

Grand Fleet HERO

Adapted for Traveller HERO



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Science-Fiction Adventurer in the Far Future

GRAND FLEET HERO

FOR TRAVELLER HERO

BASED ON THE AWARD-WINNING TRAVELLER GAME SYSTEM AND UNIVERSE BY MARC MILLER

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INTRODUCTION

About This Book

Sourcebook 1: Grand Fleet Hero is a supplement for the *Traveller Hero* version of the *Traveller* RPG. The nominal ‘game universe date’ is around 1111, in the Late Golden Age, but virtually everything contained in this book is valid in 993. At that time, of course, the Solomani Rim War is raging and the Fourth and Fifth Frontier Wars have not yet been fought.

This book contains some rules and stats specific to *Traveller Hero*, but general information can be used with any rules set. It does not attempt to deal with the minutiae of any given region, fleet or situation. Instead it presents an overview of the Imperial Navy; what it does and how.

About The Authors

Martin J Dougherty is a real-world defense analyst, among other things. He has written numerous papers and reports on Submarine and Antisubmarine Warfare, Naval Force Protection, Anti-Ship Missiles and Anti-Missile Countermeasures and has chaired, addressed and attended major defense conferences in London and Paris.

Martin is Line Editor for *Traveller* at Quiklink Interactive, and has produced a range of *Traveller* adventures and supplements for all versions of the game, plus the novel *Diaspora Phoenix*, which is set in the Collapse/Recovery period of the *Traveller* universe. His other publications include novels, non-fiction books on small arms and self-protection, and whatever else someone felt like paying him for. When not nailed to a keyboard, Martin lives in NE England with his wife Helen and a large number of cats. He teaches self-defense and fencing at the University of Sunderland.

Neil A Frier is a Transport Engineer who heads a local government department in NE England. He has written a number of successful *Traveller* products for all versions of the game, which he has played ‘since forever’. A far more successful human being than Martin, Neil actually has a life and divides his time between gaming, cycling and his family. The day is approaching (alarmingly fast) when Neil’s sons Aaron and Aidan will join the ranks of *Traveller* players.

The Imperial Navy

The Third Imperium covers a vast region of space; a region that must be defended against internal and external

enemies. The Imperial Navy carries out that role in the name of the Emperor.

Its ships are often the only representatives of the Imperium in a system, carrying the burden of defense and law enforcement in far-off places. Small wonder, then, that the Imperial Navy is the “senior service” and inextricably tied with the Imperial Nobility. For the Navy is not merely the tool of Imperial power. Its personnel are drawn from thousands of worlds. Its ships are constructed in dozens of yards; systems are supplied by hundreds of corporations. Its leaders are the great nobility of the Imperium.

In a very real way, the Imperial Navy IS the Third Imperium. Normally, even official documents refer to the “Imperial Navy”. However, in highly formal circumstances, the navy is given a rather more impressive title – the Grand Fleet of the Third Imperium. That Grand Fleet is the focus of this book. Its vessels and personnel, its allies and its enemies, the missions it undertakes and the regulations it obeys.

Authors’ Introduction

A great deal has (and has not) been written about the Imperial Navy. Debates among *Traveller* fans have raged endlessly about whether games like *Trillion Credit Squadron*, *Fifth Frontier War* and *Imperium* represent a functioning model of the Imperial Navy and its budget. Fact is, these games were created to be just that – self-contained games – and not a model for the complete naval structure of a huge interstellar empire. Attempts to use data from these games to show that the Imperium can field X dreadnoughts or Y anti-piracy vessels are thus flawed.

Over the years, ballpark numbers have been put forward for the strength of the Imperial Navy. Each Sector Fleet has roughly 1000 ships; each subsector has one battleship and one cruiser squadron; the Colonial Fleet is roughly the same strength as the first-line fleet in each sector. These figures make a decent enough starting point but any close examination of what the Imperial Navy needs to do, and what it has to work with, shows that the actual situation is more complex.

In calculating the relative strengths of the various fleets, we have made certain assumptions. The most critical of these are:

1. The Navy must be able to repel a major invasion or put down a widespread rebellion. This means that its budget will be skewed towards heavy battle units. The reasoning is simple – if you cannot

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secure your territory, there is no point in being able to police traffic.

2. An even distribution of capital and heavy units is suicide. Stationing one BatRon per subsector simply invites defeat in detail. Thus the Navy will concentrate its heavy assets in some areas and use maneuver rather than a 'solid wall' as its operational strategy. It therefore follows that 'warfighting' capability is mainly the province of the Sector commands.
3. Policing, anti-piracy and internal security operations can be best controlled from close to the area in question. Thus the security and patrol missions which require more and lighter ships are properly the province of the Subsector fleets. These forces are further augmented by ships from other sources such as Huscarles, corporate warships and so forth, freeing the bulk of the Navy to deal with the 'real business' of dealing with major threats.
4. The Fleet needs a chain of large and small depots and bases, and these need to be defended by dedicated forces which cannot be stripped away for other missions.
5. Nobody ever has enough escorts, auxiliaries and logistics ships.
6. Colonial vessels will tend towards the smaller and lighter end of the spectrum since individual worlds tend not to need huge ships and in any case probably cannot afford them. Thus the active units of the Colonial Fleet will tend to be concentrated at the Subsector level.
7. Some of the Imperium's obsolescent battleships will be bought at good prices by planetary navies. Of those, most will be turned into non-Jump-capable defensive monitors and a few will be available to the Colonial Fleet. However, that leaves a lot of large ships with no-one to crew them. These ships remain useful and thus are assigned to the Fleet Reserve.

These assumptions and their results are apparent throughout this book.

CHAPTER 1:

THE GRAND FLEET OF THE THIRD IMPERIUM

Space is of vital importance to the Third Imperium and its neighbors. Even if a particular world or state has no offworld holdings and little trade, local activity in space may have great economic and strategic value. As a world's importance on the interstellar stage increases, so does its need to use space for a variety of purposes.

Space offers many opportunities, and as many vulnerabilities. Space is the avenue of attack upon worlds; defenses must be prepared. Installations and offworld holdings are vulnerable to annexation; security must be provided. Trade and commerce must move through deep space; ships must be protected. In times of war or tension, space is the arena in which most issues are resolved.

From the diplomatic message sent by a token gunboat enforcing a territorial claim to deep-space fleet engagements between hundreds of ships, space forces are powerful tools with which to protect or further national interests.

Space is a deadly arena where the slightest error or deficiency means a horrible death by decompression. But the need exists, and in states across Charted Space, the call is answered by a special breed of men and women. They are the champions of their state; its defenders and its emissaries. Occasionally they are scapegoats or sacrificial victims. Most often they are enforcers of routine and sometimes resented laws. But however mundane or routine their duties may be most of the time, they are vigilant. They stand ready to defend against all enemies, whatever the odds.

In the Third Imperium these men and women (of many species), proudly serve under a single banner. From the highest admiral to the newest recruit they are a part of the greatest military force in Charted Space – the Grand Fleet of the Third Imperium.

Facts Of Space Travel

The Traveller universe is shaped by certain facts concerning space travel. Of these, Jump and the lack of “subspace radio” or other means of instant communication are the most influential factors. Since there is no means of faster-than-light communication available, information travels only at the speed of the ship carrying it. This factor influences the nature of military, political and economic management throughout Charted Space. Local commanders and executives are required to make their own judgments without outside instructions. In this sense, the Traveller universe resembles the far-flung colonial empires of Terra's 19th century, where a warship commander might be months from reinforcement or instructions, and where cruising warships

acted as floating embassies and intervention forces to assist local officials.

The Jump drive is the only practicable means of interstellar travel. Generation and “freezer” ships have been used for colonization purposes, but for economic and military purposes, Jump-capable ships are the only answer to the immense distances between the stars. Since gravity wells interfere with Jump drives, all physical objects have a radius around them within which it is highly inadvisable to enter Jump, and only possible to exit in the case of a catastrophic misjump.

This means that ships must travel in normal space to reach a jump point. In a cluttered system, nearby Jump points may be masked by the gravity wells of moons, asteroids or stars, necessitating a long journey to the Jump point. This need for normal-space transit makes commerce-raiding and piracy a possibility within the Traveller universe.

A vessel's Jump rating defines the maximum distance (in Parsecs) that it can travel in a single Jump. The highest Jump number available in Charted Space is 6, other than in the case of highly dangerous and unpredictable misjumps. A Jump takes one week, give or take a day or so, and this duration is more or less immutable. Ships can of course jump less than their Jump number, and in-system microjumps are not uncommon where this will shave a few days off a long normal-space transit.

Jump requires very large amounts of fuel (liquid hydrogen). The majority of this fuel is used in a highly inefficient process that nevertheless generates a great deal of energy – enough to project the ship into jumpspace. The remainder is used during the Jump to maintain the Jump field. If the Jump field collapses or becomes unstable, the vessel is usually destroyed. This voracious appetite for fuel means that Jump-capable vessels must sacrifice large amounts of hull space in return for strategic mobility. Few ships carry enough fuel for more than one jump, though measures such as drop tanks have been tried, with mixed results.

While commercial vessels tend to use Jump-1 or -2 engines, trading speed for cargo capacity, the nature of military operations requires that many military vessels use higher Jump numbers. Jump -3 or -4 are accepted as the norm for military ships. Any higher and the ship loses too much offensive and defensive capability, though some patrol, intruder and courier ships are capable of such high jump numbers.

Vessels which do not carry a Jump drive can fit more weapons and other systems into a hull of the same size, giving the defender a considerable ton-for-ton advantage. This has led to the creation of many classes of non-Jump-capable

warships, from System Defense Boats to huge Monitors and the sublight Battle Riders carried by Jump-capable tenders.

The Role Of The Navy

The navy of any interstellar power, and particularly that of the Third Imperium, is a political instrument which serves the purposes defined for it by the ruling elite. These purposes may vary from place to place and time to time, but in general they fall into the following categories:

ENFORCEMENT OF TERRITORIAL CLAIMS

Without some form of armed force to back up a territorial claim, it is meaningless and can be challenged by anyone who feels like it.

Territorial enforcement forms part of the role of light patrol forces. A regular but, token presence is generally all that is needed to maintain a claim, so long as the situation is clear – anyone who wants to dispute this claim is going to have to fire on a naval vessel and can expect a response from a much more powerful force.

The regular patrols undertaken by Imperial Navy vessels throughout the Imperium and along its borders serve this purpose, among others. They demonstrate the willingness of the Imperium to defend its territory with armed force, even if the only vessel on hand is a single Patrol Cruiser.

Another territorial claim enforcement technique used by the Imperial Navy is to deploy a destroyer or light cruiser at a particular location as a guardship. Some sensitive areas have a permanent guardship presence, replaced in rotation, while others receive a vessel only in times of heightened tension. Guardships are deployed where local forces are insufficient, or where there are none at all. An example is Melior/Glisten, which has no naval forces of its own but is assigned a guardship from the naval base at Egypt/Glisten.

ENFORCEMENT OF INTERNAL AND INTERSTELLAR LAW

While some states maintain a specialized customs and law enforcement force, in the majority of cases some part or all of this role falls to the navy. Naval starships have the right to stop and search suspect vessels – and they have the weaponry to compel obedience. The enforcement role includes suppression of piracy and smuggling as well as routine tasks such as ensuring compliance with shipping regulations and Red Zones.

While the task is normally carried out by Starport personnel, Naval parties are sometimes detailed to inspect a starship's safety equipment for compliance with Imperial Regulations. Such a routine inspection led to the apprehension of the corsair Captain known as Spacer Hal when his vessel, masquerading as a legitimate merchant vessel, was stopped for inspection by the patrol cruiser Kugillinaa off Liga in Glimmerdrift Reaches sector. Several naval personnel

lost their lives in the ensuing action, but the spaceways are that much safer for their sacrifice.

FLAG SHOWING

One of the most important, but overlooked, roles of the Navy is to be seen. The highly visible presence of Imperial Navy vessels has several important benefits. It is a reminder to the population of member worlds that the Imperium has not forgotten them; that the vessels of the Navy stand ready to defend them at need. On the other side of the same coin, the flag-showing operations remind potential troublemakers that the Navy is ready to come in and correct them if they step out of line.

Foreign powers are also reminded of the power and omnipresence of the Imperial Navy, reminding them that the Imperium is a powerful ally and a deadly foe. As well as deterring foreign intervention, vessels on flag-showing patrol also have a marked deterrent effect on piracy and smuggling. A useful side effect of the “goodwill visits” and “courtesy tours” undertaken by Navy vessels is that there is a chance – not a large one, but a chance all the same – that when a crisis develops a Navy vessel may be on hand to assist. And of course, those who might precipitate or exploit such a crisis cannot know that the Navy will not show up unannounced and derail the plan.

PROTECTION OF COMMERCE

Interstellar commerce is the lifeblood of any civilization. Freighters packed with goods represent a tempting target for thieves and pirates, while the destruction of commercial traffic is a valid military tactic in times of war. Disruption of trade has brought more than one state to the brink of ruin in human history. If this is to be avoided, escorts and patrol forces must be provided in order to keep the space lanes (relatively) safe for merchant shipping.

Many naval personnel see the protection of helpless merchant traffic as their highest ideal, and Imperial history abounds with stories of convoys defended to the last against overwhelming odds.

The tale of the Ramada Class Close Escort Turbulent, lost during the Solomani Rim War while protecting a convoy from commerce raiders, is just one of many. (See *EPIC Adventure 2: Into the Glimmer Drift* for details of Turbulent's fate)

DIPLOMACY AND INTER-STATE RELATIONS

A vital part of the mission of any interstellar navy is simply to be seen. The “fleet in being” is a powerful symbol of a state's power and prestige. By “showing the flag” and in other ways being highly visible, the fleet reassures allies and deters potential aggressors.

Warships are often used to transport emissaries and ambassadors, and serve as a demonstration of power and wealth

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– and of course military might – to back up the diplomats’ words.

When the Imperial Ambassador to Chronor was assassinated in 1104, the Imperial Navy sent a single ship to bring her body home. The vessel was INS Pantheress, a gigantic Tigress class dreadnought, and her presence in Consulate space sent a very clear message to the Zhodani leadership.

SUPPORT OR PROTECTION OF INTERESTS

When diplomacy or the implicit threat of naval force does not suffice, naval assets can be deployed in support of the state’s interests. This can simply mean placing a vessel over a vulnerable installation as a guardship, or can be more complex. The presence of a small Imperial warship over Steel in the Spinward Marches might not prevent an attack – after all, how much can one Close Escort or Patrol Cruiser achieve? – but attacking it means firing on the Imperial Navy. Even the stupidest aggressor knows that if you take on any part of the Navy, you end up taking on all of it – or at least, as much of it as is necessary to stomp you flat.

POWER PROJECTION & INTERVENTION

Sometimes the capability to project power, as demonstrated by moving a ship, squadron or even a fleet into the region, is enough to influence events there. Naval assets can exert a powerful stabilizing influence simply by being present. At times, however, direct intervention is required. This can take place entirely in space (e.g. blockade), or from space (e.g. attacks on military installations from orbit). In some cases direct intervention on the ground is necessary. Many naval personnel receive special “Naval Regiment” training for such ad-hoc intervention. If it is at all possible, the Imperial Marine Corps conducts intervention on the ground, backed up by forces from the Imperial Army as needed.

PACIFICATION & PEACEKEEPING

When a region is troubled by war or piracy, the Navy deploys forces to pacify it. Where possible, problems are tackled at the root; pirate bases are found and destroyed; combatants are given pressing reasons to declare a ceasefire. When these measures are not effective, the standard Navy solution is to swamp the region with patrol craft and heavy units. All vessels are stopped and searched.

Illegal activity is harshly punished. Once the area is “cleaned up”, the major units withdraw, but a peacekeeping force is left behind for a time.

Peacekeeping generally means keeping combatants apart and rigorously applying Imperial Law. Infractions that would in another area be given the benefit of the doubt are investigated and dealt with to the utmost extent of the law. The message this sends to belligerents is simple – the Navy will make their lives as difficult as possible until they begin to behave themselves. Lieutenant- Commander Miche of the Patrol Cruiser Isakagi, positioning his vessel between an

armed merchant and a suspected raider during the Bracciai Technum/McClellan Factors Trade War of 1107, summed up the Navy’s uncompromising attitude in his curt broadcast to both vessels: “This vessel is on a peacekeeping deployment. That means you don’t fight round here unless you want to fight with the Imperial Navy!”

BLOCKADE/RED ZONE ENFORCEMENT

For various reasons, the Imperium may want to prevent contact with a particular world. Whether keeping unauthorized traffic out of a world under Imperial Sanctions, or preventing traders too greedy for their own good from blundering into a deathtrap world, the Navy undertakes many such missions. Vessels are warned, then turned around and sent back the way they came. If necessary, force is used.

Blockade can only be enforced if intruders can be detected, so this is a task for ships with excellent sensors, backed up by a unit possessing sufficient firepower to deter any potential blockade runner from making the attempt. Blockade forces usually comprise a light cruiser with a number of patrol vessels for sensor coverage and with auxiliaries in support. However, the Red Zone at Andor/ Five Sisters is considered sufficiently important that a Tigress class dreadnought is the flagship of the blockade fleet, accompanied by several cruisers and support vessels.

WAR-FIGHTING

The Navy must of course remain ready to meet and defeat external threats. War-fighting operations include fleet actions, squadron level raids, commerce raiding and protection, escort of transport and logistics ships, and planetary attack. This is the role for which the gigantic battleships and dreadnoughts, the fast cruisers and the fighter-laden escort carriers are designed. Such vessels represent vast overkill in enforcing laws or chasing pirates, but for the defense of the state against a similarly-equipped foe, powerful ships are the first, last and only line of defense.

The most recent major war in Imperial history is the Fifth Frontier War. Characterized at first by dispersal and frittering-away of resources, the war was brought to a successful conclusion by the assembly of enough Imperial capital ships to smash the Zhodani fleets one by one.

EXPLORATION

The Imperial Navy undertakes little exploration work although in the Zhodani Consulate and the Solomani Confederation, both of which have open frontiers and no specialist Scout Service, exploration is a significant part of the Navy’s role.

TRANSPORT

Most transportation in Imperial Space is by civilian or corporate freighters. However, the Navy does transport its own supplies and munitions in dangerous or sensitive areas.

The Navy also transports troops of the Imperial Army and individual personnel such as ambassadors. The Navy maintains large numbers of courier vessels for the latter role, and many armed and unarmed transport vessels for the former.

The Imperial Rule Of Space

With a few exceptions, the Third Imperium does not rule worlds. Instead, the Imperium claims as its domain the space between the stars. On the face of it, this claim seems meaningless or even silly – space is, after all, rather empty. But empty or not, space is valuable. Every cargo, every message, every diplomatic envoy travels through the space that is the domain of the Third Imperium.

Thus the economic and political affairs of each and every member world can be dominated by the fleets of the Third Imperium.

The Imperium not only undertakes to rule the vast reaches of space but also to defend them, and thereby the worlds that lie within Imperial territory. The Imperial rule of space is thus not a stranglehold upon the member worlds but a contract between the Imperial rulers and the member worlds. While the Imperial Navy jealously guards its right to control space, so also does it claim the proud duty of guaranteeing the safety of the trade ships and the planetary populations of the member worlds.

Although space is the preserve of the Imperium and its Navy, each world is of course entitled to self-government and defense. This means that there must be some meeting point between Imperial and local jurisdiction. The standard terms of Imperial membership allow for a zone of shared jurisdiction between planetary and Imperial forces. This zone begins 10 diameters out from the world and ends at 100; it is not a consequence that 100 diameters is the minimum safe Jump distance. Under 10 diameters is the sole jurisdiction of the planetary forces, except where Imperial intervention has been requested by the world or imposed by legitimate Imperial authorities, or special areas such as Starports, which are considered to be Imperial territory. The 10-diameter zone is patrolled and defended by whatever COACC (Close Orbit and Airspace Control Command) forces the world can muster.

Beyond the 100-diameter limit, Imperial authority is absolute. Local vessels are subject to the same rules and controls as foreign (i.e. out-system) vessels moving through that space. However, there are some special considerations. Worlds with holdings elsewhere in the system are allowed courtesy “transit corridors” to and from their offworld holdings, within which local vessels are considered to be in the “shared responsibility” zone and subject to greatly relaxed restrictions. This courtesy is simply to avoid pointless hassle for local traffic, and is not extended to out-system ships unless they are proceeding between points on the transit corridor. Foreign ships crossing the corridor are in Imperial space, and are the responsibility of the Navy.

The second exception concerns the right to enforce customs and to provide for local defense. All Imperial member worlds have “standing permission” to meet incoming vessels beyond the 100 diameter limit if necessary, and to station system defense assets anywhere in the system that is not specifically prohibited by, say, the proximity of an Imperial Fleet installation in the outsystem.

Standing Permission can be revoked as part of sanctions against an unruly world.

System defense vessels operating in what is very definitely Imperial space might seem to be a breach of the Imperial Rule of Space, but this is not the case. Local defense vessels are not foreign warships intruding into Imperial space but are the forces of an Imperial member world protecting local Imperial space against pirates, smugglers and hostile forces. Thus they have every right to deploy for defensive purposes anywhere in local space (normally defined as their home star system, including the system of a binary partner star).

Local forces do not have the stop-and-search rights of naval vessels in their own right – as local forces they have no jurisdiction in Imperial space. However, local forces are by definition part of the Colonial Fleet of the Third Imperium and as such are required to uphold Imperial (not local) laws wherever they may be. This not only grants the right to conduct searches, anti-piracy sweeps and so on, but also the duty to do so. These duties are undertaken not in the name of local government but with the Emperor’s authority.

How enthusiastic local forces are about these duties does tend to vary from system to system.

Jump-capable local forces are treated exactly like sublight vessels, even if they leave the home system. If they are acting as units of the Colonial Fleet (i.e. under orders from the Subsector admiral), they are treated as regular Navy vessels. They must uphold Imperial Law and observe local jurisdiction as if they were visiting fleet units.

Colonial vessels often take part in anti-piracy or patrol operations in conjunction with or instead of Imperial Navy ships. However, when not under Imperial orders, the deployment of locally-owned warships beyond the home system is a matter for the discretion of the planetary government, subject to permission from the Imperial Authorities. This is discussed later, under Naval Procedures.

Thus the Imperium retains the right to absolute rule of space, yet acknowledges and welcomes the contribution of local forces to that rule. The various gray areas in this arrangement allow for a variety of diplomatic incidents, but this is considered a necessary evil in return for a workable system.

A HISTORY OF THE IMPERIAL NAVY

The fleets of the Third Imperium and its neighbors did not of course spring into being in their present form. They are the product of a long, long period of evolution. Along

the way, vessel design and fleet structure was influenced by the capabilities of potential and real enemies, by hard lessons learned in war and economic factors in peacetime. The development of the fleets begins with the Vilani Ziru Sirka. It is still going on today.

PAX VILANI

The Vilani created the First Imperium in -4045. As any interstellar polity must be, their empire was founded upon naval strength.

When the Vilani became the first race since the Ancients to discover the Jump drive, they quickly learned that they were not alone. A loose interstellar community founded upon trade sprang up in a 60-parsec radius around Vland. Individual traders pushed still further out and sold Vilani technology, even Jump technology, to the races they encountered. Thus other races joined the Vilani on the interstellar stage.

Many were assimilated into Vilani culture, but not all of the races encountered by these new Starfarers accepted Vilani values. Some began to raid, hoping to take by force the technologies they could not afford to buy. It became apparent that some of these races were creating empires that would in time threaten Vilani trade and culture.

The three bureaus that ruled Vilani society were not prepared to let this happen. They raised fleets of warships to protect Vilani trade and strike back at the raiders. The appearance of these fleets, and the new attitude that they represented, caused increased friction with the border empires. In some areas this boiled over into open conflict, and thus began the Consolidation Wars, which would last a thousand years.

At first, the three bureaus each maintained their own fleets, but over time it became apparent that central control was needed. To impose this control, the Grand Empire of Stars (Ziru Sirka) was declared, and with it a reform of the Vilani fleets to create a unified organization. The reorganized fleets of the Ziru Sirka systematically destroyed or absorbed all opposition, until eventually there were no civilized states left on the Vilani borders. Historians may care to note that the Vargr were an exception to this – but then the Vilani never saw the Vargr as civilized.

After the end of the Consolidation Wars, a peace now variously known as the Pax Vilanica or Pax Vilani descended. The powerful fleets of the Ziru Sirka assumed the role of protectors to the Empire, and maintained a careful watch to prevent any “barbarian” powers from arising on the border. Occasional action was required to put down such a nascent threat, but for many hundreds of years the fleet patrolled and observed, and gradually slid into decline.

At its height, the Ziru Sirka controlled 15,000 worlds throughout 27 sectors. The price of rigidly controlling such a large area was cultural stagnation and a loss of interest in the worlds beyond the Imperial borders. When, late in the Pax

Vilani, a barbarian power emerged just beyond the frontier, there was little interest, and no action. The Ziru Sirka dozed in the final years of a golden age, little suspecting how badly prepared it was for a new war. That war began in -2422, when the Pax Vilani was shattered by upstart barbarians boiling out of an insignificant world named Terra. A startlingly short time later, the Grand Empire of Stars was no more.

THE SOLOMANI “NEW FLEETS”

The Terrans, now known to history as the Solomani, developed Jump technology independently in -2434. Solomani explorers encountered the Grand Empire of Stars soon after, at Barnard’s Star. At first the Vilani ignored the barbarians and their primitive starships.

The Solomani insisted upon claiming Barnard as their territory, which resulted in friction and finally, in -2408, a Vilani trade caravan coming under fire from American vessels. The Vilani reaction was predictable. A fleet was dispatched to teach the upstarts their place. The Vilani force met a combined Solomani fleet composed of vessels drawn from the United States Navy, China’s Defense Force, the British Royal Navy and Brazil’s large commerce fleet.

Run-down and overconfident as the Vilani navy was, its vessels still had no difficulty in wiping out the totally inexperienced Solomani force. This served to confirm Vilani overconfidence, while the barbarians were unquestionably taught a lesson.

Unfortunately for the Ziru Sirka, it was not the lesson they had set out to teach.

Fearing that they faced annihilation or subjugation, and knowing that they could not defeat the vast Vilani Imperium as a collection of individual nations, the people of Terra were forced to cooperate as never before. The United Nations was given greater powers to coordinate the efforts of various nations in a move that eventually led to the formation of the Terran Confederation.

Even worse for the Vilani, the Solomani now had some idea how to fight an interstellar war. They constructed fleets organized like those of the Vilani, with homogenous squadrons, and composed of low technology but effective warships. A new class of light attack craft or missile boat was created to return the Vilani salvos with large numbers of relatively crude weapons, while dreadnoughts mounting spinal weapons closed for a decisive clash.

The Solomani New Fleets also included a number of cruiser classes intended for deep raiding missions to disrupt trade and commerce. These vessels boasted a Jump-2 drive, which was a shock to the Vilani since they had monopolized the device for a thousand years.

The Vilani remained overconfident, and were repeatedly defeated by the Solomani, who saw themselves as fighting for survival.

Gradually the Solomani gained ascendance, though it was not until -2204 that the Ziru Sirka, weakened from

within, collapsed and the Rule of Man began. The Solomani navy did what it could to stabilize and govern the shattered Vilani Imperium, and held back the night for another 400 years. However, despite all that could be done, the Ramshackle Empire lost its grip and fell into the darkness. The Long Night began.

It would be 1700 years before light flared once more, and once again the Navy would be the torchbearers.

SYLEAN GUNSHIP DIPLOMACY

The Sylean Federation was established on Sylea in -650 and grew slowly, absorbing several worlds to create a trade federation. By -30 the Federation was under heavy attack by raiders who looted local colonies and pirates who pillaged the trade routes. A long war against the Chanestin Kingdom drew off many ships that could have dealt with these threats.

As the politicians talked of withdrawing Federation ships to the core worlds and abandoning outlying assets, the industrialist Cleon Zhunastu proposed an entirely different solution. Cleon was a Sylean nobleman of Solomani descent, and the head of a powerful industrial consortium. His vision was simple but daring – instead of withdrawing in the face of opposition, the Federation would go out and conquer it, and thus create a Third Imperium. To carry out this bold undertaking, Cleon needed increase the naval power of the Federation so that it could protect its assets and strike against the Chanestin. Old records from the First Imperium offered an idea, which Cleon put into practice at his own expense.

The first Sylean Battle Tenders were simply converted cruisers carrying a half-squadron of four large gunboats. These gunboats were ideal for combating the foes the Federation faced at that time, which could only field relatively small vessels. Sylean gunboats, since they did not need to carry Jump drives or fuel, were faster, more agile and better armed than a starship of similar size. The gunships, despite a shaky start, proved very effective against pirates, clearing the way for an offensive against the Chanestin.

Larger and better gunboats were created, carried aboard custom-built tenders. A new fleet organization was built around squadrons of 2 tenders, each with 6-8 gunboats, and an escort force. These gunboat squadrons struck deep into Chanestin space, backed up by assault tenders carrying squadrons of assault landers. The combination was a success, and the Chanestin Kingdom was forced onto the defensive.

Gunboat tenders also became the symbol of Sylean diplomacy as they carried economic and diplomatic delegations out beyond the borders of the Federation to begin absorbing non-aligned worlds.

As the Federation grew, so money became available to build large, powerful warships. By the declaration of the Third Imperium in Year 0, the first battleships and dreadnoughts of what would become the Imperial Grand Fleet were joining the battle lines, and Chanestin resistance began

to crumble. In Year 2, the Imperial Sunburst was raised above the Chanestin Royal Palace.

The golden age of the battle tender was short, but they provided the Sylean Federation with an effective way to use what resources were available to gain an edge over evenly-matched foes.

However, as soon as the funds were available, the line of battle role was transferred to capital ships, and the tenders were relegated to a secondary position as escort carriers and military transports.

THE PACIFICATION CAMPAIGNS

The Pacification Campaigns (76-120) were for the most part more economic and political than military. The Imperium was involved in rapidly absorbing a great number of single worlds and small states, most comprising less than five or six worlds. The naval power of such states was slight, but there were a lot of them.

Naval forces played several important roles in the Pacification Campaigns, and often without firing a shot. Flag-showing visits from impressive Imperial Navy vessels helped sway many wavering worlds, and the presence of a naval squadron that outgunned the locals' entire navy served to underscore the pointlessness of armed resistance for others. The concept of using a "Single Unkillable Ship" as a diplomatic tool was first demonstrated during this period.

Deploying a lone vessel that clearly could take on anything the locals had - and win - ran contrary to conventional naval thinking, but it served a diplomatic purpose.

Nevertheless, the Imperial Navy was forced to fight. Many worlds were absorbed by force after a naval campaign. This was more a cruiser war than an affair of battleships and dreadnoughts. Minor powers, unable to take on the Imperial Navy head-on, often resorted to harassing raids and war upon trade. So many such "small wars" were ongoing at any one time that by the time one small state had been subdued, two or three more had become involved. Fast cruisers, responding to each threat as it arose, fought to contain each conflict while the BatRons and AssaultRons ground down the homeworlds one by one.

Many conquered worlds remained rebellious, and the Navy was involved in policing the rear areas for several years after the "front lines" had moved outwards. This was again an affair of cruisers and escorts; small vessels capable of covering a lot of ground contributed more than the battleships of the striking fleet.

The most notable actions of this period took place during the Arnaki Resistance, when the world of Arnaki/Core sat at the head of an alliance of relatively powerful worlds. Though the alliance was spread over too large an area for concentrated action, and was thus eventually defeated in detail, the capital ships of the various alliance worlds were powerful enough to slow down the Imperial advance for several years. Effectively integrated with the guerrilla activi-

ties of minor states, the Arnaki Alliance gave the Imperium a tough time of it before the sudden collapse of resistance in 98.

THE JULIAN WAR

As the Imperium spread into the Antares Sector, alarm mounted among the various human and Vargr states to Coreward. This resulted in the formation of a loose alliance, which took its name from its leader, Julian. The goal of this alliance was simple – to curtail Imperial expansion in the Antares sector by any and all means necessary.

The Julian Protectorate was thus born, and with it its striking arm, the Star Legion. However, the Star Legion was not a tidy fleet of shiny battleships. While many member states possessed capital ships and contributed some to the Star Legion, the majority of ships were privateers and corsairs, and vessels designed to combat them. Thus for every battleship or heavy cruiser, the Star Legion had a hundred or more corsairs, commerce raiders, armed merchant cruisers, patrol corvettes or intervention frigates. Many of these vessels were privately owned, recruited for pay or plunder. Command and control was rather loose.

The Imperials quickly established a line of bases facing the Protectorate, and looked down their noses at the random assemblage of “spacegoing junk” facing them across the buffer zone. In the wake of the Pacification Campaigns, the balance of the Imperial fleet had shifted towards heavier units. The reasoning was simple; if more such units had been available during the Pacification Campaigns, more worlds could have been taken, quicker. Other problems such as commerce raiding would simply dry up when the centers of resistance were smashed.

Presented with an ultimatum by the Protectorate, the Imperium was unconcerned. The fleet was ready; it had the right tools. A few concessions were granted but the Imperium was not willing to compromise to any great degree. The Protectorate was forced into a corner, and decided to strike before the corsairs grew bored and took their ships home.

As a horde of commerce raiders and heavier striking squadrons poured into Imperial space, the grand Imperial fleets charged into the Protectorate, crashing through all opposition and taking world after world. Despite the damage being wreaked in the rear, there was simply no way the Imperials could lose. The sword that was the Imperial fleet was too big, too sharp and too heavy for the fragmented Protectorate forces to parry.

But Julian knew that, too. So he fought an entirely different war. Each important world was held as long as possible, with the defenses bolstered by heavy units and capital ships of the Star Legion which would fight hard, then pull back before when defeat became inevitable. Worlds were lost, but the Imperial fleet was ground down.

The Imperial fleet was operating at the end of a long supply line, and Julian raiders swarmed through every

system between the fleet and its depots. Imperial forward bases were raided by fast striking forces. Damaged vessels returning for repair ran a gauntlet of harassing raids and the occasional ambush. The Imperial advance ground inexorably on, but the cost was high and back in the Antares sector, worlds began to reconsider their allegiance to the Imperium. Still, the Imperials were winning, and the end seemed to be in sight when a large number of Julian capital ships were suddenly withdrawn from the battle line. Most analysts assumed that the Protectorate was beginning to break up, or that the ships were simply too battered to fight on.

Their absence was explained shortly after, when powerful Julian fleets made end-runs against Imperial depots in Fornast and Ley Sectors. Both depots were captured after heavy fighting, though the Fornast fleet withdrew after making repairs and destroying the depot with nuclear explosives.

With the Ley Sector depot in enemy hands, the heavy units of the Julian Fornast Force rampaging through the rear areas destroying escorts and raider-hunters, heavy losses among supply ships and commercial traffic and political troubles in the Antares sector, Imperial High Command decided that the eventual victory of the battle fleets would come at too high a price. A peace settlement was proposed, and after a fraught period of negotiation, accepted. Concessions by both sides led to the creation of a buffer zone, an independent League of Antares, and the curtailment of Imperial expansion in the region. The sector remained a hotbed of incidents and intrigue for many years after the war's official end in 191.

ASLAN AND VARGR WARS

The Vargr Corridor Campaigns (210-348) and the intermittent conflicts with Aslan clans in the Reavers' Deep region provided the Imperial Navy with a wealth of experience at fighting relatively small-scale actions against small non-human states. Neither the Vargr nor the Aslan ever resembled a coherent threat, and the goals of these wars were different to many others. There was no massive threat to Imperial security nor any need to mass huge fleets and conquer a region. Instead the campaigns were very much a ‘cruiser war’ in which conflict with one Vargr state or Aslan clan would be brought to a conclusion just in time to meet the threat from another. These ‘wars’ resembled large-scale peacekeeping operations more than full-scale warfare.

The Vargr Corridor Campaigns dragged on for 130 years (though fighting was not constant) before the Corridor region was properly secured. To this day the Corridor Fleet remains one of the most active in the Imperium, since the region stays secure only as long as sufficient force to deter Vargr raiders is stationed there. The occasional corsair does still try his luck however, so the patrol elements of the fleet remain at a high pitch of readiness.

The Aslan wars were a slightly different affair, being mainly concerned with keeping expansionistic Aslan clans

out of Imperial space. These clans were not seeking conflict with the Imperium but were unable of (or unwilling to) control their Ithatei who wanted to seize territory from the weak Imperials. After centuries of intermittent fighting, some of which became quite large-scale as clans were dragged into war by their Ithatei, a peace deal was finally hammered out. The Peace of Ftahahr remains in force to this day, but only at great effort. While the Imperium and the clans want peace, groups on both sides seek their fortune in the buffer zone created by the treaty, and this inevitably leads to major peace-keeping requirements. The Imperium maintains a special fleet composed mainly of cruisers and light forces to maintain the Peace, and it has its work cut out for it.

THE CIVIL WAR (604-622)

In the wake of the First Frontier War, Grand Admiral Olav hault- Plankwell proceeded to Capital with his victorious fleet, murdered Empress Jacqueline and proclaimed himself Emperor by right of Fleet Control.

Plankwell had considerable support and various legitimate grievances, but these were not sufficient to guarantee his position as Emperor. The power struggle that followed lasted for 18 years and saw no less than 18 Emperors declared. The Imperial Navy was instrumental in the strategy of most of these Emperors, and provided many of them from its ranks.

Various factions of the Imperial Navy supported one candidate or another, or played kingmaker from a position of power. Squadron and even fleet battles were common during this period as even those candidates who cited other means of accession to the throne, such as Right of Assassination, recognized that the Navy was the single most important tool in their pursuit and maintenance of power.

Naval actions during the Civil War took three forms. Demonstrations of military power served to sway worlds and even sectors into supporting an Emperor or a pretender to the Iridium Throne. Relatively bloodless skirmishes decided many issues in what was more akin to the display-competition of male animals at mating time than a serious attempt to win battles. And far too often, all-out battles to the death took place, either for control of Capital and the surrounding Core Worlds or as one faction attempted to destroy the fleet or support base of another.

While the Civil War was a nasty business, and atrocities occurred, on the whole it was conducted with a surprising amount of regard for sophonts' rights and the understanding that innocents should be spared as far as possible. Whether this was in recognition of the fact that the opposition were Imperial citizens too, or simply a cynical understanding that people you have bombed from orbit are unlikely to offer you their wholehearted support later, will never be known.

More than half the Imperial candidates of the Civil War period were killed in naval actions. The only one to survive, Grand Admiral Arbellaatra, fought the Second Frontier War to

a hard-fought victory then marched on Capital as Plankwell had done. Arbellaatra, however proclaimed herself regent rather than Emperor, and set about pacifying the other candidates. She eventually became Emperor, but as ratified by the Moot rather than self-proclaimed by Right of Fleet Control. However, the part played by her control and leadership of the fleet cannot be overstated. The Imperial Navy put Empress Arbellaatra on the throne, as it had others before her. However, her reign lasted because while she knew how to use the fleet to serve the throne, it was not her sole right to sit on it.

THE SOLOMANI RIM WAR (990-1002)

In 990, rising tensions between the Imperium and the Solomani Autonomous Region suddenly became outright war. Caught off guard, the navy was driven back along almost the entire battlefield, and suffered heavy losses. An immediate and effective implementation of a delaying strategy, coupled with the launch of deep raids into Solomani territory, slowed the advance while Imperial reserves were brought up. The contribution of Imperial ground forces and planetary defense crews, holding out behind enemy lines, cannot be discounted.

While initial Imperial battle performance was unimpressive, especially among reserve forces brought up from deep in the Imperium, hard lessons were well learned in the early stages of the war. Soon the Imperial fleet was on the offensive. From this point on, the Solomani had lost, though hard years of war were needed to convince them of it.

The Imperium could field more and better ships, and remembered the mistakes made by the First Imperium against the Solomani. There would be no piecemeal commitments of local forces; the Solomani were seen as a threat to the existence of the Imperium and no effort would be stinted to crush them. Whole fleets joined the battle lines, and more importantly, the Imperial high command had a unified strategy aimed at defeating the Solomani and winning the war. At no time was a policy of taking back lost territory or "teaching the Solies a lesson" even considered. The enemy would be smashed; territory would then be claimed. It was a hard-nosed policy that embraced the true principles of warfare and made few concessions to public-opinion considerations.

When fighting the Solomani, this is the only way to win. Rather than nibble at the enemy along the front and take back "prestige" worlds, or go to the assistance of fortress planets heroically holding out, the Imperial Fleets plunged into Solomani space, striking at bases, depots and worlds whose industry was critical in supporting the war effort. The Solomani fleets were forced onto the defensive and, pinned against these vital objectives, shattered by superior Imperial forces. Meanwhile, light raiding squadrons slashed in and out of Solomani-held space, gathering intelligence, distributing propaganda and causing as much nuisance as possible. As the main-line Solomani fleets were pulled into defensive actions to defend their critical bases, reserve and second-line

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Imperial fleets assaulted worlds and took them back in a “crumbling” strategy along the frontier that left the Solomani guessing where the next blow would fall – and unable to mass against it.

The war dragged on for more than ten costly years, but gradually the scales tipped more and more towards the Imperials. Finally, the knockout blow was launched; the invasion of Terra itself. The remaining Solomani fleet units and Terra’s impressive planetary defenses put up a tremendous fight, but the outcome was never in any doubt. With the fall of Terra, the Solomani finally agreed to a cease-fire that has become an uneasy peace. Live-fire incidents are not uncommon between Imperial and Solomani vessels, but neither side wants to go through the grinder again, so the fragile peace holds... for now.

THE FRONTIER WARS

The Third Imperium has fought five Frontier Wars against the Zhodani to date.

The First Frontier War (589-604) arose out of tensions between the aggressively-expanding Imperium and the more conservative Zhodani Consulate. Brought to a successful conclusion by Grand Admiral Plankwell with almost no support from outside the region “Behind the Claw”, the First Frontier War was a catalyst for the Imperial Civil War that followed immediately after it.

The Second Frontier War (615-620) was an attempt by the Zhodani-led Outworld Coalition to reverse their defeat of a decade previously by exploiting the weakness of Imperial forces due to the Civil War. Inspired leadership by Grand Admiral Arbellatra eventually resulted in a close victory for the Imperials and acted as her springboard to Imperial power.

The Third Frontier War (979-986) arose out of long-standing tensions between the Imperium and the Consulate. Complacent Imperial forces made a poor showing and while the armistice of 986 gave little away, the war resulted in the abdication of Emperor Styryx as well as some rethinking at court and within the fleet.

The Fourth Frontier War (1082-1084), also known as the “False War”, is mainly remembered for the fact that it was over before the Emperor’s instructions for the conduct of the war reached the commanders fighting it. Despite early Zhodani thrusts made in strength, little gain was made. The discovery of a Zhodani forward base in deep space between Yres and Menorb resulted in the climactic Battle of Two Suns, which was a victory for Imperial forces.

The Fifth Frontier War (1107-1110) opened with a series of uprisings by Pro-Zhodani and Anti-Imperial groups. Initial Imperial strategy was poor, mainly due to a complacent high command more suited to internal politics than interstellar warfare. After Duke Norris of Regina purged the officer class using special powers granted by the Emperor’s Warrant, Imperial forces went over to the offensive and took back all that had been lost. The war resulted in a shake-up of the

Imperial Navy and an attempt to find lasting peace with the Consulate.

RIM SKIRMISHES

Although the Solomani Rim War is over, there is still a great deal of tension along the border. Occasional shooting incidents occur, but far more serious is the proxy war fought between Solomani forces and the navies of the Vegan Autonomous Region. This is a low intensity affair, with no actions larger than the squadron level. The Imperial authorities allow the situation to continue for two reasons. Firstly, there is no desire to push the issue and risk renewed war with the Solomani, and secondly, the situation allows Solomani vessels and tactics to be studied. What the Solomani hope to achieve is open to speculation.

CHAPTER 2: VESSELS OF THE IMPERIAL NAVY

The Imperial Navy makes use of many types of vessel. Some are tailored to a specific task while others are general vessels designed with flexibility in mind. The fact that communications are limited to the speed of a jump-capable courier imposes an important requirement upon Navy vessels: they must be capable of handling unusual situations as they occur. This is mostly true of vessels up to cruiser size, as capital ships rarely operate alone.

Vessel Classes

Within each class of vessel, several variants may exist. The following overview is a guide to the general capabilities of type rather than precise details of any given class. As a rule, Imperial vessels are designed to match “fleet mobility” requirements – i.e. Jump 4 and 6G acceleration. A few classes exceed this requirement, but the cost is too great for a significant portion of the fleet to be so equipped.

Capital Vessels

Capital vessels are designed for heavy combat in the line-of-battle. They exist to meet heavy enemy units and crush them in squadron or fleet actions. Most capital ships are built around the biggest spinal mount they can carry, backed up by a powerful secondary armament of bay weapons. Batteries of lasers and sandcasters are carried as tertiary armament, mainly for dealing with fighters and strike craft. Some capital ships carry an organic fighter element, and most have large numbers of ship's troops aboard.

Capital ships very rarely operate without support, screening and escort vessels. Ships are not usually dispersed on minor errands or guardship duty, though a few very sensitive red zones are assigned a single capital vessel to back up the interdiction squadron. Occasionally a capital ship will be detached to carry out a particularly prestigious function such as transporting a great noble to a major event.

With the exception of battle riders, all capital ships are commanded by a full Captain, who will often hold a knighthood or be a member of a noble family. Capital ship command is a highly prestigious posting, and is generally seen as the route to flag rank and/or the high nobility.

SUPERDREADNOUGHT

The Superdreadnought is a concept which has emerged occasionally. Essentially a larger and even more powerful version of the standard dreadnought, the Superdreadnought is intended to be able to smash two or more enemy dread-

noughts in combat whilst exercising effective command & control over the battle. Superdreadnoughts are phenomenally expensive and subject to diminishing returns.

