
THE STARS OUR DECIMATION

VOIDSTRIKER

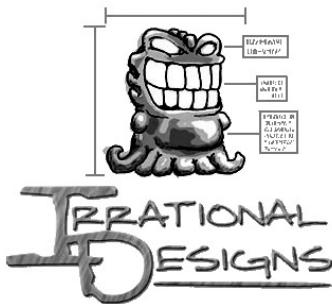
Irrational Designs

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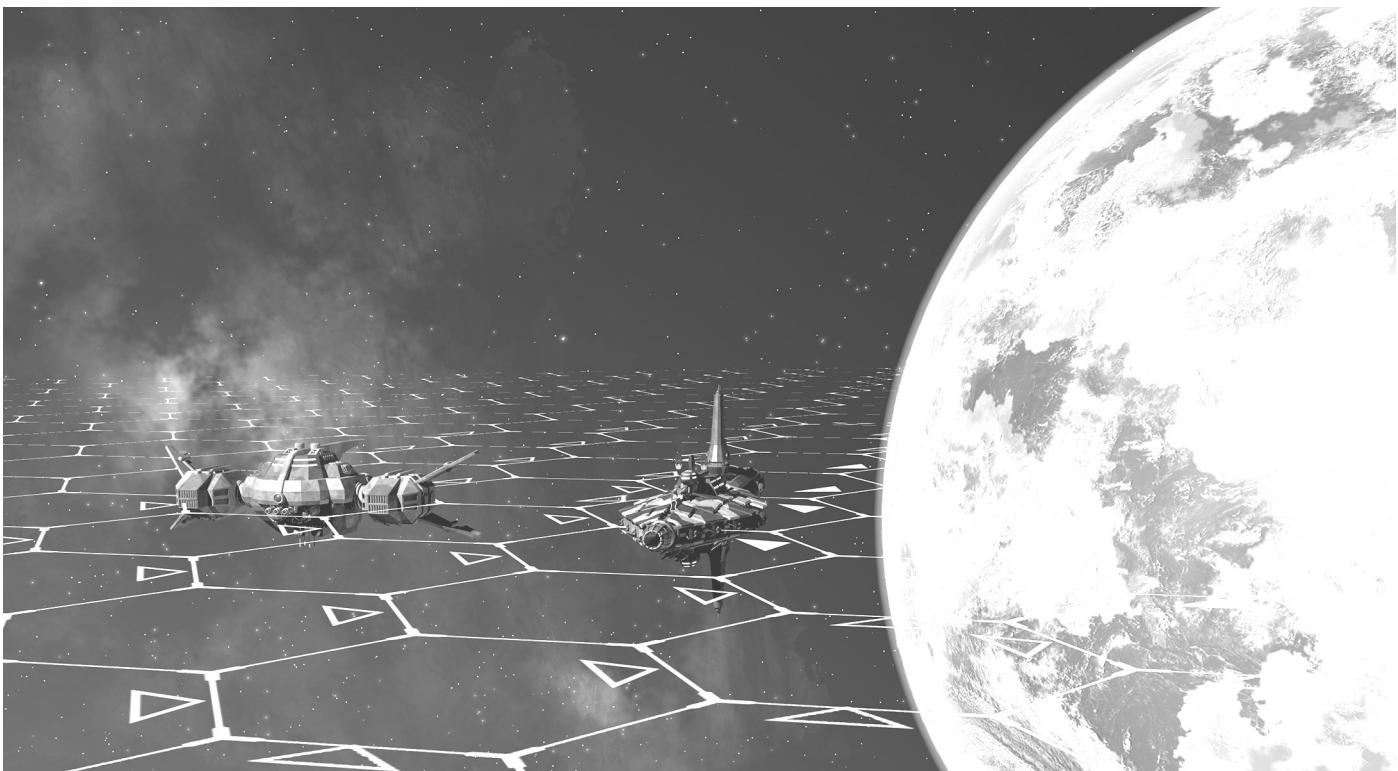
Version 1.2, updated 5/28/2007



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TABLE OF CONTENTS

Rules	3	Escorts	20
Introduction	3	Battleframes	20
Getting Started	3	Battlesuits	21
The Map	3	Hand Weapons	21
The Units	3	Infighting	21
Beginning the Game.....	3	Troop Combat and Boarding Actions	21
Filling out the Record Sheet.....	4	Troop Design	21
Sample Ship Record Sheet	5	Troop Actions	22
Sequence of Play.....	6	Boarding Combat	22
Unit Activation Sequence	6	Open Combat	22
Command Points/EW	6		
Initiative	6		
Actions	6		
 Movement.....	 7		
Displacement	8	Basic Scenarios.....	23
Burns and Reaction Mass	8	Scenario 1: Slugfest	23
Emergency Thrust	8	Scenario 2: Surprise Attack	23
Economy Thrust	8	Scenario 3: Invasion	24
Reaction Mass Purge	9	Scenario 4: Black Ops	24
 Combat	 9	Miniatures and Hexless Play.....	25
Target Locks	9		
Combining Fleet Sensors	9	 Ship Design.....	 26
Electronic Warfare	9	Basic Information	26
Firing Arcs	9	Designing Ships	27
Attacking	10	Allocating Hulls	27
Bombs	10	Hardpoints	27
 Damage Allocation	 10	Thrusters	27
Strafing Weapons	11	Thrust Ratios	28
Beam Weapons	11	Remass and Burns	28
Blast Weapons	11	Jump Drive	29
Antimissile Weapons	11	Structure	29
Structure Damage	11	Armor	30
Damage Table Results	12	Shields	30
Killing a Ship	13	Electronic Warfare	30
Ship Explosion Effects	14	Gadgets	30
Attacks on Small Craft	14	Weapons	31
Small Craft/Rider Launch & Recovery	14	Target Size	31
Short Range Scanners	15	Calculating the Ship's Combat Value	31
Repairs	15	Supply	31
Hyperspace	15	Designing Small Craft	33
 Drift	 16	Weapons	34
Gravity	16	Slugthrowers	34
Landing	16	Laser Weapons	35
 Point Defense Fire	 16	Energy Weapons	35
 Missile Resolution	 17	Ordnance	36
 Record Keeping	 17	Exotic Weapons	37
 Map Features	 18	 Weapon Tables	 38
Dust Clouds	18	 Construction Tables	 40
Asteroids	18	 Combat Reference	 41
Floating Maps	18	 Timeline	 42
Planets	18	 Explored Space	 45
Settlements and Bases	19	 Sample Ships	 48
Close Passes	20	 Ship Record Sheet	 56



Introduction

Voidstriker is a fleet-oriented game of starship combat. Ships and fighters battle in deep space and in the gravity wells of important worlds. The rules feature unique, playable movement with gravity effects around planets, versatile ship design rules, quick and detailed combat resolution, and easy adaptation to use of miniatures or starship models.

Getting Started

To play **Voidstriker**, you'll need this rulebook, a set of counters or starship miniatures, a hexgrid map (we recommend 1" or larger hexes; ranges are short and the fighting can get pretty crowded), several 6- and 10-sided dice, pencil and paper, and a good-sized table. If you're short on table space, an 11" x 17" map with 1/2" hexes has plenty of room for a small to medium-sized skirmish.

The Map

Voidstriker uses a hexgrid map to regulate movement. A map that's 16 x 25 hexes or so will fit most **Voidstriker** combats with room to spare. For those who prefer the more freeform "miniatures" style play, there are rules modifications for hexless play on page 25.

The Units

The combatants in **Voidstriker** are starships, small craft, and bases. Each starship and small craft is represented by a pair of counters; a unit counter, showing the unit's current position, and a destination counter that shows where the unit will be after inertia is applied during the Drift phase. Bases are generally immobile (or don't move enough during a scenario to matter), and only use one counter. Fighters and shuttles are usually organized into squadrons of two, four or eight, and each squadron uses one pair of counters.

Beginning the Game

To start a **Voidstriker** game:

1. Pick a scenario, or make up one of your own.
2. Select or design your starships and fill out record sheets for each one.
3. Set up a hexgrid map, placing any planets, moons and bases required by the scenario.
4. Place all ships in starting positions and have at it!

Actions

Actions are the currency of command in **Voidstriker**. In order to do anything, a ship must perform an action. Unused actions are lost; they cannot be carried over from turn to turn. Each ship has a number of actions it can use per turn. This value is listed on the ship control sheet for each ship.

RULES

Filling out the Record Sheet

For our sample ship, we will be using the versatile Jitsurei class Patrol Cruiser, listed below.

Jitsurei Patrol Cruiser

Off: 1,111, Def: 490, Msc: 448, **CV: 683**

Hull Data

30 Hulls (16 UDST, 5 remass, 6 containment, 2 hangar, 1 magazine). Target Size: +1

Shields: 24 (Regen 2, 6 emitter-4)

Armor: 48 (10/10/10/10/8).

Structure: 30 (10/10/10).

CCCCC CHHRR

RRRMU UAAAA

UUUUU UAAAA

Frame: 8

Troops: 15 Squads.

Cargo: 160, Supply: 27, Endurance: 5 months.

Small Craft: 8, 1 catapult.

Performance

8 Actions.

Normal Thrusters.

Thrust Ratio: 1/5.

Remass: 270 pts., 18 burns.

Quantum II jump engine, 3 medium impellers.

Jump speed: 4. 15 Actions to jump.

Weapons

Spinal Particle Beam x2 (F)

1 Torpedo Tube (6 Medium VLR Torpedoes)

2 Dual Light Pulse Laser Turrets (2 FPS)

3 SRRP-6s (1 F, 1 P, 1 S)

3 Dual Point Defense Gun Turrets (1 FPS, 1 FPA, 1 FSA)

The top section (starting with the ship name) holds simple data about the ship, drawn from the description.

Values that are likely to be altered during play (troops, burns, shields) are given extra space for you to track changes any way you please.

The armor, structure and frame checkbox records are a little more complex. First, let's look at the Jitsurei's armor data again: Armor: 48 (10/10/10/10/8).

The armor and structure listings show the total, and how it is to be split among the armor or structure rows. The Jitsurei's armor is spread out over five rows as 10, 10, 10, 10, and 8. The extra checkboxes are crossed off, filled in, or otherwise marked as unused. Structure is done the same way. The frame value is simply filled out one row at a time, following the letters shown in the description.

To the right of the armor and structure boxes is a box containing a damage results table. The last six slots are for tracking things the ship may or may not have. The

Jitsurei has a hangar deck and catapult, shield generator, spinal mount weapon, and hyperdrive, so those items are written into the blank slots.

