode:	Towed	Combat:	-	Top:	-	Maneuver:	-	Range: 3,000 hrs	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
Cargo Bay	-	2500 m³ each			
HEP: Radiation	4	Screen			
HEP: Vacuum	-	Sealed			
Life Support	-	Limited			
No Comm	4	Can't communicate			
No Sensors	-	Can't Scan			

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC

► Section:

▼ Main Data:

TV:	-	Off. TV:	-	Def. TV:	-	Misc. TV:	-	Cost:	-	Indv lemon dice: -
Crew:	-	Actions:	-	Sensors:	-	Comm.:	-	Fire Control:	-	Type: -
Hull Size:	-	Default Size:	-	Base Armor:	-	Light:	-	Heavy:	-	Overkill: -

▼ Movement Data:

Mode:	-	Combat:	-	Top:	-	Maneuver:	-	Range:	-	Re. Mass:	-

▼ Perks & Flaws:

Name	Rating	Game Effect	Name	Rating	Game Effect
-					
-					
-					
-					
-					
-					
-					
-					

▼ Offensive and Defensive Systems:

Qty	Name	Arc	DM	BR	ACC	ROF	Ammo	Special	MS	WC	AC
-											
-											
-											
-											
-											
-											

LENNOX-CLASS CARGO

▶ SECOND CHANCES
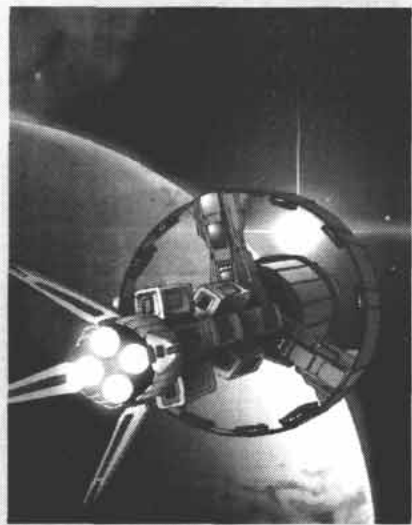
The rock had passed closer to the shipyard than originally planned, but it had missed both the main installations and the thousand-kilometer-wide net of its induction wire power generation grid. The rogue supply shipment had been tagged and was now being monitored by several vessels as it climbed away from Jupiter toward its trajectory's newly lowered apogee.

"I wonder what will happen to the rock..." Adam was curious. His job as a technician had given him only a minimal background in orbital mechanics.

"A tug will go get it eventually, I guess. It got kicked into a lower, more circular orbit. It'll come back." Max was playing with his drink bulb, sending it upward and spining in a crude imitation of the giant they had battled only a few hours before.

"Or it could just burn up." Al looked up from a datapad he had been scribbling on. "If it did hit the upper layers of Jup on the way in, it'll hit them again on each pass."

"...which will slow it down every time it comes by, until it falls down." Max mimicked an explosion with his hands. "Whoosh!"

"Or it could just shoot right past into the lower layers and get crushed by the pressure of the core." Al grinned as an idea struck him. "Just think of the size of that diamond. It'd be enough to win the heart of any girl!"

Not any girl, Adam thought morosely. Not the one I want.

* * *

An inquiry was made into the whole affair, of course. Many people in positions of power thought it extremely strange that the incident happened just as one of the new Majestic vessels had come in to the local shipyards for some last minute systems installation. The original trajectory of the rock was nothing out of the ordinary; the fact that it was allowed to go on its way once it had aerobraked was not.

The tug scheduled for the catch had suffered a "breakdown" and promptly disappeared; its replacement had never been notified. Ownership of both tugs could be traced back to Newhome, but the trail stopped there. One or more of the holding companies had been closed almost overnight, creating many dead-ends and leaving little idea of where to go next.

The file was kept open, just in case.

* * *

"I heard there'll be rewards for everyone" Al said jovially, as he lifted his drinking bulb high in salute.

"Yeah, to the new heroes of the fleet!" Max added, joining in the toast.

"And who knows, maybe they'll give us an honorary Bullseye..." Adam winked.

Max was ecstatic. Examinations of the various trajectories involved had proved that he would have hit the target hoop during the contest. By how much exactly was impossible to tell, but it did lead to an uncertainty that made the winner's position much less assured and certainly less glorious.

The young gunner turned to Adam, a crooked grin on his face. "In fact, I believe it may be a good thing for you that we were forced to come here."

Adam frowned. "And why is that?" He took a long pull from his drink bulb.

"Well, I'd been meaning to tell you. I just found out that one the ships present here is a Lennox-class cargo. In fact, it's going to be our next assignment, escorting it to its next port of call."

"So?"

"Its got a new second in command. I hear she's a young officer named Julianne Dean. Just so you know."

*   *   *

Adam had been arguing with himself about whether to call Julianne or not when he got her message. She was waiting for him in the shipyard's lounge, a small room with a spectacular view of the planet. It was deserted at this hour, which suited Adam just fine.

"Small solar system, hunh?"

"I guess." She smiled shyly. "I'm glad you decided to come."