The most famous attempt to revive the concept in recent years was the private project of Archduke Erechs of Gateway. The unfinished prototype, Annapabar, was lost with all hands while defending the Domain capital (its namesake) from a Solomani strike force in the early years of the Solomani Rim War.

DREADNOUGHT

The best and newest (and most expensive) line-of-battle ships are designated dreadnoughts. They form the backbone of the front-line battle squadrons and continually evolve to meet new threats or exploit new ideas. As a dreadnought class loses its cutting-edge status, it is downgraded to Battleship designation. The 200,000 ton Kokirrak class dreadnought is about to suffer this reduction in status, reflecting the fact that the design is becoming obsolescent. Current Imperial dreadnoughts include the Plankwell class (200,000 t) and the awesome Tigress class (500,000 t), which carries 300 fighters in addition to its main armament.

BATTLESHIP

Including both downrated dreadnaught classes and purpose-designed second-class line-of-battle ships, the Battleship designation covers the bulk of Imperial capital ships. Like dreadnoughts, battleships concentrate their firepower in a huge spinal mount and batteries of secondary bay weapons. Defenses include thickly armored hulls and huge sandcaster batteries.

Battleships are deployed by preference in massed squadrons, but may be encountered detached as guardships or showing the flag. Battleships are second-class only when compared with dreadnoughts; any battleship is capable of ripping the heart out of a heavy cruiser with a single salvo.

BATTLECRUISER

More lightly protected than a battleship, though mounting the same armament, the battlecruiser is designed for a slightly different role than the line-of-battle. Battlecruisers cannot stand up to their own armament for long, but they are not intended to. Instead, they undertake fast strike operations against enemy shipping or bases, or chase down enemy cruisers doing so against their own side.

Battlecruisers sometimes possess a higher jump capability than battleships or dreadnoughts, to give enhanced strategic mobility.

The Imperial Navy does not favor battlecruisers.

BATTLE RIDER

Battle riders are designed to be an alternative to jump-capable warships. Since a whole squadron can be carried by a huge Battle Tender, the battle rider need not devote space to jump engines or fuel. The space thus saved can be used for weaponry and armor, while the money saved pays for the lightly-defended tender.

A battle rider is up to 50% more effective in combat than an equivalent jump-4-capable ship, but lacks the mobility to break off if the fight goes against it. Tenders are vulnerable to enemy action and since their loss will leave the squadron stranded, resources must be diverted to protecting them. The result is that battle rider squadrons are not always as effective as they might at first seem. The concept is not currently in favor with the Imperial Navy, though many squadrons still exist. Some battle riders have been transferred to the colonial fleets, assigned as guardships at depots and strategic worlds, or sold to friendly powers.

Battle Riders are often commanded by an officer holding the rank of Commander rather than a full Captain.

Cruisers

Starfarers within the Imperium are far more likely to encounter a cruiser – or a squadron of them – than a battleship. Cruisers are the workhorse units of the Imperial Navy, and can be encountered singly or as part of a task force. Cruisers engage in patrol and flagshowing operations, deterring piracy and unrest by their imposing presence. In wartime, cruisers undertake a variety of roles. Some are escorts for heavier units and transports. Others raid into enemy territory or chase raiders down.

Cruiser armament generally consists of a powerful spinal mount and relatively light secondary (bay) armament, but this depends upon the role intended for the vessel. A cruiser of any kind would be gutted by the main armament of a capital ship, but its weaponry could inflict severe damage on that capital ship. Against anything smaller than a cruiser, such as a commerce raider, a cruiser is as good as a battleship; effectively invulnerable and devastatingly powerful.

Commanding officers aboard cruisers tend to be Captains or Commanders, with seniority tending towards the heavier types.

HEAVY CRUISER

The Heavy Cruiser is a powerful naval unit, capable of undertaking most operations. Armament is centered around a heavy spinal mount and defenses are good. Heavy cruisers protect the line-of-battle and undertake combat against similar enemy units. Many operate detached as single-ship task forces. Most carry a marine force for intervention operations.

FRONTIER CRUISER

The Frontier Cruiser is a high-jump vessel (J-5 is common) intended for long-distance patrols along and beyond the Imperial frontier. Such a vessel must be capable of dealing with any eventuality from piracy to disaster relief, and such capability is bought at cost of lighter armament and defenses. The most famous class of frontier cruiser is the Azhanti High Lightning class.

STRIKE CRUISER

Somewhat similar in concept to a Battlecruiser, a strike cruiser is a fast, lightly-defended vessel built around a single weapon system (usually a spinal meson or particle accelerator weapon) and intended for one role only – to carry that weapon system into range of a target.

Strike cruisers mount little secondary armament, though a reasonable tertiary armament to defend against light craft is common. Defenses are light, meaning that the vessel must get into range, take the shot and withdraw rapidly. This kind of strike operation may be conducted deep into enemy territory, so high jump numbers are not uncommon.

MISSILE CRUISER

Missile cruisers are not popular with the Imperial Navy, but are experimented with from time to time. Built with no spinal mount but bristling with missile tubes, the missile cruiser usually carries a few small craft with excellent passive sensors to “spot” for it. Ideally, the first an enemy vessel knows of the presence of a missile cruiser is the arrival of a huge salvo of nuclear warheads.

LIGHT CRUISER

The most common type of cruiser in the Imperial Navy, light cruisers mass around 30,000t and are usually biased more towards armament and maneuverability than defenses. A light cruiser is more than enough to deal with most threats short of a major warship, and is cheaper to man and deploy than a more powerful vessel.

In peacetime, light cruisers can be encountered anywhere. They may be showing the flag, acting as guardship, or conducting intervention operations. Wartime roles include patrol, escort and protection of the battle line against light enemy vessels.

RIFT CRUISER

A special vessel designed for operations in the Great Rift, the Rift Cruiser has reduced armament but Jump-6 capability, allowing patrols in the star-sparse area to be maintained. Occasionally the high jump capability of this vessel is exploited for a rapid redeployment or a deep raid into enemy territory, but limited numbers are available and costs are high.

ESCORT CRUISER

Unlike all other classes of cruiser, this variant light cruiser mounts no spinal weapon. Instead powerful secondary and tertiary batteries are carried. Escort cruisers are designed to stick close to a high-value unit such as a flag dreadnought or battle tender. Their role is to protect the major vessel against missiles, fighters and light vessels. Escort cruisers can also be encountered escorting tankers or other vulnerable vessels, and engaging aerospace forces during planetary assaults.

RECONNAISSANCE CRUISER

Another small class, the reconnaissance cruiser is fast but lightly armed. It carries a huge sensor suite and is intended to penetrate hostile space to gather intelligence. While able to fight its way out of trouble, the recon cruiser ideally will avoid detection or use its high jump and maneuver capability to escape pursuit.

INTERDICTION TENDER

The Interdiction Tender is a cruiser-sized vessel with fairly low mobility (Jump-2 or 3) which carries a large number and wide range of subordinate craft. Its mission is to support and maintain the forces blockading a Red Zoned world. The tender is armed well enough to take on a destroyer-sized opponent, which is all it is likely to encounter. Its brood of fighters and gunships enable it to cover a lot of space, and it can support other vessels (in the escort or destroyer classes) assigned to assist it. To a great extent, interdiction tenders are more mobile bases than warships.

The concept has never really caught on, but some Sector Fleets have one or two of them and find them useful enough to be worth retaining.

Carriers And Tenders

The Imperial Navy is not greatly enamored of fighters and other sublight craft. However, they do have their uses, and jump-capable vessels are required to transport them. Fighters are primarily useful for fleet security and reconnaissance or engaging aerospace forces during an assault, but at need they can make massed attacks on enemy vessels. Casualties are always high in this role, and results disappointing.

Carriers are generally commanded by a full Captain in the case of battle tenders, fleet and strike carriers, and a Commander in other cases. Battle Tenders often act as the flagship for their squadron of riders, and carry a commodore and his staff for this purpose. Carrier Captains are sometimes held in low esteem by the commanders of cruisers and battleships, who refer to them as “brown shoe skippers”.

FLEET CARRIER

Large carriers, massing around 100,00t, are assigned to every fleet. They do not carry a spinal mount and while

possessing a large secondary armament, are not intended for close combat.

Carrier operations are centered around a large number of heavy fighters – 300 or so – which carry out screening, escort and patrol duties. Extensive repair and maintenance facilities keep the fighter squadrons at high readiness.

STRIKE CARRIER

Massing around 75,000t, strike carriers mount a light spinal armament and are both more agile and better defended than fleet carriers. Despite their name, strike carriers spend more time acting as a mobile patrol force base in threatened areas than undertaking strike operations. However, at need a strike carrier can penetrate a hostile system, launch a swarm of fighters to harass shipping or shoot up facilities, and withdraw before effective resistance can materialize. A typical complement is 80 fighters.

ESCORT CARRIER

The escort (or light) carrier is simply a lighter, cheaper version of the fleet carrier. Typical mass is around 30,000t, with no spinal mount and a complement of 80 fighters. While the large number of fighters aboard a fleet carrier might lead to the conclusion (always proven wrong) that the fighter wing could carry out massed operations against serious opposition, the smaller complement of a light carrier obviously cannot. Light carriers are generally deployed with a couple of escorting destroyers as mobile patrol platforms or to conduct security operations in advance of a squadron.

BATTLE TENDER

Battle tenders are huge, open-frame vessels capable of transporting up to five large battle riders. The tender often acts as flagship for the riders, and thus carries extensive command and communications equipment. A reasonable secondary armament is also shipped for self-defense, but tenders are very vulnerable and require escorts.

Recent experiments with hybrid tender/carriers have not met with success. Such a vessel, whose fighters or gunships could protect and screen in while the riders engaged enemy forces, is attractive in theory but plagued by technical difficulties in practice.

Escorts And Couriers

Without effective communications, a squadron or fleet is ineffectual. Similarly, it is all but impossible to conduct operations while beset by nuisance attacks. These roles are vital to the fleet, though they are often overlooked or viewed with derision.

Escorts keep smaller enemy vessels away from the high-value units, preventing the enemy from conducting effective reconnaissance or launching a strike with one-shot weapons. Escorts of moderate size such as destroyers and fleet escorts

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usually rate a full Commander, while smaller vessels are Captained by a Lieutenant-Commander.

Escorts may be grouped into specialist escort squadrons, assigned to a task group or detached for patrol and commerce-protection duties. They can be encountered anywhere.

Couriers are assigned to a squadron or fleet as a “pool” to be used as needed. Incoming couriers join the pool, outgoing ones may be reassigned to the pool wherever they arrive, or may return with message confirmation. Courier vessels are ubiquitous, and can be encountered anywhere. They are sometimes used for patrol or picket work, but are not really suited to this role.

Couriers are generally small vessels, and are commanded by a senior lieutenant or possibly a lieutenant-commander. Fleet Escort Fleet escorts such as the PF Sloan class are intended to accompany heavier ships and to intercept light craft and missiles headed for the high-value units. Thus they are lightly armored and are armed for taking out fighters, not destroyers. The typical escort masses about 5,000 t. If engaged in combat alone, fleet escorts tend to fare badly.

DESTROYER

Destroyers do not, as a rule, carry a spinal mount. They are thus not considered major combatants by the Imperial Navy, though their armament of bay and turret weapons can be formidable. Sizes range from 1-3,000 t, with a general emphasis on maneuver rather than defense.

Although the Imperial Navy sees destroyer-class vessels as escorts, they are often pressed into service in other roles. Destroyers can thus be encountered operating solo or in squadrons. Missions include guardship, flag-showing, patrol and even strike against relatively soft targets. A destroyer is more than a match for any civilian vessel, but even squadrons should not take on major combatants.

MISSILE CORVETTE

Small missile-armed vessels such as the Valor class represent good value for money so long as their modest capabilities are remembered. When conducting patrol and escort duties, these craft can be effective in deterring piracy or in resisting commerce raiding. When committed to open battle, they tend to be slaughtered. A typical corvette masses about 500t. Defenses are quite poor, as is beam armament. The missile salvo is impressive for such a small ship, however, contributing greatly to the deterrent effect.

CLOSE ESCORT

Close escorts such as the Gazelle and Fiery classes, massing around 300t, are intended for piracy suppression, patrol of commercial routes and of course the close escort role. In the latter, the close escort shelters under the big guns of a larger ship, and in turn protects it from attack by light craft.

Close escorts are effective in this role, being quite capable of destroying incoming fighters or gunships. However, their value in open combat is almost negligible. Despite this drawback, shortages of ships result in close escorts being assigned as the sole protection for a convoy, or to solo patrol. The type has always fared badly in this role.

FLEET COURIER

While the Type S Scout/Courier is often assigned as a communications and liaison ship, fleet communications require a fast vessel capable of looking after itself. Massing 400t, the Fleet Courier is a Jump-6 capable vessel mounting a significant armament. Defenses are weak, and attempts to use couriers as response units or escorts have always ended in disaster. However, the courier is capable of defending itself if intercepted by light craft. This is an entirely likely scenario, since maneuver is sacrificed for the sake of high jump and the fuel required to maintain it.

Logistics And Supply Vessels

Without logistics and supply vessels, the Navy would grind to a halt within days. These unglamorous and often-overlooked vessels carry fuel, missiles, spares, tools, food... and everything else the fleet requires. Horribly vulnerable and under-armed, supply ships are regularly sent into dangerous areas with an inadequate escort. Skippers tend to hold the rank of Commander or Lieutenant-Commander.

FLEET LOGISTICS VESSEL

The Fleet Logistics Vessel is a general-purpose supply and transport ship designed to accompany a task force. Not only capable of transporting a variety of vital supplies, the FLV has extensive machine and electronics shops, and is capable of fabricating necessary spares on-site, greatly increasing the fleet's capability to keep ships on deployment. FLVs are lightly armed for self-defense and carry a number of small craft including specialized repair tugs. They are often pressed into service as repair ships, and more recent classes are designed with this capability in mind. Commanding officers tend to be senior Commanders or junior Captains.

TANKER/RESUPPLY SHIP

Most logistics ships of the Imperial Navy are either tankers (which skim, purify and transport liquid hydrogen fuel for the line ships) or resupply ships, which carry “dry stores” which can be anything from missiles to boots to coffee beans – and usually all of them. Some classes of tanker carry a number of fighters for close escort work.

This is a recent development, and is still under evaluation. The concept was introduced after heavy tanker losses during the Fifth Frontier War, often inflicted by relatively light craft.

DROMEDARY

A dromedary is a combination tanker/supply ship. Dromedaries often accompany small task forces where the deployment of several support vessels would be wasteful.

FREIGHTER

Freighters are operated by the Imperial Navy for routine movement of stores. Freighters are usually unarmed, and are not intended to support the fleet in action. Instead, they bring supplies into the fleet bases, where they are transferred to armed support vessels if necessary. The vast bulk of supplies never go further than the depots.

TROOP TRANSPORT

Troop transports are used to move ground forces between worlds. For routine operations, where combat is not expected immediately upon arrival, the Briann class is often used. The Briann class carries its troops in low berths and equipment stowed. Landings are made direct to a planetary surface or via interface lighters carried for the purpose.

For “hot transfers”, the Iron Horse class Assault Transport is used. Built on the same 20,000t hull as the Briann class, the Iron Horse sacrifices capacity for the ability to convey an armored battalion or infantry brigade (carried awake rather than in cold sleep) to a planetary surface in large lighters. These are still not assault craft in the true sense, but can fight through a light defense at need.

FLEET AUXILIARY

The term “fleet auxiliary” covers a multitude of small vessels carrying out routine tasks such as personnel transfer, non-urgent courier and mail duty, small cargo shipments and so forth. Such craft tend to be small merchant vessels fitted with a light armament. Many are identical to the far traders and fast traders operated by mercantile concerns, while a few are purpose-built to military specifications.

RESERVE AUXILIARY

Any shortfall in auxiliary transport capacity (local or sector-wide) is made up by impressing civilian vessels. This is done in a variety of ways. Reserve Auxiliaries tend to be small merchant craft whose Captain holds a reserve commission, or which have been assigned a liaison officer. Such “ships taken up from trade” (STUFT) are usually assigned short, safe, one-off cargo or personnel delivery runs. However, in wartime the needs of the Navy may send an unarmed far trader halfway across the sector, or into a dangerous region. These vessels are highly vulnerable to commerce raiding.

Planetary Attack Vessels

Planetary assaults are always a costly business. Even once the system has been secured, planetary defenses and

aerospace fighters still pose a threat. Whole brigades can be wiped out without firing a shot if the vessel transporting them is hit. Even once the run-in is complete, troops must deploy into the very hottest of hot zones, and the landing ships are still at risk as they climb back to orbit. Imperial planetary attack vessels and tactics are designed to minimize the losses taken while maximizing the effectiveness of the attacking force.

ASSAULT TENDER

Most planetary assaults are undertaken in relatively small non-jump capable craft launched from large assault tenders. Some such tenders carry fighters to escort the attack ships in, but few carry significant planetary-attack armament. Current Imperial thinking prefers to keep the tenders at a safe distance and leave artillery tasks to specialized vessels, which usually means fire support craft carried aboard the tender.

The most impressive assault tender of all is the Iridium Titan class, which at a massive 150,000t can transport a division of the Imperial Army along with assault landers and fire support craft. Most, such as the Mongol class, carry only a brigade-sized unit.

BOMBARDMENT CRUISER

The support vessel of choice for orbital attack is the 50,000 ton Warspite class bombardment cruiser. This is the Imperial Navy’s only vessel optimized for planetary attack, though many other classes have a secondary bombardment capability. The Warspite class cruisers are armed with a mix of mass drivers for mass damage, missile launchers and meson gun bays for relatively precise strikes. A secondary armament of lasers for close-in defense is also carried, and the vessel has the capability to use them in pinpoint-strike mode.

Warspite class cruisers carry three large (4000t) Bombardment Support Craft. Sometimes called “trash compactors”, these vessels are equipped to gather up small asteroids and fragments of wrecked warships for compacting into mass-driver projectiles. Being bombarded with the wreckage of one’s own system defense squadron has a severe morale effect upon the enemy. The physical damage tends to be more significant, all the same.

MARINE CARRIER

The 40,000 ton Tarawa-class Marine Carrier is crewed and commanded by naval personnel but forms part of a Marine task force. Carried aboard is a Marine Infantry brigade supported by a grav cavalry battalion plus a fighter wing and assault shuttles.

All craft are flown by Marine personnel. Extensive command and control facilities are carried aboard, to allow the brigade commander to control and coordinate the operation.

ASSAULT SHIP LANDER

The 5000t Outrider-class Assault Ship Lander is designed to bring a battalion of the Imperial Army direct to the planetary surface from Jump, and to support them there with fire from its ground-attack armament. Planetary assault is normally thought of as the work of the Marine Corps, but Army units are frequently used in this role, either alongside or as a follow-up to Marine spearheads.

The Outrider class saw extensive use during the planetary assaults of the Solomani Rim War, where it was found that the inefficiency inherent in the design – which landed Jump engines and fuel tanks along with its fighting cargo – made it far less than cost efficient.

The class suffered heavy losses to ground defenses and is due to go into reserve, to be replaced with a tender/assault ship combination like that used by the Marines. Various designs are currently under consideration.

ASSAULT LANDER

Assault landers range from small armored shuttles carrying an infantry squad to the Marine Corps' 1200t Nakerkh class assault ship. They all have certain features in common; notably high speed, good armor and ECM systems, and some form of support or self-defense weapon. Assault landers are high-value targets, at which a defender will throw everything he has in the hope of destroying a large proportion of hostile ground forces before they hit the ground.

FIRE SUPPORT CRAFT

A variety of craft in the 1-3,000 t range are used to give close fire support to an assault. These craft, of which the 1000t Hansnaht class gunship is commonest, engage enemy aerospace craft, troop concentrations and ground targets. Their role encompasses defense suppression, assault escort, diversionary attack and a sweeping shoot-everything-on-the-ground role.

Patrol Ships

Patrol vessels are the most commonly-encountered ships of the Imperial Navy. They patrol the spacelanes to deter, counter and punish illegal activity such as smuggling and piracy. Patrol ships are often pressed into service as escorts in time of war, while in times of tension they act as “tripwire” forces to warn of enemy action. Since the bulk of the IN budget goes on capital ships and cruisers, there are never enough patrol ships.

Most patrol ships are captained by a Lieutenant-Commander or a Commander, since they operate solo for long periods and their crews are often the only Imperial representatives in a system.

PATROL CRUISER

The Patrol Cruiser is a common sight in Imperial space. Some observers wonder that a 400t vessel should be termed a “cruiser”, but the term is accurate in one context – this class of vessel is designed to undertake long solo cruises and deal with whatever it encounters. This is a traditional cruiser role, whatever the more usual meaning of the word “cruiser” may be.

Patrol Cruisers are often purchased by world governments as guardships or customs vessels, roles they fulfill admirably. Though small, they are well armed with missiles and lasers and can take on even a large armed merchant at need. Patrol Cruisers are not main-line warships, however.

COLONIAL CRUISER

The 1200t Kinunir-class Colonial Cruiser (also termed a Vanguard Cruiser or Battle Cruiser) was originally conceived as a peacekeeper vessel combining heavy armament with a marine contingent for intervention operations. The class was plagued with system faults, and was a failure operationally, too. The class carried too few Marines to make any real difference, but wasted too much tonnage on the Marine force to be an effective warship. The class is being phased out, though a few remain.

However, the concept of a heavy patrol ship remains viable, and in time a new class may emerge to fulfill the patrol/flag-showing role, either solo or as the flagship of a small patrol force.

HUSCARLE CRUISER

The Huscarle Cruiser was designed and built by Instellarms as a larger version of the Mercenary Cruiser, the Huscarle Cruiser masses 2000t and is available with various optional weapons fits. In its basic form, the Huscarle Cruiser functions as a transport for up to a company of troops and can act as escort for a noble's yacht. More expensive versions are often purchased as personal flagships for nobles, or as warships for those nobles maintaining a flotilla.

SYSTEM CONTROL SHIP

The 5,000t System Control Ship is a resurrection of an old idea, combining the features of a very light cruiser with the fighter complement of a “pocket carrier”. Not intended to take on major warships, the SCS's light spinal mount can shatter the typical commerce raider or corsair, while its wing of fighters, picket boats and inspection cutters can police traffic over a large area within a star system, bringing tight customs and revenue control to the region for as long as necessary, without need for a permanent base.

System Control Ships can also undertake raiding and escort duties, but are not really suited to these roles.

FLEET PICKET

The 1000t Fleet Picket is a specialist vessel, with good defenses but light armament. Its function is to monitor a region of space or sweep ahead of an advancing fleet, using remote sensor drones and an impressive array of detection equipment to warn of approaching or lurking hostiles. Pickets are sometimes pressed into service as search or intelligence-gathering vessels.

Specialist Vessels

The Navy operates a number of specialist ships optimized for various roles. These ships are not intended for combat, but may be armed for self-defense. They are often assigned a close escort.

RAPID ASSISTANCE VESSEL

The 10,000t Messiah class Rapid Assistance Vessel is a lightly armed jump-5 capable starship intended to render whatever assistance is needed to any Imperial world suffering a catastrophe of any kind. The Messiah has only a token armament, but it carries extensive command and coordination facilities, plus workshops, medical wards, laboratories and a complement of engineers and security troops provided by the Imperial Marine Corps.

In the event of a major disaster, a Messiah is usually the first vessel on the scene, acting as a command post to assess the situation and coordinate the employment of other assets as they arrive aboard freighters and other craft. A pair of fast courier boats are carried, so that the assessment and any request for backup can be rapidly transmitted to headquarters.

Messiahs have been instrumental in dealing with disasters as diverse as earthquake, fire, flood, life support breakdown, plague and refugee assistance in wartime. War, insurrection and revolt are dealt with by more conventional vessels, but a Messiah may well accompany a task force to alleviate suffering among victims of a conflict. Only one has ever been lost to combat, during the Solomani Rim War. The vessel was mistaken for an assault transport by Solomani strike craft during the assault on Terra.

HOSPITAL SHIP

All Navy vessels have a sickbay, and assault ships almost always have extensive surgical facilities. However, casualties are transferred to bases or hospital ships as soon as possible. Hospital vessels are traditionally unarmed or fitted only with sandcasters plus a few point-defense turrets. In almost all wars, the noncombatant status of hospital vessels is respected. The standard Imperial hospital ships are the 10,000t Grianis class Fleet Hospital Ship and the 2000t Fleming class Medical Auxiliary.

INTELLIGENCE SHIP

Intelligence ships (often referred to as “spy ships” by the media) are small, stealthy vessels packed with sensors and data-processing equipment. Many operate entirely openly, gathering information from communications, drive signatures and other emissions in the electromagnetic spectrum.

COVERT OPERATIONS VESSEL

The Imperial Navy operates a number of 200t Onyx class Covert Operations Vessels. These heavily-stealthed ships are used to insert and recover teams of covert operatives. They are lightly armed but very fast, with excellent sensors. Their ability to evade detection or escape if spotted makes them useful picket vessels, but this is a waste of their real capabilities.

REPAIR/RECOVERY SHIP

Specialized repair ships are operated by every fleet. Usually grouped with a light escort and logistics or supply ships, repair ships sometimes accompany a task force, particularly on siege operations. Alternatively, the vessel may stand by on call to attend any ship which has suffered a breakdown or battle damage and cannot make port under its own power. The Navy prefers to send out a repair ship than to have the public see one of its cruisers limp into a civilian port for emergency assistance. Repair ships are often used to recover wrecks of friendly and enemy ships for intelligence or salvage purposes.

NON-STARSHIPS

The Imperial Navy uses many classes of vessel not intended for Jump operations. Most of these are small craft intended for various subordinate craft roles, while others are warships in their own right.

A vessel which does not have to devote tonnage to Jump drives and fuel can carry far more weaponry for the same mass and cost as an equivalent starship.

Non-Jump Warships

There are two basic types of non-jump-capable warship; system defense boats and monitors. The only real distinction between them is size and combat capability. Note that battle riders are not considered here, as they are considered capital ships and form part of the mobile fleet (with suitable tenders).

MONITOR

Monitors are large system defense craft intended to take on and destroy incoming heavy units. While in theory they can be equal in capability to a battle rider (indeed, a battle rider can serve as a monitor if no tender is available), they

tend to be constructed more cheaply and to lower specifications.

Monitors thus tend to have relatively low acceleration – 2g is common – as they rarely move far from the world or installation they are defending and operate on interior lines. Defenses are particularly heavy, as the main purpose of a monitor is to remain “in being” to threaten an attacking force. Actually destroying enemy forces is a bonus, but preventing a landing or bombardment is enough.

Some monitors are constructed from hollowed-out planetoids. Such vessels tend to have very low acceleration but are extremely hard to kill. They also have stealth and surprise advantages. The Imperial Navy does not build planetoid monitors but many individual worlds do.

The Navy primarily uses monitors to defend its bases and depots. Most naval bases have a force ranging from a single light monitor of about 5000 tons displacement to several squadrons of battleship-sized units to back up the more numerous light system defense boats. Although battle riders can just as easily be used, monitors have the advantage that they cannot be ‘poached’ for fleet operations, thus leaving a depot inadequately guarded.

SYSTEM DEFENSE BOAT/GUNBOAT/MISSILE BOAT

The title System Defense Boat is applied to any warship over 100t intended for defense of an area of space. There are literally hundreds of classes of SDB in existence throughout the Imperium.

The 400t Shugukan (Dragon) class is typical, mounting a mix of laser and missile armament. SDBs (also referred to as gunboats, missile boats etc depending upon their armament and intended role) often undertake police and customs duty near a mainworld, but their main function is to oppose hostile action within the system.

That can mean routine patrol sweeps or massed action against an intruder.

SDBs are designed to hide from enemy sensors in hostile environments such as deep water and gas giant atmospheres. Ideally, an invader will be met head-on and repulsed by fleet action, but in the case of a siege or overwhelming enemy force, SDB forces can hamstring an invader by sweeping out of their hiding places to strike vulnerable rear-echelon vessels and troop ships, then scatter to hide. Sieges of well-defended worlds are a nightmare of hit-and-run raids of this sort.

SDBs can be transported from world to world aboard freighters or using specially designed SDB Jump Shuttles. They are sometimes carried aboard larger vessels as powerful, long-range fighters.

The typical SDB is commanded by a Lieutenant, with the squadron commander being a Lieutenant-Commander or Commander.

Small Craft

The small craft of the Imperial Navy are vital to its operations, yet they rarely receive a moment's thought. They are innumerable, flitting about their administrative and logistical tasks. Small craft (with the exception of fighters) rarely have a permanent crew assigned, but are manned from the roster of qualified enlisted personnel aboard ship. Only important craft such as a Captain's gig rate a petty officer pilot. The rest are usually crewed by Able Spacehands.

Imperial Navy vessels which operate subordinate craft generally use a standard launch tube with capacity for a 50t craft. Thus most subordinate craft are of this size.

CUTTER

The 50ton modular cutter is used by large ships, bases and Starports as an inspection, liaison and rescue craft. Most cutters are unarmed, and assigned a single module – usually the passenger or cargo module. The Navy does not favor carrying several modules aboard a warship, seeing this as a waste of space.

MILITARY GIG

The 20t military gig is a fast, streamlined utility craft with light armament. It is usually carried as a subordinate craft by small ships, where it is often used to extend sensor coverage or transport personnel to a planetary surface. Boardings always take place from the gig, covered by the guns of the parent craft.

NAVAL LIFEBOAT

The 20t Naval Lifeboat is not very different from its civilian cousin, except that it is designed to leave a crippled vessel under fire.

A single, one-shot sandcaster is carried, along with general hardening of the boat's systems. A modest ECM and auto-evade system is built into the command and control equipment, increasing survivability in the event of a hostile evacuation. Lifeboats have capacity for 24 personnel in emergency low berths.

PINNACE

The 40t Pinnace is rarely used by the Navy as a liaison craft, though some bases carry several to reach distant parts of the system.

TROOP SHUTTLE

The 50t Troop Shuttle is designed for a single purpose – getting a force of ground troops onto a planetary surface. They are built tough, with a lightly armored hull (by starship standards) and an armament of a single point-defense laser and a sandcaster. The laser can be used in support of ground troops at need, though it is not especially effective in this role. The troop shuttle has a crew of 2 and is capable of 3g acceleration. It can deploy 50 troops, though the troop

bay is cramped with so many aboard and long flights are not recommended.

SHUTTLE

A variety of cargo and passenger shuttles are used. Most mass 100t or larger, and are mainly used for cargo transfer to and from depots and logistics ships. They are not usually carried by warships. One shuttle variant that is sometimes carried by certain classes of warship is the fuel shuttle. This streamlined craft allows an unstreamlined vessel to undertake wilderness refueling without need for tankers. Many tanker classes replenish themselves using fuel shuttles. This is a lengthy process, but it means that tankers need not carry expensive streamlining, nor expose themselves to the risks of gas-giant skimming.

Almost all shuttles, of all types, are unarmed.

FIGHTER

The 10t light fighter with its single light laser is virtually useless as a military vessel. Even en masse, light fighters are little more than a nuisance to any serious warship. However, they do have a useful role as patrol and picket craft operating from a base or starship. Since even a fighter can chew up a Free Trader, fighters are effective in the policing and security role, and often escort inspection cutters or shuttles carrying important personnel. The main value of light fighters is in their ability to act as a “tripwire” and as a screen to intercept enemy strike craft at a safe distance from the parent vessel. All Imperial Navy fighters are piloted by officers. Pilots are usually Ensigns or Sublieutenants, with squadron commanders holding higher rank.

HEAVY FIGHTER

The 2-seat 50t heavy fighter is usually armed with dual or triple lasers. Capable of longer patrols and far more survivable than its light cousin, the heavy fighter is still little more than a target to a ship with decent point defense, but a flight of four presents a serious menace to a small warship such as a close escort or patrol cruiser. Heavy fighters are capable of massed strikes against warships, but experience has shown that this is like trying to stab a Sumo wrestler to death with a box of pins. As with their light cousins, heavy fighters are best employed in the screening and security role.

MISSILE FIGHTER

A variant of the heavy fighter, the missile fighter (sometimes referred to as a ‘bomber’) is armed with standoff missiles, and is intended to reach firing range, launch its weapons and withdraw at top speed. This does give a powerful strike capability, but a fighter cannot carry sufficient reloads to be useful in a protracted combat situation. The concept has not found favor with the Imperial Navy, which believes that a missile corvette is a better way to employ such weapons.

STRIKE FIGHTER

Another variant of the Heavy Fighter, the Strike Fighter mounts a single, powerful weapon (usually a plasma or fusion gun) capable of dealing heavy damage to even a large warship. Strike fighters represent massive overkill against conventional fighters and small merchant craft, and their armament is outranged by most other weaponry. However, if they can get close enough they can do real damage to a warship.

Strike fighters are the reason why light fighters are carried by the fleet. They must be intercepted before they reach firing range. To prevent this, strike squadrons are usually escorted to the target by conventional fighters.

PICKET BOAT

The Picket Boat is a heavy fighter with its armament replaced by an extensive sensor suite. Uses include early-warning of approaching enemy craft, detailed sensor sweeps of an area, fighter control and forward missile direction. In the latter role, picket boats are often escorted by conventional fighters.

CHAPTER 3: STRUCTURE AND ORGANIZATION OF THE GRAND FLEET

The Grand Fleet is a symbol of power and an instrument of policy as much as it is a military force. As such, its command structure is not as clear-cut as some might assume. While the chain of command runs clearly through a series of ever-more-senior admirals, it is also subject to influence from other quarters.

Political Command

The Fleet is a political tool and as such its orders come from the civilian authorities – ultimately the Emperor – that run the Imperium.

The ships and fleets are commanded by Naval officers, but they serve the needs of the Imperium, which are determined by its leaders. Since political command devolves down from the Emperor through successive levels of nobility, each of these levels has the ability to exercise influence over the fleet elements at its level.

The nobility exercises influence, not command. No noble has the right to give direct orders to naval personnel – orders must come through the proper chain of command. There are exceptions to this, however. The Emperor has the right to command any Imperial military unit at any time (indeed, lawful orders can be considered to technically originate from the Emperor's authority). Also, certain Imperial Warrants give the bearer (usually a noble) the right to assume command of Imperial assets.

Outside these two situations, the process of commanding the Navy is fairly simple: the political leaders inform the Admiralty of the situation and what they think needs to be done (or more accurately, the outcome they would like to see) and the Admiralty decides if it can be done and if so, how. After some discussion the political leadership authorizes the Fleet to act and the Admirals then decide how to carry out the operation and what assets to use.

In short, the Admiralty listens to the political leaders and attempts to give them what they want wherever possible, but retains control of its own assets at all times.

Note that some requirements from political leaders may be illegal or may conflict with the Imperial Navy's mission to protect the Imperium and her citizens. A fleet admiral asked to invade a neighboring state by his Sector Duke must decide if starting a war is really in the Imperium's best interests. Once the orders of the political leaders start to conflict with the Navy's duty to the Imperium and the Emperor, the system has broken down and some tough decisions need to be made. This has not happened in a long, long time, though smaller conflicts of interest have occurred at times.

As an example, in the early days of the Solomani Rim War various Archdukes and Sector Dukes protested about Navy assets being stripped from their sectors to go to the war front. The orders to relocate came through the proper naval chain of command and were not subject to alteration by local leaders. Similarly, local leaders along the Solomani border who demanded a 'not one step back' defensive strategy were (or should have been) ignored by naval commanders who had to think about fighting a war on behalf of the whole Imperium, not just protecting one small corner of it at the expense of many ships and thousands of lives.

The system works well enough in most cases. Naval officers command the Navy, but at the highest level they answer to the political leadership of the Imperium. In this way excesses are prevented and self-interest is curbed as much as possible.

The Emperor

The Grand Fleet owes ultimate allegiance to the Imperium, as personified by the Emperor. All personnel swear an oath to preserve and defend the Imperium, and to do the will of the Emperor. The Emperor holds the honorary title of Admiral-in-Chief of the Grand Fleet, though an Emperor has not actually led any Imperial fleet into battle for centuries. However, ultimate responsibility for the actions of the fleet; for the appointment of its admirals and its officers; for the provision of ships and spares, rests with the Emperor and whomever he appoints as his subordinates.

There is a great deal of personal loyalty to the Emperor within the Imperial officer class. The degree to which he is revered does vary from region to region, and from ship to ship, but at the very least each and every ship has a portrait of the Emperor hanging in the Wardroom, and toast is drunk (sitting down, by tradition) to the Emperor's health at dinner every night. While some crews are imbued with an almost fanatical personal loyalty, for most the public display of loyalty is merely a part of the naval tradition.

Fleet Control is one of the rights recognized by Imperial Law as a legitimate claim to the Iridium Throne. No Emperor since the Civil War has held his position merely through this right, but it is still recognized as one of the most important factors making an Emperor fit to rule – he must be able to impose his will, and the Imperial Navy is the perfect tool for that task.

The Navy is used by the Emperor as a political tool as much as a military one, and his choice of subordinates, de-

ployments and strategies must weigh military considerations against political ones.

Thus it may be necessary to “waste” a powerful fleet on garrison duties in a peaceable region, or to appoint a poor officer to the admiralty, in return for loyalty and support from a segment of the Imperial population.

The Archdukes

The Archdukes are technically not in the Naval chain of command, and do not command the fleets stationed in their Domain. However, they are the Emperor's appointed political representatives, and as such have a great deal of influence over the Fleet.

While the Admirals commanding fleets in any given domain answer, through their superiors, to the Admiral-of-the-Fleet, and he to the Emperor directly, the Archduke of the Domain has certain claims upon the fleet and its commanders. Chief among these is the Right of Support. This means that as the Emperor's trusted vassal, the Archduke has the right to reasonable cooperation and support by and from the Imperial Navy. In practice, this means that the Navy cannot ignore a request to deploy warships or to carry out legal duties in support of the Archduke's policies unless there is a pressing military reason to do so. The Archduke is specifically prohibited from issuing direct orders to any ship, fleet, officer or admiral in the Imperial Navy, but strongly-worded requests are not uncommon. They are seldom ignored, though the Archduke may well not get everything he asks for.

There is sometimes friction between the Archduke's administration and the Navy forces within the Domain as to how requests are complied with, and by what forces, but for the most part what exists is a partnership in which the Emperor's loyal servants work together, discussing matters from their different viewpoints to agree. The Archduke can of course bring pressure to bear from a political or social angle, especially through the nobles assigned to the domain's fleets. All Archdukes have an Imperial Warrant available if it proves necessary to get something done no matter what. High-handed action of this sort must be explained to the Emperor, of course, so it is kept as a last resort.

Far more commonly, the relationship between Fleet and Archducal Administration is one of discussion, compromise and (sometimes strained) cooperation. It is very rare to find Archduke and Admirals at odds for any length of time. Such a situation is dangerous to the stability and safety of the Imperium, and will be quickly dealt with from On High.

The shifting pressures of influence and traded favors may sometimes result in orders that are utterly incomprehensible to those tasked with carrying them out - but theirs is not to reason why.

The Sector Dukes

Like the Archdukes, the Sector Dukes are not in the direct Naval chain of command. However, they too are important representatives of the Emperor who must at least be listened to by the Admirals. The Sector Dukes have a keen understanding of the political and defensive needs of their sector, and advise the admirals accordingly.

Sometimes this ‘advice’ approaches blackmail, since the Dukes wield considerable influence. Naval units cannot legally be used to support personal projects, but a little rule-bending in return for favors is not uncommon. As a result, deployments in a sector may not be the perfect military solution to the problems of defending and patrolling the sector. Those wielding influence know how far they can go, however, and blatant misuse of naval assets will earn swift correction.

Note that the power of the Archdukes has waxed and waned over the centuries, and also in different regions. Thus in some cases the Sector Dukes can get more from the Navy than the Archduke they theoretically answer to.

The Subsector Dukes

Each subsector also has a Duke as its senior noble. Like their superiors at Sector level, the Subsector Dukes are well placed to understand what the Imperium needs from its Navy within their own area of influence. While they have no power to give orders, their influence makes itself felt. This is more commonly at the Subsector Fleet level than above, however.

Other Noble Influence

The Fleet is influenced by the nobility at all levels. As the senior service and a route into the nobility, the Navy is a fashionable career for up-and-coming young sophonts. Those who already possess (or are in line for) titles naturally wield considerable influence over their commoner peers.

This sort of social influence is inevitable, and not particularly harmful in most cases. Indeed, with few exceptions, young nobles are raised to believe that service to the Imperium is their right and duty. This ethic tends to rub off on those seeking to impress them, too. It is made very clear to young nobles joining the Navy that they have an additional duty to those carried out by their peers – they are expected to provide a shining example of what it is to be a Naval Officer. Most live up to the challenge, or at least try. A few exploit their advantages. The Navy has had many years to find ways of dealing with this kind of corruption.

The nobility influence the Navy in other ways. Many of the corporations that build naval equipment or support the bases are run by noble families, who can exert influence to obtain a good posting, have a piece of equipment made the

fleet standard, or to further some other goal such as having Navy ships in place to catch a rival red-handed in some dubious practice.

There is considerable influence exerted by the great noble families to make sure the Navy protects their interests. Border nobles want Navy ships stationed in their system to defend against invasion.

Industrialists want their products accepted for Naval use. Those with shipping concerns want patrols to guard against piracy. Those with extensive outsystem holdings want a Naval presence to deter raids. The Navy cannot meet all these demands, but each noble will try in various ways to get his or her own way. Social pressures applied at receptions, exchange of favors, correct through-channels requests, outright bribery and even threats... any and all means may be used. The overall effect is that the Navy is subject to shifting pressures in addition to the immediate military situation.

These might not be directly obvious, but they do exist. This all makes the life of a senior naval officer more complicated, but that comes with the territory.

For the more junior personnel, noble influence is simply a fact of life like having to peel spuds in the galley or clean out the air filters. Sometimes the results are unpleasant, sometimes they can be used to your advantage – and sometimes you have no idea what's going on. It happens. Just salute and say “Aye Sir”. Easier that way....

The Admiralty

The actual command of the Navy rests with a chain of admirals and senior officers. While subject to influence and political pressure, this body (often referred to as The Admiralty) exerts direct control of the fleets and is the ultimate authority in time of war. Archdukes may request, world governments may protest, but the Admiralty is in charge until the Emperor says different.

Grand Admirals

The most senior officers of the Imperial Navy are Grand Admirals. The term is both a formal rank and a job title. A Grand Admiral commands the combined fleets of a Domain or a theater of war. For example, at the outbreak of the Solomani Rim War a Grand Admiral was appointed to command the Imperial war effort in the theater.

All other naval commanders – whether they ran subsector or sector fleets, depots, combined battle fleets or whatever else – answered to this officer, who was responsible for coordination of effort and the overall conduct of the war.

The Imperial Navy has several Grand Admirals on the books at any given time. Mostly their duties are ceremonial and/or to oversee the fleets of a region in the capacity

of an inspector-general. However, they can be assigned to a troubled region to take over command of all naval assets.

The commander-in-chief of the Imperial Navy is also a Grand Admiral, headquartered at Capital/Core. He holds the same rank as other Grand Admirals but is formally known as ‘Admiral-of-the-Fleet’, which is very much a job title as well as an honorific. The title is relinquished when he steps down or is replaced; another Grand Admiral takes on the mantle at that time. The post of Admiral-of-the-Fleet is usually assigned for a long period but sometimes the incumbent may decide to effectively demote himself in order to take charge of a crisis on the border.

While the Emperor (in his capacity as Admiral-In-Chief) is titular commander, the Admiral-of-the-Fleet is actually responsible for all naval orders, assignments and deployments. The appointment is as political as it is military. A significant part of his time is spent at functions and parties, representing the Navy to the nobility and the public. However, the Admiral-of-the-Fleet does have certain vital duties.

As the head of a large planning staff, the Admiral-of-the-Fleet is responsible for ensuring that a contingency plan (with suitable options and variations) exists for every conceivable naval situation – and many inconceivable ones. Within hours of news reaching the Capital of a crisis, the Admiral-of-the-Fleet must be ready to present the possible responses to the Emperor, along with detailed briefings on enemy capabilities and the possible outcomes of any given course of action.

The Admiral-of-the-Fleet is also the Emperor's chief advisor on Naval matters. He must have ready answers to any question, no matter how obscure, about the capabilities of any vessel or state. He must have accurate predictions of enemy intentions available, as well as detailed information about the Imperial Fleet and its leaders. While the Emperor tends to reserve large-scale decisions for himself, the Admiral-of-the-Fleet has the right and the responsibility to deploy the fleet as he sees fit unless overruled by the Emperor. In practice, this means that the Admiral-of-the-Fleet is responsible for the day-to-day running of the entire Imperial Navy, and for ensuring that it is ready for whatever happens.

In the event that the Emperor is not available, the Admiral-of-the-Fleet is expected to make Naval decisions in his absence. To this end his word carries the weight of an Imperial Standing Warrant – his lawful orders to Naval personnel can only be overruled by the Emperor himself.

The Admiral-of-the-Fleet is usually assisted by a staff of senior officers including one or more Grand Admirals. These ‘spares’ can be sent off to deal with a crisis or kept at home where their advice and many years of experience can benefit the planning process.

Less effective admirals, promoted out of fighting assignments, are generally retained on the staff this way.

Sector Admirals

Each Sector Admiral commands a Named Fleet, which is to say that he or she is in overall command of the fleets of a Sector. His (or her) station is normally at a naval depot or the sector capital, though when a combined fleet is formed from elements of several numbered fleets, the Sector Admiral will sometimes command it in person.

The Sector Admiral is often a high noble in his own right, and is much more than a “fighting admiral”. His staff are responsible for contingency planning and the provision of suitable logistics for any necessary operations. He is also both an advisor to and in close liaison with the Archduke of the Domain and/or the Sector Dukes, and submits regular reports and recommendations to the Admiral-of-the-Fleet at Capital/Core. The Sector Admiral is the lowest-ranked of the “political admirals”.