Below that is the weapon mounts record. Under Weapons, simply list each weapon type on the ship. Weapons that use ammunition (missile bays, torpedo tubes, and the like) should have the type and amount of ammo listed in the next line. Under Facings, list each weapon mount by its facing, or with a simple circle for seeking weapons. So for the example ship, we have this listed:

Weapons

Spinal Particle Beam x2 (F)

1 Torpedo Tube (6 Medium VLR Torpedoes)

2 Dual Light Pulse Laser Turrets (2 FPS)

3 SRRP-6s (1 F, 1 P, 1 S)

3 Dual Point Defense Gun Turrets (1 FPS, 1 FPA, 1 FSA)

And we fill out the weapons and facings tables like this:

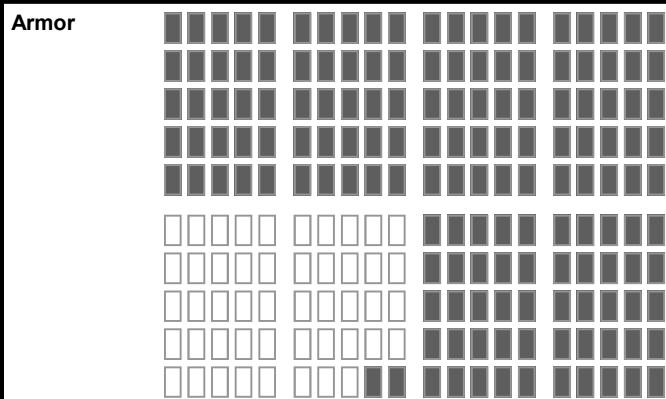
Weapons	Facings
Spinal Particle Beam x2	F
1 Torpedo Tube	0
6 Med. VLR Torpedoes	0 0 0 0 0 0
2 Dual Lt. Pulse Laser Turrets	FPS FPS
3 SRRP-6s	F P S
3 Dual PdG Turrets	FPS FPA FSA

The weapon table is used to list the combat data for each weapon type used by the ship. Simply copy the information off of the master weapons table on pages 38-39.

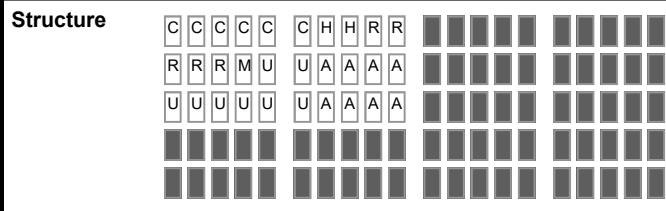
The Notes section is for anything else worth keeping track of. In the Jitsurei's case, the player has written up a fighter record for the ship's four heavy fighters.



Name: Jitsurei	Actions: 8	Thrust: 1/5	Type: Thrusters	Target Size: +1	CV: 683
Class: Patrol Cruiser	Troops: 15		Hangar: 8		Jump Speed: 4
Race: Example Empire	Cargo: 160		Burns: 18		Jump Actions: 15
Shield Generator: Regen 2	Shields: 24 (6 emitter-4)			EW: 0	



Damage Results							
Sensors	No Aim	+1	+2	+3	+4		
Maneuvering Jets	Damaged	Disabled		Destroyed			
Thrusters	Damaged	Disabled		Destroyed			
Crew Decks	Depressurized		Destroyed				
Fire Control	Damaged	Disabled		Destroyed			
Power Plant	Damaged	Disabled		Destroyed			
Hangar Door	Jammed shut		Open to space				
Catapult	Disabled		Destroyed				
Shield Generator	Disabled		Destroyed				
Spinal Mount	Disabled		Destroyed				
Hyperdrive	Disabled		Destroyed				



Weapons	Facings
Spinal Particle Beam x2	F
1 Torpedo Tube	0
6 Med. VLR Torpedoes	0 0 0 0 0 0
2 Dual Lt. Pulse Laser Turrets	FPS FPS
3 SRRP-6s	F P S
3 Dual PdG Turrets	FPS FPA FSA

Notes:

Notes:
4 Sanpuru Heavy Strike Fighters

Weapons: Light turbolaser, 2 SRRP-6s

Actions: 3. TS: -3. Thrust 3/1. 12 burns.

Hits	SRRPs	Burns
00	00	00000 00000 00
00	00	00000 00000 00
00	00	00000 00000 00
00	00	00000 00000 00

RULES

Sequence of Play

A turn consists of seven phases. During each round, the players follow the sequence of play as outlined, one step at a time.

1. Command Points
2. Initiative
3. Actions
4. Drift
5. Gravity
6. Point Defense Fire
7. Missile Resolution
8. Record Keeping

Unit Activation Sequence

Players alternate, activating one unit (ship, small craft squadron, or base) in descending Target Size order. Thus, the biggest units are activated first, and the smallest ones last. This means that TS:+3 ships go before TS:+2, which go before TS:+1 and so on. Units of TS:0 and smaller are all considered to be in the same group. Within a particular target size, units may be activated in any order the player prefers. Command points may be used to activate units out of sequence, allowing a player to use a smaller unit before one of the larger ones go.

Command Points/EW

Command points can be used for several things. A command point can be used to add 1 to your initiative roll. A command point can give one unit one (and only one) extra action for that turn. A command point can be used to activate a unit out of sequence, if that unit has not been activated yet. A command point can provide a defensive -2 to-hit modifier during a single attack. A ship with a flag bridge can trade two actions for one command point. Those command points cannot be used on the ship itself. The command points must be used during the turn they are created in, or they are lost. If a fleet has more than one ship with a flag bridge, then the fleet must be organized into as many groups as there are flag bridges. A flag bridge can only use command points on ships under its direct command.

Initiative

Each player rolls a d6 for initiative, adding command points (if any) to the result. The player who rolls higher may choose one of the following options. If the players tie, reroll, but the winner may only choose one of the first two options.

1. Move one of his units first.
2. Tell the other player to move first
3. Activate one unit for each point he made the roll by.
4. Proceed as per 1 or 2, but he can choose which unit the other player activates on his first move.
5. Let the other player move one ship for each point he won the roll by, but the winning player gets to choose which ships are activated.

6. Reverse the unit activation sequence, then do 1 or 2.

Actions

When a ship is activated, it must use some or all its actions at that time; it cannot "hold" actions until later in the turn. Any unused actions are lost.

Move: Use one or more actions to rotate and/or accelerate the ship. See Movement on the next page for details.

Attack: Fires a weapon or weapon bank at a previously locked target. Attacking costs one action, no matter how many weapons are in the bank. No weapon can be fired more than once per turn except torpedo tubes, which can launch one torpedo per action.

Charge Weapon: Some of the larger or more powerful weapons need to be charged up in order to fire. Charging costs one action to charge one weapon. A charged weapon may fire once, and then must be charged again before firing again. Some weapons (turbolasers, coil guns) have the option to fire normally without a charge, or fire a strafing shot when charged.

Aim: Aiming simulates taking the time to line up a more accurate shot. Aiming costs one action, and gets a +1 to hit on the following attack action. Only one aim per attack is allowed, and the attack must be taken during the same turn. Aim actions are one per weapon bank. If you want to get an aiming bonus for more than one bank of weapons, you'll have to use another aim action for each weapon bank. Aiming does not provide a bonus for seeking weapons.

Target Lock: Assigns fire control a specific target so that weapons may be fired at it. Target lock costs one action per target.

Coordinate Fire Control: Allows a ship to add its own sensor rating to the fleet's overall sensor rating. The command ship does not need to do this. Costs one action.

Electronic Warfare: Allows a ship with EW points to allocate them to stealth, counteracting a target's stealth, or add to to-hit rolls against one ship.

Launch or Recover Small Craft: Allows a hangar-equipped ship to launch one of its carried fighters or shuttles. Launching and recovering each costs one action. The presence of one or more catapults allows four small craft to be launched per catapult per action -thus, if a carrier has two catapults, it can launch eight fighters into combat for one action. Launched small craft may not perform any actions until the next turn.

Launch or Recover Riders: Allows a grapple-equipped ship to launch one or more of its carried rider ships. A ship may launch one, several or all of its rider ships with one action. A ship may recover one rider ship per action. The rider ship must also perform one action, once the conditions for docking are met. Launched rid-

ers may only perform maneuvering actions during the turn they are launched. Ready Troops: Prepare troops for boarding combat; costs 1 action.

Recharge Shields: Costs 1 action for the shield generator to add its power level to the shield emitters. This cannot be used to put more power into the shields than the emitters can hold. A mothership can also use its generator to power the shield emitters of onboard craft.

Activate Point Defense: Readies one or more direct-fire weapons for point defense fire. Those weapons may not be used for attacks. Once activated, point defense weapons stay that way until deactivated. Activating one, some or all point defense weapons costs one action.

Activate Chaff Pod: Readies a chaff pod for point defense. Costs 1 action to activate 1, several, or all chaff pods on a ship. Once on, chaff pods stay ready until used or deactivated.

Activate Antimatter Spread: Readies an antimatter spread for point defense, in the same way as chaff pods.

Activate Hyperdrive: Activating a ship's jump drive needs (total hulls / jump speed, rounded up) consecutive actions. The net result of this is that ships with faster jump speeds enter or exit hyperspace more quickly, and small ships get into or out of hyperspace sooner. Once the ship has spent enough actions to jump, it is immediately removed from the game map and is out of the scenario.

Repair: Perform a repair effort at one action per effort.

Dock: Docking allows two ships to transfer troops, cargo and fuel from one ship to the other. No hangar is necessary. In order to dock, both ships must be in the same hex, and their destination counters must also occupy the same hex. The ships' hex and the destination counters' hex need not be the same hex. One of the docking ships must mark off a burn, and then both ships must spend one action on the docking maneuver. To undock, each spends one action, and the two ships are free to maneuver away. A ship may dock with an orbital station or other immobile target without the target's consent. Only two ships may dock with each other. Any number of ships may dock with an orbital station.

Board Enemy Vessel: Costs 1 action to launch some or all ready squads at the enemy ship.

Support Troops: Costs 1 action to add a +1 to combat rolls for defending squads. See the boarding combat section for details.

Transport: Costs one action to send 50 cargo points or 2 squads from one ship to another with a transporter. Note that transporters only send, they cannot take something from another ship. Transporters cannot function if the target has any shield points up. Transporters are limited to 3 hexes range, and can only compensate for up to 3 hexes of relative velocity. A transporter can only be used once per turn.

Scuttle: Scuttling a ship blows its remass tanks, wipes

the computer's databanks irretrievably clean, and deliberately damages or destroys every other component on the ship. For each scuttle action, inflict 1d6 points of frame damage on the ship.