"I've been thinking about you, you know." Adam coasted to a stop near her. "Though I was surprised when I got your message."

"I did a lot of thinking. There was plenty of time for that. I've... I've treated you badly, and you didn't deserve it."

Adam didn't reply. He dropped into a seat across from her, locking his hands behind his head. He scanned her face intently, waiting for her to continue.

"I really like you, Adam. I really do. But when I heard the message... about you and Nikita..." She paused, searching for the right words. "Do you remember Hastings?" she finally said.

He just nodded. *Boy, do I,* he added to himself. Julianne had dated the big exo-armor pilot for a little while before finally dump-

ing him and taking up with Adam. He thought he knew her well, and he had assumed that if she never spoke about her break-up with the guy, it was because there was nothing to tell. Honestly, he had never given much thought to the whole matter at the time; he had just been glad that she was single again.

"I caught him with my roommate one night" she said quietly.

"Oh." The implications hit like a ton of bricks. This simple admission made everything clear. "I think I understand..."

"Yeah." She avoided his gaze. "Hearing your M-link beep was like déja-vu. I... I just couldn't keep the lingering doubts out of my mind."

"There'll be plenty of time to work it out, you know... if you want to." He smiled. "There's a long trip ahead, and we'll have lots of time on our hands. And with the ships so close, we'll be able to talk whenever you feel up to it. No pressure."

"I'd like that." She smiled slightly, glancing up at him. She looked better, more relaxed, as if a huge weight had been lifted from her shoulders.

"By the end of the crew rotation, who knows what could happen? Perhaps I'll look for a new post. A cargo maybe."

He smiled and placed his hand over hers. This time, she didn't pull away.

APPENDIX

► SPACE SHIP MODULES

▼ Drive Sections

UY-890-AR Engine Cluster with Fins
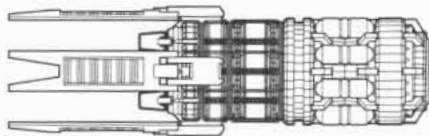
UY-688 Engine Cluster

UY-890 Engine Cluster

▼ Habitat Ring Sections

Corsair-type   Battleship-type   Heavy Habitat
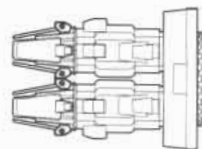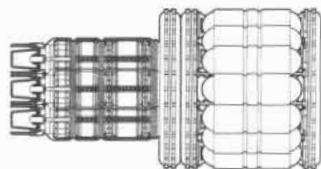
Customizing Space Ships

The above diagrams show all the modules that were used to build the ship classes found in this book. You can photocopy and cut out these sections to create your own space ship design, or just customize an existing hull.
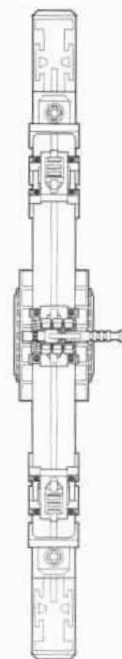
▼ **Forward Hull Sections**

**Ypres-class
Battleship**
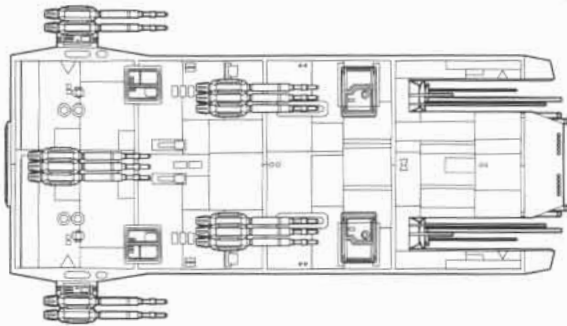
**Corsair-class
Frigate**

**Intrepid-class
Transport**

**Majestic-class
Carrier**
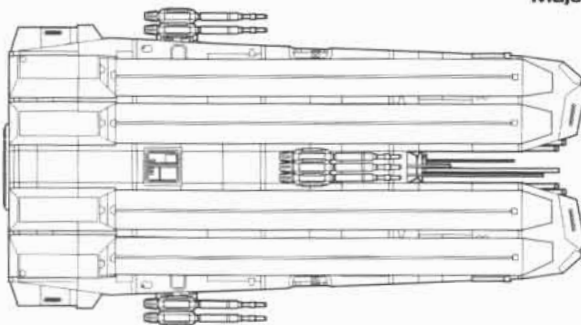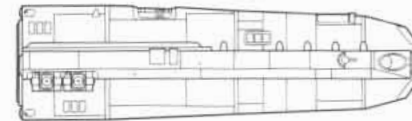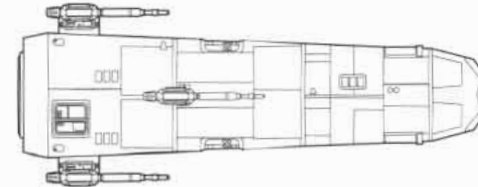
**Lennox-class
Cargo Vessel**

APPENDIX