Less senior officers can concern themselves with military realities, but at the Sector level there are far wider concerns than combat capability or squadron manning levels. ‘Sector Admiral’ is a job title as well as a formal naval rank. Sometimes a Fleet Admiral holds the job of Sector Admiral for lack of anyone more senior; in this case he is referred to as the Acting Sector Admiral.

Subsector Admirals

Subsector Admirals command each of the Numbered Fleets and Numbered Colonial Fleets of a sector. They answer to the Sector Admiral but have considerable leeway to carry out their duties as they see fit. Subsector Admirals are fighting admirals. In peacetime they may command from a base or depot, but in a crisis they can usually be found aboard a flagship in the ‘flag’ formation of the subsector fleet, where they can exercise direct control over the command.

‘Subsector Admiral’ is a job title which indicates that the officer commands a subsector fleet. The actual rank held by a subsector admiral is Fleet Admiral, and in terms of seniority Fleet Admirals and Subsector Admirals are equal.

Fleet Admirals

The rank of Fleet Admiral is an actual rank and also a job title. A Fleet Admiral may not actually command a fleet – he may be assigned to a more senior admiral’s staff as a ‘spare’ to replace losses, to undertake a special mission or whatever. However, Fleet Admirals generally have fighting commands. Some have static commands such as a subsector fleet, while others command the specialist fleets formed for a variety of tasks. Thus three Fleet Admirals of ostensibly identical rank may carry out very different duties. One may command a subsector fleet, another a battle fleet formed from the assets of several other forces. The third may not yet have a command but be on alert to take over a critical task.

A number of spare Fleet Admirals are assigned to each sector to replace casualties or to take over scratch forces created for a particular task. These fleet-admirals-in-waiting are assigned to the Sector Admiral’s staff as planners and assistants, or undertake liaison and training duties. They can be called at any time, to undertake any task.

Staff Admirals

The fighting Admirals of the Imperial Navy (including the Grand Admirals and all Sector Admirals) are drawn from the Line branch of the navy. Normally the only way to Flag rank is via a transfer to the Line and special training. However, it is possible to achieve an equivalent rank without leaving a specialist branch. Such flag officers are outside the normal chain of command and undertake mainly training, administrative and advisory duties. They can and do take over line commands in times of desperate crisis, but they are not trained for this role.

Staff Admirals wear a slightly different uniform from their Line comrades. They are allowed to use the Line title for their rank upon retirement, but in service are known by their appointment title to avoid confusion. The heads of the various branches of the Navy hold rank and status equivalent to a Sector Admiral, but are titled Senior Flag Officer (Branch) e.g. Senior Flag Officer (Engineering).

Regional branch heads also exist, with a rank equivalent to a Fleet Admiral. These individuals are titled Flag Officer (Region) (Branch), e.g. Flag Officer Deneb (Gunnery).

Squadron Commanders

Small task forces and squadrons of minor vessels (up to Destroyer size) are commanded by the senior officer of the formation (who may be a mere Lieutenant Commander) with no special rank awarded. Such an officer is referred to as the “Officer Commanding, (Squadron)”, e.g. Officer Commanding 39th Rhyllanor Patrol Squadron.

Formal squadrons of major warships are commanded by a Commodore, or by a senior Captain who has not yet received his pennant (Commodores are not “flag” officers but in ancient tradition were allowed to fly a pennant aboard their flagship). The latter case is supposedly temporary, though many squadrons have been commanded by a succession of commodores-in-waiting for years on end.

A commodore has his own small staff, and is never the commanding officer of a vessel. Squadron commanders have enough to worry about without trying to fight a ship and deal with all the crises arising along the way.

When squadrons are broken up, the commodore may find himself commanding a squadron of one vessel. Even in this case, he is not in command of the vessel. He is in charge of the mission, and can make recommendations to the Captain or issue direct mission-related orders. He should not

micromanage the running of the vessel or give specific orders to the Captain or crew.

Striking a balance between directing the mission and letting the ship's Captain do his job is a vital part of the squadron commander's training. Many commodores (and admirals) interfere too much in the running of the flagship, and the resulting friction can be highly detrimental to morale and efficiency. A good squadron commander knows exactly how much direction to give his subordinates, and how far to trust them to do their jobs.

Ship Captains

In this context, Captain (or to use the more archaic term, Master and Commander) is an appointment rather than a specific rank.

The "Captain" of a vessel may actually hold any commissioned rank. Normally, the rank of the commanding officer is appropriate to the importance of the vessel. Thus capital ships are usually commanded by full Captains, cruisers, tankers and monitors by Commanders and escorts and destroyers by Lieutenant-Commanders. Non-jump vessels and small escorts are often commanded by experienced Lieutenants. Lower ranks do not normally receive a command. Except in dire emergency, any officer offered a command will have first been sent to command school and transferred to the Line branch.

The ship's Captain is its master, no matter who else is aboard. Even a mere lieutenant, the Acting Master and Commander of a vessel, is in theory the sole master of that ship. In practice, it is rather hard to ignore the influence of a commodore, admiral or senior noble and a working balance must be established. The commanding officer of an admiral's ship is termed the flag-Captain. This is an honorific with no rank associated with it, but many Captains undergo special flag-Captain training, the better to work with any flag officer who may be aboard.

Whether the commanding officer is a senior Captain or a Sublieutenant thrust into the job by a crisis, he or she is the ultimate authority aboard the ship (subject to certain Imperial regulations) and is personally responsible for the ship and her crew in all matters. Whoever else is aboard, however lowly or inexperienced the officer, the buck is firmly nailed to the Captain's desk.

Fleet Structure

The Imperial Navy is huge. The Emperor has (indirect) command of thousands of fighting ships, and many times more auxiliaries, support vessels and scouts. Command of such a vast and dispersed entity is not a possibility for any single individual. For this reason, the Imperial Fleet is not a single entity. It is divided up into a complex but flexible

command structure with responsibility devolved at various levels.

In the Imperial Navy, the term "Fleet" has three specific but very different meanings. The term can refer to a "Numbered Fleet", which is a grouping of several squadrons, to a "Named Fleet", which is an assembly of two or more Numbered Fleets. It can also refer to a force created for a specific task, e.g. a Battle Fleet sent across the border to attack an enemy. Other, less formal, meanings of the term can apply to the entire Imperial Navy (the Fleet, or The Grand Fleet), or to any naval force larger than a single task force.

To understand the structure of the Imperial Navy, it is necessary to appreciate the feudal nature of the Imperium itself. The Grand Fleet must cover a vast area, and communication suffers from immense lags. Central control is simply not possible. For this reason, discretionary control is exercised at the Subsector, Sector and Domain levels by trusted subordinates. Reserves can be called from the core, but the forces of each sector and domain must be able to handle most troubles by themselves.

The Regular Navy

Most of the naval assets of the Imperium belong to the Imperial Navy proper; the 'regular navy'. These forces answer through their officers and admirals to the Emperor himself and are available full-time to perform their duties. When not on combat operations, deployed to a region on one of many possible missions or in port conducting essential maintenance, the ships of the Imperial Navy train and exercise, maintaining and upgrading the skills that will hopefully never be put into action.

The regular fleet is maintained in a high state of readiness, though obviously its competence varies from region to region. Some areas have not seen anything worse than an orbital traffic violation in decades. Others have near-constant border incursions to deal with.

For this reason, ships and even whole squadrons are regularly rotated from 'safe' core sectors to the more troubled borders in order to keep experience current.

Despite the best efforts of the Grand Fleet's 'adversary' squadrons and training officers, complacency can be a problem. Less serious, though worthy of note, is the considerable regional variation that exists within the Grand Fleet.

THE IMPERIAL CORE FLEET

The Imperial Core Fleet follows the general Imperial Navy model in most ways. As the fleet of the Emperor's own Domain, this fleet has extra responsibilities.

The Core Fleet provides personnel for ceremonial detachments and the Grand Admiral's Escort. It also provides the Bodyguard Squadrons, which form the close escort and heavy support for the Emperor's ship and those of his immediate household.

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Bodyguard vessels are liable to sudden visits from dignitaries from the Imperium and foreign states. Ships and personnel are thus maintained in a parade-ground state of shine and polish at any time they are not actually under fire. Bodyguard duty is extremely prestigious, and positions are hotly competed for.

The Core Fleet is far from the borders, and gains little combat experience. For this reason, vessels are temporarily assigned to other fleets in a never-ending rotation. Fully 20% of the nominal strength of the Bodyguard Squadrons will actually be serving with other fleets at any given time.

FTAHALR ENFORCEMENT FLEET

The Imperial fleets along the Aslan border are augmented by a special force created solely to enforce the Peace of Ftaharl. This fleet, which consists mainly of patrol ships and light cruisers, is manned by personnel who have received special training in diplomacy, and dealing with Aslan in particular. All ships carry a team of negotiators and diplomatic advisors.

The Fleet has a difficult job on its hands. It must deal with Aslan Ihatei forever attempting to grab new territory, human commercial interests expanding where they should not plus small groups on both sides seeking revenge for casualties in the last skirmish, trying to redress a perceived slight, or just out looking for a fight.

The region is a hotbed of incidents, each with the potential for escalation into a serious conflict, and matters are not helped by the pride and sensitivity of the Aslan. The Enforcement Fleet's duties take its ships – often without backup of any form – into dangerous situations on a daily basis. Captains (and their diplomatic advisors) must resolve each crisis as it happens, then rush to the next.

Sometimes this means firing on Imperial-registered vessels, at other times attempting to face down a flotilla of Ihatei intent on claiming everything in sight no matter who is already in residence.

The Enforcement Fleet's personnel and vessels are veterans of many close scrapes, diplomatic incidents and live-fire incidents.

Thus far, the Enforcement Fleet has done an admirable job of maintaining the peace and has won the respect of many Aslan clans, some of whom even supply advisors, for its even-handed and honorable treatment of both sides.

VEGAN DISTRICT FLEETS

At the end of the Solomani Rim War in 1002, the Imperium had not managed to absorb or pacify the Solomani Confederation, which remained a real military and economic threat. In addition, those areas of the Confederation which had been absorbed into the Imperium included many which remained quietly defiant and could now exert influence from within the Imperium. To counterbalance this situation, the Imperium created the Vegan Autonomous District. While the

Imperial Navy still defends this region, there is no Colonial Fleet. Instead the worlds of the Vegan Autonomous District are protected by a *tuhuir* whose name translates as “Guardians of our People”. To a human, this *tuhuir* is the Vegan Navy.

Vegans are calm creatures whose aims are aesthetic rather than acquisitive. They are basically pacifistic. However, many years of mistreatment by the Solomani has taught the Vegans that they must protect themselves. The Vegan Navy uses the huge Vegan economy to produce a very alien fleet to that of the Imperial Navy.

A large percentage of vessels are dreadnaughts and battleships, which tend to be very heavily armored with a variety of defensive systems to protect the Vegan crews. Vegan vessel designers favor oversized spinal weapons in the hope of creating a deterrent effect.

The Vegans also produce a lot of escort craft which constantly patrol the trade routes of the District. Vegan escorts tend to be larger than their human equivalents, as they are heavily armored.

Armament is usually a mix of missile and sandcaster turrets. All Vegan escorts carry nuclear-tipped missiles, which are used as a matter of course. Care is taken to ensure that every Solomani raider understands this.

The Imperial Navy considers Vegan forces as Colonial Navy vessels and plans to use them in any future conflict with the Solomani.

THE VILANI SECTORS

The Imperial Vilani fleets more or less follow the Imperial model (in fact this model was developed by the Vilani during the First Imperium period. The main differences between the Vilani forces and the standard Imperial model are the command structure, traditions and engineering considerations.

Command aboard Vilani ships is more akin to a corporate board of directors than a traditional military command structure, so Vilani vessels have large officer meeting rooms. In these rooms, the Captain holds numerous meetings with his senior officers and department heads, with everyone receiving a fair hearing before decisions are made. Day-to-day running of the ship is a matter for the Ship's Council led by the First Officer, and the meetings mean that everyone knows what is expected of them. Contingencies are discussed and planned for so that anyone reacting in an emergency knows what others will be doing, and can cooperate more effectively with them. However, This does not mean that the Captain does not have full command of the vessel. The ultimate authority is his, allowing decisive orders to be given in a crisis. The role of the Ship's Council is to ensure that most officers already know what those orders will be, and be ready to implement them.

It is traditional aboard Vilani ships to “Jump-dim”. The practice comes down from the First Imperium, a time when

ships needed every scrap of power for the Jump engines. This has not been necessary for millennia, but the practice remains.

The design of Engineering sections aboard Vilani vessels are affected by the Vilani view of technology. Since the Vilani view an interest in how things work as the sign of a pervert, Vilani starship engineers learn how to operate their systems, and even to tell when they are broken, but not how they work. Engines are viewed as a single item to be replaced in the event of a malfunction. Vilani ships have many multiply-redundant systems, plus several diagnostic computers to assist the technician in finding the fault in a system. The 'engineers' are merely there to feed requested data to the diagnostic system and undertake the instructions of the diagnostic system in order to complete the repair. If the repairs detailed by the diagnostic system do not fix the problem, then the entire 'broken' system is pulled and replaced.

The Colonial Fleet

The Pacification Campaigns and the policy of Emperor Artemsus of creating a vast number of fleets under the command of the Archdukes had several side effects. One was a sharp increase in the number of starships constructed. In time, this led to a large number of obsolescent vessels. Originally, these older, less capable ships were expended as targets, scrapped, or retained at depots as training vessels.

The spectacular rampages of the Star Legion through Imperial Space during the Julian War prompted a shift in this policy. Firstline fleet units had to be withdrawn from the front to defend the interior of Imperial space, weakening the main combat forces to the point that the invasion of the Protectorate became bogged down and the recapture of the Antares Cluster failed entirely.

After the 191 peace treaty with the Protectorate, Emperor Martin I was determined that the events of the war would not be repeated.

To this end he proposed a reform of the Navy to create suitable forces to defend the interior. However, the Navy fiercely resisted these moves until the Emperor's death in 195.

Martin II, who succeeded his father, was determined to exploit the new territories available in the Deneb and Spinward Marches sectors. This required a campaign to clear Corridor sector and keep it that way, but the security of existing territories had to be guaranteed first. To this end Martin II created a new fleet structure, leaving the Imperial Navy untouched. This new fleet was created for local defense and to be a reserve for the main Imperial fleets.

It became known as the Colonial Navy, and comprised 320 numbered colonial fleets; one associated with each numbered fleet of the Imperial Navy. The vessels to arm these new fleets were drawn from the obsolescent ships lying at their moorings at naval depots across the Imperium. This

practice has continued to this day, though some of the details have changed over the years.

Technically, the vessels of the Colonial Fleet are owned and operated by individual world governments (though very few worlds of the Imperium are colonies by any rational definition) and by corporate concerns, or held in readiness by the Fleet Reserve. Any world is entitled to own and operate a star-faring navy, though the operations of this navy are subject to regulations laid down by the Imperial Colonial Office once beyond the immediate vicinity of the parent world.

The Colonial Office operates a "shadow admiralty" which keeps track of the Jump-capable warships belonging to the member worlds of the Imperium. Some of those ships are placed at the disposal of the Imperial Navy for patrol, anti-piracy and interdiction operations (this is a source of operational experience and national pride for the donating world), but most pursue the agendas of their owners. This usually means reinforcing the system squadron (jump capability is useful for patrolling the outer reaches of the system) or engaging in maneuvers to maintain readiness.

In addition to vessels maintained by member worlds, the Colonial Fleet gets its ships from two other sources. Squadrons of obsolescent battleships, which are beyond the means (and the needs) of most worlds, are maintained at naval depots and manned by crews drawn from the Fleet Reserve and Colonial Fleet. These Colonial BatRons are an important part of the Colonial forces. Other ships come from the Corporate sector, provided by major shipping lines and mercenary forces.

In time of war, control of colonial warships passes from the Colonial Office to the Navy. Non-jump-capable warships remain under the control of their home system defense command, of course.

The Fleet Reserve

In order to be able to secure territory against a major threat, the Sector and Subsector fleets need major warships. However, it is very rare for even major worlds to maintain capital units and heavy cruisers as part of their planetary forces – the cost is simply too high. Thus, most of the battleship and cruiser strength of the Colonial Navy is held at naval bases and depots by the Fleet Reserve. Skeleton crews maintain these 'mothballed' ships which can be crewed by reservists when needed and sent to join the Sector and Subsector fleets.

Occasionally major ships are brought out of Fleet Reserve status as training platforms for reservists, or to be converted for another role. Activation of this sort is rotated through the available ships to prevent serious deterioration, but the state of many Fleet Reserve warships is not good. Eventually these old warriors quietly die at their moorings and are broken up or salvaged for parts to keep their squadron mates alive for a few more decades.

Named (Sector) Fleets

The Imperial Navy has 28 Named Fleets. These are titled for the sector to which they are assigned. The composition of these fleets varies considerably from region to region. As a rule, any given Sector Fleet has three roles:

- To defend the sector for which it is named
- To supply vessels to special fleets operating outside the sector
- To reinforce its subordinate Subsector Fleets as necessary

The most important task of the Sector Fleet is to repel (or better, deter) an assault by a major enemy force. To this end it maintains a fighting force of heavy warships such as battleships, dreadnoughts and battle rider/tender units. These are usually concentrated at the sector Depot, with Battle Squadrons (BatRons) assigned to some but not all of the sector's naval bases. The BatRons are backed up by heavy cruiser squadrons and support vessels to create an effective and powerful fighting force.

In the event of a major war, other Sector Fleets away from the immediate battle area will be ordered to provide a number of ships and squadrons to serve in one or more Special Fleets or to reinforce the Sector Fleets of the embattled region. Most commonly this means that up to half the sector's heavy cruiser and capital ship strength may be drawn off to create one or more Battle Fleets to take the war to the enemy. The usual model for such a conflict is that the Sector Fleets defend their territory and resist the enemy advance, perhaps counterattacking if there is an opportunity, and then battle fleets are moved up from elsewhere to take the offensive.

Sector Fleets are thus defensive in nature. It is rare for one to leave its named Sector. While Sector Fleets may send assets outside the sector boundaries to attack an enemy where this represents good strategy, and may give up part of their strength to an offensive fleet, it would be foolish to strip the border region of heavy defenses in order to attack an enemy. Sometimes, as the initial weight of an enemy assault is absorbed and the initiative shifts, it is possible to undertake offensive action with the Sector Fleet, especially if it has been reinforced by forces from the Colonial Fleet and the Fleet Reserve. This tends to happen in relatively minor conflicts however. In a major war the stakes are too high to risk leaving the border sectors weakly defended so offensive forces are drawn exclusively from sectors away from the battle area. This can make the Imperium slow to react, but reduces the chances of an enemy masterstroke whilst simultaneously ensuring that the Imperial response is irresistible.

Sector Command also provides ships to Subsector Fleets. What ships are assigned where, and in what numbers, is decided at the Sector level. In the event that a

subsector fleet cannot deal with a problem, the Sector fleet can do one of two things. It can transfer more ships to the subsector fleet on a permanent or duration-of-crisis basis, or it can assign vessels to the troubled area which remain under the command of the Sector Admiral. The former solution dilutes the Sector Fleet's strength and makes it difficult to recall vessels to Sector-level command; the latter is usually less efficient as the Sector Admiral tends to be more removed from the scene of any trouble.

It must be remembered that Sector Fleet assets are (obviously) based and operate within the subsectors of the sector, so some mission overlap is common. However, it remains a fact that the Sector Fleet is tasked with dealing with major threats to the sector; the subsector fleet deals mainly with the security of its subsector.

Numbered (Subsector) Fleets

Most Imperial citizens think of a Numbered Fleet when the unqualified term "Fleet" is used. The Imperium has almost 320 active Numbered Fleets, which is approximately one per subsector.

This expensive doctrine was first instituted by Emperor Artemus to back his politically sensitive Pacification Campaigns. The one-fleet-per-subsector system allowed the Archdukes of the new Domains to have forces ready at hand to protect the worlds within their region, to ensure free trade and to stamp on unrest.

In more recent times, the balance has shifted somewhat. Many core subsectors have little more than a token 'internal security' presence, while troubled regions occasionally have more than one Numbered Fleet, or more commonly a fleet which is over strength. Subsector Fleets are tasked with maintaining the security and stability of their subsector. As such, their forces are mainly light patrol ships and destroyers, with the fleet flagship usually being a heavy or light cruiser. The presence of a handful of heavier ships allows the Subsector Admiral to deal with most problems without distracting the Sector Fleet from its assigned role of defending against a major threat.

In wartime, the assets of the Subsector Fleet are mainly responsible for protecting commerce and patrolling the systems of the subsector. The Subsector Fleet is expected to respond to relatively minor threats but cannot deal with a major assault. What it can do is provide timely information to Sector Command about where enemy raiders are – and are not – and prevent the enemy from smashing up the subsector's economy 'on the cheap'. In such times of crisis the Subsector Fleet is reinforced by ships from a variety of sources, most of which come under the banner of the Colonial Fleet. Lighter assets are augmented with ships from the Scout Service, mercenary units, corporate forces and the 'Colonial' navies of member worlds. The latter also tend to provide a handful of cruisers and even the odd capital ship but it is a

rare planetary navy that deploys anything bigger than a light cruiser.

The Subsector Fleet's (rather insignificant) cruiser and capital ship complement is augmented by reactivated vessels from the Fleet Reserve. These are older ships retained at depots and bases to be crewed by reactivated reservists and personnel recalled from other duties (such as depots, recruiting duty and so forth. The best of the Fleet Reserve battleships and cruisers go to the Sector Fleet. Second and third-line vessels are assigned to the newly constituted BatRons of the Subsector Fleets. Many ships fail the reactivation process and are eventually broken up or gutted as monitors to defend the depot.

The Subsector Fleets answer (through their Subsector Admirals) to the admiral commanding the Sector Fleet. Transfers of ships up and down the chain of command are not uncommon. For example, a Sector Admiral may decide that a quiet subsector does not need so many patrol ships and transfer some to his own command, perhaps then transferring some of them back down to Subsector command in a different, more troubled subsector.

A Subsector Admiral who has serious problems can ask for help from the Sector Admiral. If ships are available, they may be transferred to Subsector control (in which case the Subsector Fleet gets to 'keep' them until they are recalled, if ever) or they may be sent into the troubled region but retained under Sector command.

In the latter case, the Subsector Admiral cannot give orders to these assets directly, though they will have been ordered to cooperate with Subsector units. Which option is used depends greatly on the situation. A Sector Admiral can recall or retask his 'own' assets at any time but those transferred to Subsector command must be reclaimed by an order to the Subsector Admiral, who then transfers them, or retasked by an order sent via Subsector command. Both options have advantages and drawbacks; it is up to the Sector Admiral to decide which offers the greatest short and long-term benefits.

One Subsector Fleet deserves a special mention. The 1st Fleet is based at Capital/Core and is the oldest naval force in the Imperium. It is known to many citizens as the First Sylean Fleet, a title dating back to the years before the founding of the Imperium. The Emperor is honorary Fleet Admiral of this force.

System Squadrons

Each world of the Imperium is responsible for its own defense, and makes whatever provision it can afford. However, some systems (such as Navy Depots) are owned by the Imperium and therefore defending them is the responsibility of the Imperial Navy.

In addition, some systems are critical to the security or economic well-being of a region yet cannot make sufficient

provision for local defense due to a weak economy or low tech level. In this case the Imperium either assigns a system defense force of naval assets (normally crewing non-Jump capable ships just like any other system defense force) or provides support in the form of tax breaks or actual funding.

Whatever the source of such forces, they are known as 'System Squadrons' to the Imperial Navy, though some are more properly flotillas or even full fleets. The system squadron of an Imperial member world has jurisdiction to enforce Imperial Law throughout the system just like any Navy unit would, and can also enforce its own world's laws close to the world itself. This is normally defined as within the 100-diameter shared jurisdiction zone, but in many cases a system squadron is granted the courtesy of being allowed to conduct customs checks and so forth at greater distances from the homeworld.

System squadrons are not part of the Sector or Subsector command chain unless they are regular Imperial Navy units – and not always then. For example, the Subsector Admiral is not automatically permitted to transfer fighters from the security force assigned to a naval base within his jurisdiction to replace losses among his carrier force. He can request such a transfer and may receive it if he can persuade the base commander of the necessity. The Sector Admiral could also order such a transfer since he has jurisdiction over all naval forces in the sector. Yet even he could not order the Planetary Navy of Ohasset to hand over its fighter squadrons to serve aboard his carriers.

Special Fleets

At various times, political or military requirements have prompted the creation of special fleets. This is common in time of war, but also for coronations and other major events. Some special fleets draw ships from many sources, to which they are returned once the need has passed, while others are Numbered Fleets upgraded by the addition of extra squadrons. In this case, the Numbered (Sector) Fleet leaves behind a local defense contingent composed mainly of reactivated reserve and colonial vessels when it goes off to carry out the mission it was augmented for.

Most commonly, a special fleet is created to perform a specific function and is named for their role. For example, during the Ilelish Revolt of 418 to 435, Emperor Martin II massed the loyal Imperial Fleets into the "Enforcement Fleet", which blockaded the rebel worlds and in 435 blasted the equatorial region of Ilelish.

Certain types of special fleet occur repeatedly:

Assault Fleets are created to carry surface forces to a world and land them there in the face of heavy opposition. They are well equipped for orbital bombardment and fire support.

Battle Fleets are the massed “hammer” of the Imperial Navy, created to take on and destroy any and all enemy vessels or forces.

Interdiction Fleets are created to stop all traffic accessing and egressing a world. They can carry out bombardment if necessary.

Penetration Fleets are intended to raid deep into enemy territory and attack specific objectives such as bases and industrial worlds.

Reinforcement Fleets are temporary fleets of mixed squadron types, created from squadrons of “safe” sectors in wartime. Upon reaching the war zone, they are usually broken up into squadrons and integrated with local forces of the same type.

Strike Fleets are specialized Battle Fleets optimized for maneuverability and firepower. They can range ahead of the main battle fleet, clearing light opposition and attacking targets of opportunity, or make fast strikes against a specific objective.

Glory Fleets are simply fleets which have been given a descriptor as an accolade from the Emperor. An example is the 213th Victory Fleet. The title was awarded in 1118 when the Fleet Admiral was promoted to Sector Admiral, and was a reward for the services to the Imperium rendered by fleet and admiral in defense of the Lunion subsector during the last Frontier War.

Squadrons, Flotillas And Task Forces

All the fleets of the Imperium are organized into squadrons, and it is the squadron, not the fleet, that is the workhorse formation of the Imperial Navy. A squadron consists of two or more ships of the same type, plus any required support or escort vessels. The main vessel type of the squadron dictates its designation, and its role within the Grand Fleet. Colonial and other fleets use a similar squadron system to the Imperial Navy, as do most foreign powers. The system is tried and trusted.

Squadrons are generally of a similar size and uniform composition. However, sometimes it is necessary to field ad-hoc formations which do not fit the standard fleet/squadron model. For a group of smaller ships (which may or may not be of the same type) the term Flotilla is used. A flotilla may be commanded by the senior captain present, or may have a commodore assigned if it is large enough.

Sometimes the mass of escorts or destroyers assigned to a fleet is grouped into a Destroyer Flotilla or Escort Flotilla, which may have several squadrons or part-squadrons within it.

Task Forces (or Task Groups) are simply a group of ships working together to get a particular job done. A light carrier and her escorts might be a task force, as might a destroyer and a gaggle of small patrol ships. Another task force might be almost large enough to be considered a fleet – for example

a couple of heavy cruisers, a carrier and several assault ships sent to deal with a major uprising. The term is deliberately vague and left that way to allow its use for any group of ships temporarily assigned to work together.

Squadron Classification

Squadrons are classified by their position in the hierarchy of the Imperial Navy. They are divided into several broad types: Imperial Squadrons belong to the numbered fleets and are equipped with the best ships and personnel available. Imperial squadrons are stationed at Naval bases. They carry the title “Imperial”, for example Imperial BatRon 32.

Colonial Squadrons are assigned to the Colonial Fleets of each subsector. They are based at worlds that can provide personnel and technology to maintain them. Colonial Squadrons are equipped with third-line but serviceable ships and levels of personnel training are lower than in the Imperial Navy. Colonial squadrons carry the designation “Colonial”. Unlike the Imperial Navy, whose squadrons comprise identical ships, Colonial squadrons often have somewhat different vessels of the same general class. For example, Colonial CruRon 3205 is equipped with Heavy Cruisers, but only two are of the same class.

System Squadrons are made up of non-jump-capable warships such as system defense boats and monitors. They are staffed entirely by local personnel, other than a few advisors. System squadrons are not part of any fleet but are owned by a single world and controlled by that world’s Colonial Command or System Defense Command (the term varies from world to world; Colonial Command is the official one even though it is essentially meaningless), which acts in close conjunction with Close Orbit and Airspace Control Command (COACC) to ensure a seamless defense of local space.

System squadrons are far more common than jump-capable colonial squadrons. Vessels are mixed, and can include anything from large custom-built monitors and obsolescent battle riders, to fighters and armed inspection cutters. System Defense boats of 200-1000t are the commonest components of system squadrons.

System squadrons are named for their owning world, such as DefenseRon Regina. Systems with several squadrons use numbers as well as a name.

Huscarle Squadrons are the private household forces of Imperial Nobles. Huscarle squadrons tend to be very small but equipped with the best ships that credits can buy. Most comprise nothing more than an armed yacht and two or three escort vessels.

Such tiny forces have no real military value and rarely join naval operations unless accompanying a liege who is an admiral or other senior officer in the Imperial Navy.

In time of war or other emergency, the Huscarle squadrons come under the command of the Colonial fleet unless their noble is personally attached to an Imperial Fleet. In this case the Huscarle Squadron becomes a squadron of the named or numbered Imperial Fleet.

Corporate Squadrons are owned by the Megacorporations, some of whom are notorious for operating small but well armed and equipped naval forces. Corporate Squadrons are almost always tailored for the escort mission, as the main reason for their existence is to protect the trade ships of the Megacorporation.

In time of war Corporate squadrons come under the command of the local Subsector Admirals but are usually retained in their accustomed role of commerce escorts except in utmost extremity, thus freeing colonial vessels for other roles.

Mercenary Squadrons rarely exist in peacetime. In time of war, many regional commanders choose to hire all the available mercenaries and form them into ad-hoc squadrons to augment the colonial forces. This has the side-effect of removing many potential corsairs from the equation, though it can occasionally backfire.

Squadron Types

While squadrons are classed by their position within the hierarchy of the Imperial Navy, squadrons are designated according to their role. A squadron typically consists of two or more vessels of the same type, plus auxiliary and supporting vessels.

There are many types and classes of ship, but the Imperium only maintains five major squadron types. Any squadron type may be in any fleet, depending upon the mission envisaged for the fleet.

BATRON (BATTLE SQUADRON)

Battle squadrons are intended to engage and defeat enemy forces. Primary ship types are dreadnaughts and battleships, normally supported by a number of couriers, escorts and tankers, and possibly one or more cruisers.

CRURON (CRUISER SQUADRON)

As the most common and versatile squadrons available to the Navy, CruRons have several roles. They are intended to support the BatRons and not to engage enemy capital units directly. Additionally, CruRons support assault forces, form the mainstay of interdiction fleets, and operate independently on a variety of missions.

CruRons are often supported by fighter carriers, tankers, transports and fleet couriers. Every CruRon is assigned a bulk ordnance carrier which resupplies the squadron with missiles and other munitions. It is always kept well back, and assigned its own fighter screen.

ASSAULTRON (ASSAULT SQUADRON)

AssaultRons are fall into two types:

Transport Squadrons are equipped for troop transportation and supply. They consist of transports supported by tankers, fleet couriers and a screen of escort vessels.

Invasion Squadrons are intended for direct assault on defended worlds. They contain a mix of assault tenders, bombardment cruisers, troop carriers, fleet couriers, tankers and escorts.

Both types of AssaultRon work closely together within the Assault Fleets, which are capable of carrying hundreds of battalions of ground troops into action.

TANKRON (TANKER SQUADRON)

While most squadrons contain one or more tankers, TankRons are specialist units intended to increase the mobility of the Imperial Fleets. A TankRon consists of several tankers, plus a cruiser acting as flagship for a group of escort vessels, transports, couriers and auxiliaries.

SCOUTRON (SCOUT SQUADRON)

ScoutRons are composed of ships on secondment to the Navy from the Imperial Interstellar Scout Service. ScoutRons are composed of a wide variety of vessels and act mainly as a holding unit for scout assets, which are detached and assigned wherever they are needed. For example a scout vessel may leave BatRon 12 for resupply and repairs, during which time it is assigned to ScoutRon 48. It may then carry dispatches to CruRon 9, becoming part of that squadron until it is sent on a new mission.

Squadron Numbers

Squadrons are assigned an identification number within their Domain. Thus in the entire Imperium there are 7 118th CruRons (there being 7 Domains). The number may precede the squadron name (e.g. 219th CruRon) or may follow it (e.g. CruRon 219). Both systems are interchangeable.

Imperial Navy Depots

The Grand Fleet of the Imperium requires an effective bureaucratic and logistical network to support it. Across the Imperium the many Naval bases and Colonial bases provide the fleets with many of their day-to-day logistical needs. However, the focus of the Imperial Navy's support network is the chain of 19 Naval Depots throughout Imperial Space. Each of these depots is so large that they occupy an entire star system.

The entire population of these megabase systems are either naval personnel, their dependents, or workers in companies supporting and serving the depot. A typical depot

has effectively unlimited capacity for starships and offers five distinct services, which are:

- Maintenance and Repair
- Wargames
- Personnel Services
- Training
- Research and Development

Depot Services

Naval depots undertake a wide range of duties in addition to the obvious one of refueling and rearming warships.

MAINTENANCE AND REPAIRS

A major task of the depot is to keep the ships of the fleet at top operational capability. Fleet vessels are constantly rotated through the yards for annual overhauls, inspections and upgrades. Vessels requiring repair after hostile encounters are also brought in. In wartime, the yards may resemble a MASH unit, with vessels in various states of damage being patched up and sent back out, sent to the yards for major work, or towed to a holding station and left there as too crippled to be worth the time to save.

Depots keep a huge stock of spares on-hand, and have capabilities to fabricate or even invent required components if the need be.

WARGAMES AND STRATEGIC STUDIES

The Naval depots have exclusive use of and entire star system and its planetary bodies. This space is used for wargames and exercises, conducted well away from prying eyes. Each depot maintains a training fleet. Many of the ships of this fleet are specially-equipped training vessels, while others are entirely standard vessels identical to those in line service.

While many exercises are competitive, conducted between squadrons of Imperial Navy vessels assigned to one side or the other for the purposes of the exercise, the Adversary Squadron forms an important part of the training facilities. As well as crewing specialist “hare” and “hunter” vessels, the personnel of the Adversary Squadron are trained in the procedures and tactics of potential foes. These OP-FORS (Opposing Forces) units use converted or custom-built vessels to closely mimic the capabilities of foreign warships likely to be encountered in the sector. For example, close to the K’Kree border the Adversary Squadron operates a mix of K’Kree ships plus a mix of corsairs, commerce raiders and unusual designs intended to keep the opposition guessing.

The Adversary Squadrons provide opposition for almost every exercise. As a result they are among the most experienced and skilled crews in the entire Imperial Navy. Adversary personnel often rotate out for a time as advisors to Colonial and Imperial naval commands.

Adversary forces have another function, which is downplayed by the authorities. The advantages of having a

squadron able to duplicate the ships and tactics of a hostile state are obvious. In 1110, the Lishun Adversary Squadron launched a highly successful strike mission against the headquarters of the Akkhorgh Separate’s navy and prevented a major raid into Imperial space from taking place.

Other missions of this nature, including some intended to sow discord between hostile states, are rumored but not confirmed.

Finally, the Adversary Squadron is available to defend the depot if the need arises.

PERSONNEL SERVICES

By their very nature, the Fleets of the Imperium require large numbers of naval personnel with a wide range of skills. A Depot handles the personnel requirements of the fleets and the depot itself, providing replacements for ship crewmembers as well as all the technical services, dependent housing, recreation, sanitation, administration, courts, brigs and other support services required to keep the fleet in operation.

Depots serve as holding pools for unassigned personnel. Officers and ratings being reassigned usually report to the regional depot to receive their orders.

TRAINING

The depots provide initial, advanced and development training to naval personnel, and maintain extensive training facilities for the purpose. Many R&D researchers, strategic analysts and unassigned officers teach at the depot’s training facility in addition to their normal duties.

RESEARCH AND DEVELOPMENT

The R&D facilities of a naval depot are impressive, to say the least. New ship and system prototypes are constantly being built and tested, and research is also carried out into determining the capabilities of foreign equipment. All research is tied directly to the needs of the Navy, so not only will development teams create a new passive sensor array but they will look into its tactical employment and integration with existing systems.

While the Navy uses the resources and skills of many scientists on many worlds, it is only the development teams at the depots who ever get to see the whole project blueprint. The others are assigned carefully compartmentalized projects which are put together at the depot. While costly and a little inefficient, this procedure means that the most sensitive projects are always assembled in the security of the depot, well away from foreign and corporate spies.

All researchers are given a position within the Technical Services branch of the Navy and are subject to Navy Law. Leaking military secrets is not a sackable offence but High Treason, and under Navy Law this is punishable by death. Breaches of security are rather rare.

THE “MOTHBALL FLEET”

Since the reign of Artemsus, depots have been used for the storage and disposal of surplus or obsolete vessels. Martin II's creation of the Colonial Fleet changed this role somewhat, in that depots became a clearing-house for ships destined for the Colonial Navy.

As vessels are retired from the Imperial Navy or are judged too damaged for repair and reintegration with the fleet, they are brought to the depot for disposal. The term implies that the ships are scrapped, but this is rarely the case. Disposal takes several forms.

The majority of vessels undergo a minor refit (and sometimes removal of sensitive weapons and systems) before being made available to the Colonial Fleets. Some are converted to other roles (such as experimental testbeds or non-jump-capable monitors) or refitted for sale to the Scout Service or friendly foreign powers.

Some ships would require too much work to be worth transferring, or may be surplus to the requirements of the Colonial Navy. These vessels are assigned to the Mothball Fleet. They are given a preservation treatment and taken out to holding berths. In theory, mothballed vessels can be returned to service in 14-21 days and provide a “war reserve” of warships. Wars have been won by such measures, though reactivation of mothballed ships can present a few surprises and of course the ships were not in such great shape to start with.

Those vessels too damaged or decrepit for mothballing are passed on to the Cannibalization Squadrons, where they are slowly stripped of useful parts to provide spares for vessels still in service.

Finally, the stripped hulls are expended in weapons tests or as targets in live-fire exercises.

The Mothball Fleet maintains a Refit Squadron which includes many types of boat to carry the technicians about their various tasks.

SECURITY FLEET

Every depot has a security fleet, whose mission is to protect the depot from all possible dangers. While all depots are located well back from the Imperial borders, they are far too important to be left undefended.

The security fleet is equipped to handle any threat, from covert infiltration by spy ships to a massive hostile assault by dreadnaughts and cruisers. Vessels include early warning ships, system defense boats, static defense stations, and squadrons of battleship-sized monitors. While most laymen associate patrol and police work with the term “security fleet”, the fact is that the security force is intended to make an active defense of the depot, under the age-old Naval axiom, “Attack Effectively First”.

Jump-capable warships stationed at the depot are also available to back up the security fleet.

Naval Bases

Naval Bases are much smaller than the vast depots, but duplicate many of their functions on a smaller scale, such as routine maintenance and personnel transfer. Bases usually have extensive training facilities. They are often co-located with a major Starport and form part of the defenses of an important world. Sometimes the Naval base is part of the Starport, sometimes it is located some distance away, even in a different part of the star system.

Bases have heavy static defenses and maintain powerful forces of monitors and SDBs. However, the scale is nothing like that of a depot. Each naval base is home to part of a Numbered Fleet, with some subsectors having several bases of varying magnitude.

Generally the battle squadrons are concentrated at a single main base, while cruiser and escort squadrons can be found at all the bases in a subsector.

Some naval bases are specialist installations with a single function.

Most are general-purpose installations capable of supporting a fleet in combat operations. To this end, bases usually have large stockpiles of missiles and other munitions ready at hand.

CHAPTER 4: PERSONNEL

The Imperial Navy is made up of ships and hardware and bases – and people. Its personnel are probably its most critical asset.

The Imperial Nobility And The Navy

The Navy is a route into the nobility for commoners, and the career of choice for the nobility. Many noble families put their children through Naval Academy and a single term in the Navy as an essential part of their education. For some, a Naval career is seen as a duty, for others it is a pleasure and a reward. For yet others a period of service is a prerequisite for a career in diplomacy or administration. And for some, the Navy is nothing more than a day job taken on while waiting for some aged relative to die and bequeath a title and stipend.

Recruiting And Training

The Imperial Navy has no problem attracting young people from good families to serve aboard its ships. However, many young nobles are arrogantly convinced that fast promotion to command or prestigious staff duty is their right. Such people are in for a rude awakening once they have signed up.

Nobles enter the service with certain advantages. Many have commissions received through naval academy, or relatives already serving in the fleet. This is an accepted situation. However, the noble recruit gets no special treatment. Indeed, nobles are expected to lead the way for their peers. They can expect to be pushed hard and if the rewards of success are greater, they get no more slack than a commoner in the same position.

Some nobles do manage to use their influence to make the training period easier or to improve their grades, but the Navy is wise to such corruption, and while training officers are often of lower social rank than the men and women they instruct, the commanders of training institutions tend to be of high noble rank, and well able to resist the influence of a noble family. Matters tend not to be pushed too far, since the Navy has a special charge – Improper Use of Noble Influence – to bring against those who try to use their family name instead of their talents. Such charges are investigated under the Admiral-of-the-Fleet's Warrant, and are grounds for instant dismissal (and the associated disgrace) from the navy. A certain amount of social and tacit influence is inevitable

and considered acceptable so long as the noble recruit meets the standards required of his post.

Branch Selection And Promotion

Noble recruits tend to select the Flight or Line branches and, given their educational advantages, most gain entry. Some do select or are assigned to specialist branches, but this is the exception rather than the rule.

Promotion is faster for nobles. The Navy is biased towards people “of name” in command positions, and influence does play its part – but only up to a point. The Navy (and the Imperium in general) believes that members of Noble families have already proved their loyalty and have competence “in their blood”. Both of these factors refer more to the traditions upheld by the Imperial nobility and the special upbringing its scions receive than to any abstract principle.

Generations of nobles have willingly shed their blood in defense of the Imperium and its ideals. Having people brought up with that sort of tradition in command positions is highly desirable to the Navy, so Noble recruits who perform well can expect to be promoted quickly.

Those who do not come up to scratch are not cut any slack. Indeed, they are seen as “letting the side down”. Being a failure as a naval officer is a great social stigma. This is another reason to want nobles in command positions.

Special Duties

All nobles in Imperial service have a special duty above and beyond those expected of ordinary officers and personnel. Nobles are expected to lead the way, to solve problems and smooth over disputes among their fellows. They are expected to be a shining example of what the perfect naval officer should be. Class spokesmen, expert sportsmen, team leaders, diplomats and problem-solvers should come first from the ranks of the nobility. There is never any stigma attached to being outshone by a talented commoner, but the noble recruit has a duty to push the limits and give the others something to live up to.

Titles

Nobles are permitted – actually required by regulations – to use their noble titles with their rank. Such titles usually take the form of (naval rank) (noble title) (name), (noble

rank). Examples include Captain Sir Amanda White or Ensign The Lord Matthew Urkiissi, Baron Micherrey.

Those with very long titles just use a part of them, except for formal introductions. However, naval personnel are addressed only by their naval rank when on duty. Baron Micherrey may be “my lord” at a social occasion or upon a chance meeting in the recreation commons, but on duty he is Ensign Urkiissi, or Sir, depending upon who is addressing him. Among his fellow junior officers he might be Baron Micherrey, Matt, or even Bonehead, depending upon his relationship with his peers and how full of himself he feels.

Filling The Ranks

The Imperium does not rule the thousands of worlds within its boundaries, but instead controls the space between. In return for payment of taxes and the provision of sophonts to serve in the Imperial military and bureaucracy, the Imperium undertakes to support free trade, to suppress piracy and raiding, to protect the member worlds from aggression and to maintain a state of peace within the Imperial borders. The main responsibility for these tasks falls upon the Imperial Navy.

Across the Imperium, the navy maintains its readiness with constant recruiting, training and maneuvers. This is a mammoth task, considering that the Grand Fleet comprises some 348 Imperial Fleets, 322 Colonial Fleets plus innumerable Huscarle, allied and auxiliary forces. Finding people capable of fulfilling all the requirements of the Navy is a constantly-ongoing and extremely demanding task. The great majority of Naval personnel (and indeed, naval officers) are non-nobles.

Recruiting

The thousands of naval recruits needed each year must come from somewhere. How they get from the streets of their home town to the weapons stations of a dreadnought involves a process of selection and targeted transformation known by the innocuous name of “recruitment and training”.

IMPERIAL RECRUITMENT OFFICE

The typical potential Naval officer or crewman starts his or her career at the Naval Recruitment Office. Recruitment Offices are very common across the Imperium; they can be found at the Starport of almost any world with a population over 10,000. They are typically small, consisting of an advertising and information area and an interview room. The former is easily accessible to the public and is filled with exciting, colorful leaflets, with promotional video footage constantly running, plus an interactive information center allowing the potential recruit to find out more about the service – or simply to watch a favorite vid clip over and over again. The office is usually manned by a line officer or petty

officer and a couple of ratings. Often these personnel are nearing the end of their service hitch and becoming a little old for active duty.

Any would-be recruit is interviewed and his Imperial ID checked to ensure he is not wanted for any Imperial crime. Local misdemeanors are not considered particularly important, but major crimes such as rape or murder are against Imperial laws on the rights of sentient beings, and will debar the recruit from enlisting, whatever other consequences may ensue.