Movement

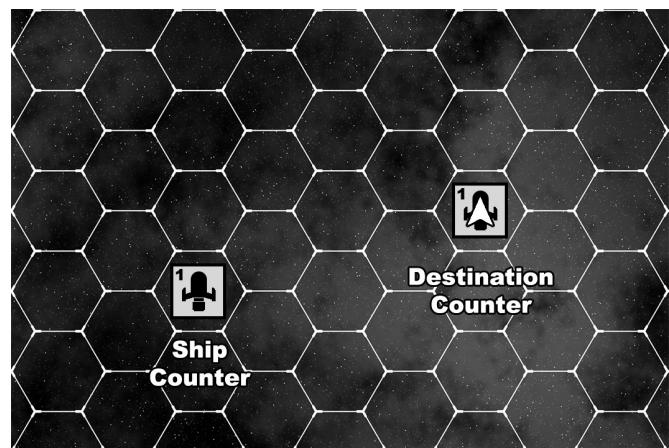
Movement in *Voidstriker* is a two-part process; acceleration in the Actions phase of the current turn affects movement in the Drift Phase of that turn. Each ship may use one or more actions to perform maneuvers, affecting the ship's current facing, course and speed.

All ships have two counters: The ship counter, and its destination counter. The distance between the ship counter and its destination counter is the ship's current course and speed. The ship counter determines the ship's current position and current facing, and is used to determine ranges for direct-fire weapons. The ship's destination counter determines the ship's current course and speed, the results of acceleration, and is used to determine ranges and firing arcs for projectile and seeker weaponry.

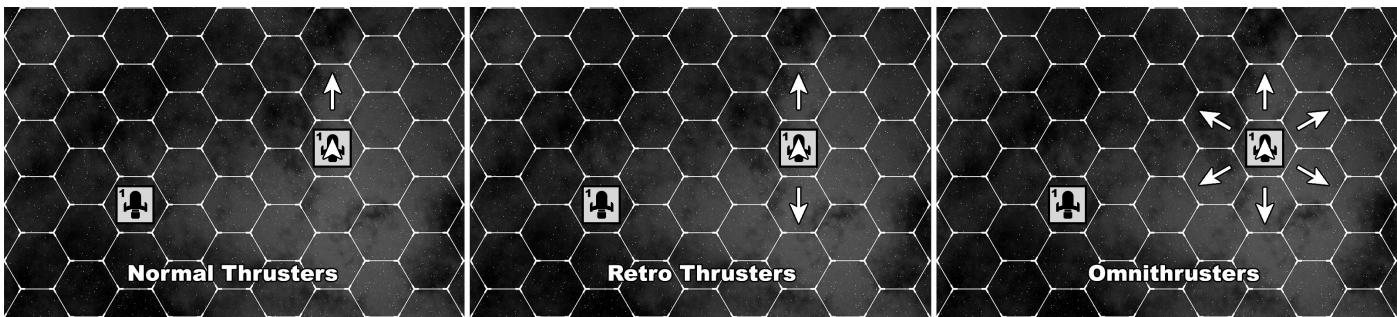
All ships may rotate up to three hexsides before accelerating. This rotation is included in the first action devoted to acceleration (in other words, it's free).

A ship uses actions to accelerate. Depending on the size of the ship, spending an action produces a certain amount of thrust points. Small ships usually produce more points than larger ones. A thrust point can be used to move the ship's destination counter one hex in the direction the ship is pointing.

In the diagrams above, ship number 1 is facing upward. The ship counter is on the left and its destination counter is to the right. The ship currently has a speed of four hexes per turn — three to the right-upward direction, and one to the right-downward direction. If the ship has normal thrusters and applies thrust, he may move his destination counter one hex upward for every thrust point generated. If the ship has retrothrusters, it may move the destination counter one hex forwards or backwards per thrust point. If the ship has omnithrusters, it may move the destination counter one hex in any direc-



RULES



tion per thrust point.

Fighters and shuttles are small and agile enough that they effectively have no facing, and can accelerate in any direction they desire.

Ships with other ships held in grapples may not maneuver in combat. The grapples themselves are too fragile for combat maneuvers. However, ships carrying small craft in grapples can maneuver normally.

Displacement

For every full two hexes of acceleration, move the ship and its destination counter one hex in the direction of acceleration. This only applies to continuous acceleration; if a ship accelerates for one hex, does some other action and then accelerates for one more hex, it does not gain any displacement. On the other hand, if a ship accelerates for two hexes, does some other action and then accelerates for two hexes again, each acceleration would also give the ship one hex of displacement.

Burns and Reaction Mass

For every hex of acceleration applied, check off one burn. If the ship runs out of burns, its reaction mass (or remass for short) has run out, and it can no longer accelerate. Ships with reactionless drives don't use remass, and do not keep track of burns.

Emergency Thrust

A ship using emergency thrust can use the next lower actions to thrust ratio, but uses two burns' worth of

remass for each hex of acceleration. Thus, a ship that normally uses up three actions per hex of acceleration can use the next lower ratio and get one hex of acceleration for two actions, marking off two burns for every hex of acceleration. Ships equipped with reactionless drives cannot use emergency thrust.

Economy Thrust

A ship using economy thrust uses twice as many actions per hex of acceleration, but only uses half a burn of reaction mass. This is the mode many smaller military ships normally use outside of combat. Economy thrust can also be useful to set up an attack run while both sides are still out of range of one another. Ships with reactionless drives cannot use economy thrust. Small craft can use economy thrust.

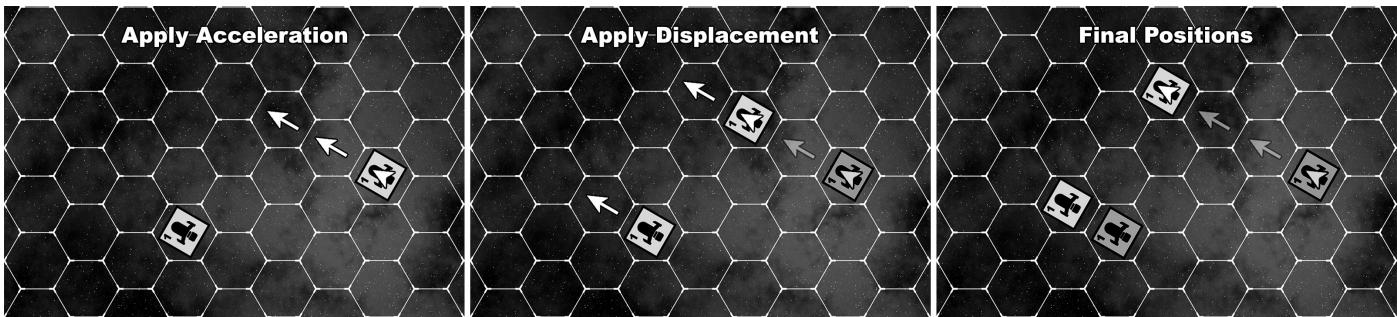
Reaction Mass Purge

The purge is a defensive act that costs one burn and one action. For the rest of the turn, that ship is obscured by a large misty cloud of ice crystals, and is at -1 to hit. Multiple purges are allowed. The cloud disperses after one turn. If the ship purges then accelerates, the ship moves out of the remass cloud and loses its protection.

Combat

Target Locks

A target lock is necessary to accurately fire on an enemy ship. Each ship may try for as many target locks as it desires. Target lock costs one action per target. Locking onto a group of small craft, no matter how many are



In this diagram, Ship 1 accelerates for two hexes of thrust. The first panel shows the desired acceleration. The second panel shows that the drift counter has been moved forward two hexes. The third panel shows that both the ship and its destination counter are moved forward one additional hex due to displacement. It may be helpful to think of acceleration as changing where you will be soon, and displacement changing where you are right now.

in that group, requires one action. No target lock is needed to fire point defense weapons (or other weapons in the point defense roll) at incoming warheads. Target locks, once achieved, are available to all ships in that fleet. A target lock is automatically successful if the ship attempting the lock is within $2 + \text{FCS}$ rating hexes away from the target ship. If the target ship is outside that range, then the target number for achieving a lock on is 7 or less on 1d6, plus the modifiers below.

Modifiers

-1 for every 2 full hexes of range to the target ship.

+ Onboard FC Sensor rating, if there is one.

+ Enemy Target Size modifier

- Enemy Stealth points.

+2 if the enemy is using reaction drives

+1 for multiple enemies in the same hex.

Nearby ship using Reactionless Drive: -1 in same hex.

Nearby ship using Reaction Drive: -2 in same hex, -1 in adjacent hexes.

Combining Fleet Sensors

If more than one ship in a fleet has a fire control sensor, they can combine their information to provide an even better targeting solution. Every ship with a FC Sensor on board can contribute to the fleet bonus, so long as it is at least 4 hexes away from every other ship with a FC Sensor. If there are two or more ships within 4 hexes of each other, the larger FC Sensor provides its points, and the other's points are lost until the two ships separate. Any ship in the fleet attempting a lockon may apply this bonus to its lockon roll.

Electronic Warfare

A ship with an EW rating greater than 0 may allocate its EW points to three things:

1. Generate Stealth points.

2. Counteract an enemy unit's Stealth points

3. Trade 2 points for a free Aim action.

Thus, a ship with EW: 4 could use its 4 points to generate 2 stealth points and one free Aim action.

Firing Arcs

This diagram is used to designate weapon firing angles for all ships in the game. The forward and aft arcs are 60 degrees wide (or one hexside), the port and starboard arcs are 120 degrees wide (or two hexsides).

Fixed weapons are those weapons with only one arc.

Turret weapons are capable of firing through two or more adjacent arcs. A weapon with a 360° firing arc can fire in any direction without restrictions.

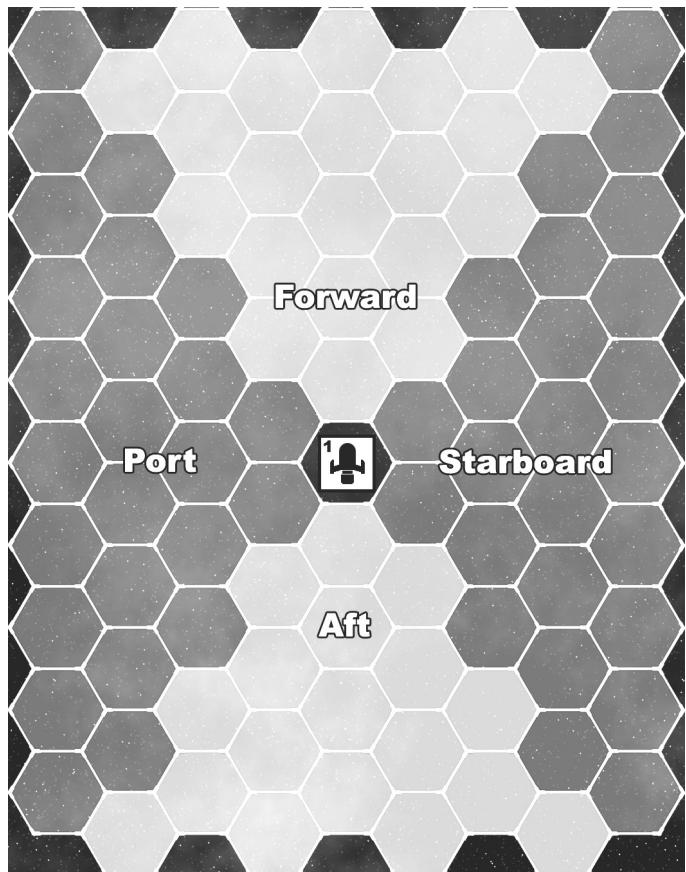
Projectile weapons (rocket packs, rail cannon, fusion cannon) track firing arcs from the ship's destination counter, and are aimed at the target's destination counter. Look at the diagram below, and imagine a destination counter instead of the ship counter.

Seeking Weapons (swarmer missiles, tube-launched

missiles and torpedoes, and fusion torpedoes) aren't considered to have firing arcs, as they maneuver to intercept their target. Seeking weapons may be fired at any target whose destination counter is in range of the firing ship's destination counter. Fighters and other armed small craft are agile enough that they effectively have no facing, and can fire their weapons in any direction desired.

Attacking

Get the bad guy player's attention, and tell him, "My [Good Guy Ship] is attacking your [Bad Guy Ship] with his [Weapons]. Verify the range. Check the appropriate line of the weapon table and add any modifiers to the to -hit number for that range. Now, expend the required actions and roll 1d10 per attack. If the roll is equal to or less than the target number, you hit. If the roll is higher than the target number or a natural 10, it's a miss. When attacking with projectile or seeking weapons, place an appropriate marking counter in the same hex as the target's destination counter, and note the counter's ID, target ID, range from attacker's destination counter to target's destination counter, and weapon type on a piece of scratch paper. Use one counter per salvo. For example, a TDF ship fires an LRS-40 at a Tharsi cruiser. Their destination counters are four hexes apart. The TDF player places the swarmer counter in the Tharsi's destination hex, and notes the counter's ID





number, the Tharsi ship's ID, and the range of 4.

Bombs

Bombs are unpowered ordnance, and use two counters, just like ships do. When dropped, they assume the same course and speed as the ship that dropped them. Place the bomb's counter in the launching ship's counter, and the bomb's destination counter with the ship's destination counter. Bombs cannot maneuver, and will only change course as a result of gravity. Bombs impact their targets or are detonated during the Missile Resolution phase.

To-Hit Modifiers

Target Thrusting: -1 per hex of displacement. *

Target Size

Warhead*** -3

* Seeking weapons ignore this modifier.

*** Dedicated point defense weapons ignore this modifier.

Damage Allocation

Damage is applied immediately following a successful attack. If the ship has shields, they are reduced by one for each point of damage. Once the shields are gone, excess damage goes on to the ship's armor and/or structure. Armor protects the internal structure of a ship, but not completely.

In general, damage from attacks goes top to bottom, left to right, and only affects armor and structure. Frame damage only happens in special circumstances so when you get to the lowest structure row, start over in the next available column. When attacking a ship with grappled riders onboard, there is a 2 in 6 chance that a randomly chosen rider ship will take the hit instead of the mothership.

Example: The Jitsurei takes a spinal railgun hit for 12 points of damage. Since the Jitsurei is undamaged, the attack starts in the first column, and does 5 points to armor, 3 points to structure, and another 4 points to armor in the second column.

Strafing Weapons

Strafing weapons fire multiple shots at the same target. When a strafing weapon fires, roll to hit normally. If the roll is made, the weapon will inflict from one to three hits, each doing the weapon's normal damage. If you made your roll by 0 or 1, you did one hit. If you made your roll by 2, you did two hits, and by 3 or better, three hits.

Example: A medium chain gun needs, after all modifiers are taken into account, a 7 or less to hit the target ship. The attacker gets lucky and rolls a 4, hitting the Jitsurei for 3 hits at short range for 2 points each. The chain gun damage is be applied to the first three un-damaged columns, like this:

Beam Weapons

Beam weapons also do variable damage to the target but do it as a single attack. Beam weapon attacks have no upper limit to the number of hits they can inflict. If the attack roll is made, the weapon does one extra hit's worth of damage for each point the roll was made by. If the roll was made by 0 or 1, the weapon does normal damage. If the roll is made by 2, the weapon does double damage, by 3 does triple damage, by 4 does quad-

Armor	C	C	C	C	C	H	H	R	R
Structure	R	R	R	M	U	U	A	A	A
	U	U	U	U	U	U	A	A	A

tuple damage, and so on. Note that a very good roll can result in considerable pain for the target.

Example: The Jitsurei gets hit hard by a heavy beam laser at medium range. The attacker makes the roll by 5, and does 4×5 or 20 damage, applied as a single hit.

Blast Weapons

Blast weapons do extra damage like strafing weapons, except that they can do more than three discrete hits. If you made your roll by 0 or 1, you did one hit. If you made your roll by 2, you did two hits, by 3, three hits, by 4, four hits, and so on.

Example: The Jitsurei is nailed by a medium long-range torpedo. The attacker made the roll by 4, so it does four hits of 10 damage each. Since the Jitsurei's armor and structure diagram is only 8 hits deep, each

Armor																												
Structure	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>H</td><td>H</td><td>R</td><td>R</td></tr> <tr><td>R</td><td>R</td><td>R</td><td>M</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td></tr> <tr><td>U</td><td>U</td><td>U</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td><td>A</td></tr> </table>	C	C	C	C	C	H	H	R	R	R	R	R	M	U	U	A	A	A	U	U	U	U	U	A	A	A	A
C	C	C	C	C	H	H	R	R																				
R	R	R	M	U	U	A	A	A																				
U	U	U	U	U	A	A	A	A																				

hit wraps to the next column. Note: The "widowed" sections of armor and structure stay, and can be damaged by further attacks.

Antimissile Weapons

Antimissile weapons are dedicated to point defense work. They are generally strong enough to shoot down missiles, railgun shells, coilgun shells, small craft, and bombs, but cannot damage ships.

Structure Damage

Whenever a structure block is hit, mark it off, and then consult the following rules to find the effects of that hit.

Other (O): No effect.

Containment (C): Roll 1d10, and mark off that many cargo points.

Armor																												
Structure	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>H</td><td>H</td><td>R</td><td>R</td></tr> <tr><td>R</td><td>R</td><td>R</td><td>M</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td></tr> <tr><td>U</td><td>U</td><td>U</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td><td>A</td></tr> </table>	C	C	C	C	C	H	H	R	R	R	R	R	M	U	U	A	A	A	U	U	U	U	U	A	A	A	A
C	C	C	C	C	H	H	R	R																				
R	R	R	M	U	U	A	A	A																				
U	U	U	U	U	A	A	A	A																				

When the last (C) block is marked off, the ship's cargo bay is permanently open to space, and any maneuver or acceleration will cause 1d10 cargo points to be lost to space until the ship either runs out of cargo, or one (C) block is repaired (hard repair).

Remass (R): Roll 1d6-3 and mark off that many burns. When the last (R) block is marked off, the ship's reaction mass tanks are leaking, and 1d6 burns are lost until the ship either runs out of remass, or one (R) block is repaired (hard repair).

Magazine (M): Each (M) hit jams the loading mechanism (easy repair) and 1d6-1 shells (missiles, torpedoes, or bombs) are lost to space. When the last (M) block is marked off, the magazine's contents are lost to

Armor																												
Structure	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>C</td><td>C</td><td>C</td><td>C</td><td>C</td><td>H</td><td>H</td><td>R</td><td>R</td></tr> <tr><td>R</td><td>R</td><td>R</td><td>M</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td></tr> <tr><td>U</td><td>U</td><td>U</td><td>U</td><td>U</td><td>A</td><td>A</td><td>A</td><td>A</td></tr> </table>	C	C	C	C	C	H	H	R	R	R	R	R	M	U	U	A	A	A	U	U	U	U	U	A	A	A	A
C	C	C	C	C	H	H	R	R																				
R	R	R	M	U	U	A	A	A																				
U	U	U	U	U	A	A	A	A																				

space.

System (S): Each (S) hit has a half chance of disabling the ship's long range or short range scanner (average repair). If the ship's long range or short range scanner is disabled when hit, it is destroyed.

Hangar (H): Roll 1d6 on the Hangar table. When the last (H) block is marked off, the ship's hangar is wrecked, and the ship may no longer launch or recover small craft. Repairing an (H) block is a hard repair.

Hangar Table:

1. Hangar Door
2. Small Craft Bay
3. Small Craft Bay
4. Small Craft Bay
5. 1d6 Small Craft Bays
6. Catapult

UDST (U): Roll 1d6 on the Surface Features table, adding +2 if the attack comes from the aft arc. If the system rolled doesn't exist (all of that item are destroyed, or the item was never on the ship in the first place), then roll on the Internal Damage table. If the Internal Damage roll brings up an item that is already destroyed or didn't exist, roll again.

Surface Features:

1. Turret weapon
2. Sensors



- 3. Turret Weapon
- 4. Maneuvering Jets
- 5. Solar Panel
- 6. Shield Emitter
- 7. Hyperdrive Impeller
- 8. Turret Weapon

Internal Damage:

- 1. Fixed Weapon
- 2. Transporter
- 3. Thruster
- 4. Crew Deck
- 5. Troops
- 6. Fixed Weapon

Action (A): For each (A) block hit, remove one action from the ship. If more than one (A) block is damaged by the attack, roll once on the Core Hit table below. Repairing the (A) block (hard repair) will restore the action to the ship.

Core Damage:

- 1. Fire Control
- 2. Flag Bridge
- 3. Power Plant
- 4. Spinal Mount
- 5. Hyperdrive
- 6. Shield Generator

Damage Table Results

Hangar Door: The ship's hangar door is jammed shut. No small craft may be launched or recovered until it is repaired (average repair). If hit again while jammed shut, the hangar door is blown off the ship, and small craft may be launched and recovered normally.

Small Craft Bay: A small craft bay is damaged (average), reducing the ship's hangar capacity by 1. For the 1d6 Small Craft Bays result, roll 1d6 and damage that many bays. If all the bays are damaged, further Small Craft Bay results are ignored.

Catapult: The ship's catapult is disabled and may not be used to launch or recover small craft (hard repair). If a disabled catapult is disabled again, it is destroyed.

Turret Weapon: A randomly chosen turret weapon (any weapon that can fire into more than one arc) or

bank of turreted weapons that is also capable of hitting the firing ship is disabled, and cannot be fired until repaired (hard repair). If a disabled turret weapon is hit again, it is destroyed (no repair).

Sensors: No Aim actions are allowed until the sensors are repaired (average repair). On a second hit, the ship's attack rolls suffer a +1 modifier, that goes up 1 for each additional sensor hit (easy repair for each point).

Maneuvering Jets: The ship's maneuvering jets are damaged (average repair). The ship may now only change facing two hexsides. Changing a third hexside requires an action. If damaged maneuvering jets take a hit, they are disabled (hard repair). The ship can only change facing one hexside. Changing to a second hexside requires one action; changing to a third requires two. If disabled maneuvering jets are hit, the maneuvering jets are destroyed, and the ship must use one action per hexside to change to any facing.