After interview, the recruit is given a set of intelligence and reflex tests while the recruitment officer examines his or her educational history and any weapon or equipment permits he may have. If the recruit scores well enough in the tests and has a reasonable educational background, he is offered a place at the Naval recruitment camp.

NAVAL RECRUITMENT CAMP

Imperial Navy recruitment camps are always associated with a naval base. Most sectors have at least 4 such establishments. The newly signed-up recruit is given an enrolment date and a middle-passage ticket to their assigned naval recruitment camp (NRC). The recruit must get to the camp by his enrolment date or the navy will withdraw the offer of a place. In this case, the recruit has 30 days to pay back the middle passage plus administration costs or become subject to legal action.

Recruits are given a suitable period to reach the camp, and – barring wars and major catastrophes – anyone who actually wants to join the navy has plenty of time to get there. Those who do enter a typical military basic training camp. The recruit is assigned to a training squadron; typically this is a group of 12 individuals.

The first stage is a series of medical and psychological tests. Failure means immediate dismissal from the navy, without appeal. Success allows the recruit to begin a 7-week basic training course which concentrates on physical tasks and instills military discipline. Recruits are carefully observed and their performance recorded. Any recruit who does not meet the standards is dismissed from the navy. Recruits may voluntarily withdraw at any time. “Honorable failures” are assigned passage home; withdrawees must make their own arrangements. In either case, the recruit does not pay for his or her passage to the NRC. They made the effort; they owe the navy nothing.

At the end of the 7 weeks, the successful recruits formally join the navy with the rank of Spacehand Apprentice. They swear an oath of allegiance to the Emperor and the Navy, and are henceforth part of the service.

NAVAL TRAINING CENTER

From the NRC, the new Spacehand Apprentices are taken by naval transport to the Naval Training Center (NTC) situated at a naval base or depot, to undertake the next stage

of their training. Here, the new personnel undertake basic training in vital skills: vacuum suits, naval procedures and equipment drills. This program is 14 to 16 weeks long, depending upon the recruit's performance.

Once training at the NTC is completed, the recruit joins the "Crew" branch of the navy for the remainder of his first term of service. At the end of this term, he will be informed of his new assignment.

Some degree of choice is available as to which branch the spacehand goes to. Some remain in Crew, but most go to whatever branch best suits their aptitudes.

The recruitment of ratings and officers is identical until the end of NTC. At that point of NTC, those candidates with suitable educational background and aptitudes are sent to Officer Candidate School for the next year. If successful at OCS, the candidate gains the rank of Ensign and is given training in leadership, naval tactics and basic diplomacy.

This is the route most naval officers take: straight As in NTC and a term at OCS. It is also possible to take Naval Officer Training at College, though pass rates are low. However, many naval families see a commission in the navy as part of a young noble's education, and send their children to a naval academy. This offers a fast-track entry as an officer for those with the right background.

NAVAL ACADEMY

Throughout the Imperium, the Navy operates Naval Academies for the recruitment and training of officers. These academies are very selective. Candidates are normally recommended by a noble patron who holds either an active or a reserve naval commission. This requirement means that only the upper echelon of Imperial society can routinely gain entry to the naval academy. However, exceptional academic performance, a family history of naval service and other factors may be considered.

The Academies work with local education establishments to offer their candidates a good education, but their main purpose is to create officers. Over the four-year course the candidates learn basic shipboard skills as well as gaining specialized training in the branch of their choice during the final year. This choice is made with guidance from the academy staff. At the end of their training, graduates are assigned the rank of Ensign and join their chosen branch.

Honors graduates in Flight or Medical branch are allowed to stay on at the academy and attend Flight or Medical school, as appropriate.

Flight Schools are based at Naval depots and are seen as the most prestigious of all assignments. The officer gains advanced training in starship piloting, astrogation and small craft operations. Flight school also places the officer in line for rapid promotion in the Flight branch.

Medical school is generally non-military and undertaken in conjunction with local medical training facilities. Potential navy doctors are given advanced training in the

treatment of combat and space-related injuries. At the end of four years' training, the new Navy Doctor enters service with the rank of Lieutenant.

Colonial Navy Recruitment

The Imperial Colonial Office (ICO) is charged with the responsibility of administering the colonial fleets as a reserve force for the Imperial Navy.

The colonial fleets get their personnel in a variety of ways. Some are reservists with training gained at college or during merchant service. Some are on secondment from the Imperial Navy, often serving at a higher rank than their own to gain experience. Some personnel transfer to a colonial navy upon retirement from the Imperial Navy. But by far the most are recruited locally by the Colonial Navy. The actual method of recruitment depends upon the world. The following guidelines show the commonest means of recruitment used by various governments.

Government Type	Typical Recruitment Type
0. Anarchy	ICO office can be found at the Starport, though Anarchies rarely have a navy.
1. Corporate	Corporate recruitment system recruits for corporate squadrons
2. Participatory Democracy	Voluntary National Service is encouraged among citizens.
3. Oligarchy	Enforced National Service program enlists personnel for the benefit of the rulers.
4. Representative Democracy	Recruitment offices in all major cities.
5. Technocracy	Skill evaluation allocated citizens into the navy.
6. Colony/Captive	May have recruitment offices in the main cities. Often has no recruitment at all.
7. Multiple Societies	ICO office at Starport. A few worlds operate a combined defense force.
8+9. Bureaucracy	Recruitment offices in major cities and towns.
A+B Dictatorship	Elite recruitment centers open to a social minority. Most personnel conscripted.
C+F Oligarchy	Ruling group selects recruits for ability, or may use conscription.
D+E Theocracy	Religious rulers select officers from church officials. Crew are conscripted.

These are simply the commonest models. Other systems and variants of these are in use throughout the Impe-

rium. Conscription and national service can be selective, total, or subject to government influence. Generally speaking, a voluntary system produces the best results, but only if enough personnel are willing to sign up that the cream can be skimmed off. Mass conscription is the hallmark of navies using relatively unsophisticated vessels in large numbers.

No matter what process is used to obtain recruits, new personnel are processed at the local equivalent of a Naval Training Center. These establishments are usually located at the world's Starport and provide the same type of training as an Imperial NTC, including similar medical and psychological requirements. The standard is generally a little lower than for the Imperial Navy, but in a few cases may actually be higher. In many cases, failing recruits are dropped back into the next class and begin their training over again. This practice is often extended to recruits failing Imperial Navy basic training, many of whom go on to successful careers in the less prestigious colonial navy. Hopeless cases are eventually discharged.

After the 7-week basic training period, the recruits swear allegiance to the Imperium and the world government, and proceed into specialist training for whatever branch they have been assigned, holding the rank of Spacehand Apprentice. 16 weeks later they graduate to full status as naval personnel. Most enter service with the rank of Spacehand, though it is possible for a poor conscript to spend his or her entire career as an unqualified Spacehand Apprentice. States using mass conscription are burdened with many such in their navies.

Officers in the Colonial Navies are recruited in the same manner as other recruits. Some transfer into the colonial navy as reservists after college or a hitch in the Imperial Navy, but most are trained through the normal colonial fleet procedure, holding commissions earned through the colonial Officer Training School. Dictatorships, Theocracies and similar government often limit their officer corps to a select group such as Party Members, Landholders or the Priesthood, with predictably poor consequences for leadership and tactical ability.

Retired Imperial Navy officers often hold high rank in the colonial navy.

Huscarle Recruitment

Huscarles are the private household forces of the Imperial nobility. While many nobles have no forces beyond a couple of bodyguards, some maintain powerful private armies recruited and operated in a feudal manner.

Officers and senior NCOs are recruited, if at all possible, from loyal retainers who have gained experience in Imperial service. Many noble families sponsor members of loyal retainer families through naval academy or a hitch with the Grand Fleet, purely to gain their experience as part of the Huscarle force afterward. Such retainers leave Imperial ser-

vice after a term or two and join the Huscarles in a position above that in which they served in the Imperial Fleet.

Crews are recruited in the same manner as mercenaries. Noble families may have their own recruitment experts or may hire a consultant to acquire the right personnel. Personnel mustering out of service with the Imperial Navy (or in some cases, the colonial or merchant fleets) are headhunted to create an effective and efficient Huscarle navy.

Prospective crewmembers are vetted for personal and medical suitability. This tends to be even more important to the Huscarles than the Imperial Navy, due to the close "family" nature of the force.

No matter what the individual's credentials, unless he comes from a sponsored place in the Imperial Navy, he must complete a 6-month "Apprentice" period in which his performance and attitude are carefully monitored. If the Huscarle-Apprentice is deemed suitable, he is given a "bloodtie" which amounts to a salary hike of up to 50%, making some Huscarle units the best-paid of all naval personnel.

Huscarle navies are normally small and made up of hand-picked officers and ratings. As a result they are extremely well organized and efficient. There are exceptions, however. A force which has grown too large for its recruitment base, or which prizes loyalty too far above competence, can become ineffective in the extreme.

Naval Branches

The personnel of the Navy belong to various Branches, which indicate their specialist areas of responsibility. All personnel are trained in basic skills and can carry out or assist in routine tasks.

Certain emergency procedures, such as small-arms handling, damage control and firefighting, are the responsibility of every crewmember. Specialists exist, but everyone must be at least borderline competent.

However, given the highly complex technical nature of starships, it is impossible to expect that any individual can be competent in all operations. Thus the Imperial Navy is subdivided into several operational specialisms, known as "branches". These follow a logical structure dictated by the nature of the skills required for particular operations, with the result that the branch structure of the Imperial Navy would be recognized by a Solomani or an Aslan, and is used almost without variation by the Colonial, Huscarle and System navies.

The Line

The Line is a nonspecialist branch for officers. It is sometimes referred to as "command branch", since officers of the Line are not members of an operational specialism but instead are in the command chain of their ship, base, depot

etc. Officers coming into the Navy from OCS spend a year in the Line as an Ensign, undertaking what amounts to an apprenticeship before joining their specialist branch. During this time, the Ensign is given command of all manner of minor tasks to broaden his or her experience. Most officers then transfer into a specialist branch, but some remain in the Line as “salt horses” on the fast track to command, or as officers in charge of Crew departments such as food preparation or security aboard ship.

Commanding officers of starships and bases belong to the Line, whatever their previous specialism. In the case of a junior officer holding a temporary command, the transfer is honorary and the officer reverts to his or her old department when the command is relinquished. Officers destined for permanent command of a starship or installation transfer to the Line and undertake special command training before commencing their duties. All admirals (other than those serving as heads of branch) belong to the Line. “The Line” is also a phrase used to differentiate starship and combat officers from their counterparts in Staff positions.

Crew

Crew branch is the equivalent of the Line for non-commissioned personnel. All enlisted personnel serve for a time in Crew, undertaking general duties and assisting the specialists while their superiors decide what branch they are best suited to. Many naval personnel remain in Crew branch, which has general and specific duties. Crew branch undertakes many of the “facilitating” tasks required to make a navy run. Thus Crew personnel may specialize as clerks, chefs, or cargo handlers. The Crew also provides a pool of personnel aboard every ship who have a broad range of basic competencies. These personnel can assist their specialist crewmates wherever needed, replace casualties and undertake the vital tasks of shipboard security and damage control.

Crew branch personnel are commanded by junior officers of Line branch. Their uniform bears a simple Starburst emblem.

Flight

Flight (or Bridge, as colonial navies tend to call it) branch is perhaps the most prestigious of the navy branches. Its officers pilot and navigate starships and are the most likely to gain a command position. Flight personnel are responsible for communications, sensors and small craft operations (including fighter direction) as well as the more obvious flight operations.

Flight is subdivided into two duty branches. The first is termed “Boat Branch” and provides the pilots for all subordinate and small craft including fighters, shuttles and even g-carriers. The second,

Flight Branch proper, provides bridge officers for all vessels. Boat branch personnel wear a yellow starburst surmounted by a wing motif. Flight personnel wear the same emblem, but in gold. Enlisted personnel serve in Flight branch as shuttle pilots, comms and sensors operators and so on. Pilots aboard many small starships are petty officers, but astrogators are always officers. This reflects the critical nature of the post.

Gunnery

Gunnery branch are responsible for the navy’s direct combat operations, and for the maintenance of combat capability. Personnel are qualified on up to three different weapon systems, though all have a primary system specialism and will refer to themselves as Fusion Gunners, Meson Gunners, etc. Gunnery crew also undertake advanced small-arms training, beyond that required of all personnel. Aboard small vessels they are usually responsible for providing boarding parties and security detachments, often with assistance from Crew personnel.

Gunners thus are trained in zero-g combat, gun combat and similar skills in addition to their main weapons proficiency. In some rare cases, Gunnery personnel have gained entry to Imperial Marine Commando special forces units. Gunners wear a canon emblem in yellow as their branch insignia.

Engineering

The second most powerful branch in the Imperial Navy is Engineering. This branch provides the officers and ratings who operate and maintain the ship’s powerplant, maneuver and jump drives. Engineering personnel are also responsible for maintenance of systems throughout the ship.

The Chief Engineer of a starship is a very important individual, in whose hands the fate of the crew often rests. Only the Captain can overrule the chief engineer (whatever his or her actual rank) on matters of jump or maneuver procedure or safety. Wise Captains would only consider this in the direst emergency.

Within Engineering, there are four sub-branches:

Jump: Provides jump engineers and drive hands specializing in the operation and maintenance of Jump engines.

Maneuver: Provides engineers and hands who operate and maintain the maneuver engines, deck plates, contragrav lifters and docking thrusters.

Electronics: These engineers maintain the many electronic subsystems, from desk lamps to gunnery computers.

Mechanical: The mechanics’ role is to maintain the hull and other “hard” systems, from unjamming iris valves to repairing the landing struts. They are also the primary damage-control personnel, making crude quick-fixes to enable the ship to survive.

Engineers are found wherever the Navy may be, from a patrol cruiser to a naval depot. Their emblem is a yellow spiral, representing movement into Jumpspace.

Medical

The Medical Branch exists to look after the health and well-being of personnel. Medical personnel of course include the “ship’s surgeon”, but also a vast array of porters, nurses, dentists, doctors, surgeons and psychologists.

At depots and bases, large Naval Hospitals can be found, complete with research and training facilities. Aboard ship, the “surgeon” may be a lowly Able Spacehand with basic paramedic training, though larger ships tend to have one or more doctors plus support staff. Large cruisers and dreadnoughts carry a full medical staff, organized like a small hospital.

Any member of medical branch who has qualified as a doctor is referred to by that title, regardless of rank. Surgeons (male or female) are known as “Mister”, but the sense is very different to that in which a junior naval officer may be referred to as “Mister.”

Medical branch personnel wear the ancient Terran emblem of a serpent wrapped around a sword. They are usually considered non-combatants and exempted from sidearm regulations.

Technical Services

Technical Services branch is responsible for looking after complex state-of-the-art equipment. Normally associated with computers and their software, Tech Services also maintains sophisticated department-specific systems such as Electronic Warfare systems, medical equipment, avionics and communications gear. Personnel often specialize in the systems of one department and have titles such as Medical Systems Technician or Gunnery Systems Technician. However, they are expected to maintain a broad base of competence and be ready to fix anything that anyone, of any department, has managed to break. Tech services personnel are often included in follow-up damage control teams. After the engineers have dealt with the life threatening crisis, the technical people move in and restore functionality.

Tech services also conducts research and development work into new systems, or attempts to reverse-engineer equipment obtained from other powers. Many Tech Services personnel are highly respected scientists who have never been aboard a warship.

Tech services personnel work with classified systems and tend to be secretive about their knowledge. They are also prone to be a little arrogant and offhand with other branches. Their badge is a yellow torch signifying knowledge and research.

The Naval Regiment

The Naval Regiment has its origins in the Naval landing parties deployed by the Sylean Federation. It has always remained a secondary organization, thoroughly eclipsed by the Imperial Marine Corps.

While the Marines provide most of the Navy’s requirements for shipboard troops, the Naval Regiment remains in existence for other purposes.

Training detachments exist at all depots and naval bases, where regiment personnel are trained, and more importantly, members of the Gunnery Branch learn the skills they need to form part of a boarding party.

Regiment personnel also form part of the security forces of the depot or base where they are stationed, freeing Marines for other duties. They are often despised by ship crews for this role, as the “Shore Patrol” is responsible for ending brawls and other unruly behavior ashore, and does so in a brutally effective manner. For this and their related role as security at naval penal installations, they are sometimes referred to as “brig troopers”.

The second purpose of the Naval Regiment is to provide admirals and high-ranking officers with bodyguards and guards of honor. While such operations are often for show, the Admiralty likes to see its officers protected by troopers dressed in the yellow battledress of the Navy.

A few battalions of the Imperial Army are drawn from the Naval Regiment. These are descended from scratch formations thrown together in desperate circumstances during long-ago wars, and remain in being as a matter of tradition. Most are light infantry, though a Naval Artillery battery exists, as do several Naval Engineer formations. While personnel are drawn from the Navy, these forces are now indistinguishable from other units of the Imperial Army except for their insignia.

The Naval regiment wears a yellow starburst crossed by two naval cutlasses.

The Staff

The Imperial Navy has a large Staff contingent in addition to its ship and base crews. The Staff has many functions, of which two, Naval Intelligence and the Attaché Corps, are considered separate branches.

Officers and enlisted personnel can be transferred to the Staff on a temporary or permanent basis. For enlisted personnel, appointment to the staff usually means a clerical job in a major installation, keeping track of the innumerable “boots, shoots and recruits” that the navy must move around in order to keep functioning. An alternative is a clerical job on an ambassador or admiral’s staff.

The task is much the same. A few enlisted personnel assigned to the staff become personal stewards, drivers, shuttle pilots or bodyguards to senior officers. The latter are

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all drawn from gunnery or Naval Regiment personnel, usually on a secondment.

For officers, the Staff can be a dead end or a route to fast promotion, depending upon the assignment. Several common Staff appointments exist:

Aide: The Staff provides junior officers to act as assistants to senior officers. A period as a “Flag Lieutenant” to an admiral or commodore is seen as part of the education of a future flag officer. It can also be a good way to make influential friends and further the officer’s career or social standing.

Board of Ordnance: A small body is maintained by each Sector Fleet to discuss and advise on the nature of weapons (and other systems) that the fleet needs to maintain its technological edge.

Courier: While the Navy maintains many Naval Courier vessels, information of a sensitive nature is often placed in the charge of a Naval Courier; a reliable officer trusted with the protection of his charge and its safe delivery. Such an officer may travel by Naval Courier ship, or may use other means to reach his or her destination.

Legal: The Imperial Navy maintains a large legal establishment to deal with internal troubles and friction between naval personnel and local authorities.

Liaison: Officers may find themselves acting as naval liaison with local governments, army units or Imperial “shore” installations (i.e. Starports or bases). Other liaison duties include membership of the development boards of weapons-development companies and as advisors to shipping concerns.

Logistics: The Naval Logistics Corps is absolutely vital to the operation of the Navy, and thus the defense of the Imperium. Because of its humdrum reputation, the Logistics Corps attracts few volunteers and thus has trouble getting good personnel. To offset this, the Admiralty has recently stated that it views a stint in the Logistics Corps as a plus in any prospective flag officer. Many young officers now volunteer for a year in the Logistics Corps as part of their fast-track plans.

Public Relations & Recruitment: The Navy needs to maintain a positive image and to attract good-quality recruits. The personnel of this department see to it that Naval service is a popular career choice. Not merely the preserve of ageing veterans, the PR&R corps has more than its share of highly-decorated, attractive, dashing young officers and nobles crewing recruitment offices or undertaking recruiting sweeps aboard shiny new patrol ships.

Research & Development: Much of the Navy’s new technology is developed by Technical Services branch, but some comes in from private companies, and all construction is the work of civilian yards. R&D officers liaise with those private concerns, advising on suitable modifications or changing Navy requirements and seeing to it that adequate security is maintained. R&D officers usually accompany new

ships on their trials, acting as liaison between the builders and the navy.

Security: Staff officers often undertake security assignments at bases or depots, commanding guards or shore patrols. They also oversee penal installations.

Tactical Studies Units: The Imperial Navy maintains several think tanks devoted to developing new tactics and predicting enemy responses. These Tactical Studies Units take the best and the brightest from the Naval Academies, and serving officers may attend one on secondment during their career.

Training: The various training establishments (Naval Academies, OCS, Naval Training Camps etc) all need experienced personnel to pass on their skills. A training assignment need not be classroom lecturing, however. Many training officers (and petty officers) are assigned to warships to give training during deployment. Training offered varies from branch-specific (e.g. Advanced Gravitic Theory for engineers) to advancement tailored (e.g. a voluntary course in Ship Tactics). Some ships offer education of a civilian nature to offset the boredom of long deployments. A training officer may deliver a general-interest course on Imperial History or Xenobotany.

The Staff Pool: The Staff Pool is a collection of unassigned staff officers, usually of ranks between Sublieutenant and lieutenant commander. These officers, sometimes known as the “odd-job squad”, can be assigned any necessary task by fleet command. They may act as couriers, clerks, emergency replacement officers for ships of the fleet, liaison officers, personal envoys or extra training officers. The Staff Pool exists simply to ensure that if something needs doing, there is a reliable someone on hand to do it.

Naval Intelligence

Naval Intelligence is a large organization, seen by many as being separate from the Imperial Navy. Its remit is to ensure that the Imperium is secure from threats both internal and external. As the premier intelligence agency in the Imperium, its role goes beyond merely naval matters. Naval Intelligence is subdivided into three offices.

The Operations Office has perhaps 70% of the total NI manpower tasked to it. Its function is to handle the mundane parts of intelligence work – information collation and distribution, analysis, staff briefings, liaison and so on. This represents the bulk of intelligence operations, and the work is vital to the security of the Imperium. More vital information has been deduced through careful observation of non-secret actions, monitoring of communications and so on than by daring spies, though the latter are more glamorous.

The Observation Office has about 25% of the available manpower at its disposal. Many of its personnel are “sleepers” living out normal lives on member worlds or working for corporations within and outside the Imperial borders. Other

personnel are members of embassy staff. This surveillance of foreign states may be open and overt or under cover of normal diplomatic activity. Only legitimate overt surveillance is undertaken in Zhodani space, for obvious reasons.

The main function of the Observation Office is to warn the Imperium of unrest on member worlds, and to identify ways that the trouble can be headed off with a minimum of fuss. This may take the form of a sudden arrest or the precise arrival of drop troops; the information gathered by the Observation officer is of similar value in either case. The contribution of this office to the stability of the Imperium is incalculable. The Observation Office also attempts to uncover and eliminate, expel or “turn” agents of foreign powers.

The smallest office of Naval Intelligence is the Enforcement Office. Its personnel are all commissioned officers trained as assassins and undercover agents. They sometimes undertake covert missions to gather information leading to a legal action against a member world or corporation, but are far more often employed in shadowy “black ops” aimed at removing a threat to the stability or security of the Imperium. Enforcement officers are skilled in unarmed combat and with blades, guns and explosives, as well as infiltration and escape & evasion techniques. The Navy does not acknowledge the existence of this office outside a select group which specifically does not include most naval personnel.

Overt Naval Intelligence personnel are part of the Staff, and wear the normal Staff Sunburst. Observation Office agents and all Enforcement Office personnel will never wear uniform while active. Once retired from covert service, they either return to whatever branch they came from or are integrated into the Staff.

Attaché/Diplomatic

The Imperial Navy is a political tool as well as a war machine. It must be able to use diplomacy as well as meson guns, and it is the attaché corps that specializes in that softly-with-a-big-stick role.

The officers of the Attaché Corps are trained diplomats, while enlisted personnel are trained as assistants and staff members.

All personnel are carefully selected and vetted before commencing their training. The corps operates the many embassies maintained by the Imperium on member worlds and in foreign states. The Attaché corps also provides naval officers as liaison or advisors to friendly powers and colonial navies. Many such are in fact ordinary naval officers on special duty with the attaché corps, though liaison officers tend to be experienced diplomats and may in fact be permanent members of the corps.

As might be expected, the Attaché Corps has a very ornate and splendid uniform which closely resembles the Imperial Navy dress uniform. An even finer version is worn for major functions. High ranking officers wear a noble's

cape, and indeed many are ennobled to further enhance their status.

While part of the navy, the attaché corps has few personnel with the skills required to man a warship, though the corps has some officers have changed career paths at some point. The attaché corps maintains a fleet of couriers and diplomatic transport vessels manned by personnel on secondment from their normal duties.

The emblem of the attaché corps is a yellow starburst surmounted by an open hand, symbolizing a greeting. It is rumored that Naval Intelligence has operatives hidden among the personnel of every embassy and diplomatic courier vessel. It would be very surprising if this were not the case.

The Imperial Marines

The Imperial Marine Corps and their elite special forces unit the Marine Commandos are not part of the Imperial Navy, but often operate in close conjunction. IN a naval context the Marines fulfill a twin function. Firstly, they provide security for the vessels and installations of the Imperial Navy. They also may assist with shipboard discipline, damage control and may even man some of a vessel's weapons. Secondly, the Marines are a hard-hitting strike force capable of taking on any foe, anywhere.

The Marines wear a maroon starburst as their official badge. The Commandos, who recruit from the Marines and the Naval Regiment, wear the famous green beret embossed with a golden starburst.

Rank Structure

The rank structure of the Navy is very rigid, with the first nine grades being referred to as “enlisted personnel”. Of these, six are further defined by the term “petty officers”. The next ten grades are termed “commissioned officers” with the last three of these being known as “flag rank”.

Promotion

The commanding officer of any ship is considered to belong to the Line branch. This is a temporary “courtesy transfer” in the case of specialist officers holding a temporary command. The branch transfer is accompanied by a period of command training, and is a requirement for permanent command. This is seen as necessary by the Navy as a way of avoiding favoritism to any one department aboard a ship.

Enlisted Personnel

The vast majority of naval personnel are enlisted. They are the workers, the technicians and the gunners who carry

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out orders and keep the navy running but have little or no say in policy or command decisions.

SPACEHAND APPRENTICE

This is the rank awarded to new recruits at the NTC. It is held by spacers in their first term, after which promotion is common. Most personnel with this rank are simply referred to as Apprentice.

SPACEHAND

Most enlisted spacers gain this rank after their first term, when they are transferred to their specialist branch. Many hold this rank throughout their entire naval career.

ABLE SPACEHAND

An Able Spacehand is simply a steady, dependable and well qualified spacer who can be relied upon to perform his or her duties well, even under pressure. Personnel are encouraged to aspire to Able Spacehand status (and pay). In the Imperial Navy, which invests vast sums in personnel development, the bulk of enlisted personnel hold this rank. The vast majority never progress any further up the promotion ladder.

PETTY OFFICER THIRD CLASS

Petty officers are responsible for leading teams within a crew. While they do not hold an Imperial Commission, they are vital to the running of a ship or base, often knowing more about their area of expertise than their superiors. A PO3 is responsible for leading a small team such as a damage control squad or a gun crew, or for personally undertaking a complex or important job such as shuttle pilot, maneuver drive technician or sensor array operator.

PETTY OFFICER SECOND CLASS

A PO2 has exactly the same role as a PO3, but has been promoted for long or exemplary service and is thus more likely to be given a sensitive job to carry out.

PETTY OFFICER FIRST CLASS

In general, PO1s undertake the same duties as their second or third-class brethren. They often lead slightly larger teams, often with a PO2 or 3 to assist them. As specialists they handle sensitive or highly complex tasks requiring flexibility and discretion, having proven themselves time and again.

CHIEF PETTY OFFICER

A rank generally encountered aboard larger ships, a CPO or “chief” is usually responsible for 2-3 teams led by more junior petty officers, formed into a Watch. For example, the engineering department aboard a particular ship may be organized as two watches, each led by a CPO, of which one is on duty while the other stands down. A CPO may also be assigned a specific job such as security chief or shore liaison.

This is particularly likely aboard mid-sized vessels, where spare officers are not available to fill sensitive posts.

SENIOR CHIEF PETTY OFFICER

Where there is more than one watch in a department, the SCPO is senior man and forwards orders to the other watches. He or she is in overall charge, assisted by the other watch leaders.

MASTER CHIEF PETTY OFFICER

The MCPO is usually only encountered aboard large commands, or in staff functions. He or she is the department commander's aide and executive officer, and has a unique status as “almost an officer”. MCPOs aboard smaller vessels are simply highly qualified personnel who have been promoted for their exemplary service.

They perform the normal duties of whatever post they are in, usually a CPO slot. Very rarely, an MCPO of long and exemplary service may be awarded the special rank of ‘Fleet Chief Petty Officer’. Addressed informally (by those who dare) as ‘Fleet’ and as ‘Sir’ (like an officer) by most others, these individuals are walking repositories of the Wisdom Of The Ages and are treated with utmost respect by everyone – even admirals. FCPOs are rare and usually perform some special function, such as assisting an admiral on a special task or leading the enlisted personnel of a fleet flagship.

Commissioned Officers

Officers hold a commission from the Emperor, and are charged with acting for the good of the Imperium, its people, and its Emperor. Even very junior officers are expected to be able to step into a higher command slot at need, and to act in accordance with the political as well as the military needs of a situation. An Imperial Commission is a weighty thing, and not given lightly.

ENSIGN

Ensign is the lowest commissioned rank. It is held by graduates of the Officer Candidate School. The rank is often viewed as meaning “apprentice officer”, though many officers remain Ensigns for several years and can be quite experienced. New Ensigns are often assigned to work with experienced petty officers. On smaller ships, Ensigns can (sometimes) be found as department heads.

SUBLIEUTENANT

Most Ensigns quickly gain promotion to Sublieutenant, which on a small vessel can give them command of a department. Sublieutenant is the commonest commissioned rank. In the case of small non-jump vessels such as System Defense Boats, the commanding officer may be a Sublieutenant. This is commonest where the boat is part of a squadron commanded by a more senior officer.

LIEUTENANT

A lieutenant has the same general duties as a Sublieutenant, but has been promoted to greater seniority. A lieutenant will usually command a department aboard a small to mid-sized ship, or may be the commanding officer of a small jump-capable vessel such as a Close Escort which is intended to function as part of a task group.

LIEUTENANT COMMANDER

This rank is generally considered the most junior of the “command ranks”. No officer below this rank will be assigned command of a significant vessel. In practice this means that any ship of 1000t or over, or which is intended to operate independently for any length of time, will be commanded by a Lieutenant Commander or more senior officer. Many officers with this rank are undergoing or have already taken special training to prepare them for command.

Aboard larger ships such as cruisers, departments are commanded by an officer holding the rank of lieutenant commander. Squadrons of SDBs are often led by a Lieutenant Commander aboard one of the vessels.

COMMANDER

The rank of Commander may be conferred upon successful Lieutenant Commanders, whose status increases but whose duties may or may not change. However, this very senior rank usually carries with it some weighty responsibilities. Promotion to Commander is associated with fitness to lead a department aboard a capital ship such as a dreadnought, or to be the commanding officer of a large vessel such as a cruiser or battle rider. A Commander is often assigned as the Executive Officer (or First Officer) of a major warship. This is a very responsible post, and helps prepare an officer for a command of his or her own. A similar arrangement exists aboard naval bases.

CAPTAIN

Captain as a title means the commander of a ship; that officer might be a lowly Sublieutenant, but aboard his command he is the Captain. However, the rank of Captain has various meanings. Captain is the most senior of the command ranks. Holding this rank implies fitness to command any ship. While vessels of up to cruiser size may go into space with a Commander or other officer as their skipper, battleships, dreadnoughts, fleet carriers and other capital ships are assigned a full Captain in all but the most unusual of circumstances. Smaller naval bases are also normally commanded by a Captain.

Most officers who reach the rank of Captain transfer to the Line branch and become “non-specialist” officers after a period of special command training. Such non-specialists are referred to as “salt horses” in keeping with an ancient Terran custom. In the case where an officer is promoted to Captain and remains a specialist, he or she usually leaves

shipboard duty and joins the Staff as an expert or training officer. A few large warships do have Captains in charge of each of their departments. This is the practice aboard some very large Dreadnoughts assigned to the Imperial Bodyguard Squadron, for example.

Captains also undertake staff duties (as do officers of all ranks). A Captain is assigned to be second-in-command of each Naval Depot. Despite not being a starfaring commission, this is a very prestigious posting.

COMMODORE

Most Imperial squadrons (other than small ad-hoc task groups and SDB squadrons) are commanded by a Commodore, who is also the Captain of the squadron flagship. Some Huscarle squadrons use the term “Squadron Captain” instead. The rank of Commodore is the highest rank possible in system defense squadrons. This officer usually commands from a base in the system, and is not a ship Captain. Large or sensitive naval bases are also commanded by a Commodore.

Officers Of The Flag

Admirals are known as Flag Officers. The term is archaic, dating from a time when the admiral flew his own flag on the masts of whatever ship he was aboard (hence “flagship”) to identify it as the command vessel of a squadron. Flag Officers are almost always Imperial nobles. Whether this is due to elevation for naval service, or because the admiral comes from a noble family (sometimes both), the fact is that the handling of naval forces is a political task as much as a military one. Admirals have other concerns than winning battles with the enemy, and a grasp of politics is vital for so many reasons.

Flag officers no longer really belong to any branch of the navy; their special position and training place them beyond such considerations. Their affairs are administered by the Line branch.

FLEET ADMIRAL

The Imperium has 320 numbered (subsector) fleets and an equal number of colonial fleets. In charge of each of these fleets is a Fleet Admiral. Additionally, Naval Depots are commanded by an officer who holds a rank equivalent to a Fleet Admiral. These officers are titled Depot Admirals for the duration of their command. Transfer between Depot and Fleet is possible, though Depot command is often given to admirals more suited to administration than decisive action, or those who are a little old for active service. If the Admiral of a Numbered Fleet is at a depot, he defers to the Depot Admiral, as the depot is the latter’s command and the Fleet Admiral merely a “guest”. Fleet Admirals also hold important posts such as head of Naval Intelligence in a sector.

Fleet Admirals also command fleets raised for specific purposes, for example a battle fleet or a planetary assault

fleet. A fleet commander operating in a given subsector holds equal status with the subsector admiral (both will likely be Fleet Admirals in rank).

Both answer to the Sector Admiral.

The 1st Fleet has two Fleet Admirals. One is the commanding officer of that fleet, and the other is an honour-title bestowed upon the Emperor.

In the Colonial Navy, Fleet Admiral is the highest possible rank.

SECTOR ADMIRAL

The rank of Sector Admiral is normally associated with command of a Sector Fleet, or sometimes a very large combined fleet assigned to a particular mission. For example, a force comprising three Battle Fleets, an Assault Fleet and a Raiding Fleet, each under the commander of a Fleet Admiral, might be assigned a Sector Admiral to exercise overall command.

The Imperium has 28 Sector Fleets (“Named Fleets”), each commanded by a Sector Admiral. In theory, the Sector Fleet and its Admiral command all the numbered and colonial fleets within the sector. In practice, the power of the Sector Admiral varies from the borders, which tend to have active Sector Fleets, to the Core, where the Sector Fleet serves mainly in an administrative role.

The role of the Sector Admiral also varies from region to region. In the Core, Sector Admirals are often appointed for political reasons or to offer a loyal warrior a nice, safe job until retirement. At the frontiers, Sector admirals tend to be relatively young and are capable fighting commanders.

The Imperium also has ten officers who hold equivalent rank to a Sector Admiral. These are the overall heads of the various navy branches – flight, engineering, and so on – who make policy for that branch and advise the Grand Admiral.

GRAND ADMIRAL

The most senior rank in the Imperial Navy (other than the Emperor’s honor title and the job-specific post of the head of the entire Grand Fleet of the Third Imperium, is Grand Admiral. A Grand Admiral is one of the most politically powerful individuals in the entire Imperium, and will normally be assigned to command an entire theater of war.

Reserve Officers And Personnel

When a spacer swears the oath to the Emperor, it is more than taking on a job. The officer accepts that he or she will belong to the Navy for life, and undertakes to act in the best interests of the Imperium for as long as he or she is able.

Personnel who retire or muster out do not leave the Navy as such. Instead they are placed on the Reserve List, which is administered by the Line branch. The Reserve List is not the same thing as the Scout Service Detached Duty Office. Most reservists never hear from the Navy again, other

than to receive pensions. However, reservists are required to keep the naval administration up-to-date as to their whereabouts.

In peacetime, the Reserve List is nothing but an administrative nuisance for the Line branch and a source of highly-respected job references for the ex-Navy officer or rating. However, the List becomes very valuable in wartime, since reservists are a ready pool of experienced personnel who can be recalled for duty at need. If a general or individual-specific recall comes in via the Xboat network, reservists are required to present themselves for duty for the duration of the emergency. Age or ill health, or special circumstances, may allow a reservist an exemption from service.

The Navy sometimes issues a special recall order to individuals possessing special skills (such as familiarity with an obsolete system that current personnel have never used). Reserve commissions can also be held by personnel who have never been in the Navy. These are merchant service personnel who have undertaken special Navy Reserve training in return for advancement and a pay hike, or those who took Naval Officer Training in College then entered a different career. Such personnel are also subject to “recall” under the standard navy system.

By the time the Imperial Navy had issued the General Recall during the Fifth Frontier War, over 40% of officers and 22% of enlisted personnel who were eligible for recall had already presented themselves for service. Many were already in uniform, fighting the war. The personnel of the Imperial Navy, and especially its officers, have a strong sense of duty.

Naval Salaries

The Imperial Navy sets a standard salary scale across the entire Imperium. Colonial and Huscarle fleets also follow this model to some extent. Huscarle units may however offer a “blood tie” in the form of a pay supplement, and Colonial Fleets sometimes offer up to 20% lower pay than the Imperial Navy.

Flag Officers are almost always nobles with independent wealth of their own, but are still paid a large salary in return for their services.

The Admiral-of-the-Fleet can live in a style almost on a par with an Archduke on his salary alone, which reflects his political importance and power.

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Rank	Monthly Salary (Cr)
Spacehand Apprentice	350
Spacehand	400
Able Spacehand	500
Petty Officer 3rd Class	550
Petty Officer 2nd Class	650
Petty Officer 1st Class	750
Chief Petty Officer	850
Senior Chief Petty Officer	950
Master Chief Petty Officer	1000
Ensign	950
Sublieutenant	1000
Lieutenant	1500
Lieutenant Commander	2000
Commander	2500
Captain	3000
Commodore	4000
Fleet Admiral	8000
Sector Admiral	15,000
Grand Admiral	45,000

To these basic salaries are added supplements for positions. These depend upon the size of vessel in the case of command positions, and the nature of special duties or extra responsibility.

Personnel with a skill level above basic competence in certain skills are entitled to wear the relevant badge (e.g. the Small Arms badge, or the Advanced Gunnery Course badge) on their uniform and claim a small pay supplement. Combat pay is awarded for service in a theater of war, or for any mission which presents a clear danger to the personnel involved beyond that encountered in normal naval operations. It is awarded as a matter of course if the personnel become involved in (legitimate) combat activity, whether this was intended by the mission planners or not.

Position	Monthly Supplement (Cr)
Starship or Base Command	500-5000 depending on importance
Non-Starship Command	250-750 depending on importance
First Officer	200-300
Department Head	100-200
Special Duty	Up to 50% of base salary
Enlisted Personnel Responsibility Supplement	50-100
Competence Badges	10 (each)
Combat Pay	Up to 25% of final salary

Naval personnel obviously have little in the way of expenses when aboard ship. Those assigned to a base are given appropriate quarters (which they do not pay for). Some luxuries bought from ship or base stores are deducted from salary, but for the most part a serving naval officer or crewmember takes home almost all of his pay.

CHAPTER 5: DEPLOYMENTS AND PROCEDURES

Naval regulations require that some operations be carried out in a certain way. These procedures are intended to prevent pointless accidents, or to promote efficiency. They are learned by recruits and constantly refreshed. Emergencies may cause variation from the norm, but the main point of established procedure is that personnel know what to do when there is no time to stop and think.

This chapter presents naval procedures in general, then shows how they are applied in a specific vessel.

Terms, Deployments And Leave

Naval personnel sign up to serve in blocks or “terms” of four years. The standard enlistment contract or officer’s commission is for a single 4-year term, though “going career” and signing up for at least 3 terms is viewed favorably by the Admiralty. At the end of a 4-year term, personnel can leave the service with an honorable discharge, or may sign on for an additional hitch.

Major changes, such as switching branch, usually happen at the beginning of a new term. Between terms of service, personnel are entitled to a furlough lasting 100 days plus whatever saved leave they have. Naval personnel receive a personalized travel pass for use during this period, though it is only good for prearranged destinations. Any changes to the pass must be agreed by a naval base (not necessarily the character’s home base). Normally the pass is used to go home for a period, or to take a tour of the sector’s sights and attractions. Furlough is only granted to personnel who have already signed up for at least one more term. Those with long-term contracts are given an extra 15 days for every 4-year hitch they have left to go. Furlough is taken on full pay.

A period of “terminal leave” is granted to personnel leaving the service. This occupies the last 30 days of their hitch.

All Navy personnel are entitled to thirty days’ leave per year, which can only be taken while the ship is in port. At least 20 days of this leave must be taken during the year, but up to 10 days can be saved, to be added to the end-of-term furlough.

In wartime, all furloughs are cancelled, except in cases of great need. Leave may be cancelled, but the benefits of R&R are not overlooked by the Admiralty.

Leave must be taken between operational deployments. Personnel from a starship may receive liberty when in port, but periods of more than 48 hours away from the ship are not permitted during a deployment. The consequences of the

ship engaging a corsair while its EW wizard is away on leave are too serious for other considerations to apply.

Special Duty

During a term, naval personnel may find themselves assigned to various special duties. These are intended either to broaden the experience of personnel or to fulfill a specific need that the Navy has. For enlisted personnel, the special duty list is as follows:

- Crosstraining
- Specialist School
- Recruiting Duty
- Gunnery School
- Engineering School
- Instructor
- Officer Candidate School (OCS)
- Naval Regiment
- Ceremonial
- Staff Duty
- Secondment

For officers, the list is slightly different:

- Crosstraining
- Intelligence School
- Recruiting Duty
- Instructor
- Command College
- Staff College
- Staff Duty
- Ceremonial
- Secondment

Special Duty assignments normally last for a single year, after which the character returns to his normal duties unless specific notes say otherwise. Personnel who have completed a special assignment are entitled to wear a small badge or insignia to show it, and receive a slight pay bonus similar to that awarded for a proficiency badge. Special Duty always counts in favor of a character when crew selection and promotion are being considered.

CROSSTRAINING

The Navy sometimes crosstrains personnel in the skills of a different branch, for example a gunnery rating may be crosstrained in basic engineering operations. This has three main benefits.

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Firstly, cooperation is improved by understanding what challenges other departments face, and secondly crosstrained personnel are often more flexible in their approach to problems. More importantly, crosstrained personnel can provide replacements for casualties.

After crosstraining in a particular branch, personnel may join that branch. This is usually done at the start of a new 4-year hitch.

SPECIALIST SCHOOL

Specialist School is attended by enlisted personnel, who receive intensive instruction in one or two academic or technical skills.

Courses such as Gravitic Engineering or Sensor Systems Engineering are commonly taken, and count towards university credit. However, some specialist courses are rather mundane.

For example, Navy chefs have their own specialist school which includes a stint in an upmarket civilian restaurant.

RECRUITING DUTY

Enlisted and commissioned personnel are always required to man the offices and recruiting ships that bring in the bulk of Navy recruits. Specialist training in liaison and presentation is taken before being assigned to an actual recruiting station.

GUNNERY SCHOOL

Navy Gunners who show real promise are often sent on Advanced Gunnery Courses, which train the rating in one or two aspects of sensor operation, electronic warfare, weapons and screens operation.

ENGINEERING SCHOOL

Engineering School teaches one or two skills required to be a starship engineer, such as Jump Drive or Powerplant operations.

INSTRUCTOR

An experienced officer or petty officer may be sent to one of the bases, training camps or academies to deliver as course to personnel there. The character must be an expert in a skill worth teaching to qualify. He or she will receive instructor training before commencing this special duty.

OFFICER CANDIDATE SCHOOL (OCS)

Promising ratings may be sent to Officer Candidate School. OCS is a tough place, and washout rates are high. Many OCS failures actually receive a promotion when they return to duty, in recognition of their achievements. Personnel up to the rank of Petty Officer Second Class who complete OCS become Ensigns. PO1s and Chief Petty Officers are commissioned as Sublieutenants, while Senior Chiefs who

score highly enough are commissioned directly as lieutenants. OCS teaches leadership rather than specialist skills.

Personnel completing OCS normally become officers in their own branch. Those who score highly enough transfer to the Line.

NAVAL REGIMENT

Enlisted and Commissioned personnel may spend a year with the Naval Regiment. This is usually a shore assignment as part of a base's security complement, but can actually mean combat service with a Naval Regiment battalion of the Imperial Army.

Personnel come back with improved shore liaison and small-arms skills. Naval Regiment service is a prerequisite for a transfer to the Imperial Marine Commandos

CEREMONIAL DUTY

Ceremonial duty can mean one of two things. Both are highly prestigious.

Firstly, personnel may be assigned to a vessel of the Imperial Bodyguard Squadrons. This is a much-sought-after assignment, despite the endless polishing and cleaning that goes with it. The Archdukes and Sector Admirals maintain smaller numbers of ceremonial vessels (which are entirely combat-ready) for purposes of impressing foreign and member-world dignitaries.

Alternatively, personnel may be assigned to the ceremonial guard units protecting admirals and certain important sites. In this case, special bodyguard training is interspersed with a great deal of standing around in dress uniform or battledress.

STAFF DUTY

Assignment to the various branches of the naval staff is assumed to be part of naval life. Staff Duty here refers to an assignment to the personal staff of a commodore or admiral. Enlisted personnel are clerks and runners, while officers are termed "Aides" or "Flag lieutenants" and carry out liaison and clerical work for the admiral.

A period on an admiral's staff is an important stepping-stone to seniority, both in terms of social contacts and the experience gained. However, there is no special training.

Alternatively, staff officers may be assigned to the "odd job squad" of staff officers held at every naval base, and may spend the year flitting about as couriers, liaison officers and expensively-dressed gophers.

SECONDMENT

Naval personnel may be seconded to service with the Marines, Colonial Fleets, System Squadrons, Merchant Corporations or friendly powers. In this capacity, most fulfill the same role as in the regular navy, providing expertise to a friendly service or helping with on-the-job training. Officers sometimes act as advisors or liaison officers, in which case

they are termed attachés. There is no special training for this role, though an attaché's experience usually counts in his favor when the next assignment comes along.

INTELLIGENCE SCHOOL

Enlisted and Commissioned personnel may attend Intelligence School. This is a prerequisite for a transfer to Naval Intelligence. Most personnel are trained as analysts and clerks, with relatively few becoming undercover agents.

COMMAND COLLEGE

Commissioned officers may be sent to command college at any time. Any officer being groomed for command can expect to attend at least once. Command college is a prerequisite for a transfer to the Line, and therefore for permanent command of a vessel.

Attendees study tactics, strategy and leadership skills.

STAFF COLLEGE

Staff College is for officers only. Attendees are trained in liaison, strategy and administration to make them more effective staff officers.

Leaving The Service

Personnel leaving the service receive a portfolio of references and testimonials and a place on the Reserve List in addition to whatever benefits and bonuses they have earned during their period of service. Most go straight into a job in a merchant fleet, a Starport authority or a civilian corporation, or take up the duties of an Imperial Noble. Some travel for a while before settling down.

Some miss the navy life and re-enlist at their old grade. This option remains open for personnel under 60 years of age, for 1 year per 4- year term of service. Honorably discharged personnel are entitled to wear Naval uniform at formal events, though their insignia is altered to a hollow Sunburst to show their retired status.

Personnel may be discharged at other times than the end of a service. A Dishonorable Discharge may occur at any time in a character's naval career. It usually follows a period of punitive incarceration in a Naval Prison. The character stripped of his naval rank and is not entered on the Reserve List. This process is referred to as "cashiering" for officers. A cashiered officer is disgraced and may not wear Naval uniform at formal events, though some do anyway. Cashiered officers sometimes enter Colonial or Client State service.

A Medical Discharge can be earned at any time. Many seriously injured personnel return to active duty after a period of excellent care at a base hospital. However, major injuries can be traumatic, and the Navy recognizes that many personnel will no longer want to serve, even if their physical recovery is total. Some injuries are too severe for the character to remain in service, and Medical Discharge is mandatory

in this case. This is also true where a character is judged to be mentally unsuited to Navy service.

A Special Discharge can be granted for various reasons, always on a case-by-case basis. Normally this occurs when an officer is suddenly required to take up his duties as a noble. Other Special Discharges are granted upon request for personal reasons, such as becoming a single parent or when an officer resigns his or her commission to take up a civilian post. In the latter case, the officer retains uniform privileges, but cannot reenlist in the Imperial Navy. Personnel leaving the Navy receive a travel pass similar to the one used on furlough.

Deployments

The ships of the Imperial Navy normally rotate through three stages of readiness: Stand-down, Readiness and Deployed.

When a ship is on Stand-down, leave is granted, personnel attend training schools and maintenance is conducted. New officers and crew come aboard during stand-down. Most stood-down vessels at a base could be space-ready in hours or days, but efficiency would be impaired by crewmembers missing or hurriedly replaced. Some vessels, partially dismantled for refit, cannot be quickly made space-worthy.

The next stage is Readiness. Ready ships may have one or two personnel away, but are more or less fully capable of combat operations. Ships in the Readiness category undertake local maneuvers, gunnery practice and whole-crew training. They are often sent out to cover urgent tasks, and must be ready for space in a matter of hours at the most.

Ships which have a particular task are "on deployment" in Navy parlance. Usually this takes the form of patrol, flag-showing or escort duty. Smaller ships spend more time on deployment than capital vessels, whose deployments are often major maneuvers.

The navy is flexible about its deployment procedures, but certain practices are followed unless circumstances require a different approach. The complement of a Navy ship are warned for deployment according to a time-honored system. Senior officers are given the full details unless the mission is secret or has a Sealed Orders component. Other personnel are simply warned for deployment. No leave can be granted during the deployment duration, so it would be possible to deduce a ship's mission from her leave rosters. For this reason, vessels are warned in 5-week blocks. The shortest deployment warning is 10 weeks, however.

The ship may only be out for 20 days, but someone gaining access to the rosters cannot know that.

Most deployments are carried out with a specific itinerary and orders. This is particularly true of combat deployments and border-coverage patrols. However, some missions

are subject to deliberately vague orders. Patrol operations are the commonest case.

Patrol Operations

There are three kinds of patrol operation. On a System Patrol deployment, a vessel proceeds directly to her patrol station and remains there, carrying out anti-piracy and commerce policing duties. Some system patrols are “Standing Patrols”, constantly maintained in troubled areas, while others are intermittent.

The second type of patrol is a Multi-System Sweep, where a vessel proceeds along a designated patrol route, stopping off in ports along the way for courtesy visits, or jumping to the outsystem to conduct a deep patrol. Duration in any given system is usually 2- 5 days, though this varies. Captains can use the slack built into their patrol schedule to extend their stay in any given system if necessary.

The final type of patrol is a recent innovation. The rise in piracy in the wake of the Fifth Frontier War was accompanied by an uncanny ability among pirate vessels to avoid navy patrols. This was eventually traced to leaks in Naval security. Most of these have been plugged, but the Discretionary Patrol was implemented at the time and remains in force.

Discretionary Patrol is the preserve of experienced Lieutenant- Commanders and higher officers. Lesser officers are not given the responsibility. On this deployment, a ship's Captain takes his vessel out for a period of several weeks (usually 8-16) without filing any form of operational plan. A “list of intentions” is placed in a special safe by the Captain himself before leaving port. Only the Captain's immediate superior has access to these intentions, and they are normally left undisturbed until the ship comes home.

In the meantime, the Captain has complete discretion about where he takes his ship and what he does. The concept is simple: there is absolutely no way to tell where a Naval ship might turn up. There can be no leaks, since only the Captain knows where his ship is going, and he may change his mind along the way in reaction to circumstances.

It is an open secret that discretionary patrol is used as a means to measure the capability of a Lieutenant-Commander or Commander under consideration for promotion. Detailed post-mission debriefings are used not only to determine that a commander did something useful with his ship, but serve to measure his grasp of the strategic situation. Not only the officer's actions but his reasons for making them come under close scrutiny. In this way, the Admiralty seeks to measure how effectively the officer used his ship.

Standing Operational Orders

Navy ships are subject to certain standing orders. In general terms, they are required to:

- Defend Imperial Space and Citizens from all threats

- Uphold Imperial High Law
- Render assistance to any vessel in distress
- Protect Commerce and Free Trade
- Extend Courtesy to Member and Allied worlds and

vessels

- Preserve the Fleet in Being

Vessels on a patrol deployment are subject to three other important requirements:

- Challenge all suspect vessels
- Investigate and deal with or report all hazards to navigation
- Investigate and deal with all threats to the security and stability of the Imperium

Naval Procedures And Regulations

Certain procedures are common to the navy, and to naval personnel wherever they may be.

Terms Of Address

Spacehands of all grades are often referred to as “Crewmember...” rather than by their actual grade, at least by their superiors. Formal rank is rarely used except during ceremonial occasions. What they call one another when officers are not present depends upon personal relationships, and is usually a nickname or just the crewmember's forename.

Petty Officers below the rank of Master Chief Petty Officer are not called “Sir” by subordinates. Formally, they are addressed as “Petty Officer” or “Chief Petty Officer” (usually shortened to “Chief” in informal situations). Master Chiefs are called “Sir” by their juniors, and are extended the “Mister” courtesy by officers. Many officers address Chief Petty Officers and above by forename only if a good enough working relationship exists. Enlisted personnel on good terms with their petty officers sometimes use informal honorifics. “Boss” is not uncommon for a team or watch leader.

It is always safe to address a superior officer as “Sir”. Indeed, there is a certain kind of rating who tries to say nothing other than that single word to all officers. The word can have all manner of meanings in this case. Officers are often referred to as “Mister...” by both superiors and subordinates. Aboard some ships, the use of an officer's rank title implies disapproval (from above or below) while “Mister” is respectfully friendly and approving. Both forms are actually correct in Imperial Navy usage.

Crewmembers with a specific job may be referred to by a formal or informal title. These are usually used by superiors or those who think they are out of earshot. The ship's senior medic (or whatever actual rank) is “Doc” or “Doctor”. The gunnery officer is “Guns”. Communications operators are by ancient tradition “Sparks”. Security chiefs are often

formally addressed as “Master-at-Arms”. The Captain is addressed as “Sir,” or “Captain”. “Skipper” is a nickname usually reserved for the Captain’s absence. To most professional navy officers it smacks too much of beat-up merchant auxiliaries with reservist crews to be properly respectful.

Noble forms of address are not used within a crew, except as an insult to a junior. Referring to Sir Angus instead of Ensign McCalley implies that he is not fit to be addressed as a “real” navy officer, but is only here thanks to family connections. Of course, guests, diplomats and admirals are addressed by their noble titles. Off duty or in port, naval or noble rank can be used according to personal preference and situation.

Orders

There are orders and there are orders. The difference between different types and levels of orders is drilled into personnel during their training until understanding the hierarchy of orders and regulations is second nature. This is important, since personnel must sometimes choose between conflicting orders.

One overriding factor is that personnel are expected to obey any legal order instantly, without question (though sometimes explanation is necessary). At the same time, personnel are not required to comply with illegal orders or those that conflict with the crewmember’s conscience. Obeying orders is never a legal defense in cases of crime or atrocity.

The navy has many Standing Orders, which personnel are expected to obey at all times or when the situation arises, depending upon the nature of the order. Most Standing Orders have been in place for centuries, and concern matters such as maintaining combat readiness or shipboard integrity. Such orders form the bulk of accepted Navy practice and are simply part of daily life for personnel.

Standing Orders are also issued to a particular ship, squadron or fleet for the duration of a mission, war, operation or deployment. They detail what to do if certain types of vessel or activity are encountered, or circumstances requiring instant recall to base.

Another Standing Order sometimes issued is along the lines of “if a certain event occurs or a certain signal is received, open the sealed orders in the Captain’s safe and execute immediately”.

Mission Orders are (usually) given to the ship’s Captain before the vessel leaves port and detail what the ship is to do while out of port, in general and then specifically. Sometimes the ship may carry one or more sets of sealed orders which are to be opened only at a certain time or when certain circumstances occur. The contents are not known to anyone aboard the vessel until that time.

Orders are issued by superiors in order to carry out the ship’s functions. Subordinates are allowed to ask for clarification of an order if necessary, and to question or protest the

order under some circumstances. However, they are always expected to acknowledge the order and to carry it out unless it is countermanded. Acknowledgement takes various forms. “Aye Sir,” or “Aye Aye Sir” is common. “Sir”, implies disapproval of the order (or great stress).

Critical orders are often repeated back with confirmation, e.g. “Initiate Jump Sequence. Aye, Captain.”

Most orders are commonplace, and phrased as polite requests. The stress or wartime might make a Captain say “do this” instead of “would you mind doing such-and-such?” but in practice both are orders, and must be obeyed. A more forceful order would be phrased as “do this... that’s an order.” This implies that the subordinate will be in big trouble if he or she queries the order or hangs around. This form is used to overrule the protest of a specialist officer.

A third form of order is sometimes issued in the event of hesitation, protest or defiance from a subordinate. “That is a direct order...” means that if the recipient is capable of basic metabolic functions, he or she had damn well better obey, right now. The only way out of obeying such an order is to be dead or hospitalized, or to directly refuse on the grounds that the order is illegal. In that case the order’s recipient is usually arrested and must explain his actions to a Captain’s Inquiry or a full Court Martial. Sometimes the recipient is shot out of hand, though this always results in an inquiry which may find the officer guilty of murder – or might rule that the action was legal and made necessary by circumstances.

A crewmember who is given an order that seems unwise may query or protest it. If the superior insists, the subordinate is allowed to state that he is obeying “under protest”. Officers are more likely to protest than enlisted personnel. Protesting does not make it acceptable to obey illegal orders.

Orders can be illegal for several reasons. Most commonly, this is because they come from outside the chain of command. For example, a Branch Head Admiral or Sector Duke cannot issue orders to Imperial warships. Recommendations and requests can be made; influence is often brought to bear. But these individuals are not in the chain of command and their orders are not legal.

They may be complied with if the ship’s Captain thinks that is the correct course of action, but this is on his own authority and not that of the officer issuing the order.

Within a ship, the chain of command also applies. Technically, orders issued to personnel of a different department may not be legal. Those coming from the ship’s Captain and executive officer are of course always legal in this context, but the ship’s engineering officer is not allowed to call ratings away from their gunnery duties.

However some orders, while technically not legal, make sufficient sense that anyone not obeying them would be guilty of obstructing the running of the vessel. Thus when Ensign Tomms from Medical rushes into the aft gunroom and

orders the petty officer in command there to form a firefighting party, the petty officer can technically refuse the order as illegal. But he'd be in real trouble for it, assuming anyone survived the fire.

Any order backed by an Imperial Warrant is considered legal in this context.

The other form of illegal order is rather different. There are some actions that cannot and must not be countenanced, no matter who issues the order. It is never legal to massacre prisoners or shoot up civilian targets for the fun of it. Personnel are required to refuse such orders and report the person who issued them to the authorities no matter how many Imperial Warrants they may have.

Naval Discipline

All naval personnel are subject to naval discipline under the Imperial Articles of War. A system of infractions and standard punishments are laid down, and cover most situations.

Minor infractions are dealt with by the Officer of the Watch, who may choose to refer the incident to the Captain or base commander, but will usually hear the case and decide upon a punishment on his own authority. There is no trial as such; miscreants are presumed guilty if the shore patrol, the Marines or the watch commander says they are. Punishments usually take the form of confinement in quarters or the brig, a fine or assignment to a punishment detail carrying out unpleasant work – this may be necessary or simply make-work.

Laxness in routine duties, excessively rowdy behavior while on shore leave, and other minor infractions of naval regulations are dealt with in this way.

More serious incidents, or those where there is real doubt as to blame and culpability, are dealt with by the Captain or the base commander. Incidents requiring the Captain's personal attention include fighting with personnel from the same or another ship, laxness that might endanger the vessel or impair combat readiness, and any crime requiring a full court-martial. The Captain can demote a member of his or her own crew or impose longer periods of confinement or punitive detail.

In times of severe need, the commanding officer of a base or ship can dispense summary justice – up to and including death. The commander will have to justify his actions to a court of inquiry, and may face murder charges. The only circumstance likely to be accepted by the court is when there is a clear danger that a highly dangerous prisoner may escape and cause further harm. Shooting a mutineer in the course of suppressing an attempt to take over the ship is acceptable. Executing captured mutineers is not, unless there is no way to prevent them from immediately repeating the attempt.

Court Of Inquiry/Court-Martial

Facing a court-martial is not a punishment in and of itself, though many laymen believe differently. In fact the term simply means “military court”. It is the right of any officer – and enlisted personnel under some circumstances – to request a court-martial. This is sometimes done when an officer feels he has been unfairly treated or punished. However, it can be unwise, since a court can impose far worse punishments than a ship's Captain. A court may dismiss an officer from the service, to be handed over to the civilian authorities, though normally the Navy deals with its own.

Serious crimes such as treason, rape, murder, desertion, embezzlement or theft of Navy property are grounds for a full court-martial. Such a court can impose any punishment allowed under Imperial Law. The defendant is appointed an advocate, who is usually a naval officer with special training in naval and Imperial law. There is no jury. Guilt and punishment are decided by a panel of three senior officers. In many cases, the court-martial simply rubber-stamps the recommendation of the miscreant's commanding officer. Other trials are more lengthy, but never go on for months like a civilian case might.

Many incidents are followed by a Court of Inquiry. This is a special form of court-martial, which investigates an incident and the way it was handled. Blame may be apportioned, commendations issued, or the whole matter quietly swept under a handy rug.

An officer facing a Court Martial (or Court of Inquiry) is required to hand over his sword to the court at the beginning of proceedings. If the verdict of the court is against him, he will know the moment he is called back to hear the court's decision. In this case, his sword will be placed on the court bench with the blade facing towards the defendant, and he can expect at the very least an official reprimand and probably far worse. Loss of rank and seniority are common punishments.

If the hilt of his sword faced him, the officer at least knows he is not going to be punished. Indeed, he may be praised or promoted. However, sometimes a court may find that there is insufficient evidence to censure an officer, but remain suspicious of him. In that case the official verdict will be favorable but the officer's career will inexplicably stall, or he will be reassigned to a harmless or dull post where he can do little damage if he screws up again.

Starship Operations

The general operation of a starship is subject to certain common procedures, covering normal and predicted emergency situations such as combat.

General Shipboard Procedures

Some shipboard (and base) procedures are virtually identical across the entire Imperium.

RECREATIONAL CHEMICALS

Some system navies are “dry”, but the Imperial Navy is not. It has long been understood that alcohol and other recreational chemicals get aboard any ship, no matter how diligently regulations are applied. This creates an unacceptable avenue for corruption among Navy crews. The Navy thus allows vessels to maintain a “wine mess” for officers (which usually contains more than wine) and a liquor stock for enlisted personnel. Access is strictly limited, and intoxication on duty is a serious infraction of discipline, as is rendering one’s self incapable of carrying out duties. Alcohol is the most common recreational chemical aboard naval vessels, but the rec-chem regulations allow for a variety of other drugs with similar effects and low chances of addiction.

COMMAND PROCEDURES

Command of a vessel rests with the Captain (whatever his actual rank). The Captain issues orders as to what is to be done. The Executive Officer then ensures those orders are obeyed, or finds out why not. If the Exec does not inform the Captain that an order has not been carried out, the Captain will usually assume that it has been obeyed.

Department heads make specific decisions as to how to implement the Captain’s orders, and pass those orders down the chain of command to their subordinates. For example; the strike cruiser Seydlitz is taking a pounding from system defenses. The Captain decides she cannot complete her mission and needs to escape quickly to avoid destruction. He orders the Exec implement an emergency Jump procedure. The Exec orders the Astrogator and the Engineering Officer to prepare for crash-Jump. The Astrogator calls up a pre-prepared course plan. The Engineer orders his Power and Jump chiefs to implement certain procedures. They do so, using their initiative to deal with any glitches or problems they encounter. This may require hands-on work, or orders to their team.

Meanwhile the Chief Engineer monitors both procedures, offering advice and guidance to both teams to ensure a fast, efficient procedure that gets the drive ready in minimum time.

Neither the Power or the Jump chief is totally happy with what he has achieved, but the Engineer decides on the best compromise and implements it. He has reservations, but knows how urgent things are. Having achieved the best Jump configuration he can in the time available, he tells the Exec that the drive is ready, but that implementing now carries a significant risk of Misjump. The Exec at this point already has confirmation from the Astrogator that Jump is laid in. “Emergency Jump ready, Captain,” says the Exec.

“Engineer has reservations.”

The Captain weighs the situation... risk Misjump now, or take more time to prepare and suffer more damage? “Execute Emergency Jump!” says the Captain, and the Astrogator, not waiting for a repeat from the Exec, does so.

This is standard command procedure. The Captain is not interested in specific details. He must weigh the issues – his own appraisal of the tactical situation, the engineer’s reservations, the fact that the Astrogator did not mention any reason why the ship could not Jump safely. His decision is based on the overall situation. Subordinates must take care of the details, the Exec must filter and distil the information for him, and he alone must take responsibility for the final decision.

SENIOR SUBORDINATES

Sometimes a relatively junior officer may take up command of a vessel and find that he is actually outranked by one or more of his subordinates. This tends to happen when a Lieutenant-Commander takes over a destroyer which has previously been “senior ship” in the squadron. Even though the Gunnery Officer is a full Commander, the person in charge of the ship (i.e. the Captain) is the Lieutenant-Commander. His (or her) orders must be obeyed, even by specialist officers holding a higher rank.

There is a naval protocol for this situation. The higher-ranking officer must salute his Captain, defer to him, and call him Sir. The Captain must salute his subordinate, and call him Sir. Tact and respect are called for, as the senior subordinate is obviously an experienced and skilled officer even though he is not in the command position. The appointed Captain is in charge, though. There can be no question of that.

This situation occurs fairly commonly. On some ships it causes friction, on others it is a matter for strict protocol. Aboard the best it is an asset, a fact of life, and the cause of occasional wry amusement among officers who respect one another and know their jobs.

OFFICER OF THE WATCH

The Imperial Navy divides the day into three “Watches”, each of 8 hours’ duration. Known as the Fore, Aft and Night watches, each Watch is commanded by the most senior officer available. When a ship is not closed up at action stations, routine situations are dealt with by the Officer of the Watch (OOW). This duty is rotated through all the ship’s officers except the Captain and Ensigns. Small ships use petty officers for the duty as needed. The Officer of the Watch is responsible for receiving guests and work parties aboard, keeping track of paperwork, and dealing with miscreant crewmembers.

Mostly the duty is a matter of being available, or of wandering about the ship seeing that everything is all right. Occasionally a crisis develops, in which case the OOW must

deal with it until the Captain or the Watch commander can be summoned.

Security Procedures

As might be expected, security aboard Naval ships and installations is tight. A balance must be struck between keeping the vessel secure and actually getting anything done.

SIDEARMS AND SWORDS

All Navy officers other than medical personnel are issued a sidearm. This is kept in quarters rather than in the ship's armory. The Officer of the Watch is normally armed while about his duties, as are all officers during alerts. Sidearms are also issued to personnel on security duties as necessary, though often cutlasses or batons are carried instead or as well. Sidearms are routinely worn by security patrols and the ship's security chief, whatever their respective ranks may be.

All officers (including medical officers) have a dress-sword for ceremonial occasions. Whether this weapon is sharp or not is a matter of personal preference, though some captains and even admirals make stipulations for all personnel in their command area. A variety of patterns are used, from relatively heavy cutlasses and sabers to a light, curved sword known as a 'Navy Foil'. Naval officers who are also nobles sometimes carry a 'true' Foil as their dress sword. The regulations about which swords may be or must be worn at any given occasion are tortuous and fairly pointless. For the average Naval officer things are simpler – he wears his regulation dress-sword anytime he is in full dress uniform, and anytime a superior specifies 'swords will be worn'.

'Fighting' swords are sometimes issued to security personnel and officers. Rather more plain than an officer's dress-sword, the standard Naval cutlass is an intimidating weapon, which is its main use. Boarding parties, for example, are often preceded by two ratings or Marines with drawn swords (if actual trouble is expected, the party goes through with guns ready instead) in a mix of ceremony and threat that may make the boarded crew more compliant.

Actual combat with swords is quite rare, though fencing is a popular Naval pastime. Light 'sport' swords more or less identical to a Foil are common, though there are categories in many events for 'cutlass fencing'.

GUARDS AND SECURITY

Some areas of the ship are always guarded. The Armory, Bridge and Engineering Control Area all have a single sentry (except on the smallest ships). These may be Marines, but more often are crewmembers with appropriate (Naval Regiment or Gunnery Branch) training assigned to security duty. Sentries are usually armed with a baton and a snub pistol.

In port, security patrols outside the ship are usually armed with snub pistols or autopistols, though in friendly ports the guards may wear a cutlass instead for show. An armed "response party" is always maintained at readiness within the ship, away from the public eye.

Snub SMGs and body armor are available to Navy personnel, while Marines serving as Ship's Troops have their own equipment. Battle dress is not normally used for these situations.

When a ship is grounded in potentially hostile territory, Marines are deployed for security, backed by Naval personnel armed with Advanced Combat Rifles (ACRs) or the new Advanced Combat Carbine (ACC).

GUNS ABOARD SHIP

Most of the weapons aboard a starship are locked up in one or more armories. A stock of snub pistols and SMGs, plus a few ACRs and cutlasses, are stowed for issue at need. Larger ships may have more than one main armory, and several "security lockers" containing snub pistols situated in strategic areas. All ships have at least a couple of snub pistols in a locked cabinet in Engineering, and another on the Bridge.

Access to the armories is restricted to the Captain, the Exec and the commander of any ship's troops (or the Security officer). Local security lockers have coded keys, with access granted to the senior crewmember in that section of the ship.

BOARDING AND CUSTOMS

The Imperial Navy has the right to stop and search any ship in Imperial Space. Vessels using courtesy "transit corridors" are often allowed to pass without anything more than a friendly greeting, but even in a transit corridor, the right of stop & search exists. This right extends to every vessel not belonging to the Imperial Navy, including Huscarle and mercenary ships, and even the yacht of the Sector Admiral or the Archduke. While some nobles are "difficult" about being boarded, most understand that an even-handed application of the rules is necessary, and submit without protest.

Some are positively delighted to be boarded by the Navy and try to make a social occasion of it.

The Navy not only has the right but the duty to board and search. It does not make exceptions, though unless there is a blanket search order assigned to a particular system, not every vessel will be searched. Naval ships do not dock with vessels to be boarded.

Personnel use shuttles or jump across, even when the board and search is a cursory routine check of a known friendly ship. Boardings are always conducted by armed parties, in vac suits. At least some members of the party keep their suits sealed at all times.

Personnel selection for boarding parties favors (in order) Marines, Naval Regiment personnel, Gunnery personnel, and any crew with small-arms proficiency badges. By prefer-

ence, boarding parties are commanded by a Naval officer or petty officer, even if a more senior Marine is present. Where possible, specialist personnel accompany the boarding party, in the hope that they will spot discrepancies that a non-specialist might not.

Boardings take the form of an examination of the ship's papers, a visual examination of cargo, bridge and drive areas, and a detailed close-range sensor probe of the ship. Logs are downloaded and checked for discrepancies, and the ship's complement are questioned in as much depth as necessary. Compliance with safety equipment and navigational laws is verified, and the vessel is either allowed to go on its way or seized for a more detailed search. If necessary, the ship is escorted (or personnel are put aboard to bring it) to the nearest Naval base to be dismantled.

Most boardings are undertaken with an air of polite distance on the part of Navy personnel, and usually weary resignation from the boarded crew. Gifts and gratuities – of any form – are never accepted by boarding party members. Even once a ship has been declared clear to pass, it is immediately subject to search by the same Navy vessel or any other. This right can be used to harass suspected criminals, but is rarely abused.

Flight Procedures

When a vessel is out of port, certain operational procedures are adhered to. A qualified officer is always present on the bridge to deal with any sudden crisis, and a constant passive sensor watch is maintained.

TRANSPONDER MODES

Imperial Navy vessels normally run either in “Quiet” or “Overt” mode. In overt mode, the vessel's transponder is active, as are her active sensors. The Navy ship is as visible as any merchant – more so – and clearly identifies herself not only as a naval ship but usually by class and name. When on traffic control, escort or similar duties, high visibility is an asset.

In Quiet mode, the ship's transponder is off but IFF (Identification Friend-or-Foe) is in “response” mode. That is, the IFF system will respond to queries from other ships. Those squawking the correct codes (i.e. friendly Navy ships) will get the full transponder information back by tight beam signal. Other craft will get a response identifying the ship as an Imperial Navy vessel, but offering no other information. This response will not be made to a general IFF squawk unless it carries a Navy code. Only if the interrogative signal contains the Navy ship's coordinates (i.e. it is certain that she has been spotted by sensors) will any response at all be made. Otherwise, she will continue to hide.

A third mode, Silent mode, is used for combat situations. Emissions are masked to the utmost degree and only

Navy IFF codes will receive a response and then only by tight beam, if authorized.

SUBLIGHT MOVEMENT

A vessel operating in Overt mode will usually use constant acceleration to reach her destination by the most efficient route, though Navy ships routinely vary their acceleration and vector slightly in a manner similar to a wet-navy vessel zigzagging to avoid submarines. Under combat or alert conditions, vessels usually either “creep”, at low acceleration and with consequently lower emissions, or “sprint and drift” using short bursts of acceleration with the drive section turned away from the suspected location of hostile vessels and emissions hopefully masked by the bulk of the ship.

In combat, pseudo-random evasion patterns of thrust and attitude are used to confuse the enemy's firing solution. It is a tactical decision for the Captain as to how far off the desired mean vector a ship should thrust. The more radical the evasion, the slower the ship will reach its destination or firing position.

Jump Procedures

The normal Jump procedure used by the Imperial Navy is lengthy and careful. Jump requires close coordination of powerplant output, Jump engine calibration, and Astrogation input. Actual initiation is by the Astrogator, but regulations require that Jump only be initiated on the orders of the commanding officer of the vessel.

STANDARD JUMP PROCEDURE

A standard Jump moves through several stages of readiness, all subject to confirmation and authorization. Jump is a very deliberate procedure aboard a Naval ship.

Stage 1 Readiness: Astrogation plot is generated and fed to the astrogation computers. This determines the level and pattern of charge in the ship's Jumpgrid, and the general parameters of the Jump engine initiation. Several destinations can be held at Stage 1 readiness.

Stage 2 Readiness: Destination is confirmed and locked into the astrogation computers. Specific parameters are generated for Jump drive and hull grid. This process takes 2-3 minutes, and only one destination can be held at Stage 2 readiness. Vessels entering combat often have an escape Jump plotted and held at Stage 2. The hull grid is not live at this stage.

Stage 3 Readiness: The Jumpgrid is brought up to 30% charge level, and the Jump engine begins its warm-up cycle. This draws a great deal of power and increases a ship's emissions considerably. It is usually possible to tell if a ship is running at Stage 3.

Stage 1 Initiation: The Jump engine (which includes a massively high-output but very inefficient generator) begins to burn liquid hydrogen fuel at an enormous rate, generating

immense power levels. If the rate of fuel flow and energy output is gently ramped up over 10-15 minutes (this is referred to as a “warming cycle”) there is little strain on the engines and a very small chance of Misjump.

Grid power increases rapidly to 80% of maximum. Normally this phase takes 1-2 minutes. Emissions are greatly increased. Even quite poor sensors can tell if a ship is at Stage 1 initiation. Jump can be aborted at this point, though there is a small risk of a power overload and about 5% of the Jump fuel is typically wasted.

Stage 2 Initiation: The Jump drive burns through 90% of the fuel that will be needed for this jump, and emissions go off the scale. Jump grid is brought to 100% entry power, and held there. Jump must be initiated in the next 3-5 minutes, or an emergency abort begun. If not, the ship will enter Jump without proper control, and will certainly Misjump or be destroyed.

Jump Initiation: With the grid at full power, the vast energy generated by the Jump engine is blasted into it, projecting the vessel into jump space. Destination is determined by the energy balance and configuration of the grid at the time of Jump initiation, and can be affected by gravity wells, damage or power fluctuations.

Jump Maintenance: Once in jump space, the remaining 10% of fuel is used by the jump engine to maintain the j-field around the ship. Without it, the vessel is instantly destroyed.

Four other jump procedures are important to the Imperial Navy:

EMERGENCY ABORT

A ship which suddenly has a pressing reason not to Jump (such as combat damage just before initiation) can make an emergency abort. From Stage 1-3 Readiness, this is a relatively low-risk procedure, requiring only routine engineering tasks known to all qualified Engineering personnel to complete safely. Mistakes may result in minor systems damage from power surges, but usually nothing serious.

Aborting from Stage 1 Initiation is more dangerous and will tax most Engineering teams. Errors will certainly cause some systems damage, and there is a possibility that sections of the Jump grid may be damaged by overloading. The ship's power system may also be damaged.

Aborting from Stage 2 Initiation is a desperately dangerous undertaking requiring emergency procedures and (usually) a certain amount of ‘seat of the pants engineering’ in a very fluid and dangerous situation. An error can result in anything from power overloads that take out various systems, to a drive explosion that wrecks the engineering section. In some rare cases the ship enters Jump anyway, with a totally random destination and serious damage to the Jump and Power systems. Few vessels survive this experience.

CRASH JUMP

Sometimes it is necessary to escape a desperate situation. The normal Jump cycle takes 15-20 minutes assuming course plots are ready. By crash-starting the process and going immediately to full power, Jump can be initiated in 1-2 minutes if a course is ready in the computer. This causes great strain on the system, at the very least shortening the life of the Jump engine.

To initiate a crash-Jump, in-game the normal engineering and astrogation rolls are needed. To actually survive the process, a second set of powerplant and jump engineering rolls must be made at a suitable penalty for the circumstances. If either set of rolls is failed, the ship has Misjumped with damage to its drives. If both are failed, well, at least the explosion will look impressive.

FLEET JUMP

Jump mechanics are not properly understood. Two similar vessels can enter Jump at the same time and place, with the same destination, and come out 2 days apart. This is not acceptable for fleet operations.

The Imperial Navy gets around this in two ways. Jumps are made, where possible, into points distant from the projected location of enemy forces. This gives time for the fleet or squadron to reorganize itself upon arrival. However, it is not always practicable.

For this reason, all Navy vessels are fitted with Squadron Jump systems. These generate Jump parameters for a group of ships rather than a single vessel, and slave the systems of all ships to a central initiation circuit. The standard unit (which is very expensive) can cover a squadron of ships (or a convoy and its escorts). Fleet flagships are fitted with an even more complex system which can coordinate the Jump of a number of squadrons.

There is still variation in emergence, however. Using a linked Jump reduces variation in time to about an hour either way in most cases. Position variance is minimal. This means that fleets can Jump en masse and be ready for combat at the far end, but a fleet emergence is still an exciting time for all concerned, as vessels emerge in the wrong order, on slightly different vectors, and dispersed in time by up to 2 hours. The variance is greater for large fleets. A single vessel and her escorts are likely to emerge all together. Larger forces are not.

PURSUIT JUMP

The Squadron Jump computer can be used to analyze a vessel's jump parameters and initiate a pursuit Jump to the same destination. If the pursuit Jump is initiated very soon (2-3 minutes) after the first craft Jumped, there is an excellent chance that the pursuer will arrive in the same relative position to the pursued as before Jump was initiated. Any delay allows for parameter drift, with the result that location or more likely, time of arrival, may be off.

The longer the delay, the more variation there is. If the pursuer takes than 15 minutes about initiating the Jump, the parameters will have drifted so much that the result is no different to the normal situation when two ships Jump independently to the same system – emergence location may be different by millions of kilometers, and the usual day-either-side-of-a-week duration applies. The pursuer will usually arrive within a half day, and somewhere within a few millions of km, but this is of little use in a pursuit situation.

For this reason, pursuit Jump is a hurried, crash-Jump situation, and is rarely used.

Combat Procedures

When Action Stations is sounded, all crew must immediately suit up and proceed to their battle station. Those manning essential systems remain at their post until relieved and only then don their suits. As sections report suit readiness, that section is evacuated to prevent explosive decompression.

A ship's weapon systems are normally powered down. Overall status of weapons is controlled from the Captain's position. Several settings are available:

- **Weapons Tight:** Weapons are powered but cannot fire.
- **Defense Free:** Weapons are powered, but only point-defense lasers and defensive systems can operate.
- **Weapons Free:** All weapons can fire, but only under the central direction of the gunnery officer. Point-defense can operate independently.
- **Local Control:** All weapons are released to operate independently. This mode is used when main fire control is out of action. In the event of serious damage or the loss of the bridge, all weapons automatically revert to local control. Local control is less efficient than central fire direction, and the possibility of friendly-fire incidents is much higher.

Which mode the ship's weapons are in depends upon the Captain's appraisal of the situation. Additionally, weapons use is affected by orders from squadron or fleet command. These place no physical restriction on the use of weapons, but advise the Captain as to whether he is allowed to initiate combat. This is particularly important when undertaking delicate operations in a situation of cold war or tension, where provocation can be expected. The threat warning issued by higher command helps a Captain decide what sort of response to make. His instinct may be to blast that harassing Solomani gunship in case it suddenly opens fire at close range, but his orders may not allow it.

- **Threat Warning Green:** No threats are expected. The vessel is not authorized to initiate combat, but may of course defend itself.
- **Threat Warning White:** A possible threat exists. The vessel may respond to an attack, but may not initiate offensive action. If fired upon, a limited response to remove the threat is authorized.
- **Threat Warning Red:** A real threat of attack exists. The vessel is free to engage potential threats before they open fire, but not to actively seek combat.
- **Threat Warning Black:** A war, or war-like situation exists. The vessel is free to seek out and engage enemy vessels at best opportunity, subject to its operational orders.

Special conditions exist. For example, a vessel operating in a condition of Green, Weapons Tight, may still engage a known pirate vessel, since standing orders permit this.

RULES OF ENGAGEMENT

Naval vessels are subject to strict rules of engagement. Under normal circumstances, suspect vessels must be challenged three times and a warning shot fired before any attempt is made to damage the vessel. However, there are occasions when naval ships may fire with minimal, or no, warning. In time of war, vessels identified as belonging to hostile states may be attacked without any warning. Indeed, this is the preferred mode of attack. Such vessels are usually identified by passive sensor data picked up by picket craft.

Free-fire zones exist around sensitive sites and vessels. Flagships, Naval depots and the entire Imperial Bodyguard squadron exert a "free-fire zone" around them, wherever they may be. Intruder craft will be warned if they are outside the zone, or just inside it. A craft that manages to slip deep into the free-fire area without being detected is almost certainly up to no good, and policy is to destroy such craft with overwhelming fire immediately upon detection. A craft that is not destroyed will be boarded and stripped down to its frame – and the crew interrogated – to find out what the ship was up to.

In the event that a vessel fires upon a Navy ship, a civilian vessel or an installation belonging to the Imperium or its member worlds, it is subject to retaliation with lethal force. Vessels may be challenged quite within his rights to blast anyone who shoots at his ship into sub-atomic particles.

In all other cases (subject to the Captains' judgment of the situation), vessels must be challenged, and fire should be directed to disable rather than destroy. Clear target identification is essential, especially when dealing with what looks like a corsair but just possibly could be a nervous merchant vessel.

DAMAGE CONTROL

When a ship is closed up at action stations, all personnel who are not involved in running combat-necessary systems, or waiting in reserve to replace casualties, are assigned to damage-control teams. These include Engineering and Technical personnel, plus the ship's cooks, clerks and other general Crew-branch members.

Everyone receives training in basic damage control procedures, and teams drill constantly.

Damage control is coordinated by the ship's security officer, who dispatches response teams to deal with gross damage such as hull penetration and technical teams to repair command pathways and other more delicate systems. There is a brutally simple rule to damage control operations – Save the Ship. Individuals are irrelevant beside the need to preserve the entire ship's company.

The ship must retain the capability to support life, to move, and to fight. Everything else is secondary.

Leaders of damage control teams must often make critical decisions in an instant, and must be able to be callous about the fate of individual crewmates in the interest of saving the ship.

DEVOLUTION OF COMMAND

The ultimate authority aboard the vessel is the Captain. Whatever his (or her) actual rank, the appointed or acting commanding officer of the vessel has complete authority and responsibility for the ship, her crew, and her mission. The Captain has the right to overrule any officer under his command, but is well advised to listen to the opinions of specialists such as engineering or gunnery officers.

The Captain must keep track of the "big picture" and not become bogged down in minutiae.

The Captain's orders are implemented by the Executive Officer (hence the job name.) On small vessels this officer may have other duties, but as exec, he or she is responsible for implementing the Captain's decisions and for having distilled information available at need. When the Captain wants a damage report, he does not need to speak to each department head in turn. Instead, he wants the Exec to present a concise version of what the departments have been telling him. Information-filtering is a vital part of the executive officer's duties.

It has been said that the Captain deals with the Admiralty on behalf of the ship, while the Executive Officer deals with the ship on behalf of the Captain. The partnership between the two is vital for a well run ship. The Exec also stands in for the Captain whenever he or she is unavailable, and takes command if the Captain is injured.

The various department heads are responsible for everything within their department, and for ensuring that the Captain is kept up-to-date with circumstances. Each has complete authority within his own area. Conflicts of interest are resolved by discussion, or referred to the Captain (or

the Executive Officer.) Department heads are expected to advise the Captain if he requests it (how much discussion is appropriate is determined by individual Captains) and if it is in the interests of the ship. For example, a gunnery chief who knows that the ship's fire control systems are down and not coming back on anytime soon is expected to make it very clear to the Captain that the ship is not combat-worthy. Department heads are entitled to protest orders that they consider inappropriate, but can be overruled by a direct order from the Captain if the situation merits it.

Officers holding critical positions such as astrogator or security chief, who are not department heads, are also subject to the above procedures within their area of responsibility. If the Captain gives an order that would place the ship in jeopardy, officers are required to protest, no matter how fearsome the skipper may be. Those who do not, and survive the result, can expect a court of inquiry.

In the event that the Captain is injured, command devolves to the Exec, then to the senior surviving bridge officer. The procedure for who takes over after that is deliberately vague, to allow for circumstances. The Captain is entitled to appoint any officer to the role of Acting Captain, whatever their actual rank. The last act of a gravely injured Captain should be to place his ship in the hands of the person most likely to get it home, without prejudice or favoritism.

If the Captain cannot appoint a successor, the ship's command structure usually indicates a suitable officer. Seniority and rank are the usual criteria, though command tends to devolve upon officers of Line, Flight, then Gunnery branches. Specialists in other areas are less suited to taking command of a ship and some, like Medical, are not in the chain of command and are not trained for the eventuality. A medical officer, even a Commander, and would be a last choice before getting down to Ensigns and Petty Officers. Any vessel having to make that sort of choice is almost certainly not going to get home anyway.

Occasionally, an officer may decline to take command, choosing to remain at his station. For example, the gunnery chief may be senior surviving officer when the bridge is blown away by a meson gun hit. He must choose between taking over the ship and remaining where he is most effective – fighting the ship out of trouble. His choice is dictated by his opinion of the next officer in the chain of command. Both options fulfill a responsibility to the ship. Which is more important is a vital split-second choice. Small vessels have occasionally come home with a Petty Officer on the bridge giving orders to a Lieutenant down in what's left of engineering. This is an entirely acceptable situation, if both are where they can do the most good.

Very rarely, it is necessary to relieve an officer of duty. For junior officers, this is the decision of the Captain or the medical officer (ratified by the Captain.) If a Captain has obviously "cracked" or is behaving in a psychotic manner, he must be removed from command. Not even the ship's medi-

cal officer can do this on his sole authority. The only time such a removal is legal on a single person's authority is when an admiral aboard chooses to relieve his flag-Captain. At any other time, three of the ship's senior officers must agree to the necessity, and jointly request that the Captain stand down. If he refuses, he must be arrested. This sometimes involves violence or the threat of it, and can result in infighting among the crew.

The line between mutiny and the legal removal of a Captain who is unfit for command is a fine one. A Court of Inquiry is always called, and the actions of all involved are examined closely. If the officers acted correctly in response to the Captain's unfitness for command, they are quietly commended and the Captain will be reevaluated for command. If their actions were not legal, the officers can expect a trial as mutineers and harsh naval justice. Removal of the Captain is always an unpleasant business. It is possible that, while the act was legal, the manner in which it was carried out may result in censure. Future comrades and commanding officers may be suspicious of officers involved in such an incident, however legal or necessary.

In the event of a violent removal, personnel who acted to defend the Captain, or to oppose them, will be subject to a court-martial. However, they are rarely punished if they can prove that they acted in good faith. Personnel involved in a messy removal are always posted far apart afterwards.

Armed Ships Not Under Fleet Command

There is a point at which an armed vessel becomes a warship. This is subject to all manner of definitions and legal arguments, but the fact remains that there are many warships and pseudo-warships operating in Imperial space without being part of a fleet. Some of those ships belong to planetary navies and are sometimes part of the Imperial Navy (e.g. when they are serving with the Subsector Fleet) but at other times remain 'private' vessels. Some of these ships are very large – cruisers and even the occasional battleship – but by Imperial Law they are entitled to go wherever they like in the same manner as merchants and other civilian ships. For vessels operating under the banner of the Subsector or even Sector Fleet as part of Colonial Forces, the situation is very clear-cut. They are subject to normal Naval procedures and have all the powers of an Imperial Navy ship – which is, after all, what they are.

For the fairly large numbers of mercenary, corporate and planetary navy warships in Imperial space which are not under Fleet orders, a different set of regulations applies. The Imperium allows private shipowners to mount weapons on their vessels for self-defense and while there are limits on what a private citizen is permitted to mount on a vessel, heavily-armed civilian ships are not uncommon in frontier

areas. Such vessels are permitted to defend themselves or come to the aid of another vessel under attack, just as citizens are allowed to defend themselves, but armed ships proceeding without Fleet command normally have no legal jurisdiction. Thus the armed yacht and escort of a noble, or a corporate 'route protector' would normally have no right to stop and search a suspected smuggler or pirate, though it could of course engage a vessel that was attacking it or another ship and might give chase afterwards.

Thus normally a Planetary Navy ship that is not attached at that time to an Imperial fleet is permitted to go wherever it needs to, but it is not allowed to function as a Naval ship. However, there are some exceptions.

Internal Wars

The Imperium permits worlds to go to war with one another provided the conflict is limited. Wars of conquest are forbidden, though outsystem installations are occasionally captured and held. If fighting in a declared war (which includes Trade Wars and other, similar, disputes), the warships of worlds, corporations, and mercenary formations are permitted to engage in hostilities and military actions within the theater of war, and may in some cases search vessels within the region. However, enforcing a blockade and harassing merchant ships gets dangerously close to 'interrupting free trade', which is forbidden in Imperial High Law.

Huscarle ships are not normally permitted to take part in internal wars, though sometimes a noble in dispute with a corporation (for example) may engage in 'private' hostilities. This is frowned upon by the Imperium since the nobility are largely Imperial officials and should be above participating in local disputes.

Route Protection And Protection Of Interests

Corporate, Mercenary, Noble and Planetary warships may request (and will often be granted) permission to undertake security patrols in certain areas. This is how the Route Protectors used by certain Megacorporation operate. Outside the region (usually a chain of star systems forming part of all of a merchant route) specified in the vessels' charter, they have no legal powers. Within that region, a range of powers may be conferred. These range from a simple charter to protect merchant vessels in the area (effectively conferring Imperial blessing on the endeavor but granting no legal rights) all the way through to permission to function in the manner of a Naval ship in the specified region. The latter is fairly uncommon, though sometimes Mercenary and Huscarle ships are co-opted to assist an overstretched Subsector Fleet in this manner.