Solar Panel: One solar panel is destroyed. The effect of this on the ship's endurance can be worked out after the combat is over.

Shield Emitter: One shield emitter is destroyed. Reduce the ship's maximum shield rating by the emitter's rating.

Hyperdrive Impeller: One random hyperdrive impeller is destroyed. Recalculate the ship's hyperdrive speed and jump actions during the record keeping phase.

Fixed Weapon: A randomly chosen fixed weapon (any weapon with a single arc of fire, or any seeking weapon, but not a spinal mount weapon) or weapon bank is disabled (average repair). If it is already disabled, then it is destroyed.

Transporter: One transporter is disabled (average repair). If a disabled transporter is disabled again, it is destroyed.

Thruster: The thrusters are damaged. 1 extra action per thrust point is needed until repaired (average repair). If a damaged thruster is hit again, it is disabled (hard repair). If a disabled thruster is hit, it is destroyed.

Crew Deck: Crew decks are depressurized. All repair efforts are one level harder to perform until the deck is patched (average repair). If damaged crew decks are hit, they are destroyed. All repair attempts are 2 levels harder to perform.

Troops: 1d10 squads are killed.

Fire Control: All non-seeking weapon attack rolls are made as if the target was one range band further away (medium range becomes long, long becomes very long, extreme becomes out of range, and so on). No aim actions are allowed (easy repair). If a damaged fire control is hit, it is disabled, and no firing can be done until it is repaired (hard repair). If a disabled fire control is hit, it is destroyed.

Flag Bridge: The Flag Bridge is disabled. No command points may be generated until it is repaired (average repair). If a disabled flag bridge is hit, it is destroyed. There is a 3 in 6 chance of the admiral/fleet commander being killed.

Power Plant: Energy weapons and hyperdrives lose any current charges, and require twice as many actions to recharge (average repair). If a damaged power plant is hit, it is disabled. No charge actions are possible, and no weapons other than missiles, torpedoes or rockets may be fired, and no acceleration is possible (hard repair). If a disabled power plant is hit, it is destroyed. Nothing can be charged, no weapons may fire, and no maneuvering or acceleration is possible. Roll a die; on an even result, the ship explodes. If the ship is a rider attached to a mothership, the explosion does 1d6 times the original structure value of the rider to the mothership.

Spinal Mount: The ship's spinal mount is disabled (hard repair). If a disabled spinal mount is hit, it is destroyed. If the ship has no spinal mount weapon, treat as a really nasty weapon hit, and disable 1d6 randomly chosen weapons.

Hyperdrive: The ship's hyperdrive is disabled. The ship cannot enter hyperspace until repaired (very hard repair). If a disabled hyperdrive is hit, the hyperdrive is destroyed.

Shield Generator: The shield generator is disabled. Shields cannot be regenerated until repaired (hard repair). If a disabled shield generator is hit, it is destroyed.

Killing a Ship

Doing enough damage to a ship to bring it down to 0 structure disables the ship. The only actions it can do

are defensive boarding actions, repairs, and launch/recovery of small craft. After the ship's structure is reduced to 0 hits, all damage goes to the ship's frame. A disabled ship is not completely destroyed until its frame is reduced to 0 hits. Once that's done, the ship is shattered. There is a 3 in 6 chance of an explosion at this point.

Ship Explosion Effects

Exploding ships put out a lot of energy and wreak havoc on nearby electronics. In game terms, this means messing with sensors and targeting systems. Nearby ships lose target locks; unfortunate ships that are too close suffer sensor damage. When a ship with up to 10 original actions is destroyed, all ships within 3 hexes lose their target locks, and all ships within 1 hex range suffer a light sensor critical. When a ship with more than 10 actions is destroyed, all ships within 5 hexes lose their target locks, all ships within 2 hexes suffer a light sensor critical, and any ships in the same hex suffer a medium sensor critical. In addition to the above effects, explosions may break sensor locks that pass through or near the explosion itself. The explosion's radius in hexes is equal to the ship's target size modifier. Modifiers of 0 or less are treated as no effect. If the line between a ship and its locked target passes through the explosion, that sensor lock is lost. In a fleet, the explosion must obscure the target from all the ships in that fleet to have any effect.

Attacks on Small Craft

Fighters and shuttles are fragile things; nearly any damage will take one out of combat. Any successful attack on a fighter group hits one fighter in that group. Any successful swarmer attack on a fighter group hits one fighter for every swarmer that hit. Any successful strafing or beam laser attack on a fighter squadron hits one fighter for every hit (note: NOT for every point of damage!). If a small craft takes enough damage to equal or exceed its hits, it is destroyed. Small craft do not suffer critical hits; they work at full capacity until destroyed. Here is a sample fighter squadron record sheet:

Sanpuru Heavy Fighters

Structure

C	C	C	C	C	H	H	R
R	R	M	U	U	A	A	A
U	U	U	U	U	A	A	A

When the Jitsurei took that torpedo hit, quite a bit of structural damage ensued. Three Containment hits, one hangar, two remass, four UDST, and two Action blocks were hit in this attack. The Jitsurei's player starts rolling. First he rolls 3d10 to cover the 3 containment hulls, getting 2, 8, and 7 for a total of 17 cargo points lost. Then, he rolls 1d6 on the hangar table, and gets a 3, losing a single small craft bay. Then, 2d6-6 for the two remass hulls getting a 4 (-3 = 1) and a 1(-3 = 0) for a mere one burn lost to space. Four rolls on the Surface Features table take out two turrets, a solar panel, and a shield emitter. Since the Jitsurei never had solar panels, that one is rerolled on the Internal Damage table, resulting in a thruster hit. Finally, the two action block hits are dealt with. The Jitsurei's actions go from 8 to 6, and since two (A) blocks were damaged in the same hit, one roll on the Core Damage table puts the smack on the Jitsurei's power plant, disabling it. It's quite likely that the Jitsurei's captain will be ordering a lot of repair actions next turn...

RULES

Weapons: light turbolaser, 2 SRRP-6s

Actions: 3, **TS:** -2, **Thrust:** 3/1

Hits SRRP Burns

00	0	0	00000	00000	00
00	0	0	00000	00000	00
00	0	0	00000	00000	00
00	0	0	00000	00000	00

Each fighter record has 2 hits, 2 SRRP-6s, and 12 burns, each with a convenient circle to check off when damaged, fired or burned. After the squadron is attacked with an LRS-10 that connects with 6 missiles, the squadron looks like this:

Hits SRRP Burns

XX	0	0	00000	00000	00
XX	0	0	00000	00000	00
XO	0	0	00000	00000	00
XO	0	0	00000	00000	00

The first four missiles each hit one fighter. The last two missiles start over at the top, and hit the first two fighters again, destroying them. The squadron is now down to two fighters.

If the squadron had been attacked by a pulse laser at point blank range that hits 3 times for 4 hits each, the squadron would look like this:

Hits SRRP Burns

XX	0	0	00000	00000	00
XX	0	0	00000	00000	00
XX	0	0	00000	00000	00
OO	0	0	00000	00000	00

Each of the first three fighters effectively took 4 hits worth of damage from the pulse laser, but only needed two to be destroyed. The extra two points from each laser hit blew through the fighters and were lost.

Small Craft/Rider Launch & Recovery

A fighter squadron is a group of fighters (usually 2, 4 or 8 fighters, though players can organize squadrons any way they like) that are moved as a single entity on the map. Each fighter in the squadron must have the same thrust rating and remass load. Shuttles and assault

shuttles may operate in groups, but often fly independently. Riders are full-sized ships held to the mothership's hull by external grapples. Launching a fighter group costs one action per fighter. The mothership spends this action. Small craft cannot perform actions until the next turn. If the ship has one or more catapults, it may launch up to four small craft per catapult per action. Place the fighter group's counters in the same hexes as the mothership. Launching shuttles and assault shuttles costs one action per shuttle. Small craft launched from regular launch bays have the same course and speed as their motherships. Small craft launched from catapults have the same course and speed, but get a 1-hex forward acceleration for free. To recover a shuttle, fighter group, or rider, it must be adjacent to the mothership with the same course and speed (i.e., its ship and destination counters in the same hexes as the mothership's ship and destination counters). Then the mothership spends one action per fighter, shuttle or rider, and the subordinate craft is brought on board. Refueling onboard fighters requires one action per fighter, and uses a trivial amount of the carrier's fuel. Refueling rider ships takes one action per ship, and transfers fuel points on a one for one basis.

Short Range Scanners

Short range scanners collect data. Each short range scanner may, for one action, ask one of these questions from one target within 6 hexes range:

- How many weapons are charged?
- How many shield points do you have up?
- How much structure do you have left?

If the ship has multiple short range sensors, it can ask one question per scanner.

Repairs

In combat, repairs are the quick fix type; replacing damaged circuit boards, rerouting power supplies, and other jury-rigs. Given that they are often performed during moments of great stress, they don't always get done right. The catastrophic damage results are permanent; they can only be repaired at a naval shipyard or drydock. There are four basic repair efforts: Easy, average, hard, and very hard. The damage tables above list the level of repair effort when a particular damage event is fixable. Each type of repair effort costs 1 action to perform. To judge the success or failure of the repair effort, roll a d10 and check below:

- Easy repair: 7 or less
- Average repair: 5 or less
- Hard repair 4 or less
- Very Hard repair 2 or less

If the player rolls at or below the value for the repair level, the repair is successful, and the damage is undone. If the repair roll is blown, try again with another action. Each repair attempt burns 1 cargo point, even if it wasn't successful. Subtract 1 from the roll if the ship is





not maneuvering or accelerating during that turn. Repairing armor or frame damage can only be done at a friendly shipyard between scenarios.

Hyperspace

A ship equipped with a jump drive may enter or leave hyperspace during the Actions phase.

To jump into hyperspace, place a hyperspace marker on the ship. The ship must then use (total hulls / jump speed) actions, rounded up, to perform the jump and leave normal space. If necessary, the ship can spend those actions over multiple turns, but will have the hyperspace marker until it finally spends enough actions and can jump. When the ship jumps, it's out of combat. Remove the ship's counters from the map. Leave the hyperspace counter behind. Once the ship is in hyperspace, it cannot return to the map during the scenario.