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Planetary navies often seek (and sometimes get) permission to patrol nearby systems 'to protect the interests of the homeworld'. This is commonest where a trade route runs through a system that cannot afford much of a system squadron. A nearby major world will undertake to patrol the system mainly to protect its own trade running through the region. The Imperial Navy is thus freed from pressure to maintain a picket in the system, so this arrangement is considered highly useful. It can of course be abused, but the penalties are severe.

Mercenary ships (and sometimes others) are also sometimes issued what amounts to an Imperial Letter of Marque (though the Imperium does NOT issue Letters of Marque allowing attacks on commercial shipping) against pirates in a certain region. This effectively gives the owning ship the right to stop and search suspected pirates and possibly smugglers. It does not allow customs checks to be carried out, or enforcement of law other than apprehension of pirates.

Accountability

By tradition, permission to undertake 'naval' operations is granted by the office of the Sector Duke (or the Archduke of the Domain). This means that there may be ships carrying out naval tasks which are not under the orders of the regional naval commanders. Friction over this is fairly rare however, since Admiralty liaison officers are available to the Dukes and there is a considerable body of precedent on which to base decisions over whether to issue permission, and to what degree.

Planetary Navy and private ships that are subject to activation by the Colonial Fleet are monitored by the Colonial Office. In addition, all warships operating within a subsector are monitored by the Subsector Admiralty and by the staff of the Subsector Duke. Minor infractions of regulations are subject to penalties imposed by the Imperial courts and may include punishments meted out to the vessel's captain, crew or owning body. Major infractions can result in Imperial intervention against the owning world or corporation, or the arrest of the captain and crew as pirates.

Weaponry

Warships that are available to the Colonial Navy may mount almost any weapon. They do not carry nuclear weapons unless on a war deployment, and certain very powerful meson guns and particle accelerators are normally replaced with downgraded weapons before the ship is decommissioned from the Imperial Navy. Such weapons are normally found on fairly new ships anyway, and these tend to still be in service so the question rarely arises.

Nuclear missiles are not permitted to planetary powers except where clearance has been issued by the Sector Admiral. This is routine in the case where large-scale warfare has

broken out in the region and maximum effort may be needed in order to repel an assault. A world that is attacked by a non-Imperial power and uses nuclear missiles before permission arrives will not normally be censured.

Nuclear weapons are not allowed under other circumstances. The last thing the Imperium needs is indiscriminate launching of nukes in the middle of a Trade War or inter-world dispute.

In all other ways the weaponry available to planetary navies, corporate powers and so forth is the same as that used by the Imperial Navy, though the latest upgrades and designs are always reserved for Fleet use and not made available on the open market until they have been declassified – which means around the time they have been supplanted by something better.

CHAPTER 6: WEAPONS AND EQUIPMENT

Much of the equipment of the Imperial Navy is standard, and available to corporate or private purchasers. However, some equipment is restricted to military use by the Imperial and Colonial fleets. It is sometimes possible to obtain such systems by various means such as unauthorized salvage or elaborate scams, but Naval Intelligence tends to be very interested in anyone who suddenly starts using meson weaponry. The Navy (and the Marines) are likely to pay a visit shortly thereafter.

Starship Systems

The Imperium recognizes the need for armament on civilian vessels such as liners and freighters. A few laser or missile turrets are an effective deterrent to piracy or hijacking. Sophisticated defensive systems capable of stopping Navy-grade weapons, and those weapons themselves, are judged to be unnecessary for self defense purposes. Most are available to Colonial Navy, System Squadron and Huscarle units.

Weapon Mounts

All weapon systems need to be mounted somewhere on the ship. Weapons are normally grouped into batteries that fire together, increasing the chances of a successful hit and also damage. Batteries are told what to shoot at and when by the gunnery officer in most case, but are actually directed by the battery commander. If this central control is lost, weapons can continue to fire under local control with reduced effectiveness.

SPINAL MOUNTS

In order to generate ship-killing damage, very large weapons mounts are fitted to most large warships. Such weapons run the length of the ship and often have dedicated powerplants.

Depending upon the weapon, very limited aiming is possible by manipulating containment fields and focus arrays but essentially a spinal mount is aimed by pointing the main axis of the ship at the target.

Most spinal weapons are meson guns or particle accelerators, though variants do exist. Truly colossal lasers are not as much use as their advocates would like, but some small strike craft are built around a “spinal” fusion or plasma gun, and some bombardment ships carry a large mass driver down the main axis of the vessel.

Spinal mounts cannot be retrofitted to a design; the spine is part of the main keel of the ship.

In theory, any vessel could be built around a spinal mount, but the power and space requirements are such that they are not really suitable for smaller craft. Occasionally a destroyer or patrol ship-sized vessel is encountered carrying one as a deterrent and a sort of “varmint gun” to take out small corsairs and minor strike craft with a single blow. Such minor spinal armament also allows small ships to present a credible threat against a major warship, but trying to use it amounts to suicide.

Experiments with double or even quadruple spinal mounts, or with split mounts facing fore-and-back, have been tried. Such systems never seem to work as well as their inventors hope.

WEAPONS BAYS

Defensive systems and oversized weapons can be mounted in “bays”. A bay is simply an area within the hull dedicated to serve are the commonest bay weapons. A large ship may carry several – even hundreds – of weapons bays. A smaller vessel may be built around a single one as a substitute for a spinal mount. In this case the bay would be referred to as the “missile room” or “accelerator chamber”.

Unused weapon bays can also be used as missile magazines, troop ready rooms, as cargo areas or beer stores.

WEAPONS BARBETTES

A barbette is an oversized turret mounting a single large weapon such as a particle accelerator. While barbettes cannot mount the powerful weapons that can be fitted in a bay, they are capable of bringing fire to bear in a wider arc. Barbettes are fitted as part of the battery armament of large ships and also to allow a couple of powerful weapons to be fitted to a small vessel such as a Gazelle class close escort.

WEAPONS TURRETS

Most smaller weapons are mounted in turrets to give good all-round coverage. The turrets themselves are the same as civilian counterparts, though they tend to have the same armor protection as the parent vessel and are thus far more survivable than civilian weapons. Single, dual and triple turrets are common. Larger weapons such as plasma guns take up an entire turret, or else are mounted dually in a barbette.

Defensive Systems

A range of defensive systems are standard across the Imperium. Not every ship has all, or even any, of them. Defensive Systems are sometimes referred to as 'screens' and are basically passive in nature. Screens crewmembers are members of Gunnery branch and the operation of defensive systems is coordinated by the gunnery officer. Large ships often have a 'Screens Officer' subordinate to the gunnery officer (and also a Missile Officer, Beam Weapons Officer and Spinal Mount Officer etc), who commands the specialist defensive systems.

REPULSORS

Repulsors are based on focused gravitic field generation; the same systems that create the artificial gravity fields aboard starships. They can be fitted in standard turrets and larger bay mounts. Their function is to deflect incoming missiles and debris before impact with the hull. Repulsors could also be used to deflect kinetic-energy projectiles, artillery shells and such like, if the vessel were in the unusual position of being the target for some. They have no effect on plasma, fusion, particle or laser weapons, or relativistic objects.

MESON SCREENS

Meson screen generators are fitted to all major warships, and many smaller ones. Their function is to disrupt incoming meson streams and prevent the decay of the particles from occurring at the intended moment. This can reduce damage from meson weapons or cause them to miss entirely. Meson screens have no value against any other weapons.

BLACK GLOBES

The Black Globe is a somewhat unreliable technology developed from relics left over from the Ancients. It is not known how they actually work. What they do is to create a shell which absorbs all energy striking it. Objects impacting the screen are annihilated, or more accurately converted to energy which is absorbed by the screen.

This energy has to go somewhere, so it is shunted into large Black Globe Capacitors which store it for use in the ship's systems. If these capacitors are overloaded, the energy begins to escape. In the case of a slight overload this is a dangerous leak which can cause personnel casualties and destroy electrical systems. In most cases where weapons fire is involved, the overload becomes catastrophic in an instant and the capacitors explode. This usually destroys the vessel instantly.

Since no energy can penetrate the globe, a ship inside one cannot maneuver, and is blind and deaf, but also does not show up on enemy sensors except as a "black hole" in the sensor readings (this is difficult to detect with active sensors

and almost impossible with passive ones). A ship can use dead reckoning to drift along a known vector into a firing position or past enemy pickets, then drop its black globe for a surprise attack.

Black globes can also be set to "flicker" on and off many times a second. In this mode, they absorb a percentage of the incoming energy equal to the flicker rate (i.e. 20% flicker rate = 20% of energy absorbed). This does not confer any stealth advantages but reduces the damage from weapons fire while allowing the vessel to see, move and shoot.

SANDCASTERS

Sandcasters are often considered to be point-defense weapons rather than passive 'screens'. Their function is to place a cloud of particles ('sand') between the ship and incoming weapons fire and thus reduce its effectiveness. Sandcasters are usually mounted in turrets grouped into batteries to maximize their effectiveness.

Some ships consider their sandcaster complement to be part of the screens and commanded by the screens officer. Others group sandcasters as defensive armament with short-range point-defense lasers and place a 'Point-Defense Officer' in charge of both systems. Either approach works well.

The sandcasters used by the Imperial Navy are entirely standard and identical to the ones fitted to small merchant craft. However, since they are operated as batteries in close conjunction with other systems and supported by sophisticated electronics they tend to be much more effective than their civilian equivalents.

Weapon Systems

The Imperial Navy makes use of a number of weapon systems. Some are more effective than others in various circumstances. What weapon systems are selected for a given vessel will to a great extent depend on its intended role.

LASER WEAPONS

Laser weapons are the mainstay of shipboard armament. Accurate and versatile, they are used for point defense and in batteries for ship-to-ship action at quite long ranges. They are effective up to a point but against a major combatant there is a limit to what can be achieved with laser armament. Thus lasers on all but the smallest naval ship are secondary or tertiary armament. If a vessel is intended to do more than defend itself against raiders or police the spacelanes, then it carries something heavier than a laser as its main armament. Up to 3 lasers can be fitted in a standard turret.

The lasers used by the Imperial Navy are much the same as civilian ones. They are ruggedized; overbuilt and multiply redundant, designed for emergency repairs and sustained fire, but are basically the same as those available on the open market.

MISSILES

Missiles offer long-range firepower and the possibility of taking out an enemy vessel without risk. However, ammunition is a problem, and a vessel relying solely on missiles can get into real trouble quickly, especially against an enemy that has good point defenses.

Missiles of various types are available. The commonest ship-to-ship missile uses a “bus” section fitted with a seeker head to carry its warhead close to the target, then launches 4-6 smaller weapons, which seek the target independently and also use target feeds from the bus seeker (until it is destroyed before enemy fire.)

Such weapons, using a shaped-plasma warhead, do relatively light damage to the target but can punch multiple holes in a hull. The submunition warheads split beyond point-defense range and thus complicate the defenders’ task. One-shot ship-killer missiles use the same bus but have a single large warhead in place of the submunition pack. This weapon goes all the way to the target under its own power and direction. Damage is significantly greater but defense is easier.

Nuclear warheads are occasionally used for contact or proximity detonation. In the latter case, there is of course no blast effect but electromagnetic pulse and radiation can fry electronics, cause crew casualties and also cause structural damage by induction heating in the target ship. Contact detonations are devastating, but difficult to achieve. Another use of nuclear weapons is the nuclear-pumped detonation laser, where the detonation of the warhead is used to power a group of x-ray laser rods for a standoff attack. This is treated as a laser attack; the nuclear detonation is usually far enough out that the radiation and EMP effect is minimal (except perhaps on unhardened electronics carried by civilian craft).

Nuclear missiles of any type are strictly controlled by the Imperium. They are permitted to Colonial Navy and System Defense units for use in a war situation against foreign hostiles, but their use, even in space combat, against the forces of an Imperial member world is prohibited.

Specialist missiles are often used. Some carry advanced sensors and missile control packs instead of a warhead. These automated systems direct the other missiles in a salvo, supplying target information from a position beyond the enemy’s point-defense range, but from far closer than the launching vessel. Another specialist missile carries electronic warfare systems. These can be launched with a salvo to jam enemy communications and reduce point-defense effectiveness, or can be used as decoys close to the launching ship to apply ECM against incoming fire while the missile ship remains stealthy, greatly complicating the fire control problem for the enemy.

Missile systems are also routinely used to launch probes, recon drones and satellites.

The “ready use” ammunition of a missile turret is one round in the launcher, two ready on autoloader rams. For ci-

vilian craft this is often the entire missile complement of the vessel. Military ships usually have a “use magazine” serving several turrets, in turn fed from a main magazine deep within the armored bowels of the ship.

Missile handling in combat is a dangerous business, especially where nuclear munitions are concerned.

PLASMA GUNS

Plasma guns are large, short-range weapons that fire a stream of superheated, charged gas from an oversized weapon mount.

This mount is larger than a conventional turret and requires special hull bracing to support it. Plasma weapons cause a great deal of damage to the hull of an enemy vessel, and can annihilate a small merchant vessel with a single hit. The plasma stream dissipates quickly and consequently is no use at long range.

FUSION GUNS

Fusion guns are a developed version of the plasma gun, with similar characteristics. The only real difference is that plasma proceeds to fusion, generating even more hitting power though again only at close range.

PARTICLE ACCELERATORS

Particle accelerators can be mounted as spinal, “bay” or turret weapons. Spitting a stream of charged or neutral particles (depending upon type), particle accelerators do surface damage to a target and pack much more of a punch than lasers. Particle accelerators are poor weapons for ground bombardment of any world with a significant magnetic field.

MESON GUNS

A developed form of particle accelerator, the meson gun uses a stream of relativistic particles timed to decay at a given point. The resulting explosive release of energy can occur inside a target, defeating armor. Meson screens interfere with this process, and are fitted to most large vessels. Meson guns are often used to attack planetary surfaces, and can be built deep underground for planetary defense. Since the weapon can shoot through rock (or anything else) it can be sited very deep and extremely difficult to attack. Dispersed sensors allow deep-site meson guns to attack anything on the planetary surface or in orbit. In space combat this effect can be terrifying, as heavily-armored dreadnoughts simply explode from within, with no sign of weapons fire from the enemy. The first uses of meson guns by the Terrans (during the Interstellar Wars with the Ziru Sirka) caused panic in the Vilani navy. Note that meson guns do not actually fire mesons. The name was coined as a security cover, in much the same way that early armored vehicles were labeled as water tanks to conceal their identity. The cover name, being rather more memorable than the real scientific name of the weapon, has stuck to this day.

RAIL GUNS AND MASS DRIVERS

The Imperial Navy has at times experimented with projectile weapons of various sorts. While useful in some circumstances, rail guns and mass drivers have never achieved any degree of popularity.

Rail guns and mass drivers are actually the same thing. The term “rail gun” is used to refer to smaller weapons firing very light projectiles, while “mass driver” implies a large weapon capable of launching a significant mass, albeit at a lower velocity. Both weapons use electromagnetic effects to accelerate an object to immense speeds. Since the kinetic energy, or hitting power, of an object is determined by the square of its speed, a tiny particle should in theory be capable of devastating a starship. However, this is not the case.

The fire control problems associated with hitting an evading vessel at one or more light-seconds are immense. Sensor data (crawling along at lightspeed) is out of date by the time it reaches the firing ship. A similar lag applies to laser or meson gun fire going the other way, making a hit difficult to achieve. A rail gun particle moving at 1/3 of light-speed requires a miraculously good target motion prediction to actually hit anything. And where missiles can home in once they get there, railgun projectiles are unguided.

One solution is to use rapid-fire railguns to spray an area of space, but the dispersion caused by distance renders this tactic almost useless. Even if a hit is scored, a depressurized ship is unlikely to suffer much more than small circle of vaporized armor. A projectile might even pass right through a ship, but is unlikely to hit anything vital.

Larger (mass driver launched) projectiles are large enough to cause massive damage to a vessel, but moving more slowly they are even less likely to hit. Rail guns are useful in atmosphere where expansion of air heated by the energy of impact can cause serious damage. They are sometimes thus encountered in planetary defense installations. Imperial vessels are never armed with rail guns.

Large mass drivers (mounted in bays or as a spinal mount) are useful for planetary bombardment where widespread devastation is the aim. Orbital rock-dropping can be used to shatter bunkers and defense installations, though it is only a little less environmentally damaging than nuclear bombardment. A few specialist bombardment cruisers do deploy mass driver weapons but the lack of an anti-ship capability makes such weapon fits less than popular.

Personal Weapons And Equipment

The Imperial Navy has access to the standard small arms used by the Imperial Army, including light support weapons for defense of ground installations. However, their use is quite rare. The weapons mentioned here are those on common issue to naval personnel.

NAVY CUTLASS

The Navy Cutlass is a ceremonial weapon rather than a serious combat tool. However, cutlasses are kept sharp and personnel drill with them, just in case. The standard Personnel Cutlass is rather plain and utilitarian, while Petty Officer's weapons are rather decorative, and officers' even more so. Slightly different patterns of cutlass are issued to officers of various grades, but all are variations on the theme of a long, heavy curved blade with a semi-basket handguard. Cutlasses can be use to thrust but this is a little awkward. By ancient tradition, the enlisted personnel cutlass is known as a “butcher's blade”.

NAVY FOIL

Essentially a light, thin-bladed slashing sword halfway between a foil and a cutlass, the Navy Foil is favored by some officers to the officer's cutlass. It is a reasonably practical light self-defense tool, inasmuch as any sword can be considered to be that.

4MM GAUSS PISTOL

The standard sidearm for Naval officers is the 4mm gauss pistol. All officers (other than medical and chaplain personnel) are assigned one. The weapon is a symbol of rank, but may see occasional use to enforce discipline or in self-defense while on active duty. Senior petty officers may also be assigned a gauss pistol if their duties require one.

9MM AUTOPISTOL

Naval bases maintain large stocks of handguns to equip security patrols. Other personnel may be temporarily issued a weapon if the situation merits it. Other than a yellow Sunburst on the grips and a Navy serial number, the only thing distinguishing the Navy 9mm from its Army sibling is a belt lanyard which prevents the weapon being lost in low-gravity situations.

COMBAT SNUB PISTOL

The standard naval sidearm is the Combat Snub Pistol. Held in armories and issued only at need, the snub pistol is the one weapon that all naval personnel (other than those exempted by their beliefs or duties) must be qualified on. All snub pistols have a large trigger guard to accommodate vac suit gloves and a securing lanyard to prevent the weapon being lost in low-g conditions. An integral laser sight is standard.

Navy snubs are almost exclusively semi-automatic weapons. Snub revolvers are used by various civilian agencies and merchant crews but the Navy favors the high-capacity magazine-fed weapon for obvious reasons. Various ammunition types are available for snub weapons, including gas, tranquilizer, ball and high-explosive ammunition.

SNUB SMG

A larger version of the Combat Snub Pistol, the Snub SMG uses the same ammunition (but not magazines) as the handgun version, plus a low-penetration flechette round for anti-personnel work.

Snub SMGs are carried by security personnel aboard ship, and are issued for boarding actions. Capable of burst or full-automatic fire, snub SMGs have short range but great hitting power. Their small size makes them handy for cramped-space and low-g operations.

ADVANCED COMBAT RIFLE/ADVANCED COMBAT CARBINE

The Navy uses the standard Advanced Combat Rifle to equip personnel for ground operations. A variant, the Advanced Combat Carbine, is identical but for a shorter barrel and pistol-type assault grip. Basically a submachine gun version of the ACR for tight spaces, the ACC is under evaluation by the Board of Ordnance.

DUTY SUIT

Naval personnel require protection from vacuum first and foremost. Body armor is worn by some security personnel and shipboard patrols but the main danger faced by naval personnel is from decompression. The standard duty uniform of naval personnel is a TL-14 tailored vacuum suit. This “duty suit” is designed to allow personnel to operate complex shipboard systems in a depressurized environment, without interfering with operational efficiency. The suit is worn as uniform dress, and is made atmosphere-tight by gloves, an air rebreather unit and a soft, transparent “beach-ball” helmet.

These are carried on the belt as part of duty kit. In the event of sudden loss of pressure, this suit allows personnel to survive for a time; hopefully long enough to remedy the situation or escape. For combat conditions, a rigid suit helmet and small life-support pack are used instead of the constant-carry emergency kit.

A duty suit offers little protection against radiation, and does not maintain pressure very well. This is not a problem when plugged into a life-support console at a duty station, but for extended independent operations a more substantial suit is needed.

NAVAL VAC SUIT

The Navy uses a standard TL-14 vac suit. These suits are made by navy contractors to the highest standards, but are functionally identical to the vac suits used by civilian merchant and spacer crews.

ENGINEERING SUIT

Damage control teams and engineers working outside the hull use a specialist form of light battle dress known as an engineering suit. The suit has no weaponry (though there

is no reason why personnel cannot carry small arms), and is armored more lightly than combat battle dress. It is fitted with a range of engineering sensors and tools powered from the suit’s supply. These include multi-spectrum sensors, magnification equipment, electronic and ultrasound scanners, a densitometer, various power tools and a welding/cutting unit.

A damage control team in engineering suits can even enter a breached fusion reactor chamber and work there amid radiation and high temperatures – at least for a short time.

HARDENED VAC SUIT

The hardsuits worn by security troops and base guards (only during alerts) are equivalent to Combat Armour.

NAVAL BATTLE DRESS

Naval battle dress is normally worn only by honor guards. It is basically identical to Imperial Army battle dress.

BODY ARMOUR

For situations where personal armor is needed in non-vacuum situations, security personnel wear a semi-rigid back-and-chest clamshell jacket similar to a lighter version of the Combat Armour body section and a full-face visored helmet with gas filters of the same material.

APPENDIX 1: OPPONENTS AND RIVALS

No study of the Imperial Fleets would be complete without some attention being turned to the opponents that fleet may have to fight, and the allies it will support and rely upon.

Major Powers

The major powers of Charted Space maintain powerful navies that could be expected to meet the might of the Imperial Navy head-on and possibly even inflict defeat. Imperial vessels have clashed with those of these major powers from time to time in combats ranging from border incidents to full-blown war.

The Aslan

HISTORY

Despite coming relatively late to the interstellar stage, the Aslan rule a region of 17 sectors containing over 7000 worlds. This region, named the Hierate, lies to Spinward of the Imperium. Aslan are descended from carnivore/pouncer stock and have evolved a warrior culture with a strong territorial instinct. The need to possess territory drove the Aslan to the stars as soon as Jump technology was available, and still motivates many of their actions.

There is no overall Aslan authority. The Hierate consists of many Aslan clans, each of which possesses its own military forces. The leaders of the 29 greatest clans form a council known as the Tlaukhu, which has influence but little formal power over the many clans. However, clans often cooperate to provide military forces in response to a Tlaukhu request, but even then the forces of each clan remain separate, with no high command structure.

The Aslan clans have fought among themselves throughout their history, and have clashed with their neighbors from time to time.

There has been no major war since 300 or so, but recent tensions in the I'Aheakho sector look like leading to joint clan action against the Solomani within a few years.

DUTIES

The duties of the clan navies are similar in many ways to those of any culture: patrol, anti-piracy and defense against attack by outsiders. However, there are some major differences. The first and foremost duty of a clan Aikoho (which translates roughly as "fleet", though a more accurate

– and more Aslan – translation would be "many ships") is to defend and maintain the honor of the clan.

Clan wars are mainly the business of ground forces, but the Aikoho does play an important role. Space battles are arranged, and many points are agreed upon in advance by the commanders on both sides. Only then do the Aikoho engage, and only to the agreed upon level of damage or casualties. Sneak attacks are considered the hallmark of dishonorable barbarians.

As well as conducting clan wars, the clan navies provide transport and conduct exploration and colonization missions. Scouting for new territory is an important role for the navy, since land-wealth correlates to political power. The navy also carries out a courier role, since the Aslan have nothing that corresponds to the Xboat network.

ORGANIZATION

Aslan starships tend to operate independently. Indeed, many observers claim that even during fleet operations, Aslan ships still operate independently. Organization at higher than single-ship level is driven by orders from the clan. Several organizational concepts have been observed. Note that these are Imperial labels, and imply a level of organization that does not exist in Aslan society.

Tlaukhu Navies: These forces are created at need from contributions made by the various clans; the greatest clans contributing the most powerful and efficient ships as a matter of prestige. They are formed to battle powerful foes which threaten the Hierate as a whole.

Clan Navies: Those more powerful clans which are not part of the Tlaukhu may form navies from their own forces. Some are as large as a Tlaukhu navy, while others are nothing more than patrol forces.

Planetary Navies: While part of the forces of the owning clan, planetary navies are mainly single-system forces for local defense.

VESSELS

While they look very different from Imperial or Solomani vessels, Aslan starships are similar to human ones, and fulfill the same basic roles; escort, cruiser, battleship etc. Even the most functional warship is richly decorated and valued as a piece of art as well as a lump of military hardware. Aslan ships always have a "shrine of heroes" aboard, where crew and passengers can meditate on their place in the clan. Large communal lounges are common, even on military ships.

The Droyne

HISTORY

The Droyne have a long history as a starfaring race, but currently have little power. Their worlds are scattered throughout Charted Space, with no overall organization or power structure. Many worlds have a small but high technology navy, while others exist at a low-tech, pastoral level. Throughout human history, the Droyne have been uninterested in conquest or warfare, fighting only in self defense or to protect their interests.

DUTIES

The many Droyne Oytrips across Charted Space rarely cooperate with one another, or engage in naval activities other than self defense and patrol duties. On rare occasions, an Oytrip has launched a strike against some threat. Although having little actual combat experience, Droyne naval units have always proven highly efficient, and it is assumed that the Oytrip navies conduct some form of preparation or training to maintain this high state of readiness.

Droyne naval forces are sometimes involved in ritual wars between Oytrips. Always prearranged and subject to strict rule (which are incomprehensible to outsiders), ritual wars are fought for a specific goal. Both sides honor the result and the matter is considered settled upon the victory of one side. Naval units do not usually engage in space combat during such wars, as one of the rules seems to be that only members of the caste of Warriors die, and starship crews are drawn from all castes.

Naval forces also engage in exploration, wandering around space in what appears to be random and haphazard manner, and carry messages between Oytrips. There is little or no pattern or regularity to this activity.

ORGANIZATION

There is little apparent structure to Droyne “fleets”, as most ships operate independently. No Oytrip within the Imperium has more than a couple of purely military craft. Outside the Imperium in the Trojan reaches, what appears to be a formal naval force does exist.

One of the Oytrips of the world of Auitawry has a highly organized fleet of 14 major vessels, which defend the world in return for goods and considerations from the other Oytrips on-planet. These vessels serve under a ‘Leader of Ships’ and probably represent the standard Droyne fleet organization where the Oytrip is not within space controlled by a friendly power.

VESSELS

Droyne often obtain vessels from other races for general use. When they do build their own vessels, the designs are always the same, no matter how remote the Oytrip is from

other Droyne worlds. This is a mystery which has never been explained.

The Hive Federation

HISTORY

The Hive Federation is very different to the Imperium in that it is a true federation of states, each of which is internally independent. The Federation is based around the cultural precepts of its founders, the Hivers, but all member worlds have coequal status to central government. There are over 170 member races in the Hive Federation, but they display very little behavioral diversity.

The Hivers fought a short but vicious war with the K’Kree between -2023 and -2021, but overall their history has been remarkably peaceful. However, history has shown them that in order to have peace they must be visibly ready for war.

DUTIES

The Federation Navy, which is the only formal military organization the Federation possesses, exists mainly to monitor and contain aggressive species such as the Ithklur and Humaniti. It enforces quarantine of dangerous species and carries out the usual policing of the spaceways – this is particularly important since many pirates see Hiver space as an easy hunting ground due to the Hivers’ peaceful nature. The Federation Navy also has a deterrent role, and stands ready to combat any invader. Its forces are deployed more thickly along the K’Kree border than anywhere else.

ORGANIZATION

The Federation Navy is organized into 18 Sector Fleets, within which squadrons of various types exist. Squadrons are of common types for the most part, but two are unusual. ConRons (Containment Squadrons) exist to maintain the quarantine around closed worlds, and a number of Covert Operations squadrons are maintained.

During the K’Kree war, a combined “Defense Fleet” was created from 7 Sector Fleets, but this is not a common measure.

VESSELS

Hiver vessels are designed to protect their crews and therefore have very solid defensive systems. Their sensors are excellent, a necessity given the Hiver preference for long-range weaponry.

The Julian Protectorate

HISTORY

The navy of the Julian Protectorate, the Star Legion, has progressed a long way from its ramshackle origins in the Julian War. Two main lessons were learned from the war. Firstly, the ability of fast-moving raider and strike squadrons to tie down enemy forces and disrupt both commerce and military operations was graphically demonstrated. Secondly, the vulnerability of the Protectorate to powerful capital ship squadrons was underlined. Measures were taken to improve the former capability while reducing the latter liability.

The development of the Star Legion was not without its setbacks and problems. The creation of a unified navy from the forces of many states was a huge challenge. Political (and even military) infighting has beset the fleet from its foundation. However, the need to avoid repetition of the Imperial thrusts into Protectorate space has overridden most other considerations.

DUTIES

The Star Legion is charged with defense of the Protectorate as a whole, with home defense as the responsibility of individual worlds and or states. The Legion has three main duties. Most commonly, Star Legion ships are assigned to patrol and piracy-suppression missions within Protectorate space. However, in wartime the other two duties assume precedence. These are to reinforce threatened systems and to strike hard at enemy commerce, and bases behind the lines.

In time of war, the Star Legion adopts a 'sword and shield' system similar to that which brought about the Imperial defeat in the Julian War. While the 'Shield' of system defenses and heavy monitor squadrons holds back the enemy main fleet, the 'Sword' of fast raiding vessels severs their supply chain and inflicts damage in the rear. If the enemy can be pinned for long enough, a heavy force can be brought to bear for a fleet victory, but the Star Legion plans to inflict a steady asymmetric defeat on its enemies rather than a decisive fleet action.

ORGANIZATION

The Star Legion is a "Cruiser Navy", with many ships deployed on semi-autonomous operations. Most organization is at the squadron level, with "Fleets" existing mainly for administrative purposes. Star Legion squadrons are not homogenous. That is, they frequently contain ships of several classes or even designations. Three types of squadron are maintained.

Patrol Squadrons carry out policing and reconnaissance duties.

Strike Squadrons are intended for the deep-strike role against rear-echelon enemy targets. Strike Squadrons usually

include one or more Fast Tankers and are primarily made up of raiding cruisers and light cruisers.

Heavy Squadrons act as mobile reserves to bolster system defenses.

Larger forces, assembled from several squadrons, are termed "Action Commands" and commanded by an officer whose rank is as much political as it is naval.

VESSELS

Star Legion ships tend to be optimized for a particular role. Patrol ships are light anti-piracy vessels with good mobility and sensors. They are designed to outgun privateers, not to fight fleet battles. In wartime they provide escorts for other ship types. Light cruisers and "Raiding Cruisers" (which might be termed Battlecruisers in a different navy) make up the Strike squadrons. They are optimized for hit-and-run attacks rather than fleet action, being heavily armed but fairly light on defenses. Heavy units include Armored Cruisers and Battle Monitors (as the Star Legion terms its low-Jump dreadnaughts). These vessels have relatively low mobility but are impressively well-protected, and very heavily armed. Battle Monitors are not intended for offensive action so much as acting as a mobile reserve to augment the defenses of a threatened system.

The Star Legion does not favor carriers or tenders.

The K'kree

HISTORY

The only major race descended from herd herbivores, the K'Kree are ultraconservative and maintain a caste-based feudal society structure in which the Krurruna ("Bosses") answer to their Steppelord, who in turn answers to a Lord of Steppelords (planetary ruler). Overlords of Lords rule sub-sectors and all K'Kree owe allegiance to a single Steppelord of the Two Thousand Worlds.

This structure served well on the plains of the homeworld, but it creates huge problems in governing a technologically-advanced interstellar state. K'Kree also suffer from extreme claustrophobia and an almost pathological gregariousness. Despite these handicaps, the discovery of Jump drive in -4142 allowed the K'Kree to spread out into space.

The K'Kree military (named the "Kitunika'rra", which literally means "Vermin Exterminators") was created to destroy all carnivores on their homeworld of Kirur, and later to campaign against the G'naak, a carnivorous race living on the homeworld's moon.

The discovery of the G'naak was a pivotal event in K'Kree history, since their main reason for developing space flight was to wipe out the G'naak. This drive to annihilate all carnivorous life from the universe has led to a violent history, and while accommodations have been made with neighbors, the K'Kree still openly pursue their mission.

DUTIES

Although K'Kree cultural policy is to conquer the galaxy and wipe out all meat-eaters, the realistic military stance is one of defense against the aliens. The K'Kree managed to lose their only major war against an interstellar power (the Hivers, of all people!) and this has greatly colored their perceptions. As part of their defensive strategy, the K'Kree back an informal empire of client states.

Naval forces support these buffer states and make raids beyond K'Kree territory to punish aggression. K'Kree space forces are also responsible for communications between worlds. Nobles have access to a first-class courier network, while lower castes must make do with an unreliable and slow message system.

Intimidation of subject races is another important duty of the fleet. The K'Kree do not trust their subject peoples, and use hostages or threats of violence to keep them in line. There is near-continuous dissent within the Two Thousand Worlds, with the navy busy putting down at least one revolt at any one time.

ORGANIZATION

Space force crews must by definition be at least slightly crazy – why else would a herd creature leave a planet to work in a small metal box in space, with just a handful of companions? They are thus not the cream of military personnel. Thus the space force, while probably the most important arm of the military, is highly inefficient.

The K'Kree military has a single, feudal, command structure which is subdivided into three strategic commands each centered around a huge base which provides support, training and base facilities.

The Home Group is based on Kirur itself, while the Advanced group is based across the Lesser Rift and charged with discouraging the Vargr from raiding. The third group, Hero Fleet, guards against the Hivers. It currently has its hands full dealing with a spate of insurrections which are blamed upon Hiver interference.

Each feudal K'Kree lord also maintains his own forces. These forces, usually composed of cost-effective frigates, usually operate dispersed in the patrol role. When a larger force is required, a lord commands his vassals to provide the necessary units for the mission. What he actually gets depends upon what is available and who is in revolt at the time. These forces have an ad-hoc organizational structure created for the task at hand.

VESSELS

The K'Kree prefer to do battle on the ground, with starships being merely armed transport and orbital fire support. All warships carry troops and are equipped for the fire support mission. They are thus inefficient in space combat despite their huge size (a necessity for large creatures such as K'Kree). Since the Hiver war, the K'Kree have tried to

improve their fleet by creating fighter carriers. These vessels carry hundreds of semi-autonomous robot ships which are useful in ground support and can be sent in waves against enemy vessels. “Suicide” attacks with these craft are not uncommon.

The Solomani Confederation

HISTORY

After the fall of Terra at the end of the Solomani Rim War, the Solomani created a new capital at Home and began to rebuild their naval forces. Expansion Rimwards continued and border clashes with the Hivers and Aslan provided a training ground for Solomani crews. The Solomani Confederation remains dedicated to the notion of human superiority and the belief that the Solomani people will eventually take their rightful place as the overlords of all human and non-human species.

DUTIES

The Confederation Navy is maintained for many of the same reasons as the Imperial Fleet; as a tool for defense and deterrence, and for the advancement of policy by direct means. The Grand Admiral of the Confederation Navy sits on the Confederation High Council (the main ruling body of the Confederation), giving the navy a powerful voice in politics.

The Navy engages in exploration and survey operations to Rimward, maintains the Solomani Xboat network, and most importantly, suppresses dissent within the Confederation by various means ranging from control of the news to outright intervention.

ORGANIZATION

The Solomani Navy is in fact made up of two forces: the Confederation Navy and the fleets of the various Confederation member states.

The Confederation Navy maintains individual fleets at subsector level, reinforced in troubled or border regions. Confederation squadrons are heavily biased towards larger vessels – dreadnaughts, battleships and heavy cruisers – with the only common small vessels in the Confederation Navy being close escorts, fleet couriers, network couriers and courier tenders.

The Confederation Navy also runs naval academies and bases across the Confederation. These academies are attended by personnel from the member state fleets as well as Confederation Navy personnel, ensuring commonality of procedures and tactics.

This is important since in time of war, member state fleets are integrated into the Confederation Navy command structure.

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The fleets of the member states are more or less independent except in wartime. They are largely made up of lighter craft optimized for patrol and escort work, though there is no official reason why a member state cannot maintain a fleet of capital ships, if it can afford it. Member-state fleets are monitored by Solomani Security (SolSec) and Political Officers seconded from the Confederation Navy.

The Confederation Navy also maintains a corps of Marines for rapid-reaction and peacekeeping operations. Unlike the Imperial Marines, the Confederation Marines have no starships of their own.

VESSELS

Solomani warship designs are mostly similar to Imperial equivalents, though some vessels show an Aslan influence. Beam weapons are popular, with smaller ships often having several weapons in fixed mounts rather than turrets. Larger vessels are constructed around heavy spinal mounts, and often carry large fighter wings for screening and strike operations.

The Vargr

HISTORY

Vargr history is one of raid and plunder, interspersed with outright war. Past enemies include the Imperium, the Zhodani and other Vargr groups. There has been no major Vargr War with the Imperium for many years, but raids and piracy are common.

DUTIES

The lack of stable or large Vargr political bodies results in very limited duties for space forces. Control of local space is a vital duty, and protection against the raids of other Vargr groups. Space forces also demonstrate the charisma of their commanders by being highly visible and keeping down rivals. Since naval command requires and confers great charisma, Vargr states often have naval commanders in positions of political power.

Many Vargr naval units, even members of “regular” squadrons, are prone to turn raider at any moment. This can be at the behest of political leaders wanting to make a profit or raise their status with a daring raid, or may simply be the action of crews grown bored with patrolling. Raiding is an important naval duty, since it is by demonstrating their power that Vargr states maintain their status among their peers.

Naval units also fulfill the important duty of escorting Emissaries.

ORGANIZATION

Vargr organization of any sort is chaotic and constantly changing as loyalties shift, charisma rises or falls, and leaders take their ships out raiding. Most Vargr naval squadrons are

organized in an almost feudal manner. They are composed of ships whose commanders are willing to give their loyalty to the squadron commander.

Thus squadrons are of a size dictated by the charisma of their commander – usually 6-18 vessels of an assorted type. They are not usually grouped into fleets or at any higher command level than the squadron.

On the rare occasions that a fleet is assembled, it remains a chaotic collection of squadrons and vessels with the same vague purpose.

Commanders are too busy vying with one another for prestige to cooperate properly. Vargr fleets are thus highly inefficient, though often motivated by great fighting spirit as Captains try to outdo one another in deeds of daring.

VESSELS

Vargr states tend to field smaller vessels such as frigates and corsairs. This is partly because Vargr states are small and cannot afford capital ships and partly to do with the nature of Vargr charisma. The commander of a large warship must have a great deal of personal charisma, and is unlikely to subordinate himself to another Vargr unless that Vargr is truly exceptional. There is also the fact that Vargr given command of large ships tend to start thinking of themselves as more important than their political masters. This leads to a tendency to either go out raiding or launch a coup.

Vargr ships are over-ornamented and have garish color schemes. They tend to be heavy on “teeth” and light on “tail”. That is, firepower is more important than mobility, defense or logistical considerations. Armament can be any weapon available in Charted Space, though Imperial authorities try to prevent the sale of high tech weapons to Vargr states.

The Zhodani

HISTORY

The Zhodani Consulate is the most stable civilization in human history, having reached its current size long ago. Unlike the Solomani and the Vilani, the Zhodani did not suffer the Long Night.

Zhodani history has not been uneventful. Constant skirmishing with Vargr states along the Trailing border, campaigns against corsairs and the five Frontier Wars against the Imperium have meant that there has always been work for the Consulate Navy.

DUTIES

The Consulate Navy carries out two main duties: exploration and maintenance of the status quo. The latter is based upon a defensive mentality which accepts the need for occasional preemptive strikes in order to shape the thinking of a neighboring state or to remove a prospective threat. The

Zhodani have never fought wars for conquest, though they have gained a reputation for aggression. This is ironic, since the Consulate is probably the most peaceful human civilization in history.

The other duty of the Navy, exploration, includes several long-range missions in the direction of the galactic core. These were undertaken at the direct order of the Consulate supreme council.

The Navy also engages in scientific research and short-range survey operations closer to home.

ORGANIZATION

The Consulate Navy operates at three basic levels of command, termed Consular, Regional and System. However, there is also an elite force, the Consular Guard, which takes its orders directly from the Supreme Council.

The Consular Guard is roughly similar to the Imperial Marines, but in some regions maintains small fleets of starships including CruRons and AssaultRons. They mainly serve in the rapid-response role.

The Consular Navy is divided into eight Provincial Fleets; one per province, with the fleets subdivided into squadrons similar to those of the Imperial Navy. One major difference is the amount of vessels assigned to exploration squadrons. These are equivalent to Imperial ScoutRons in some ways, but optimized for exploration and scientific research. Almost 12% of the entire fleet is made up of such vessels, which have negligible military value.

The subsector councils of the Consulate maintain forces of warships tasked with local defense. Unlike the Imperial Colonial fleets, the regional fleets are not militias equipped with obsolescent vessels but are trained and equipped to the same standards as the Consulate Navy. Quality does vary according to location within the Consulate, however, as many regional forces have not seen action for centuries.

Planetary councils also maintain local forces for system patrol and defense. These are usually non-starships. Planetary navies are part of the world's Joint Defense Command and have more in common with COACC and ground forces than with the Consular navy.

VESSELS

Zhodani ships are designed to be less role-specific than Imperial vessels. For example, the Shivva Class "Patrol Frigate" carries several fighters and can act as an escort, a patrol ship or undertake covert intelligence gathering missions using its extensive emission masking.

APPENDIX 2: SECTOR FLEET TABLE OF ORGANIZATION & EQUIPMENT

There is, in truth, no such thing as the ‘typical’ sector fleet. Strengths and compositions vary from region to region. However, the following general composition can be taken as a starting point. Each Sector Fleet is the product of many years of evolution and compromise. Vessels have been shifted between subsector commands and up and down between sector and subsector fleets according to the needs and influences of the time. Thus a given subsector may have more or less vessels assigned than is noted here. As a rule though, the basic functions of the fleets will not have been over-ridden; the Sector Fleet exists to fight battles and defeat major threats while the Subsector Fleet is there to secure and police the local area whilst dealing with minor incursions.

The following Table of Organization and Equipment (TO&E) is based on the usual model of a sector containing 16 subsectors with numerous naval bases and one Depot. According to reliable (canon) sources, roughly one squadron of 4 capital ships and one squadron of 4 cruisers exists per subsector, plus additional specialist cruisers and escorts. A Sector Fleet contains about 1000 ships not including Tankers and logistics ships are disregarded; these are normally assigned at the Sector level, with a couple of small supply ships available to Subsector command to replenish guardships or the Flag Squadron.

Subsector Fleets

Within the sector there are 16 Subsector Fleets. Each is charged with keeping the peace, promoting free trade, and preserving the security of the region.

TYPICAL SUBSECTOR FLEET COMPOSITION

Flag Squadron

- 1 Heavy or Light Cruiser
- 1 Fleet Escort
- 2-3 Close Escorts

Subsector Destroyer Flotilla

- 6-8 Fleet Destroyers (3000t) usually grouped as 2 squadrons
- 6-8 Escort Destroyers (1000t) usually deployed independently

Subsector Patrol Assets

- 10-20 Patrol Cruisers or Close Escorts (3-400t) grouped administratively as squadrons of 3-4 but deployed individually

Additional Forces

- Imperial Marine vessels, if any, assigned to Subsector command
- Any Colonial Fleet patrol assets that might be active (perhaps 10-20 vessels)
- Scout Service vessels passing through the region
- Huscarle forces of regional nobles (possible)
- Corporate and mercenary forces assigned to particular routes or systems

This force will typically be responsible for a subsector of 20-30 worlds. The Flag Squadron and Fleet Destroyer assets tend to be either deployed to a trouble spot or else held at or near base as a response force, so are not available for routine patrol work most of the time. Given that some ships will be in port, on exercise, or otherwise unavailable, and that time in Jumpspace is a significant fraction of the period spent on deployment for most ships, it is not unreasonable to assume that 1/3 of this force will be present in the systems of the subsector at any given time. This equates to, on average, 2-3 Escort Destroyers (which might include vessels such as Kinunir-class ships) plus 10 Colonial and Regular patrol ships on deployment at any one time.

The distribution of these patrols is not even. Some systems have more than sufficient local forces to deal with any problems and can be given a lower priority than others, though the Navy still needs to visit and ‘show the flag’. Some systems have very little traffic and thus receive less frequent attention than those on the main spacelanes.

Solar systems are also very large – a Navy ship patrolling the outsystem is unavailable to assist a merchant attacked near the mainworld.

These forces may seem rather light but they ‘cost’ the Sector Fleet 4 squadrons of cruisers, about 220 destroyers and some 240 patrol ships and close escorts – nearly 500 of its 1000 ships are assigned to the Subsector Fleets.

Note that these distributions are not even. One subsector may have additional patrol ships while a troubled border might be assigned additional cruisers or even a battleship as the fleet flagship. Another, traditionally ‘quiet’, subsector, may not have many forces assigned at all.

In the event of hostilities or a major crisis, the Subsector Fleet gains the use of additional assets. In peacetime only a proportion of the Jump-capable assets of those worlds possessing them will be actively serving with the Colonial Fleet. The rest carry out whatever duties the homeworld may wish of them. This can include patrolling nearby systems to protect trade and thus backing up the Imperial Navy’s patrol assets in a useful manner.