To jump into normal space, the ship picks an entry hex. If there is a jump beacon in that hex, then place a hyperspace marker in an adjacent hex of the player's choosing. If there is no jump beacon, then roll 1d6 for direction and 1d10 for distance, and move the hyperspace to the resulting hex. The ship must then use (total hulls / (jump speed/2)) actions, rounded up, to jump into normal space. If necessary, the ship can spend those actions over multiple turns. Once the ship has spent enough actions to jump in, remove the hyperspace marker and place the ship counter in its place, and place the ship's destination counter anywhere up to 2 hexes away from the ship. The jump drive cannot be activated if the ship or target hex is within four diameters of a planet, or 4 hexes of a moon or asteroid counter, or in a dust counter. If an incoming ship's hyperspace marker is displaced into this region, roll again for distance (1d6) and direction (1d6), but this time, roll from the center of the planet, moon or asteroid zone or dust cloud. If the resulting hex is part of a planet, moon, asteroid zone or dust cloud, then the ship is destroyed, otherwise, the ship comes out in the new hex, and the ship's hyperdrive is disabled.

Drift

At the beginning of each turn's Drift phase, each ship's counter is moved to the same hex as its destination counter, and then its destination counter is moved the same amount in the same direction. For example, if a ship's destination counter is 1 hex to the lower right and 2 hexes to the upper right of its ship counter, then both coun-

ters will be moved 1 hex to the lower right and 2 hexes to the upper right in the next Drift phase. A nonmoving ship's destination counter will be in the same hex as the ship counter. If, after drifting, a ship is in the gravity well of a planet or moon, the effects of gravity would be resolved, possibly moving the ship's destination counter again. See below for details.

Players may find it useful to mark the ship's original position with a spare counter or die when moving the ship's counters.

Discard any projectile attack counters that are not in the same hex as their target's ship counter. Seeking weapons may still intercept, if they have enough remaining range to do so. Check the range at which they were first fired, and subtract this from their maximum range. The resulting number is how many hexes the seeker can move to intercept the target. Add the hexes moved to the seeker's effective range when the attack is resolved.

Gravity

If the game is being played on one of the planet maps, then any ship that's in a hex with an hollow or filled in pointer is in the planet's gravity well. To simulate a gravity well, assume that every even-numbered turn spent with the ship's counter within a half gravity zone (hollow pointers) results in its destination counter moving one hex indicated by the pointer under the ship counter. When the ship is within the full gravity zone (solid pointers), move the destination counter one hex in the marked direction every turn; in the half gravity zone, then move the destination counter one hex in every even-numbered turn. If there are two possible directions to move the destination counter into (i.e., two pointers in the ship's hex), the player may choose either one. If the pointer is half-filled, the player may choose to treat it as a half or full gravity hex at his discretion. If there are projectile or seeker counters on the ship's destination counter, move them as well.

Landing

If a ship can bring itself to a halt (speed 0) in a surface hex, the ship may land, and it sets down during the drift phase. If the ship intersects the planet at any higher speed, it is destroyed.

If the scenario dictates that the planet has an atmosphere, then streamlined ships or ships with shields up may safely enter the planet's surface hexes at any speed up to 2 hexes per turn, but must do so facing the general direction they're traveling. Once in atmosphere, drag forces the ship's destination counter one hex closer to the ship per turn, just after drifting. If there are two choices for the destination counter to move to, the player chooses which one. Unstreamlined, unshielded ships entering atmosphere at any speed are destroyed. A landed ship may take off simply by accelerating away from the planet. The ship's facing is aimed straight away from the planet's surface (i.e., up). Note that a ship will need to generate at least 2 hexes of acceleration per turn to take off from a medium or large planet.

Point Defense Fire

First, the target and any other ship within 1 hex of it allocate point defense or other turreted guns to antimissile fire. Each gun mount or turret may only be used on one salvo during a turn. Roll to hit for each weapon (keep in mind that dedicated PD weapons ignore the warhead's -3 to-hit modifier); each successful hit destroys a warhead. Strafing weapons can destroy up to 3 warheads, beam weapons even more.

Not all seeking and projectile weapons are vulnerable to point defense. Railgun and coilgun shells, missiles, torpedoes, rockets and bombs are destroyed on any successful hit; energy warheads ignore point defense, unless they are specifically described as vulnerable to point defense.

Antimatter spreads and chaff pods are fired during this

phase.

Antimatter Spread: When fired, the antimatter spread spews out an expanding cloud of antihydrogen into the firing arc it's facing. Anything in that firing arc that's also within one hex range has a 4 in 6 chance of taking 1 point of damage per spread. When fired at incoming warheads, the AmS reduces the incoming warheads to hit by 4. Firing additional spreads results in extra -1 penalties, so firing two AmS' makes for a -5, firing three makes for a -6, and so on. Antimatter spreads affect all warheads in its arc, even if they are targeting another ship in that hex.

Chaff Pod: When fired, the chaff pod causes all seekers targeted on the firing ship to suffer a -3 to-hit modifier. Like antimatter spreads, firing multiple chaff pods results in a cumulative penalty. Effects last until the end of the turn.

Firing at Small Craft: Any activated Pd weapons that haven't already fired at incoming ordnance may fire at enemy small craft within range. This does not require any extra actions.

Missile Resolution

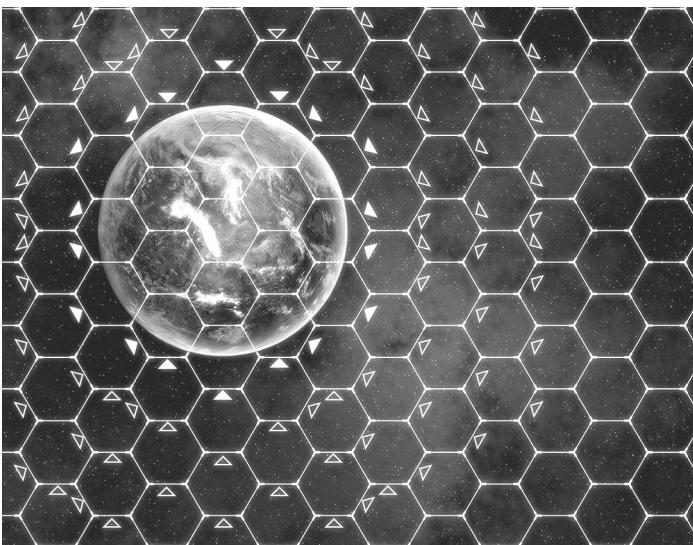
Torpedoes, swarms, rockets, fusion cannons, railgun shells, coilgun shells, and any other seeker or projectile weapons fired earlier during this turn hit or miss now. Bombs hit their targets or are detonated now. Roll to hit for each remaining salvo, subtracting antimatter spread or chaff pod modifiers if appropriate. Swarmers and rocket packs are handled a little differently. The to-hit roll determines how many of the rockets or swarms actually hit the target. Roll 1d10, add the to-hit modifier from the weapons table for that range and any other appropriate modifiers (target size, chaff, etc.), and consult the appropriate column on the *Swarmer/Rocket Pack Hits Table*, then subtract any warheads destroyed by point defense fire. Thus, if an LRS-40 is fired at a ship that shoots down 7 of the incoming missiles, the attacker will roll 1d10 on the 40 column, and subtract 7 from the result. If he rolled a 9, for example, that would be 34 missiles, minus the 7 that were shot down, for 27 that connect with the enemy ship.

Resolving Salvo Damage

Each warhead from a swarmer, missile bay or rocket pack attack hits on its own column, going from left to right, starting with the first available column, and starting over when the end of the damage track is reached. Salvo weapons are an excellent way to strip armor off of an enemy ship.

Record Keeping

Anything you have to keep track of gets done at this time. In larger fleet actions, it's suggested that the players take copious notes on everything that happens during each turn.



Map Features

Dust Clouds

A dust cloud counter indicates the center of a cloud of dust and small debris. Any ship that comes within 4 hexes of a dust cloud counter with a vector of 2 hexes per turn or greater will take one attack that hits on 5 or less on 1d10 (add appropriate modifiers for target size and thrust used), and does (1d10 + current speed in hexes + ship's target size modifier) damage to the ship. Unlike most weapon damage, dust damage is done left to right, stripping off armor before penetrating to structure.

Firing through dust cloud hexes incurs a -1 to-hit penalty for each hex of dust between the firer and target. Ships may be hidden in dust clouds at the beginning of a scenario. For each hidden ship, add three dummy counters (which must be within 4 hexes of a dust cloud hex), and turn all four counters over. Note that the hiding ship must be stationary, or it won't work. Dummy counters are removed when an enemy ship attempts a targeting lock on one, or the hiding ship reveals itself by maneuvering or firing.

Asteroids

An asteroid counter indicates the center of a cluster of rocks. Any ship that comes within 2 hexes of an asteroid counter with a vector of two hexes per turn or greater will take one attack that hits on 3 or less on 1d10 (add appropriate modifiers for target size and thrust used), and does (1d10 + current speed in hexes) damage directly to the ship's frame.

Floating Maps

During deep space combat, ship speeds can tend to get out of control. At times when ships threaten to leave the map prematurely, everyone's courses can be altered to avoid that without changing the tactical situation one bit. For example, one ship is about to leave the map, and

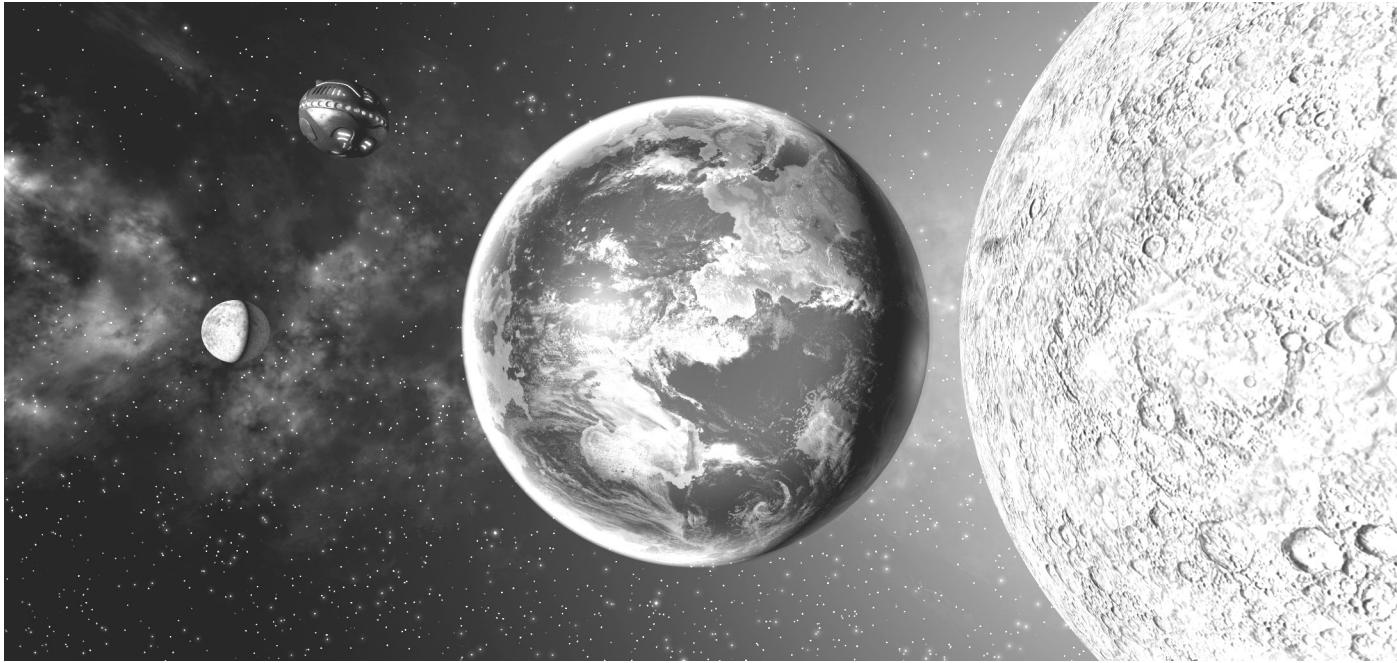
Swarmer/Rocket Pack Hits Table										
Roll	3	4	5	6	10	12	15	20	25	40
0-	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	2	2	2
2	1	1	1	1	1	2	2	2	3	4
3	1	2	2	2	2	2	3	3	5	7
4	1	2	2	2	3	3	4	5	8	11
5	2	2	3	3	4	5	6	8	11	17
6	2	3	3	4	5	6	8	10	14	20
7	2	3	3	4	7	8	10	13	16	26
8	2	3	4	5	7	9	11	15	18	29
9	3	4	4	5	8	10	12	17	21	34
10	3	4	4	5	8	11	14	18	23	37
11	3	4	5	6	9	11	14	19	24	39
12+	3	4	5	6	10	12	15	20	25	40

it's got a speed of 8 hexes upward. To keep the ship on the map, move everyone's destination counter 8 hexes downward. In effect, this action accelerates the map to keep up with the escaping ship. While the effects of this may initially be alarming, don't worry. The tactical situation is unchanged; your ships are still moving at the same relative velocities they were before the map acceleration. If the scenario concerns an important planet or asteroid cluster, don't bother accelerating the map. Anyone who leaves the map is out of the combat. If ships simultaneously leave the map in opposite directions, then they are both out of the fight.

Planets

Planets come in three basic sizes, and there is a custom map for each size of planet. The gravity hexes you





already know about. The outermost ring of planet hexes are considered surface hexes; the interior hexes are unreachable by any means. Planets block line of sight, and break target locks when the two ships in question can no longer see each other. Optionally, the planet can cast a shadow across the map. The shadow would be a corridor of hexes exactly the width of the planet, extending out from the dark side of the planet to the edge of the map. Ships, fighters and other targets within the shadow are at -1 to be hit.

Settlements and Bases

Settlements are permanent habitations on the surfaces of planets, moons or asteroids. Settlements come in two basic sizes, the outpost, and the colony. An outpost is a small colony, with a tiny population usually made up of technicians or other workers. It can support up to two bases in its hex. An outpost has 60 hits. A colony is a much bigger settlement, with a much larger permanent population. Colonies can support up to 6 bases within its hex. Colonies also include mining, industry, food production capabilities, and a starport. In campaigns, colonies produce troops and generic cargo at a rate set by the campaign. A colony has 200 hits. A colony or outpost is placed on a planet's edge hex. Each hex may only hold one colony or outpost, and that settlement has a 120° firing/sensor arc directly above it. Colonies are large and obvious; it's very difficult to hide a colony from external view. Outposts and bases are large, but hidden well; their target size modifier is -3 until pinpointed (see below), then their target size modifier goes to +3. Each base can take a number of hits of damage before being destroyed; those numbers are included in the base descriptions. Damaged bases operate normally until destroyed. Bases have no armor, and do not consult the

Surface Damage Table when hit by enemy weapons. Bases are assumed to have two actions, if they need them. Each base may have any number of defensive troops assigned to it. Simply buy the squads of troops and station them in the appropriate place. A moon or asteroid can support only one settlement. Orbital colonies and outposts are just like land-based ones, except that they can't be hidden. An orbital outposts' target size modifier is +5. An orbital colony's target size modifier is +8. In both cases, the bases are integrated into the orbital settlement. Any attack has a one in three chance of hitting a random base, otherwise, it hits the settlement. Pinpointing a base can be done in several ways. One is for a ship to loiter in the same hex as the base and search, rolling 3 or less on 1d10 every turn until successful. Similarly, a squad of troops not otherwise engaged in combat can search for the base (same roll). Defending troops may attack without revealing the base's position. Finally, if the base fires on a ship, that ship automatically pinpoints the base. Once a base is secured/captured, troops can move cargo or people freely between the base and any shuttles or ships landed in the same hex.

Orbital Terminal

An orbital terminal is present over every well-developed planet, and in some heavily mined asteroid belts. The terminal services commercial traffic, providing shuttle service to and from the planet (and its moons, if any), refueling, and traffic control for the planet. Being commercial ventures, no terminals carry weapons. A standard orbital terminal has 40 hits, carries 1,000 remass pts., and has space for 2,000 cargo points. Being large, stationary structures, orbital terminals are at +4 to be

hit.

Shipyard

A shipyard is necessary to build ships. A shipyard must be attached to an orbital terminal. A shipyard has 40 hits.

Fighter Base

A Fighter base supports a squadron of sixteen small craft, and has a small cargo area for reloads. It may rearm and refuel any fighters that land at the base, using one action per eight fighters. A fighter base has 6 hits and costs 15 pts. + fighter and reload costs in a scenario.

Naval Depot

A naval depot is essentially a large, fortified warehouse. A naval depot stores 500 pts. of remass and 500 pts. of cargo for repairing and rearming ships. Naval depots include up to 5 cargo shuttles (bought separately). Naval Depots have 35 hits.

Naval Headquarters

A Naval HQ coordinates attacks for the immediate interstellar neighborhood. There are two types. The mobile HQ is a temporary construction with 12 hits. The reinforced HQ is a permanent installation that has 30 hits.

System Defense Installation

System Defense Installations (SDIs) are armed with the race's standard weapons. To include one or more SDIs in a scenario, just pay for the base and the reload costs of the missiles, and pick one or more hexes on the planet's surface to place them. SDIs have 8 hits, and cost 10 pts. + (weapon costs/3) per installation.

Fuel Station

A fuel station breaks water into oxygen and hydrogen, and then stores it for needy ships. The average fuel station holds up to 500 fuel pts. onsite and has 25 hits.

Listening Post

A listening post is a small station containing a long range scanner and the crew to run it. It has 30 hits. Listening posts are usually the first casualties of any war. Unlike most other bases, listening posts do not require colony or outpost support.

Research Lab

These are often placed in desolate areas, just in case. 10 hits. Research labs are used to study new or recent-



ly acquired technologies. During longer wars, research labs become valuable targets.

Close Passes

A ship or fighter squadron that maneuvers to be in the same hex as its target can declare a close pass attack on that target during its actions phase, maneuvering to visual range before firing. The target gets one last chance to fire at the attacker (again, at point blank) if it still has any actions and weapons available. If the ship doing the close pass survives, it can attack at +1 to-hit. A successful hit does double damage.

Escorts

A ship (or fighter squadron) can be assigned to escort another unit, and even give up its own life to protect that unit. Escorts operate under strict limits; but a ship can drop out of escort if needed at any time. To escort another ship, the escorting ship must stay within short range (0 to 1 hex) of the protected ship. An escort can attack any enemy within medium range of itself or the escorted ship, or any ship the protected ship is attacking. An escort ship can also intercept an attack on the protected ship by using one action and one burn to do an emergency maneuver and place itself between the attacker and target. The escort ship must already be either in the same hex as the escorted ship or in a hex between the escorted ship and its attacker. The attack is rolled against the escort first, and if it misses, it is rerolled against the escorted ship. In the case of swarmer or rocket pack attacks, keep track of how many warheads miss the escort, and reroll on the closest appropriate column (rounded down) of the swarmer/

RULES

rocket pack hits table to see how many make it to the original target. Escorts are activated when the ship they are escorting is activated.

Battleframes

Battleframes are the ultimate extension of marine combat armor technology. Battleframes stand up to 12 meters tall, with arms, legs, and a main sensor cluster at the head. The battleframe's cockpit is usually located in its chest. Battleframes are covered with thrust verniers, allowing them to accelerate and maneuver with surprising agility. They bristle with weapons, and are able to rearm themselves from the outer hull of their carrier, saving valuable time in the heat of combat.

If a battleframe manages to match courses with a ship, it can latch onto its hull (using one action) and stomp around, shooting up interesting surface features. Until it decides to leave, every attack it makes on the ship it's walking on hits automatically, and results in a Surface Features damage result, in addition to any other damage. The affected ship cannot fire on it (battleframe pilots know how to use cover), but other ships can, and at +1 to hit. Any near misses (those rolls that are within 2 of the to-hit roll) hit the ship instead.

If a battleframe latches onto its mothership, it can take hand weapons from the mothership's cargo storage and get back into battle. The weapon swap costs the battleframe one action, but is free for the mothership.

Battlesuits

A triumph of miniaturization technology, battlesuits stand 5-6 meters tall and are best described as form-fitting starfighters. Battlesuits are built on the light small craft frame. Like other battleframes, they can stomp around on a ship's hull and attack surface features with impunity. Unlike the other battleframes, they are too small to wield battleframe hand weapons.

Hand Weapons

A battleframe with the hands option can carry specially modified weaponry in addition to any inbuilt weaponry, either two light hardpoint weapons or one medium hardpoint weapon, or one of the following items:

Blade: A big polearm, sword or axe weapon, useful for infighting (see below). 1 lt. hardpoint, cost: 5 CV.

Shield: Deflects the first successful hit on the battleframe, after which it is destroyed. 1 lt. hardpoint, cost: 3 CV. A battleframe with empty hands on an enemy ship can rip a point of armor off of the enemy ship to use as a shield.

Other Weapons: Pick any light or medium hardpoint weapon from the weapons list. Weapon cost is halved, rounded up.

Hand weapon costs are not included in the battleframe's cost; they are bought separately.

Infighting

A battleframe or battlesuit can enter close combat with another unit that is in the same hex, and has the same course and speed. To resolve a round of infighting, both units roll 1d6 and add any of the following modifiers:

-3 if not a battlesuit or battleframe

-1 if battlesuit

+1 if heavy battleframe

+1 if the battleframe has hands or +3 if the battleframe has a blade weapon in hand.

+2 if the battleframe has a shield.

The unit that rolled higher inflicts damage equal to the difference in rolls to the losing unit. If a unit rolls a natural 6 but loses the infighting contest, it still inflicts one point of damage on the other unit.

Troop Combat and Boarding Actions

Troop combat is played out at the end of the turn, just before the Record Keeping phase. To conduct a boarding operation, the attacking ship or assault shuttle must pull alongside the target ship (within the same hex), and match vectors. It takes one turn for attacking troops to latch onto the ship and burn through its hull plating. For boarding actions and ground combat, each unit is either a squad of troops, a battlesuit, or a battleframe. A squad takes up 10 containment storage points.