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In wartime however, all these assets come under Naval command. This means the Subsector Admiral gains a large if ill-assorted collection of escort sized ships and a handful of destroyers or cruisers. Capital ships are very rare in non-Imperial Navy hands.

In addition, obsolescent mothballed escorts and destroyers are brought out and crewed by recalled reservists. The best of these go to Sector command but the Subsector admiral should gain at least a handful of reasonable vessels.

In practice, the Subsector Fleet tends to lose many of its best escorts to Sector Command as soon as hostilities start. It thus becomes larger and may even gain a number of quite potent ships – cruisers and destroyers perhaps – but this benefit is offset by the lower quality of these vessels and their crews. When repulsing a major invasion, however, a handful of old cruisers is more use than a horde of top-quality escorts.

The Sector Fleet

The remainder of the naval assets of the region are retained at the Sector level. These include major war-fighting assets such as all capital ships and most of the cruisers.

Capital Ships

Exactly what capital ships are available to a Sector Admiral will of course vary. A typical breakdown of the 16 squadrons available will include:

2 Dreadnought Squadrons

- 3-4 Dreadnoughts
- 1-2 Fleet Escorts
- 3-4 Close Escorts

4 First-Line BatRons

- 3-4 Battleships
- 1-2 Fleet Escorts
- 3-4 Close Escorts

6 Second-Line BatRons

- 3-4 Older Battleships
- 1-2 Fleet Escorts
- 3-4 Close Escorts

3 Battle Rider Squadrons

- 1 Battle Tender
- 3-5 Battle Rider
- 3-4 Close Escorts

4 Fleet Carrier Task Groups

- 1 Fleet Carrier
- 1 Light Cruiser
- 2-3 Close Escorts

Cruisers and Cruiser-Equivalents

A Sector Fleet typically has 8 squadrons of light and 4 of heavy cruisers available, plus some specialist cruisers. Of these, 3 Light and 1 Heavy CruRon are typically dispersed among Subsector Fleet, 1 Light CruRon is dispersed with Fleet Carriers.

3 Heavy CruRon

- 3-4 Heavy Cruisers
- 1 Fleet Escort
- 2-3 Close Escorts

4 Light CruRon

- 3-4 Light Cruisers
- 1 Fleet Escort
- 2-3 Close Escorts

2 Missile CruRon

- 3-4 Missile Cruisers
- 1 Fleet Escort
- 2-3 Close Escorts

Specialist CruRon(s)

- 4-12 Armored, Bombardment, Frontier, Interdiction, Rift etc cruisers

2 Strike Carrier Task Group

- 1 Strike Carrier
- 2-3 Fleet Destroyer

4 Light Carrier Task Group

- 1 Light Carrier
- 2-3 Fleet Destroyer

Sector Destroyers, Escorts and Patrol Assets

Significant numbers of smaller ships are maintained at the Sector command level.

4 EscortRon

- 4 Fleet Escorts

8 Fleet DesRon

- 4 Fleet Destroyer

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8 Escort DesRon

4 Escort Destroyer

Patrol Flotilla

180 Patrol Cruiser, Close Escort etc.

The Sector Fleet tends to retain its heavy combat assets close to the depot and the major naval bases. Some CruRons and DesRons are also assigned to these reaction forces. The remainder are available for patrol work and response to major crises. The Sector Fleet is responsible (in peacetime) for providing guardships at critical locations and for interdiction of Red Zones. Its escort assets are often assigned to back up Subsector vessels, either under the command of the Subsector admiral or independently under Sector command.

Light cruisers, light carrier task groups and destroyers (singly or in groups) are most likely to be sent out on patrol operations, plus of course the pool of small escort class vessels. Escorts for the fleet's support and logistics ships tie up a lot of these assets however, so in practice the Sector Fleet's contribution to anti-piracy patrols in any given subsector tends to be fairly slight.

Battle squadrons tend to be used en masse; indeed, if fleet action threatens then more than one squadron would usually be assigned. However, other squadrons are routinely broken up to provide escorts, guardships and task forces tailored to whatever task lay at hand.

In wartime, the Sector Fleet is augmented by reactivated Fleet Reserve vessels. The best of these join the front-line squadrons while the rest are assigned to rear-area defense operations or even handed down to Subsector or System Squadron commands.

APPENDIX 3: SELECTED VESSELS OF THE FLEET

This section provides writeups and deckplans for a selection of vessels of the fleet. The selection contains ships of varying sizes and missions.

Capital Vessels

Battleship

BL-15 LIGHT BATTLESHIP

Val	Char	Cost	Notes
32	Size	160	Length 1,625.5", Width 812.75", Area 1,321,122.97" Mass 429,496.7 kton KB -32
170	STR	0	Lift 429496.7ktons; 34d6
18	DEX	0	OCV 6 DCV -15
47	BODY	0	
12	DEF	0	
3	SPD	0	Phases: 4, 8, 12
Total Characteristic Cost: 146			

Movement: Flight: 60" / 983040"
Teleportation: 13" / 26"

Cost	Powers
Ships Construction	
6	<i>Hull Reinforcement And Structure:</i> +6 DEF (18 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard
38	<i>Ablat Armor:</i> Armor (22 PD/22 ED) (66 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)
4	<i>Bonded Superdense Hull:</i> (Total: 10 Active Cost, 4 Real Cost) +4 BODY (4 Active Points); OIF Immobile (-1 1/2) (Real Cost: 2) plus +2 DEF (6 Active Points); OIF Immobile (-1 1/2), Ablative BODY Only (-1/2), Limited Coverage Nearly 360 Degrees (Hull/Frame Only; -1/4), Real Armor (-1/4) (Real Cost: 2)
7	<i>Closed Structure Hull:</i> (Total: 7 Active Cost, 7 Real Cost) +1 BODY (Real Cost: 1) plus +2 DEF (Real Cost: 6)

Ships Engineering

12	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48
72	<i>3G Maneuver Drive:</i> (Total: 224 Active Cost, 72 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 58) plus +8 DEX (24 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 10) plus +1 SPD (10 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 4)	19
782	<i>P2-100 Power Plant:</i> Endurance Reserve (3200 END, 3200 REC) (3520 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
147	<i>Emergency Generator and Batteries:</i> Endurance Reserve (500 END, 500 REC) (550 Active Points); Crew-Served ([17-32] people; -1 1/4), OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2

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Tactical Section

- 172 *Type T Spinal PAW*: (Total: 1009 Active Cost, 172 Real Cost) Killing Attack - Ranged 18d6, Area Of Effect (242" Line; +1), MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (877 Active Points); Crew-Served ([17-32] people; -1 1/4), Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Custom Modifier (Spinal Firing Arc; -3/4), Increased Endurance Cost (x2 END; -1/2), Custom Modifier (Half Value in Atmosphere; -1/2), Real Weapon (-1/4) (Real Cost: 135) **plus** +1 with any single attack (Real Cost: 2) **plus** Penalty Skill Levels: +2 vs. Range Modifier with a single attack (Real Cost: 3) **plus** Suppress All Electronics 6d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (127 Active Points); Crew-Served ([17-32] people; -1 1/4), Extra Time (1 Turn (Post-Segment 12), -1 1/4), Linked (Killing Attack - Ranged; -1/2), Increased Endurance Cost (x2 END; -1/2), Custom Modifier (60 Degree Same Level Firing Arc; -1/2), Custom Modifier (Half Value in Atmosphere; -1/2), Real Weapon (-1/4) (Real Cost: 32)
- 850 *Small Missile Bay*: (Total: 3095 Active Cost, 850 Real Cost) RKA 8d6, Explosion (+1/2), 4 clips of 1000 Charges (Recovers Under Limited Circumstances; one clip is ready ammo, rest takes 1 minute to load from magazines; +1), Autofire (20 shots; +2 1/2) (600 Active Points); Crew-Served ([33-64] people; -1 1/2), OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4), Limited Arc Of Fire (180 degrees; -1/4) (Real Cost: 114) **plus** Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4 for up to 600 Active Points of Missile, Reduced Endurance (0 END; +1/2) (2475 Active Points); Crew-Served ([33-64] people; -1 1/2), OIF Bulky (-1) (Real Cost: 707) **plus** +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) **Note**: (x13 number of items)
- 139 *100 Ton Particle Accelerator Bay*: (Total: 586 Active Cost, 139 Real Cost) Killing Attack - Ranged 12d6+1, MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (416 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 87) **plus** Suppress 8d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (170 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Linked (Killing Attack - Ranged; -1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 32) **Note**: (x13 number of items)

- 119 *50 ton Fusion Gun Bay*: Killing Attack - Ranged 11d6, Area Of Effect Nonselective (One Hex; +1/4), Armor Piercing (+1/2), MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (495 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Increased Endurance Cost (x2 END; -1/2), Custom Modifier (Limited arc of fire, 2 hexsides; -1/2), Real Weapon (-1/4), Crew-Served (2 people; -1/4), Reduced By Range (-1/4) **Note**: (x13 number of items)
- 548 *TL15 Triple Turret Beam Laser*: (Total: 1737 Active Cost, 548 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 96) **plus** Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4 for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 428) **plus** +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) **Note**: (x13 number of items)

Defensive Section

- 3 *Type 1 Meson Screen*: Energy Damage Reduction, Resistant, 25% (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Only Affects Meson Weapons; -1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)
- 26 *Type 3 Nuclear Damper*: (Total: 120 Active Cost, 26 Real Cost) Physical Damage Reduction, Resistant, 75% (60 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 13) **plus** Energy Damage Reduction, Resistant, 75% (60 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 13) **Note**: Equivalent to High Guard Ratings 4-6
- 40 *Sandcaster*: (Total: 60 Active Cost, 40 Real Cost) [12 cc] Physical Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1) (Real Cost: 10) **plus** Energy Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1) (Real Cost: 10) **Note**: (x12 number of items)

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14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8	4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)		4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
5	<i>EMP Shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)			Sensors	
26	<i>Point Defense System:</i> Missile Deflection (Any Ranged Attack) (20 Active Points); OIF Immobile (-1 1/2), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4) Note: (x12 number of items)		23	<i>Active Sensor Array:</i> Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
4	<i>Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]	16	1) <i>Active Sensor Array:</i> Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
	Operations Section		0	2) <i>Computer Enhancement:</i> Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
8	<i>Flag Bridge:</i> (Total: 8 Active Cost, 8 Real Cost) +2 with KS: Fleet Tactics (Real Cost: 2) plus +2 with KS: Logistics (Real Cost: 2) plus +2 with Bureaucratics (Real Cost: 4)		19	3) <i>Accurate Sensors:</i> +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
15	<i>Fighter Ops Bridge:</i> (Total: 31 Active Cost, 15 Real Cost) +4 with Teamwork (16 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 8) plus +3 with Tactics (6 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 3) plus Systems Operation (Communications Systems, Air/Space Traffic Control Systems) 12- (9 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 4)		24	<i>Passive Sensor Array:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
52	<i>Model 9 Computer:</i> Custom Power (52 Active Points)		20	1) <i>IR Sensors:</i> Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
5	<i>Emergency Bridge:</i> Custom Power (5 Active Points)		20	2) <i>UV Sensors:</i> Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
5	<i>Backup Computer:</i> Custom Power (5 Active Points)		24	3) <i>Optical Telescopic Array:</i> +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
5	<i>Backup Sensors and Commo:</i> Custom Power (5 Active Points)		12	4) <i>Densitometer:</i> Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
1	<i>Basic Flight Control:</i> +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)				
3	<i>Basic Navigation Control:</i> +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)				

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13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
	Communications	
14	<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	
12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	2
8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) Note : Only Available at TL-15	7
10	<i>Command Commo Package</i> : (Total: 37 Active Cost, 10 Real Cost) Mind Link , Machine class of minds, Specific Group of Minds, Number of Minds (x16), Difficult To Dispel (x2 Active Points; +1/4) (37 Active Points); Only With Others Who Have Mind Link (-1), Requires A Skill Roll (-1/2), Sense Affected As More Than One Sense [very common Sense] (-1/2), Custom Modifier (-1/2) (Real Cost: 10)	0
29	<i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4)	[1 cc]

	Personnel Section	
61	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) Note : (x2900 number of items)	0
46	<i>Low Berth (Safe Version)</i> : Life Support (Longevity: 800 Years) (3 Active Points); OIF Bulky (-1), Costs Endurance (-1/2) Note : (x300 number of items)	1
6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0
8	<i>Operating Room</i> : Healing BODY 2 1/2d6, Can Heal Limbs (30 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (-1/2), Custom Modifier (Variable extra time depending on extent of Injuries; -1/2)	3
5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) plus +1 with Mechanics (Real Cost: 2) plus +1 with SS: Starship Engineering (Real Cost: 1)	0
10	<i>Holographic Theater and Entertainment Area</i> : Sight, Hearing, Smell/Taste and Touch Groups Images Increased Size (4" radius; +1/2) (37 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Variable RSR, Active Point penalty to Skill Roll is -1 per 5 Active Points; SR to program or reset training parameters; -3/4), Crew-Served (2 people; -1/4)	4
0	<i>Ships Cargo Hold</i> : Custom Power Note : 2,200 Tons	0

Small Craft

0	<i>50 50 ton fighters</i> : Custom Power	0
0	<i>5 400 Ton Fuel Shuttles</i> : Custom Power	0
0	<i>10 Modular Cutter w/ 20 Modules</i> : Custom Power	0

Skills

5	<i>Ship's Administrative Systems</i> : Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)	
5	<i>Ship's Internal Security Systems</i> : Security Systems 11- (7 Active Points); Costs Endurance (-1/2)	
2	<i>Ship's Galley</i> : KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-	

Total Powers & Skill Cost: 3593

Total Cost: 3739

200+ Disadvantages

15	Distinctive Features: Standard Starship (Not Concealable; Noticed and Recognizable; Detectable By Commonly-Used Senses)	
15	Physical Limitation: Cannot enter atmosphere (Frequently, Greatly Impairing)	
3509	Experience Points	

Total Disadvantage Points: 3739

Cruisers

ATLANTIC HEAVY CRUISER

Val	Char	Cost	Notes
30	Size	150	Length 1,024", Width 512", Area 524,288" Mass 107,374.2 kton KB -30
160	STR	0	Lift 107374.2ktons; 32d6
23	DEX	0	OCV 8 DCV -12
45	BODY	3	
8	DEF	0	
6	SPD	0	Phases: 2, 4, 6, 8, 10, 12
Total Characteristic Cost: 139			

Movement: Flight: 60" / 120"
Teleportation: 12" / 24"

Cost	Powers	END
Ships Construction		
6	<i>Hull Reinforcement and structure:</i> +6 DEF (18 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard	
2	<i>Closed Structure Hull:</i> +2 BODY Note: Cannot Enter Atmosphere, Cost *1.25	
0	<i>Superdense:</i> (Total: 0 Active Cost, 0 Real Cost) Note: Standard Cost, TL-12, Ships Body +10%, May Add TSA	0
33	<i>Factor-10 Armored Hull:</i> Armor (30 PD/30 ED) (90 Active Points); OIF Bulky (-1), Ablative BODY Only (-1/2), Real Armor (-1/4)	0
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0
Ships Engineering		
11	<i>Jump Drive-4:</i> Teleportation 12", MegaScale (1" = 1 lightyear; +3 1/2) (108 Active Points); Extra Time (1 Hour, -3), 1 Charge which Recovers every 1 Week (-2 1/2), OIF Immobile (-1 1/2), Side Effects (Side Effect affects both character and recipient of Power's benefits; can cause misjump or damage to ship on failed skill roll; -3/4), Requires A Skill Roll (-1/2), Crew-Served (2 crew; -1/4), Difficult to Operate (-1/4) Note: Jump-4	[1]

80	<i>Maneuver Drive-5:</i> (Total: 194 Active Cost, 80 Real Cost) Flight 60", Position Shift (125 Active Points); OIF Immobile (-1 1/2), Side Effects, Side Effect occurs automatically whenever Power is used (Dangerous Exhaust; -1), Crew-Served (2 crew; -1/4) (Real Cost: 33) plus +13 DEX (Real Cost: 39) plus +3 SPD (30 Active Points); OIF Immobile (-1 1/2), Linked (???; Lesser Power can only be used when character uses greater Power at full value; -3/4), Crew-Served (2 people; -1/4) (Real Cost: 8) Note: 5G Maneuver Drive	0
440	<i>P2-100 Power Plant:</i> Endurance Reserve (1200 END, 1200 REC) (1320 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
Tactical Section		
190	<i>Type 2 Spinal Meson Gun:</i> (Total: 1396 Active Cost, 190 Real Cost) Killing Attack - Ranged 18d6, No Normal Defense ([Standard]; +1), Does BODY (+1), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (1215 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Increased Endurance Cost (x3 END; -1), Custom Modifier (Spinal Weapon; -1), Extra Time (1 Minute, Only to Activate, -3/4), Real Weapon (-1/4), Beam (-1/4) (Real Cost: 167) plus Suppress 6 1/2d6, all [special effect] powers simultaneously (+2), No Normal Defense ([Standard]; Meson Screens or Force Fields; +1), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (181 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Increased Endurance Cost (x3 END; -1), Custom Modifier (Spinal Weapon; -1), Linked (Killing Attack - Ranged; Lesser Power can only be used when character uses greater Power at full value; -3/4), Extra Time (1 Minute, Only to Activate, -3/4), Real Weapon (-1/4), Beam (-1/4) (Real Cost: 23)	417

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188	100 Ton Particle Accelerator Bay: (Total: 586 Active Cost, 188 Real Cost) Killing Attack - Ranged 12d6+1, MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (416 Active Points); OIF Immobile (-1 1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 128) plus Suppress 8d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (170 Active Points); OIF Immobile (-1 1/2), Linked (Killing Attack - Ranged; -1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 45) Note: (x6 number of items)	59	7	Type 2 Meson Screen: Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Only Affects Meson Weapons; -1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)	3	
171	Small Missile Bay: RKA 8d6, Explosion (+1/2), 1000 Charges (Recovers Under Limited Circumstances; requires base or tender to reload; +1), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4), Autofire (10 shots; +2) (720 Active Points); OIF Immobile (-1 1/2), Extra Time (1 Turn (Post-Segment 12), -1 1/4), Crew-Served ([3-4] people; -1/2), Real Weapon (-1/4), Limited Arc Of Fire (180 degrees; -1/4) Note: (x12 number of items)50 Ton Missile Bay. Loaded with standard warheads	[1000]		55	Type 3 Sandcaster Launcher: (Total: 210 Active Cost, 55 Real Cost) Energy Damage Reduction, Resistant, 75%, 36 Continuing Charges lasting 1 Turn each (+3/4) (105 Active Points); OIF Immobile Fragile (-1 3/4), Ablative BODY or STUN (-1), Custom Modifier (only stops laser, plasma, or fusion fire; -1), Real Armor (-1/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 20) plus Physical Damage Reduction, Resistant, 75%, 36 Continuing Charges lasting 1 Turn each (+3/4) (105 Active Points); OIF Immobile Fragile (-1 3/4), Ablative BODY or STUN (-1), Custom Modifier (only stops laser, plasma, or fusion fire; -1), Real Armor (-1/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 20) Note: (x5 number of items) mounted in turret, HG Factor 4-6 Equivalent	20
777	TL15 Triple Turret Beam Laser: (Total: 1737 Active Cost, 777 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 135) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 618) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x11 number of items)	14		4	Paradex C-31D2 Chaff and Flare Pod: Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]
				14	Active EMS Jammer: Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8
Operations Section						
			53	Model 9 Computer: Custom Power (53 Active Points)	0	
			5	Backup Computer: Custom Power (5 Active Points)	0	
			5	Emergency Bridge: Custom Power (5 Active Points)	0	
			1	Basic Flight Control: +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1	
			3	Basic Navigation Control: +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1	
			4	Basic Fire Control: +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	
			4	Basic Defense Control: +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	
Defensive Section						
28	Missile Deflection (Any Ranged Attack) (20 Active Points); OIF Bulky (-1), Crew-Served (2 people; -1/4), Real Armor (-1/4) Note: (x10 number of items)	0				
26	Type 3 Nuclear Damper: (Total: 120 Active Cost, 26 Real Cost) Physical Damage Reduction, Resistant, 75% (60 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 13) plus Energy Damage Reduction, Resistant, 75% (60 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 13) Note: Equivalent to High Guard Ratings 4-6	12				

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Sensors					
23	<i>Active Sensor Array</i> : Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)				
16	1) <i>Active Sensor Array</i> : Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4			
19	2) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1			
19	3) <i>Accurate Sensors</i> : +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4			
24	<i>Passive Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)				
20	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5			
20	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5			
24	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0			
12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11			
13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)				11
Communications					
14	<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)				
12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)				4
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)				2
8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) Note : Only Available at TL-15				7
Personnel Section					
46	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) Note : (x276 number of items)				0
21	<i>Sick Bay</i> : (Total: 6 Active Cost, 21 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2) Note : (x5 number of items)				0
2	<i>Ships Armory</i> : +2 with Armorsmith (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Gear; -1/4)				
2	<i>Ships Armory</i> : +2 with Weaponsmith (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Gear; -1/4)				
5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) plus +1 with Mechanics (Real Cost: 2) plus +1 with SS: Starship Engineering (Real Cost: 1)				0
0	<i>Ships Cargo Hold</i> : Custom Power Note : 200 Tons				0

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Skills

- 5 *Ship's Administrative Systems:* Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)
- 5 *Ship's Internal Security Systems:* Security Systems 11- (7 Active Points); Costs Endurance (-1/2)
- 2 *Ship's Galley:* KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-

Total Powers & Skill Cost: 2501

Total Cost: 2640

200+ Disadvantages

- 15 Distinctive Features: Standard Starship (Not Concealable; Noticed and Recognizable; Detectable By Commonly-Used Senses)
- 2425 Experience Points

Total Disadvantage Points: 2640

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AZHANTI HIGH LIGHTNING

Val	Char	Cost	Notes
29	Size	145	Length 812.75", Width 406.37", Area 330,280.74" Mass 53,687.1 kton KB -29
155	STR	0	Lift 53687.1ktons; 31d6
15	DEX	0	OCV 5 DCV -14
54	BODY	13	
8	DEF	18	
2	SPD	0	Phases: 6, 12

Total Characteristic Cost: 162

Movement: Flight: 60" / 120"
Teleportation: 16" / 32"

Cost	Powers	END
Construction Section		
2	<i>Closed Structure Hull:</i> +2 BODY Note: Cannot Enter Atmosphere, Cost *1.25	
0	<i>Bonded Superdense:</i> (Total: 0 Active Cost, 0 Real Cost) Note: Standard Cost, TL-14, Ships Body +20%, May Add TSA	0
32	<i>Ablat Armor:</i> Armor (19 PD/19 ED) (57 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4) Note: Armored to High Guard Factor 5	0
12	<i>Superconducting Armor Layer:</i> Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Bulky (-1), Ablative BODY Only (-1/2)	0
Engineering Section		
15	<i>Jump 5 Drive:</i> Teleportation 16", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (152 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 16.3 LY (5 Parsecs)	60
44	<i>2G Maneuver Drive:</i> (Total: 140 Active Cost, 44 Real Cost) Flight 60", Position Shift (125 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 38) plus +5 DEX (15 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 6)	12
367	<i>P5-100 Power Plant:</i> Endurance Reserve (1000 END, 1000 REC) (1100 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)	4
0	<i>Fuel Tankage:</i> Custom Power Note: 33,000 tons	0

26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
1	<i>Food Supplies:</i> Life Support (Eating: Character does not eat), 16 Continuing Charges lasting 1 Month each (Easily Replaced From Source Outside Of Vehicle; +0) (3 Active Points); OIF Bulky (-1)	[16 cc]

Tactical Section		
132	<i>Type 3 Spinal Particle Accelerator :</i> (Total: 980 Active Cost, 132 Real Cost) Killing Attack - Ranged 21d6+1, MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (800 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Increased Endurance Cost (x3 END; -1), Custom Modifier (Spinal Weapon; -1), Extra Time (1 Minute, Only to Activate, -3/4), Real Weapon (-1/4), Beam (-1/4) (Real Cost: 110) plus Suppress 8d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (180 Active Points); OIF Immobile (-1 1/2), Crew-Served ([33-64] people; -1 1/2), Increased Endurance Cost (x3 END; -1), Custom Modifier (Spinal Weapon; -1), Linked (Killing Attack - Ranged; Lesser Power can only be used when character uses greater Power at full value; -3/4), Extra Time (1 Minute, Only to Activate, -3/4), Real Weapon (-1/4), Beam (-1/4) (Real Cost: 22)	294
438	<i>TL12 Triple Turret Beam Laser:</i> (Total: 1009 Active Cost, 438 Real Cost) RKA 8 1/2d6, Autofire (3 shots; +1/4), Invisible to Single Sense (+1/4) (195 Active Points); Crew-Served ([17-32] people; -1 1/4), OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 52) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 195 Active Points of Laser, Reduced Endurance (0 END; +1/2) (804 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 357) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x19 number of items)19 Batteries	20

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861	<i>Small Missile Bay:</i> (Total: 3095 Active Cost, 861 Real Cost) RKA 8d6, Explosion (+1/2), 1000 Charges (Recovers Under Limited Circumstances; Base or Tender to Reload Pods, cannot be loaded from inside the ship; +1), Autofire (20 shots; +2 1/2) (600 Active Points); Crew-Served ([17-32] people; -1 1/4), OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4), Limited Arc Of Fire (180 degrees; -1/4) (Real Cost: 145) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 600 Active Points of Missile, Reduced Endurance (0 END; +1/2) (2475 Active Points); Crew-Served ([33-64] people; -1 1/2), OIF Bulky (-1) (Real Cost: 707) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) Note: 24 Bays	[1000]	14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8
			5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0
			40	<i>Sandcaster:</i> (Total: 60 Active Cost, 40 Real Cost) Physical Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1) (Real Cost: 10) plus Energy Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([9-16] people; -1) (Real Cost: 10) Note: (x13 number of items)13 Batteries	[12 cc]
124	<i>Dual Fusion Gun Turret:</i> RKA 6 1/2d6, Area Of Effect Nonselective (One Hex; +1/4), Armor Piercing (+1/2), MegaScale (1" = 100 km; +3/4), Can Be Scaled Down 1" = 1km (+1/4), Autofire (2 shots; +1 1/4) (400 Active Points); OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Real Weapon (-1/4), Reduced By Range (-1/4) Note: (x4 number of items)4 Batteries		40		
			4	<i>Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]
Defensive Section					
14	<i>Type 2 Nuclear Damper:</i> (Total: 60 Active Cost, 14 Real Cost) Physical Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) plus Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) Note: Equivalent to High Guard Ratings 4-6		6		
7	<i>Type 2 Meson Screen:</i> Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Only Affects Meson Weapons; -1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)		3		
27	<i>Point Defense Arrays:</i> Missile Deflection (Any Ranged Attack), Full Range (+1) (40 Active Points); OAF Immobile (-2), Real Armor (-1/4) Note: (x6 number of items)		0		
Operations Section					
			39	<i>Model 6 Computer:</i> Custom Power (39 Active Points)	4
			1	<i>Basic Flight Control:</i> +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
			3	<i>Basic Navigation Control:</i> +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
			4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
			4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
			25	<i>Ships Repair and Maintenance Shops:</i> (Total: 25 Active Cost, 25 Real Cost) +2 with Electronics (Real Cost: 4) plus +2 with Mechanics (Real Cost: 4) plus +2 with SS: Starship Engineering (Real Cost: 2) plus +2 with KS: Emergency Damage Control (Real Cost: 2) plus +2 with Armorsmith (Real Cost: 6) plus +2 with Weaponsmith (Firearms, Missiles & Rockets) (Real Cost: 7)	0
			10	<i>Holographic Theater and Briefing Areas:</i> Sight, Hearing, Smell/Taste and Touch Groups Images Increased Size (4" radius; +1/2) (37 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Variable RSR, Active Point penalty to Skill Roll is -1 per 5 Active Points; SR to program or reset training parameters; -3/4), Crew-Served (2 people; -1/4)	4

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17	<i>Active Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)		22	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
17	1) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	1			
15	2) <i>Active Sensor Array</i> : Detect Physical Objects 11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	4			
20	3) <i>Long Range Sensors</i> : MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) for up to 40 Active Points of Active Sensor Array, Reduced Endurance (0 END; +1/2) (105 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0		6) <i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4), Custom Modifier (Real Equipment; -1/4)	13
1	<i>Passive Sensor Array</i> : Elemental Control, 10-point powers, (5 Active Points); all slots OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)				
13	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5	0	Personnel Section <i>Crew</i> : Custom Power Note : 62 Officers, 333 Ratings, 150 Marines, 80 Pilots, 310 Staterooms	0
15	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5	41	<i>Low Berth (Safe Version)</i> : Life Support (Longevity: 800 Years) (3 Active Points); OIF Bulky (-1), Costs Endurance (-1/2) Note : (x155 number of items)	1
3	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1	0	<i>Cargo Bay</i> : Custom Power Note : 400 Tons	0
21	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11	13	<i>Ships Hospital Bay</i> : (Total: 36 Active Cost, 13 Real Cost) +3 with Paramedics (6 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 2) plus +3 with KS: Surgery (3 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 1) plus +2 with SS: Anatomy (2 Active Points); OIF Bulky (-1) (Real Cost: 1) plus +2 with SS: Medicine (2 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 1) plus Detect A Large Class Of Things 12- (Unusual Group), Discriminatory, Analyze (23 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 8)	5

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6	<i>Ships Tactical Operations Center:</i> (Total: 18 Active Cost, 6 Real Cost) +3 with Teamwork (6 Active Points); OIF Immobile (-1 1/2), Custom Modifier (must have working commo and data links to other ships; -1/2), Crew-Served (2 people; -1/4) (Real Cost: 2) plus +3 with Tactics (6 Active Points); OIF Immobile (-1 1/2), Custom Modifier (must have working commo and data links to other ships; -1/2), Crew-Served (2 people; -1/4) (Real Cost: 2) plus +3 with Analyze: Combat (6 Active Points); OIF Immobile (-1 1/2), Custom Modifier (must have working commo and data links to other ships; -1/2), Crew-Served (2 people; -1/4) (Real Cost: 2)	0
14	<i>Fighter Ops Bridge:</i> (Total: 29 Active Cost, 14 Real Cost) +4 with Teamwork (14 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 7) plus +3 with Tactics (6 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 3) plus Systems Operation (Communications Systems, Air/Space Traffic Control Systems) 12- (9 Active Points); Crew-Served ([5-8] people; -3/4), Costs Endurance (Only Costs END to Activate; -1/4) (Real Cost: 4)	3
Small Craft		
0	<i>Fighters:</i> Custom Power Note: 80 Light Fighters	0
0	<i>Fuel Shuttles:</i> Custom Power Note: 4 400 Ton Fuel Shuttles	0

Skills

5	<i>Ship's Internal Security System:</i> Security Systems 14- (15 Active Points); Crew-Served ([17-32] people; -1 1/4), Costs Endurance (-1/2)	
6	<i>Ship's Administrative Systems:</i> Bureaucracies 14- (15 Active Points); IIF Immobile Fragile (-1 1/2)	
4	<i>Damage Control Systems:</i> +3 with SS: Emergency Damage Control	
2	<i>Ship's Systems:</i> +2 with KS: Logistics	
2	<i>Ship's Systems:</i> +2 with KS: Steward	
4	<i>Ship's Systems:</i> +3 with KS: Cooking	
2	<i>Stellar Cartography:</i> SS: Stellar Cartography 12- (5 Active Points); OIF Immobile (-1 1/2), Crew-Served (2 people; -1/4), Custom Modifier (Real Equipment; -1/4)	
2	<i>Astronomy Lab:</i> SS: Astronomy 12- (5 Active Points); OIF Immobile (-1 1/2), Crew-Served (2 people; -1/4), Custom Modifier (Real Equipment; -1/4)	

Total Powers & Skill Cost: 2543

Total Cost: 2705

Total Disadvantage Points: 2705

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BROADSWORD CLASS MERCENARY CRUISER

Val	Char	Cost	Notes
20	Size	100	Length 101.59", Width 50.8", Area 5,160.64" Mass 104.9 kton KB -20
110	STR	0	Lift 104.9ktons; 22d6
18	DEX	0	OCV 6 DCV -7
34	BODY	0	
10	DEF	0	
3	SPD	0	Phases: 4, 8, 12

Total Characteristic Cost: 86

Movement: Flight: 60" / 120"
Teleportation: 10" / 20"

Cost	Powers	END
	Construction	
0	<i>Sphere Hull:</i> +0 BODY Note: Cannot Enter Atmosphere, No Modifiers	
14	<i>Ablat Armor:</i> Armor (8 PD/8 ED) (24 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)	0
12	<i>Superconducting Armor Layer:</i> Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Bulky (-1), Ablative BODY Only (-1/2)	0
9	<i>Bonded Superdense Hull:</i> (Total: 28 Active Cost, 9 Real Cost) +4 BODY (4 Active Points); OIF Immobile (-1 1/2) (Real Cost: 2) plus +8 DEF (24 Active Points); OIF Immobile (-1 1/2), Ablative BODY Only (-1/2), Limited Coverage Nearly 360 Degrees (Hull/Frame Only; -1/4), Real Armor (-1/4) (Real Cost: 7)	0
	Engineering Section	
9	<i>Jump 3 Drive:</i> Teleportation 10", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (95 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 9.52 LY (3 Parsecs)	36
52	<i>3G Maneuver Drive:</i> (Total: 159 Active Cost, 52 Real Cost) Flight 60", Position Shift (125 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 38) plus +8 DEX (24 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 10) plus +1 SPD (10 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 4)	12
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0

7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)	4
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
1	<i>Food Supplies:</i> Life Support (Eating: Character does not eat), 16 Continuing Charges lasting 1 Month each (Easily Replaced From Source Outside Of Vehicle; +0) (3 Active Points); OIF Bulky (-1)	[16 cc]
0	<i>Fuel Tankage:</i> Custom Power Note: 278 tons, no refining capacity	0
	Tactical Section	
734	<i>TL15 Triple Turret Beam Laser:</i> (Total: 1737 Active Cost, 734 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; 1 Gunner per Turret, turrets are remote stations; -1/2), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 112) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 618) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4)	14
10	<i>3 More Triple Laser Turrets For A Total Of 4:</i> Custom Power (10 Active Points)	1
393	<i>Triple Missile Turret:</i> (Total: 938 Active Cost, 393 Real Cost) RKA 6 1/2d6, 36 Charges (+1/4), Explosion (+1/2), Autofire (3 shots; +1 1/4) (300 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Crew-Served ([3-4] people; 1 Gunner per Turret, turrets are remote stations; -1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4) (Real Cost: 75) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 150 Active Points of Missile, Reduced Endurance (0 END; +1/2) (618 Active Points); OIF Bulky (-1) (Real Cost: 309) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9)	[36]
10	<i>3 More Triple Missile Turrets For A Total Of 4:</i> Custom Power (10 Active Points)	1

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Defensive Section

6	<i>Basic Stealth and EMM:</i> Change Environment 1" radius, -2 to Radar PER Rolls, -2 to Infrared Perception PER Rolls, Multiple Combat Effects (16 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)	2
4	<i>Paradex C-31D2 Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1)	[8 cc]
14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8
14	<i>Point Defense System:</i> Missile Deflection (Any Ranged Attack), Full Range (+1) (40 Active Points); OIF Immobile (-1 1/2), Real Armor (-1/4)	0
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0

Operations Section

34	<i>Model 5 Computer:</i> Custom Power (34 Active Points)	3
1	<i>Basic Flight Control:</i> +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
3	<i>Basic Navigation Station:</i> +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
12	<i>Radio Transceiver:</i> High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2)	4
9	<i>Laser/Maser Comm System:</i> Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (Only Costs END to Activate; -1/4)	2
17	<i>Meson Communicator:</i> Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2)	7
28	<i>Active Sensor Array:</i> Elemental Control, 70-point powers, (35 Active Points); all slots Crew-Served (2 people; -1/4)	

13	1) <i>Computer Enhancement:</i> Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4)	1
31	2) <i>Long Range Sensors:</i> MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) for up to 40 Active Points of Active Sensor Array, Reduced Endurance (0 END; +1/2) (105 Active Points); OIF Bulky (-1), Crew-Served (2 people; -1/4)	0
15	3) <i>Accurate Sensors:</i> +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Crew-Served (2 people; -1/4)	0
16	<i>Passive Sensor Array:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	
18	1) <i>Optical Telescopic Array:</i> +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	1
12	2) <i>Neutrino Scanner:</i> Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	11
11	3) <i>Densitometer:</i> Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	11
16	4) <i>IR Sensors:</i> Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Immobile (-1 1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	5
18	5) <i>UV Sensors:</i> Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	5

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- 29 *Sensor Probes and Recon Drones: Clairsentience* [1 cc]
(Sight And Radio Groups), x2 Range (1,190"),
2 Perception Points, Mobile Perception Point
(can move up to 6" per Phase), Telescopic: +1,
Tracking, Transmit, 1 Continuing Charge
lasting 6 Hours (+0), MegaScale (1" = 10,000
km; +1 1/4), Can Be Scaled Down 1" = 1km
(+1/4) (131 Active Points); OIF Immobile (-1 1/2),
Fixed Perception Point (-1), Sense Affected As
More Than One Sense [Sight; Hearing] (-1/2),
Concentration (1/2 DCV; -1/4), Probe Must Travel
Intervening Space To Target (-1/4)

Personnel Section

- 26 *Stateroom: Life Support* (Sleeping: Character
does not sleep) (3 Active Points); OIF Bulky (-1)
Note: (x19 number of items) 13 Crew, 31 Troops
9 *Sick Bay: Paramedics* 12-
5 *Sick Bay: SS: Medicine* 11-
0 *Cargo Hold: Custom Power* **Note:** 80 Tons 0

Small Craft

- 0 *2 Cutters and 2 extra modules: Custom Power* 0
Note: 4 Total Cutter Modules Carried
0 *2 ATV, Air Raft: Custom Power* 0

Skills

- 5 *Ship's Internal Security Systems: Security Systems* 14-
(15 Active Points); Crew-Served ([17-32] people; -1 1/4),
Costs Endurance (-1/2)
6 *Ship's Administrative Systems: Bureaucratics* 14- (15
Active Points); IIF Immobile Fragile (-1 1/2)
1 *Ship's Galley: +2 with KS: Cooking and Food Prep* (2
Active Points); OIF Immobile (-1 1/2)
1 *Mechanic's Shop: +1 with Mechanics* (2 Active Points);
OIF Bulky (-1), Reduces Vehicle to 1/2 DCV (-1/4),
Custom Modifier (Real Equipment; -1/4)
3 *Weapon Shop: +2 with Weaponsmith* (Energy Weapons,
Firearms, Missiles & Rockets) (8 Active Points); OIF
Immobile (-1 1/2), Custom Modifier (Real Equipment;
-1/4), Crew-Served (2 people; -1/4)

Total Powers & Skill Cost: 1787

Total Cost: 1873

200+ Disadvantages

- 15 *Physical Limitation: Unstreamlined, Cannot Enter
Atmosphere* (Frequently, Greatly Impairing)
10 *Physical Limitation: cannot switch cutter modules
inside ship* (Frequently, Slightly Impairing)
10 *Distinctive Features: Common Mercenary Cruiser* (Not
Concealable; Noticed and Recognizable; Detectable
By Commonly-Used Senses; Not Distinctive In Some
Cultures)
1638 Experience Points

Total Disadvantage Points: 1873

Escorts And Couriers

FER DE LANCE DESTROYER ESCORT

Val	Char	Cost	Notes
20	Size	100	Length 101.59", Width 50.8", Area 5,160.64" Mass 104.9 kton KB -20
110	STR	0	Lift 104.9ktons; 22d6
27	DEX	0	OCV 9 DCV -4
34	BODY	2	
8	DEF	0	
7	SPD	0	Phases: 2, 4, 6, 7, 9, 11, 12
Total Characteristic Cost: 102			

Movement: Flight: 60" / 120"
Teleportation: 12" / 24"

Cost Powers

Ships Construction

- 6 *Hull Reinforcement and structure:* +6 DEF (18 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4) *Note:* All Spaceship and Starship Hulls are Built to this level as a safety standard
- 2 *Closed Structure Hull:* +2 BODY *Note:* Cannot Enter Atmosphere, Cost *1.25
- 0 *Superdense:* (Total: 0 Active Cost, 0 Real Cost) *Note:* Standard Cost, TL-12, Ships Body +10%, May Add TSA

Ships Engineering

- 11 *Jump Drive-4:* Teleportation 12", MegaScale (1" = 1 lightyear; +3 1/2) (108 Active Points); Extra Time (1 Hour, -3), 1 Charge which Recovers every 1 Week (-2 1/2), OIF Immobile (-1 1/2), Side Effects (Side Effect affects both character and recipient of Power's benefits; can cause misjump or damage to ship on failed skill roll; -3/4), Requires A Skill Roll (-1/2), Crew-Served (2 crew; -1/4), Difficult to Operate (-1/4) *Note:* Jump-4
- 95 *Maneuver Drive-6:* (Total: 216 Active Cost, 95 Real Cost) Flight 60", Position Shift (125 Active Points); OIF Immobile (-1 1/2), Side Effects, Side Effect occurs automatically whenever Power is used (Dangerous Exhaust; -1), Crew-Served (2 crew; -1/4) (Real Cost: 33) *plus* +17 DEX (Real Cost: 51) *plus* +4 SPD (40 Active Points); OIF Immobile (-1 1/2), Linked (???; Lesser Power can only be used when character uses greater Power at full value; -3/4), Crew-Served (2 people; -1/4) (Real Cost: 11) *Note:* 6G Maneuver Drive
- 220 *P2-100 Power Plant:* Endurance Reserve (600 END, 600 REC) (660 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)
- 11 *Emergency Generator and Batteries:* Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)

- 26 *Artificial Gravity:* Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)
- 7 *Starship Life Support System:* Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)
- 6 *Fuel Purification Plant:* Minor Transform 4d6 (Liquid Hydrogen or Water to usable fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)

Tactical Section

- END 767 *TL15 Triple Turret Beam Laser:* (Total: 1737 Active Cost, 767 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 135) *plus* Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 618) *plus* +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) *Note:* (x3 number of items) 10 Batteries
- 0 [1] 409 *Missile Rack:* (Total: 938 Active Cost, 409 Real Cost) RKA 6 1/2d6, 36 Charges (+1/4), Explosion (+1/2), Autofire (3 shots; +1 1/4) (300 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4) (Real Cost: 86) *plus* Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 150 Active Points of Missile, Reduced Endurance (0 END; +1/2) (618 Active Points); OIF Bulky (-1) (Real Cost: 309) *plus* +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) *Note:* (x2 number of items) [36]

Defensive Section

- 11 *Point Defense Lasers:* Missile Deflection (Any Ranged Attack) (20 Active Points); OIF Immobile (-1 1/2), Real Armor (-1/4), Crew-Served (2 people; -1/4), Costs Endurance (Only Costs END to Activate; -1/4) *Note:* (x2 number of items) 2

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21	<i>EMs Masking</i> : Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0	19	2) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
4	<i>Radar Warning Receiver</i> : Detect A Single Thing 26-/14- (Radio Group) (8 Active Points); OIF Bulky (-1)	0	19	3) <i>Accurate Sensors</i> : +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
4	<i>Paradex C-31D2 Chaff and Flare Pod</i> : Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) <i>Note</i> : Mounted on the lower part of the tail fin in a standard socket	[8 cc]	24	<i>Passive Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
5	<i>EMP Shielding</i> : Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0	20	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
14	<i>Active EMS Jammer</i> : Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8	20	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
	Operations Section		24	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
53	<i>Model 9F Starship Computer</i> : Custom Power (53 Active Points)	5	12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
5	<i>Backup Computer</i> : Custom Power (5 Active Points)	0			
1	<i>Basic Flight Control</i> : +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1			
3	<i>Basic Navigation Control</i> : +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1			
4	<i>Basic Fire Control</i> : +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
4	<i>Basic Defense Control</i> : +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1			
	Sensors			Communications	
23	<i>Active Sensor Array</i> : Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)			<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	
16	1) <i>Active Sensor Array</i> : Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4	14		

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12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	2
8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) <i>Note</i> : Only Available at TL-15	7

Personnel Section

16	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) <i>Note</i> : (x8 number of items)	0
6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) <i>plus</i> +2 with SS: Medicine (Real Cost: 2)	0
5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) <i>plus</i> +1 with Mechanics (Real Cost: 2) <i>plus</i> +1 with SS: Starship Engineering (Real Cost: 1)	0
0	<i>Ships Cargo Hold</i> : Custom Power	0

Small Craft

0	2 <i>Cutters</i> : Custom Power	0
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Skills

5	<i>Ship's Administrative Systems</i> : Bureaucracies 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)	
5	<i>Ship's Internal Security Systems</i> : Security Systems 11- (7 Active Points); Costs Endurance (-1/2)	
2	<i>Ship's Galley</i> : KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-	

Total Powers & Skill Cost: 1964

Total Cost: 2066

200+ Disadvantages

15	Distinctive Features: Standard Starship (Not Concealable; Noticed and Recognizable; Detectable By Commonly-Used Senses)	
1851	Experience Points	

Total Disadvantage Points: 2066

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CHRYSANthemum DESTROYER ESCORT

Val	Char	Cost	Notes
20	Size	100	Length 101.59", Width 50.8", Area 5,160.64" Mass 104.9 kton KB -20
110	STR	0	Lift 104.9ktons; 22d6
27	DEX	0	OCV 9 DCV -4
38	BODY	0	
10	DEF	0	
6	SPD	-10	Phases: 2, 4, 6, 8, 10, 12

Total Characteristic Cost: 76

Movement: Flight: 60" / 983040"
Teleportation: 13" / 26"

Cost	Powers	END
	Construction	
2	<i>Closed Structure Hull Configuration:</i> +2 BODY	
9	<i>Bonded Superdense Hull:</i> (Total: 30 Active Cost, 9 Real Cost) +6 BODY (6 Active Points); OIF Immobile (-1 1/2) (Real Cost: 2) plus +8 DEF (24 Active Points); OIF Immobile (-1 1/2), Ablative BODY Only (-1/2), Limited Coverage Nearly 360 Degrees (Hull/Frame Only; -1/4), Real Armor (-1/4) (Real Cost: 7)	0
10	<i>Ablat Armor:</i> Armor (6 PD/6 ED) (18 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)	0
	Engineering Section	
12	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48
94	<i>6G Maneuver Drive:</i> (Total: 281 Active Cost, 94 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 58) plus +17 DEX (51 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 20) plus +4 SPD (40 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 16)	19
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8

7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
1	<i>Food Supplies:</i> Life Support (Eating; Character does not eat), 16 Continuing Charges lasting 1 Month each (Easily Replaced From Source Outside Of Vehicle; +0) (3 Active Points); OIF Bulky (-1)	[16 cc]
7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)	4

Tactical Section

82	<i>TL-15 PAW Barbette:</i> (Total: 227 Active Cost, 82 Real Cost) Killing Attack - Ranged 6 1/2d6, MegaScale (1" = 1,000 km; +1), Can Be Scaled Down 1" = 1km (+1/4) (225 Active Points); OIF Bulky (-1), Custom Modifier (Half Value in Atmosphere; -1/2), Beam (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 75) plus +2 with any single attack with one specific weapon (Real Cost: 2) Note: (x2 number of items)	22
409	<i>Triple Missile Rack:</i> (Total: 938 Active Cost, 409 Real Cost) RKA 6 1/2d6, 36 Charges (+1/4), Explosion (+1/2), Autofire (3 shots; +1 1/4) (300 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4) (Real Cost: 86) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4 for up to 150 Active Points of Missile, Reduced Endurance (0 END; +1/2) (618 Active Points); OIF Bulky (-1) (Real Cost: 309) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) Note: (x2 number of items)	[36]
54	<i>Dual Fusion Gun Turret:</i> RKA 6d6, Autofire (2 shots; +1/4), Megascale (1" = 1,000 km; +1) (202 Active Points); OAF Immobile (-2), Real Weapon (-1/4), Beam (-1/4), Reduced By Range (-1/4)	20
4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1

Defensive Section

37	<i>Sandcaster:</i> (Total: 60 Active Cost, 37 Real Cost) Physical Damage Reduction, Resistant, 50%, 36 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([5-8] people; -3/4) (Real Cost: 11) plus Energy Damage Reduction, Resistant, 50%, 36 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([5-8] people; -3/4) (Real Cost: 11) Note: (x5 number of items)	[36 cc]
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4	<i>Basic Defense Control</i> : +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	7
14	<i>Active EMS Jammer</i> : Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8		20 <i>Active Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)	
21	<i>EMs Masking</i> : Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0		24 1) <i>Long Range Sensors</i> : MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) for up to 40 Active Points of Active Sensor Array, Reduced Endurance (0 END; +1/2) (105 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
4	<i>C-31D2 Chaff and Flare Pod</i> : Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note : Mounted on the lower part of the tail fin in a standard socket	[8 cc]		24 2) <i>Accurate Sensors</i> : +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
5	<i>EMP shielding</i> : Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0		20 3) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
12	<i>Missile Deflection</i> (Any Ranged Attack) (20 Active Points); OIF Immobile (-1 1/2), Real Armor (-1/4), Crew-Served (2 people; -1/4) Note : (x2 number of items)	0		17 4) <i>Active Sensor Array</i> : Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
Sensors and Electronics					
13	<i>Commo Arrays</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)			17 <i>Passive Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	
11	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	4		17 1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (Only Costs END to Activate; -1/4), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	2		20 2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0
				20 3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0

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12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	Total Cost: 1358
			Total Disadvantage Points: 1358
13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	
27	<i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4), Crew-Served (2 people; -1/4)	[1 cc]	
Operations Section			
51	<i>Model 9 Computer</i> : Custom Power (51 Active Points)	5	
1	<i>Basic Flight Control</i> : +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1	
3	<i>Basic Navigation Control</i> : +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1	
6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0	
Personnel Section			
0	<i>10 Staterooms</i> : Custom Power	0	
Small Craft			
0	<i>1 Cutter</i> : Custom Power	0	
Skills			
5	<i>Ship's Internal Security System</i> : Security Systems 14- (15 Active Points); Crew-Served ([17-32] people; -1 1/4), Costs Endurance (-1/2)		
6	<i>Ship's Administrative System</i> : Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2)		

Total Powers & Skill Cost: 1282

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MIDDU AGASHAAM DE

Val	Char	Cost	Notes
23	Size	115	Length 203.19", Width 101.59", Area 20,642.55" Mass 838.9 kton KB -23
125	STR	0	Lift 838.9ktons; 25d6
27	DEX	0	OCV 9 DCV -6
42	BODY	1	
10	DEF	0	
6	SPD	-10	Phases: 2, 4, 6, 8, 10, 12

Total Characteristic Cost: 92

Movement: Flight: 60" / 983040"
Teleportation: 13" / 26"

Cost	Powers	END
	Construction	
2	<i>Closed Structure Hull Configuration:</i> +2 BODY	
9	<i>Bonded Superdense Hull:</i> (Total: 30 Active Cost, 9 Real Cost) +6 BODY (6 Active Points); OIF Immobile (-1 1/2) (Real Cost: 2) plus +8 DEF (24 Active Points); OIF Immobile (-1 1/2), Ablative BODY Only (-1/2), Limited Coverage Nearly 360 Degrees (Hull/Frame Only; -1/4), Real Armor (-1/4) (Real Cost: 7)	0
	Engineering Section	
12	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48
94	<i>6G Maneuver Drive:</i> (Total: 281 Active Cost, 94 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 58) plus +17 DEX (51 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 20) plus +4 SPD (40 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 16)	19
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8

7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
1	<i>Food Supplies:</i> Life Support (Eating; Character does not eat), 16 Continuing Charges lasting 1 Month each (Easily Replaced From Source Outside Of Vehicle; +0) (3 Active Points); OIF Bulky (-1)	[16 cc]
7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)	4

Tactical Section

81	<i>50 Ton PAW Bay:</i> (Total: 352 Active Cost, 81 Real Cost) Killing Attack - Ranged 8 1/2d6, Area Of Effect (52" Line; +1) (260 Active Points); OIF Immobile (-1 1/2), Limited Arc Of Fire (60 degrees; Only on same horizontal level; -3/4), Crew-Served ([3-4] people; -1/2), Custom Modifier (Does not work in atmosphere; -1/2) (Real Cost: 61) plus Suppress 4 1/2d6, all [special effect] powers simultaneously (+2), Area Of Effect (28" Line; +1) (92 Active Points); OIF Immobile (-1 1/2), Custom Modifier (to PAW Bay; -1/2), Crew-Served ([3-4] people; -1/2), Limited Arc Of Fire (60 degrees; -1/2), Custom Modifier (Does not work in atmosphere; -1/2) (Real Cost: 20)	35
409	<i>Triple Missile Rack:</i> (Total: 938 Active Cost, 409 Real Cost) RKA 6 1/2d6, 36 Charges (+1/4), Explosion (+1/2), Autofire (3 shots; +1 1/4) (300 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4) (Real Cost: 86) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 150 Active Points of Missile, Reduced Endurance (0 END; +1/2) (618 Active Points); OIF Bulky (-1) (Real Cost: 309) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) Note: (x2 number of items)	[36]

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631	<i>TL15 Triple Turret Beam Laser:</i> (Total: 1737 Active Cost, 631 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 112) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 505) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x4 number of items)	14	
4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	
Defensive Section			
3	<i>Type 1 Meson Screen:</i> Energy Damage Reduction, Resistant, 25% (15 Active Points); OIF Immobility (-1 1/2), Custom Modifier (Only Affects Meson Weapons; -1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)	1	
14	<i>Type 2 Nuclear Damper:</i> (Total: 60 Active Cost, 14 Real Cost) Physical Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobility (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) plus Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobility (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) Note: Equivalent to High Guard Ratings 4-6	6	
30	<i>Sandcaster:</i> (Total: 60 Active Cost, 30 Real Cost) Physical Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1) (Real Cost: 15) plus Energy Damage Reduction, Resistant, 50%, 12 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1) (Real Cost: 15)	12 cc	
37	<i>Sandcaster:</i> (Total: 60 Active Cost, 37 Real Cost) Physical Damage Reduction, Resistant, 50%, 36 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([5-8] people; -3/4) (Real Cost: 11) plus Energy Damage Reduction, Resistant, 50%, 36 Continuing Charges lasting 5 Minutes each (+0) (30 Active Points); OIF Bulky (-1), Crew-Served ([5-8] people; -3/4) (Real Cost: 11) Note: (x5 number of items)	36 cc	
4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	
14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobility (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8	
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobility (-1 1/2), No Range (-1/2)	0	
4	<i>C-31D2 Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobility (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]	
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobility (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0	
12	<i>Missile Deflection (Any Ranged Attack)</i> (20 Active Points); OIF Immobility (-1 1/2), Real Armor (-1/4), Crew-Served (2 people; -1/4) Note: (x2 number of items)	0	
Sensors and Electronics			
13	<i>Commo Arrays:</i> Elemental Control, 76-point powers, (38 Active Points); all slots OIF Immobility (-1 1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)		
11	1) <i>Radio Transceiver:</i> High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	4	
12	2) <i>Laser/Maser Comm System:</i> Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (Only Costs END to Activate; -1/4), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	2	
8	3) <i>Meson Communicator:</i> Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobility (-1 1/2), Only With Others Who Have Mind Link (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	7	

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20	<i>Active Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)		13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0
24	1) <i>Long Range Sensors</i> : MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) for up to 40 Active Points of Active Sensor Array, Reduced Endurance (0 END; +1/2) (105 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0			
24	2) <i>Accurate Sensors</i> : +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0	27	<i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4), Crew-Served (2 people; -1/4)	[1 cc]
20	3) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1			
17	4) <i>Active Sensor Array</i> : Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4			
17	<i>Passive Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)			Operations Section	
			51	<i>Model 9 Computer</i> : Custom Power (51 Active Points)	5
17	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	1	<i>Basic Flight Control</i> : +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
			3	<i>Basic Navigation Control</i> : +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
20	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0
				Personnel Section	
			0	<i>19 Staterooms</i> : Custom Power	0
20	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0		Small Craft	
			0	<i>2 Cutters</i> : Custom Power	0
				Skills	
12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	5	<i>Ship's Internal Security System</i> : Security Systems 14- (15 Active Points); Crew-Served ([17-32] people; -1 1/4), Costs Endurance (-1/2)	
			6	<i>Ship's Administrative System</i> : Bureaucratrics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2)	
			Total Powers & Skill Cost: 1895		
			Total Cost: 1987		
			Total Disadvantage Points: 1987		

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FIERY CLASS CLOSE ESCORT

Val	Char	Cost	Notes
17	Size	85	Length 50.8", Width 25.4", Area 1,290.16" Mass 13.1 kton KB -17
95	STR	0	Lift 13.1ktons; 19d6
21	DEX	0	OCV 7 DCV -4
27	BODY	0	
8	DEF	0	
4	SPD	-10	Phases: 3, 6, 9, 12

Total Characteristic Cost: 61

Movement: Flight: 60" / 983040"
Teleportation: 13" / 26"

Cost	Powers	END
Ships Construction		
6	<i>Hull Reinforcement And Structure:</i> +6 DEF (18 Active Points); OIF Immobility (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard	
20	<i>Ablat Armor:</i> Armor (12 PD/12 ED) (36 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)	0
Ships Engineering		
11	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Crew-Served ([3-4] people; -1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48
69	<i>4G Maneuver Drive:</i> (Total: 243 Active Cost, 69 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Crew-Served ([3-4] people; -1/2), Real Equipment (-1/4) (Real Cost: 51) plus +11 DEX (33 Active Points); OIF Bulky (-1), Real Equipment (-1/2), Crew-Served ([3-4] people; -1/2) (Real Cost: 11) plus +2 SPD (20 Active Points); OIF Bulky (-1), Real Equipment (-1/2), Crew-Served ([3-4] people; -1/2) (Real Cost: 7)	19
94	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobility (-1 1/2), Crew-Served ([3-4] people; -1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0

26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)	4

Tactical Section		
337	<i>Heavy Laser Barbette:</i> (Total: 858 Active Cost, 337 Real Cost) RKA 9 1/2d6, Invisible to Single Sense (UV; +1/4) (181 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 66) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 162 Active Points of Laser, Reduced Endurance (0 END; +1/2) (667 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 267) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4)	19
335	<i>TL12 Beam Laser:</i> (Total: 839 Active Cost, 335 Real Cost) RKA 8 1/2d6, Invisible to Single Sense (UV; +1/4) (162 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 59) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 162 Active Points of Laser, Reduced Endurance (0 END; +1/2) (667 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 267) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x2 number of items)	17
358	<i>Missile Rack:</i> (Total: 788 Active Cost, 358 Real Cost) RKA 6 1/2d6, Explosion (+1/2) (150 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Real Weapon (-1/4), 12 Charges (-1/4), Can Be Missile Deflected (-1/4) (Real Cost: 40) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 150 Active Points of Missile, Reduced Endurance (0 END; +1/2) (618 Active Points); OIF Bulky (-1) (Real Cost: 309) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9)	[12]

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Defensive Section					
11	Point Defense Lasers: Missile Deflection (Any Ranged Attack) (20 Active Points); OIF Bulky (-1), Linked (TL12 Beam Laser; -1/2), Real Armor (-1/4), Crew-Served (2 people; -1/4), Costs Endurance (Only Costs END to Activate; -1/4) Note: (x2 number of items)	2	18	Computer Enhancement: Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	1
14	Active EMS Jammer: Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8	18	Accurate Sensors: +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	4
5	EMP Shielding: Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0	17	150,000 Km Passive Sensor Array w/Folding Antennae : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	
21	EMs Masking: Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0	15	IR Sensors: Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	5
4	Chaff and Flare Pod: Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]	17	UV Sensors: Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	5
Operations Section					
31	Model 4 Computer: Custom Power (31 Active Points)	3	11	Optical Telescopic Array: +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	0
1	Basic Flight Control: +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1		Densitometer: Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	11
3	Basic Navigation Control: +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1			
4	Basic Fire Control: +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1			
4	Basic Defense Control: +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	12	Neutrino Scanner: Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	11
Sensors					
21	300,000 Km Active Sensor Array: Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)				
15	Active Sensor Array: Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	4			
Communications					
			14	Commo Package: Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	

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12 *Radio Transceiver*: High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) 4

12 *Laser/Maser Comm System*: Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) 2

Personnel Section

21 *Stateroom*: Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) **Note**: (x13 number of items) 0

11 *Low Berth (Safe Version)*: Life Support (Longevity: 800 Years) (3 Active Points); OIF Bulky (-1), Costs Endurance (-1/2) **Note**: (x4 number of items) 1

6 *Sick Bay*: (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) **plus** +2 with SS: Medicine (Real Cost: 2) 0

5 *Ships Repair and Maintenance Shops*: (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) **plus** +1 with Mechanics (Real Cost: 2) **plus** +1 with SS: Starship Engineering (Real Cost: 1) 0

0 *Ships Cargo Hold*: Custom Power **Note**: 2 Tons, 1 ton Missile magazine[12] 0

Small Craft

0 *Gig*: Custom Power 0

Skills

5 *Ship's Administrative Systems*: Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)

5 *Ship's Internal Security Systems*: Security Systems 11- (7 Active Points); Costs Endurance (-1/2)

2 *Ship's Galley*: KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-

Total Powers & Skill Cost: 1631

Total Cost: 1692

200+ Disadvantages

15 *Distinctive Features*: Standard Starship (Not Concealable; Noticed and Recognizable; Detectable By Commonly-Used Senses)

1477 Experience Points

Total Disadvantage Points: 1692

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GAZELLE CLOSE ESCORT

Val	Char	Cost	Notes
17	Size	85	Length 50.8", Width 25.4", Area 1,290.16" Mass 13.1 kton KB -17
95	STR	0	Lift 13.1ktons; 19d6
23	DEX	0	OCV 8 DCV -3
33	BODY	4	
8	DEF	0	
6	SPD	0	Phases: 2, 4, 6, 8, 10, 12

Total Characteristic Cost: 75

Movement: Flight: 60" / 983040"
Teleportation: 16" / 32"

Cost	Powers	END
	Ships Construction	
6	<i>Hull Reinforcement and structure:</i> +6 DEF (18 Active Points); OIF Immobility (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard	
0	<i>Bonded Superdense:</i> (Total: 0 Active Cost, 0 Real Cost) Note: Standard Cost, TL-14, Ships Body +20%, May Add TSA	0
10	<i>Wedge Hull Configuration:</i> (Total: 10 Active Cost, 10 Real Cost) +2 BODY (Real Cost: 2) plus +2 with Combat Piloting (Real Cost: 8) Note: Can Enter Atmosphere, Cost *1.5, Highly Maneuverable	0
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobility (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobility (-1 1/2), No Range (-1/2)	0
	Ships Engineering	
14	<i>Jump 5 Drive:</i> Teleportation 16", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (152 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Custom Modifier (Assumes Drop Tanks Mounted, otherwise J4; -1/2), Real Equipment (-1/4) Note: Full distance is 16.3 LY (5 Parsecs)	60

74	<i>5G Maneuver Drive:</i> (Total: 259 Active Cost, 74 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Custom Modifier (Assumes Drop Tanks Mounted, otherwise M4; -1/2), Real Equipment (-1/4) (Real Cost: 51) plus +13 DEX (39 Active Points); OIF Bulky (-1), Real Equipment (-1/2), Custom Modifier (Assumes Drop Tanks Mounted, otherwise M4; -1/2) (Real Cost: 13) plus +3 SPD (30 Active Points); OIF Bulky (-1), Real Equipment (-1/2), Custom Modifier (Assumes Drop Tanks Mounted, otherwise M4; -1/2) (Real Cost: 10)	19
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobility (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
0	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
6	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to usable fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Immobility (-1 1/2), Custom Modifier (Real Equipment; -1/4)	4
	Tactical Section	
762	<i>TL15 Triple Turret Beam Laser:</i> (Total: 1737 Active Cost, 762 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 135) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 618) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x2 number of items)	14

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103	<i>Particle Accelerator Barbette:</i> (Total: 330 Active Cost, 103 Real Cost) Killing Attack - Ranged 8d6+1, MegaScale (1" = 100 km; +3/4), Can Be Scaled Down 1" = 1km (+1/4) (250 Active Points); OIF Immobile (-1 1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 77) plus Suppress 4d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 100 km; +3/4), Can Be Scaled Down 1" = 1km (+1/4) (80 Active Points); OIF Immobile (-1 1/2), Linked (Killing Attack - Ranged; -1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4) (Real Cost: 21) Note: (x2 number of items)	33	16	1) <i>Active Sensor Array:</i> Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
	Defensive Section			2) <i>Computer Enhancement:</i> Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
6	<i>Point Defense System:</i> Missile Deflection (Any Ranged Attack) (20 Active Points); OIF Immobile (-1 1/2), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)	2		3) <i>Accurate Sensors:</i> +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
15	<i>Ablat Armor:</i> Armor (9 PD/9 ED) (27 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)	0		24) <i>Passive Sensor Array:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8		20) 1) <i>IR Sensors:</i> Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
4	<i>Paradex C-31D2 Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]	24	2) <i>UV Sensors:</i> Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
	Operations Section			3) <i>Optical Telescopic Array:</i> +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
39	<i>Model 6 Computer:</i> Custom Power (39 Active Points)	4		4) <i>Densitometer:</i> Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
1	<i>Basic Flight Control:</i> +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1		5) <i>Neutrino Scanner:</i> Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11
3	<i>Basic Navigation Control:</i> +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1			
4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1			
4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1			
	Sensors				
23	<i>Active Sensor Array:</i> Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)				

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Communications

14	<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)		Total Disadvantage Points: 1595
12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4	
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	2	
8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) Note : Only Available at TL-15	7	

Personnel Section

16	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) Note : (x8 number of items)	0	
6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0	
5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) plus +1 with Mechanics (Real Cost: 2) plus +1 with SS: Starship Engineering (Real Cost: 1)	0	
0	<i>Ships Cargo Hold</i> : Custom Power Note : 6 Tons	0	

Small Craft

0	<i>Gig In External Docking Grapple</i> : Custom Power	0	
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Skills

5	<i>Ship's Administrative Systems</i> : Bureaucrats 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)		
5	<i>Ship's Internal Security Systems</i> : Security Systems 11- (7 Active Points); Costs Endurance (-1/2)		
2	<i>Ship's Galley</i> : KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-		

Total Powers & Skill Cost: 1520

Total Cost: 1595

200+ Disadvantages

15	Distinctive Features: Standard Starship (Not Concealable; Noticed and Recognizable)		
1380	Experience Points		

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PF SLOAN FLEET ESCORT

Val	Char	Cost	Notes				
24	Size	120	Length 256", Width 128", Area 32,768" Mass 1,677.7 kton KB -24				
130	STR	0	Lift 1677.7ktons; 26d6				
27	DEX	0	OCV 9 DCV -7				
41	BODY	0					
10	DEF	0					
6	SPD	-10	Phases: 2, 4, 6, 8, 10, 12				
Total Characteristic Cost: 96							
Movement:							
Flight: 60" / 983040"							
Teleportation: 13" / 26"							
Cost	Powers		END				
	Construction						
1	<i>Cylinder Hull Configuration:</i> +1 BODY						
9	<i>Bonded Superdense Hull:</i> (Total: 30 Active Cost, 9 Real Cost) +6 BODY (6 Active Points); OIF Immobile (-1 1/2) (Real Cost: 2) plus +8 DEF (24 Active Points); OIF Immobile (-1 1/2), Ablative BODY Only (-1/2), Limited Coverage Nearly 360 Degrees (Hull/Frame Only; -1/4), Real Armor (-1/4) (Real Cost: 7)	0	1145				
31	<i>Ablat Armor:</i> Armor (18 PD/18 ED) (54 Active Points); Ablative BODY Only (-1/2), Limited Coverage (Hull/Frame only) (-1/4)	0					
	Engineering Section						
12	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48					
94	<i>6G Maneuver Drive:</i> (Total: 281 Active Cost, 94 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 58) plus +17 DEX (51 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 20) plus +4 SPD (40 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 16)	19	767				
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0					
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0					
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8					
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)					2	
1	<i>Food Supplies:</i> Life Support (Eating: Character does not eat), 16 Continuing Charges lasting 1 Month each (Easily Replaced From Source Outside Of Vehicle; +0) (3 Active Points); OIF Bulky (-1)					[16 cc]	
7	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to Usable Fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Bulky (-1), Real Equipment (-1/4)					4	
	Tactical Section						
	<i>Small Missile Bay:</i> (Total: 3095 Active Cost, 1145 Real Cost) RKA 8d6, Explosion (+1/2), 1000 Charges (Recovers Under Limited Circumstances; Base or Tender to Reload Pods, cannot be loaded from inside the ship; +1), Autofire (20 shots; +2 1/2) (600 Active Points); OIF Bulky (-1), Limited Power Must Have Viable Target Lock To Fire Missile (-1/2), Limited Power Must Travel To Target: Velocity 40,000" per phase (-1/2), Crew-Served ([3-4] people; -1/2), Real Weapon (-1/4), Can Be Missile Deflected (-1/4), Limited Arc Of Fire (180 degrees; -1/4) (Real Cost: 141) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4 for up to 600 Active Points of Missile, Reduced Endurance (0 END; +1/2) (2475 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2) (Real Cost: 990) plus +4 with Ranged Combat (20 Active Points); OIF Bulky (-1), Real Weapon (-1/4) (Real Cost: 9) Note: (x2 number of items)					[1000]	
	<i>TL15 Triple Turret Beam Laser:</i> (Total: 1737 Active Cost, 767 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (3 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4) (Real Cost: 135) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4 for up to 337 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1390 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 618) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x3 number of items)						
	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)						1

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Defensive Section					
3	<i>Type 1 Meson Screen:</i> Energy Damage Reduction, Resistant, 25% (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Only Affects Meson Weapons; -1), Costs Endurance (-1/2), Crew-Served (2 people; -1/4), Real Armor (-1/4)	1	11	1) <i>Radio Transceiver:</i> High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	4
6	<i>Type 1 Nuclear Damper:</i> (Total: 30 Active Cost, 6 Real Cost) Physical Damage Reduction, Resistant, 25% (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 3) plus Energy Damage Reduction, Resistant, 25% (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 3) Note: Equivalent to High Guard Ratings 4-6	2	12	2) <i>Laser/Maser Comm System:</i> Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (Only Costs END to Activate; -1/4), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	2
4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1	8	3) <i>Meson Communicator:</i> Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)	7
14	<i>Active EMS Jammer:</i> Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8	20	<i>Active Sensor Array:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)	
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0	24	1) <i>Long Range Sensors:</i> MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) for up to 40 Active Points of Active Sensor Array, Reduced Endurance (0 END; +1/2) (105 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
4	<i>C-31D2 Chaff and Flare Pod:</i> Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note: Mounted on the lower part of the tail fin in a standard socket	[8 cc]	20	2) <i>Accurate Sensors:</i> +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0	17	3) <i>Computer Enhancement:</i> Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
17	<i>Missile Deflection</i> (Any Ranged Attack) (20 Active Points); OIF Immobile (-1 1/2), Real Armor (-1/4), Crew-Served (2 people; -1/4) Note: (x3 number of items)	0	17	4) <i>Active Sensor Array:</i> Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
Sensors and Electronics				<i>Passive Sensor Array:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	
13	<i>Commo Arrays:</i> Elemental Control, 76-point powers, (38 Active Points); all slots OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4), Crew-Served (2 people; -1/4)				

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17	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Immobile (-1 1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	3	<i>Basic Navigation Control</i> : +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
			6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0
20	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0		Personnel Section	
			0	<i>24 Staterooms</i> : Custom Power	0
			1	<i>40 Tons Cargo</i> : Custom Power (1 Active Points)	1
20	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0		Small Craft	
			0	<i>3 Cutters</i> : Custom Power	0
12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0	5	<i>Ship's Internal Security System</i> : Security Systems 14- (15 Active Points); Crew-Served ([17-32] people; -1 1/4), Costs Endurance (-1/2)	
			6	<i>Ship's Administrative System</i> : Bureaucratcs 14- (15 Active Points); IIF Immobile Fragile (-1 1/2)	
				Total Powers & Skill Cost: 2647	
				Total Cost: 2743	
				Total Disadvantage Points: 2743	
13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Crew-Served ([3-4] people; -1/2), Custom Modifier (Real Equipment; -1/4)	0			
27	<i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4), Crew-Served (2 people; -1/4)	[1 cc]			
	Operations Section				
51	<i>Model 9 Computer</i> : Custom Power (51 Active Points)	5			
1	<i>Basic Flight Control</i> : +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1			

Patrol Ships

KINUNIR COLONIAL CRUISER

Val	Char	Cost	Notes
21	Size	105	Length 128", Width 64", Area 8,192" Mass 209.7 kton KB -21
115	STR	0	Lift 209.7ktons; 23d6
21	DEX	0	OCV 7 DCV -7
31	BODY	0	
8	DEF	0	
5	SPD	0	Phases: 3, 5, 8, 10, 12
Total Characteristic Cost: 91			

Movement: Flight: 60" / 983040"
Teleportation: 13" / 26"

Cost	Powers	END
Ships Construction		
6	<i>Hull Reinforcement and structure:</i> +6 DEF (18 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard	
8	<i>Wedge Hull Configuration:</i> (Total: 8 Active Cost, 8 Real Cost) +2 with Combat Piloting (Real Cost: 8) Note: Can Enter Atmosphere, Cost *1.5, Highly Maneuverable	0
21	<i>EMs Masking:</i> Change Environment 1" radius, -6 to Radar PER Rolls, -6 to Infrared Perception PER Rolls, Multiple Combat Effects, Reduced Endurance (0 END; +1/2), Persistent (+1/2) (64 Active Points); OIF Immobile (-1 1/2), No Range (-1/2)	0
5	<i>EMP shielding:</i> Power Defense (15 points) (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only vs EMP and radiation effects; -1/2)	0

Ships Engineering

12	<i>Jump 4 Drive:</i> Teleportation 13", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (123 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 13.04 LY (4 Parsecs)	48
79	<i>4G Maneuver Drive:</i> (Total: 243 Active Cost, 79 Real Cost) Flight 60", Position Shift, x16,384 Noncombat (190 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) (Real Cost: 58) plus +11 DEX (33 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 13) plus +2 SPD (20 Active Points); OIF Bulky (-1), Real Equipment (-1/2) (Real Cost: 8)	19

183	<i>P2-100 Power Plant:</i> Endurance Reserve (500 END, 500 REC) (550 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
22	<i>Emergency Generator and Batteries:</i> Endurance Reserve (50 END, 50 REC) (55 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8
7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
6	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to usable fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)	4

Tactical Section

96	<i>Particle Accelerator Barbette:</i> (Total: 330 Active Cost, 96 Real Cost) Killing Attack - Ranged 8d6+1, MegaScale (1" = 100 km; +3/4), Can Be Scaled Down 1" = 1km (+1/4) (250 Active Points); OIF Immobile (-1 1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4), Crew-Served (2 people; -1/4) (Real Cost: 71) plus Suppress 4d6, all [special effect] powers simultaneously (+2), MegaScale (1" = 100 km; +3/4), Can Be Scaled Down 1" = 1km (+1/4) (80 Active Points); OIF Immobile (-1 1/2), Linked (Killing Attack - Ranged; -1/2), Beam (-1/4), Real Weapon (-1/4), Custom Modifier (Half effect in atmosphere; -1/4), Crew-Served (2 people; -1/4) (Real Cost: 20) Note: (x2 number of items)	33
626	<i>TL15 Dual Beam Laser:</i> (Total: 1460 Active Cost, 626 Real Cost) RKA 9d6, Invisible to Single Sense (UV; +1/4), Autofire (2 shots; +1/4), Armor Piercing (+1/2), Reduced Endurance (1/2 END; +1/2) (337 Active Points); OIF Bulky (-1), Beam (-1/4), Real Weapon (-1/4), Crew-Served (2 people; -1/4) (Real Cost: 122) plus Variable Advantage (+1 1/2 Advantages; Limited Group of Advantages; MegaScale or Increased Maximum Range plus Reduced Range Mod only; +2 3/4) for up to 270 Active Points of Laser, Reduced Endurance (0 END; +1/2) (1113 Active Points); OIF Bulky (-1), Limited Power Range and Damage affected by media (-1/4) (Real Cost: 495) plus +2 with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Real Weapon (-1/4) (Real Cost: 4) Note: (x2 number of items)	14

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125	<i>Light Missile Rack</i> : RKA 6 1/2d6, 36 Charges (+1/4), Explosion (+1/2), Autofire (3 shots; +1 1/4), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (450 Active Points); OIF Immobile (-1 1/2), Custom Modifier (must have a viable target lock to fire; -1/2), Can Be Missile Deflected (-1/4), Real Weapon (-1/4), Crew-Served (2 people; -1/4) Note : (x2 number of items) standard space combat missile, with either kinetic energy or High Explosive Warhead IF KE, its an AP attack instead of explosive	[36]	17	<i>Point Defense Lasers</i> : Missile Deflection (Any Ranged Attack), Full Range (+1) (40 Active Points); OAF Immobile (-2), Real Armor (-1/4) Note : (x2 number of items)	0
Defensive Section					
19	<i>Basic Black Globe Generator</i> : (Total: 85 Active Cost, 19 Real Cost) Invisibility to Sight and Radio Groups (25 Active Points); OIF Immobile (-1 1/2), Side Effects, Side Effect occurs automatically whenever Power is used (Cannot maneuver or use sensors when globe is on; -1), Custom Modifier (if globe absorbs more END than the battery can hold, ship takes equal internal damage; -1), Crew-Served ([3-4] people; -1/2), Linked (Absorption; -1/2) (Real Cost: 4) plus Absorption 6d6 (energy, END), Absorption As A Defense (x2) (60 Active Points); Side Effects, Side Effect occurs automatically whenever Power is used (Cannot Maneuver or use sensors while globe is on; -1 1/2), Custom Modifier (if globe absorbs more END than the battery can hold, ship takes equal internal damage; -1), Activation Roll 14- (-1/2) (Real Cost: 15) Note : Not all Ships were fitted with Black Globes, only 20 ships built total	2		Operations Section	
14	<i>Type 2 Nuclear Damper</i> : (Total: 60 Active Cost, 14 Real Cost) Physical Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) plus Energy Damage Reduction, Resistant, 50% (30 Active Points); OIF Immobile (-1 1/2), Custom Modifier (only stops damage from nuclear weapons and radiation effects; -1), Crew-Served ([3-4] people; -1/2), Costs Endurance (-1/2) (Real Cost: 7) Note : Equivalent to High Guard Ratings 4-6	6		38 <i>Model 7 Computer</i> : Custom Power (38 Active Points)	0
14	<i>Active EMS Jammer</i> : Suppress 8d6, Area Of Effect Nonselective (8" Radius; +1) (80 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (Active Point penalty to Skill Roll is -1 per 5 Active Points, RSR Skill is subject to Skill vs. Skill contests; -1 1/4), Side Effects, Side Effect occurs automatically whenever Power is used (degrades ships own sensors by half amount suppressed; -1), No Range (-1/2), Crew-Served (2 people; -1/4)	8		1 <i>Basic Flight Control</i> : +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
4	<i>Paradox C-31D2 Chaff and Flare Pod</i> : Sight and Radio Groups Images 1" radius, 8 Continuing Charges lasting 1 Turn each (+0) (15 Active Points); OIF Immobile (-1 1/2), Set Effect (only to create images of ship; -1) Note : Mounted on the lower part of the tail fin in a standard socket	[8 cc]		3 <i>Basic Navigation Control</i> : +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
				4 <i>Basic Fire Control</i> : +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
				4 <i>Basic Defense Control</i> : +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
				Sensors	
			23	<i>Active Sensor Array</i> : Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
			16	1) <i>Active Sensor Array</i> : Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
			19	2) <i>Computer Enhancement</i> : Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
			19	3) <i>Accurate Sensors</i> : +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
			24	<i>Passive Sensor Array</i> : Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
			20	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
			20	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5
			24	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	0

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12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11	5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) plus +1 with Mechanics (Real Cost: 2) plus +1 with SS: Starship Engineering (Real Cost: 1)	0
13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11	0	<i>Ships Armory</i> : +2 with Armorsmith (4 Active Points); OIF Immobile (-1 1/2), Crew-Served (2 people; -1/4) <i>Ships Armory</i> : +2 with Weaponsmith (4 Active Points); OIF Immobile (-1 1/2), Crew-Served (2 people; -1/4) <i>Ships Cargo Hold</i> : Custom Power	0
	Communications			Small Craft	
14	<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)		0	<i>Pinnacle</i> : Custom Power	0
12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)		15	Perks Advanced Tech Note : Due to Black Globe	
12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)		5	Skills <i>Ship's Administrative Systems</i> : Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)	
8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) Note : Only Available at TL-15	4	5	<i>Ship's Internal Security Systems</i> : Security Systems 11- (7 Active Points); Costs Endurance (-1/2)	
			2	<i>Ship's Galley</i> : KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-	
			8	<i>Battledress and Environmental Suit Morgue</i> : +2 with Armorsmith	
				Total Powers & Skill Cost: 1655	
				Total Cost: 1746	
				200+ Disadvantages	
			15	Distinctive Features: Standard Starship (Not Concealable; Noticed and Recognizable; Detectable By Commonly-Used Senses)	
			15	Psychological Limitation: Poor Reputation for problems and builder rep (Common, Strong)	
			5	Unluck: 1d6	
			25	Hunted: High Security due to fitting of black globe 14- (Mo Pow, NCI, PC has a Public ID or is otherwise very easy to find, Watching)	
			1486	Experience Points	
				Total Disadvantage Points: 1746	
	Personnel Section				
31	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) Note : (x45 number of items)		0		
6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)		0		

Specialist Vessels

DONOSEV CLASS SURVEY SCOUT

Val	Char	Cost	Notes
17	Size	85	Length 50.8", Width 25.4", Area 1,290.16" Mass 13.1 kton KB -17
95	STR	0	Lift 13.1ktons; 19d6
10	DEX	0	OCV 3 DCV -8
30	BODY	0	
9	DEF	0	
2	SPD	0	Phases: 6, 12
Total Characteristic Cost: 85			

Movement: Flight: 30" / 491520"
Teleportation: 3" / 6"

Cost	Powers	END
Ships Construction		
5	<i>Hull Reinforcement and structure:</i> +5 DEF (15 Active Points); OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4) Note: All Spaceship and Starship Hulls are Built to this level as a safety standard	
5	<i>Dispersed Structure:</i> (Total: 5 Active Cost, 5 Real Cost) +2 BODY (Real Cost: 2) plus +1 DEF (Real Cost: 3)	0
4	<i>Hardened Steel:</i> (Total: 4 Active Cost, 4 Real Cost) +1 BODY (Real Cost: 1) plus +1 DEF (Real Cost: 3) Note: Basic Starship Hull construction Material	0
Ships Engineering		
3	<i>Jump 1 Drive:</i> Teleportation 3", MegaScale (1" = 1 lightyear; +3 1/2), Can Be Scaled Down 1" = 1km (+1/4) (28 Active Points); Extra Time (1 Week, For Full Journey; -4 1/2), Increased Endurance Cost (x4 END; -1 1/2), OIF Bulky (-1), Requires A Combat Piloting Skill Roll (-1/2), Cannot Be Safely Used Inside A Gravity Well (-1/2), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4) Note: Full distance is 3.26 LY (1 Parsec)	12
40	<i>1G Maneuver Drive:</i> Flight 30", Position Shift, x16,384 Noncombat (130 Active Points); OIF Bulky (-1), Realistic END Cost: Requires STR/5 Additional END per phase (-1/2), Costs Endurance (-1/2), Real Equipment (-1/4)	13
110	<i>P2-100 Power Plant:</i> Endurance Reserve (300 END, 300 REC) (330 Active Points); OIF Immobile (-1 1/2), Only To Power Electrical Devices (-1/4), Real Equipment (-1/4)	0
11	<i>Emergency Generator and Batteries:</i> Endurance Reserve (25 END, 25 REC) (27 Active Points); OIF Bulky (-1), Only Powers Electrical Devices (-1/4), Real Equipment (-1/4)	0
26	<i>Artificial Gravity:</i> Telekinesis (30 STR), Area Of Effect (One Hex; +1/2), Selective (+1/4) (79 Active Points); OIF Bulky (-1), Only To Pull Objects Straight Down To The Floor (-1)	8

7	<i>Starship Life Support System:</i> Life Support (Safe in High Radiation; Safe in Intense Cold; Safe in Intense Heat; Safe in Low Pressure/Vacuum; Self-Contained Breathing) (18 Active Points); Costs Endurance (-1/2), Real Equipment (-1/2), Realistic END Cost END Cost Per 200 Hexes (-1/2)	2
6	<i>Fuel Purification Plant:</i> Minor Transform 4d6 (Liquid Hydrogen or Water to usable fuel) (40 Active Points); Extra Time (6 Hours, -3 1/2), OIF Immobile (-1 1/2), Custom Modifier (Real Equipment; -1/4)	4

Tactical Section

0	<i>4 Hardpoints Fitted:</i> Custom Power	0
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Operations Section

23	<i>Model 1 Computer:</i> Custom Power (23 Active Points)	2
1	<i>Basic Flight Control:</i> +2 with Combat Piloting (4 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
3	<i>Basic Navigation Control:</i> +2 with Navigation (Air, Hyperspace, Space) (8 Active Points); OAF Bulky (-1 1/2), Costs Endurance (-1/2)	1
4	<i>Basic Fire Control:</i> +2 OCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
4	<i>Basic Defense Control:</i> +2 DCV with Ranged Combat (10 Active Points); OIF Bulky (-1), Costs Endurance (-1/2)	1
15	<i>Ships Internal Monitors:</i> Clairsentience (Sight, Hearing And Smell/Taste Groups), 4 Perception Points (50 Active Points); OIF Immobile (-1 1/2), Requires A Skill Roll (-1/2), Custom Modifier (Real Equipment; -1/4) Note: Bridge, Cargo Hold, Engineering, Main Airlock	5

Sensors

23	<i>Active Sensor Array:</i> Elemental Control, 106-point powers, (53 Active Points); all slots OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4)	
16	1) <i>Active Sensor Array:</i> Detect Physical Objects 23-/11- (Unusual Group), Discriminatory, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking (39 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Sense Affected As More Than One Sense [Radio, Sight, Hearing] (-1/2), Custom Modifier (Real Equipment; -1/4)	4
19	2) <i>Computer Enhancement:</i> Analyze with Detect (5 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	1
19	3) <i>Accurate Sensors:</i> +12 PER with all Sense Groups (36 Active Points); OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
18	<i>Passive Sensor Array w/ Folding Antennae:</i> Elemental Control, 110-point powers, (55 Active Points); all slots OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Custom Modifier (Real Equipment; -1/4)	

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16	1) <i>IR Sensors</i> : Infrared Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5	12	1) <i>Radio Transceiver</i> : High Range Radio Perception (Radio Group), MegaScale (1" = 1 million km; +1 3/4), Can Be Scaled Down 1" = 1km (+1/4) (36 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight, Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	4
16	2) <i>UV Sensors</i> : Ultraviolet Perception (Sight Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (55 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	5	12	2) <i>Laser/Maser Comm System</i> : Mind Link , Machine class of minds, Any Willing Target, Any distance, Number of Minds (x2) (25 Active Points); OIF Bulky (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	2
18	3) <i>Optical Telescopic Array</i> : +10 versus Range Modifier for Sight Group (15 Active Points); OIF Bulky (-1), Extra Time (1 Minute, Only to Activate, -3/4), Custom Modifier (Real Equipment; -1/4)	0	8	3) <i>Meson Communicator</i> : Mind Link , Machine class of minds, Any Willing Target, No LOS Needed, Number of Minds (x32), Indirect (Same origin, always fired away from attacker; +1/4), Difficult To Dispel (x2 Active Points; +1/4) (75 Active Points); OIF Immobile (-1 1/2), Only With Others Who Have Mind Link (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4) Note : Only Available at TL-15	7
12	4) <i>Densitometer</i> : Detect A Single Thing [Density Of Objects] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Sense, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (110 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11			
13	5) <i>Neutrino Scanner</i> : Detect A Single Thing [Neutrinos] 21-/9- (Unusual Group), Discriminatory, Analyze, Increased Arc Of Perception (360 Degrees), Range, Rapid: x10, Targeting, Tracking, MegaScale (1" = 100,000 km; +1 1/2), Can Be Scaled Down 1" = 1km (+1/4) (113 Active Points); Extra Time (1 Turn (Post-Segment 12), -1 1/4), OIF Bulky (-1), Sense Affected As More Than One Sense [Sight] (-1/2), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)	11			
29	<i>Sensor Probes and Recon Drones</i> : Clairsentience (Sight And Radio Groups), x2 Range (1,190"), 2 Perception Points, Mobile Perception Point (can move up to 6" per Phase), Telescopic: +1, Tracking, Transmit, 1 Continuing Charge lasting 6 Hours (+0), MegaScale (1" = 10,000 km; +1 1/4), Can Be Scaled Down 1" = 1km (+1/4) (131 Active Points); OIF Immobile (-1 1/2), Fixed Perception Point (-1), Sense Affected As More Than One Sense [Sight; Hearing] (-1/2), Concentration (1/2 DCV; -1/4), Probe Must Travel Intervening Space To Target (-1/4)	[1 cc]			
	Communications			Personnel Section	
14	<i>Commo Package</i> : Elemental Control, 76-point powers, (38 Active Points); all slots OIF Bulky (-1), Costs Endurance (-1/2), Custom Modifier (Real Equipment; -1/4)		16	<i>Stateroom</i> : Life Support (Sleeping: Character does not sleep) (3 Active Points); OIF Bulky (-1) Note : (x8 number of items)	0
			6	<i>Sick Bay</i> : (Total: 6 Active Cost, 6 Real Cost) +2 with Paramedics (Real Cost: 4) plus +2 with SS: Medicine (Real Cost: 2)	0
			5	<i>Ships Repair and Maintenance Shops</i> : (Total: 5 Active Cost, 5 Real Cost) +1 with Electronics (Real Cost: 2) plus +1 with Mechanics (Real Cost: 2) plus +1 with SS: Starship Engineering (Real Cost: 1)	0
			0	<i>Ships Cargo Hold</i> : Custom Power	0
				Small Craft	
			0	<i>Modular Cutter and 2 Modules</i> : Custom Power Note : Normally carries fuel scoop and Lab Modules	0
			0	<i>3 Air Rafts</i> : Custom Power	0
				Skills	
			5	<i>Ship's Administrative System</i> : Bureaucratics 14- (15 Active Points); IIF Immobile Fragile (-1 1/2), Costs Endurance (-1/2)	
			5	<i>Ship's Internal Security System</i> : Security Systems 11- (7 Active Points); Costs Endurance (-1/2)	
			2	<i>Ship's Galley</i> : KS: Cooking (4 Active Points); OIF Bulky (-1), Custom Modifier (Real Equipment; -1/4) 11-	
			6	<i>Bioscience Lab</i> : Ship's +2 with Biology, Botany, and Biochemistry (10 Active Points); OIF Immobile (-1 1/2), Crew-Served (2 people; -1/4)	
			8	<i>Electronics Shop</i> : +4 with Electronics	
			20	<i>General Science Lab</i> : +4 with any Science Skill	
			2	<i>Geology Lab</i> : Geology 11-	
			8	<i>Machine Shop</i> : +4 with Mechanics	
			6	<i>Survey Lab</i> : +2 with Cartography, Astronomy, Planetology	

Sourcebook 1: Grand Fleet HERO Edition

Total Powers & Skill Cost: 557

Total Cost: 642

200+ Disadvantages

15 Distinctive Features: Standard Starship (Not
Concealable; Noticed and Recognizable; Detectable By
Commonly-Used Senses)

427 Experience Points

Total Disadvantage Points: 642

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