Troop Design

Take the troop cost, add the weapon and enhancement costs, and divide the total by 3.

Green: TS -3, 1 hit, 1 action, 1 AP weapon. Cost: 4

Regular: TS -3, 1 hit, 1 action, 1 AP weapon. Cost: 10

Veteran: TS -3, 1 hit, 2 actions, 1 AP weapon. Cost: 15

Elite: TS -3, 1 hit, 3 actions, 1 AP weapon. Cost: 21

Options

Armored: 1 extra hit. Cost: +6

Space Capable: Allows the troops to operate in vacuum. Cost: +12



Shielded: Provides the squad with a 1-pt energy shield, that takes 1 action to recharge. Cost: +12

Troop Weapons

Light Arms: To hit 6, damage 1 (AP). Cost: 2

Heavy Arms: To hit 7, damage 1 (AP/strafe). Cost: 4

Energy Weapons: To hit 8, damage 1 (AP/Beam).

Cost: 7

Anti-Tank Weapons: To hit 7, damage 1 (AP/strafe), seeking, pd vulnerable. Cost: 4

Troop weapons do damage to troops and unarmored small craft targets only. Troop weapons are short-ranged. For ships and small craft, 2 troop weapons can fit into one light hardpoint, and are treated as a dual mount.

Sample Troops

Security: 1 action, light arms. CV: 4

Regular Infantry: 1 action, heavy arms. CV: 5

Armored Infantry: 1 action, 2 hits, heavy arms: CV: 8

Veteran Space Marines: 2 actions, 2 hits, energy weapons, space capable. CV: 14

Troop Actions

Defend: Units using the defend action may attack any enemy unit that attacks them or whatever they are defending. The defender gets one free attack action on the attacker first. If the attacker survives, he may continue with his action.

Attack: Deliberately hurt another unit, or at least try to.

Raid: Steal cargo, research points, or some other scenario specific valuables.

Search: Hunt for an enemy base, unit, or other item.

Dig In: Find cover, brace for an assault, bravely hide.

Capture: Gain control of the base or ship.

Deploy: Get out of an assault shuttle or troop transport.

Evac: Get back in the assault shuttle or troop transport.

Move: Shift from one combat area on the map to another. Moving negates the Dig-In action.

Boarding Combat

Boarding combat takes place inside ships, space stations, and ground bases. Due to the tight quarters, boarding combat is always 1 on 1. Line up each side so that every boarding party squad or battlesuit has one defending squad or suit. Now, to run a combat round, each squad or battlesuit performs one of the actions above. Unlike standard ship to ship combat, the defender always has initiative (treat it like winning the roll by 2

points). The defender fires first. Each successful attack (remember the -3 for firing at squads and battlesuits) removes one enemy unit from the combat. Unopposed (and suicidal) boarding parties can fire at the ship itself, doing damage directly to structure. Troop weapons do their damage -1 point, so light arms won't do any damage at all, heavy arms and anti-tank weapons might do up to 2 points, and energy weapons are still very dangerous.

Battlesuits, with their anti-ship weaponry, can do dangerous amounts of damage inside a ship.

Combat Modifiers

+1 per Support Troops action taken by the ship or base.

Defender Dug In: - 1.

Defender stunned: + 2.

Defender Green: +2

Attacker Green: -1

A stunned unit may take no actions for one turn. After that, turn the counter over again. If a stunned unit is successfully attacked, it is destroyed.

Boarding combat continues until one side has surrendered or been eliminated. When all defending troops on a ship are lost, the ship is captured. A captured ship may not be used in combat, but can be looted for technology and supplies. If the capturing side wins the overall battle, the captured ship could be repaired and brought home by the victors.

Open Combat

Open combat takes place in planet and moon hexes, outside of bases, and on the outer surfaces of larger ships. In open combat, units may combine their CVs to attack an enemy unit. Line up each side's troops and have at it.

Once only one side's troops survive, they capture whatever they were fighting over. In the case of enemy ships, this means that the captured ship is effectively out of the fight unless the original owners board it and take it back. Troops can only move from hex to hex on planet via shuttles. In atmospheric flight, a shuttle, battlesuit or battleframe can lift off in one turn, move one hex on the next turn, and set back down in the third turn, using up one burn during the trip.

Basic Scenarios

When players get together, build their fleets, blast away at each other and then clean up for the night, setting up a scenario can be pretty freeform. Players choose their favorite side or design their own, set a CV budget to

RULES

purchase or design their ships and small craft, and pick one of the scenarios below to play out or make up their own.

Good CV budgets range from 450 for a small border skirmish or cruiser duel to 3,000 or more for a titanic clash between mainline battle fleets. For your first games, you might want to stick to lower budgets. 600 is a good amount; it will allow for a couple of ships and fighter squadrons on each side, and the game will play fairly quickly.

Scenario 1: Slugfest

This is about as basic as a scenario can get. No subterfuge, no surprises, no concern for the future at all. Two equal-value fleets approach each other and commence to blowing each other into scrap.

Setup: Use any map you like. If all players agree, toss some small terrain bits (moons, asteroid clusters, dust clouds) on the map to force some interesting maneuvers. Players start at opposite ends of the map. Destination counters may be placed up to two hexes away from their ships. If both fleets are low tech, the players may want to start on the long sides, so that they begin at shorter ranges and can get to the fighting before they run out of remass.

Objectives: Destroy the other fleet, and be the last one with an active ship on the map. Any ships that leave the map are considered destroyed.

Option: Dueling. Each player has only one ship, plus its fighters, if any. Both ships should probably be published designs; it's pretty easy for someone who knows the game to design a one-turn killer and make this a really dull fight.

Scenario 2: Surprise Attack

What does an admiral do when caught unprepared for battle? Can he rally the troops? Or will his fleet be torn

apart helplessly? There's only one way to find out.

Setup: The attacker only gets 75% as much CV budget as the defender. Use the empty space map. No terrain.

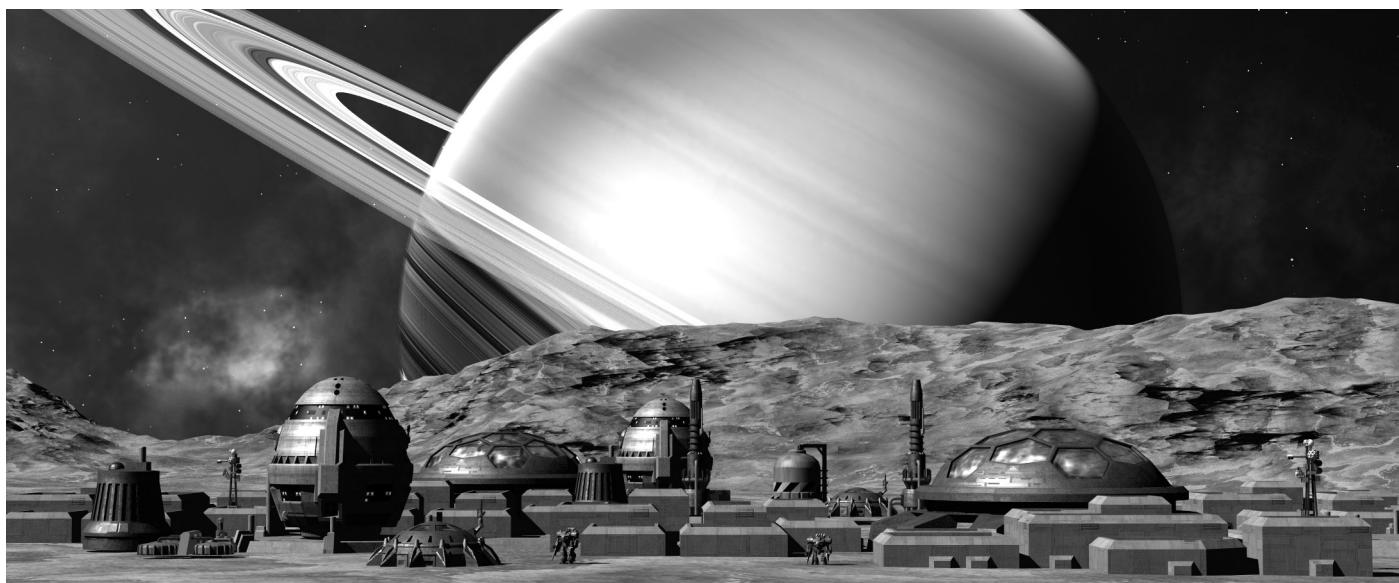
Defender Setup: The defender's fleet sets up in the central area of the map at a dead stop. All ships must be at least six hexes away from the edges of the map.

Attacker Setup: The attacker's forces are kept off map until the game starts. In the first turn, the attacker chooses hyperspace entry points anywhere within 4 hexes of the map edges, puts down hyperspace wake markers, and then randomizes their positions according to the rules. Any hyperspace wakes that end up off the map appear in the closest edge hex to the chosen entry point. On the next turn, the attacker's ships will enter normal space and can begin the slaughter. Optionally, if neither side has jump engines, then the attackers simply appear in any edge hexes with a velocity of up to 3 hexes per turn.

Special Rules: The defenders are asleep at their posts. All small craft are in their hangars, and all ships have only one action available to them. To get to combat readiness, each ship can use a Battle Stations action to get back 1d6-3 actions (minimum of 1 action) on the next turn.

Attacker's Objectives: Destroy or cripple as many ships in the enemy fleet as possible, then escape. The attackers get 1/2 the victim's CV for every enemy ship they cripple, and full CV for every enemy ship they destroy. The attackers also get 1/5th their own CV for every one of their own ships that escapes the map after the 7th turn. Ships that escape before that time are worth no points.

Defender's Objectives: Escape the map with as many ships as possible, and do as much damage to the attackers as possible while running for it. The defenders get full CV for every ship they can get off the map, either by leaving the map or jumping to hyperspace. They





also get 1/3rd CV for every enemy ship they cripple, and 2/3rd CV for every enemy ship they destroy.

Scenario 3: Invasion

Setup: Use a planet map. Set up two colonies on the planet, and one on a moon two hexes outside the planet's gravity well.

Defender Setup: The defender may purchase troops in addition to ships and small craft. He may also purchase one SDI and two fighter bases if he so chooses, and assign one base to each colony. Ships and small craft are set up anywhere on the map except the gravity hexes or the planet itself.

Attacker Setup: Take the empty space map, and set up your attacking fleet. Now place the map adjacent to the defender's map, and have at it.

Special Rules: This scenario has a limit of 25 turns. Either side may concede if it becomes clear that they cannot win.

Attacker's Objective: Capture and hold two of the three colonies until the end of the scenario.

Defender's Objective: Maintain control of at least two colonies until the end of the scenario.

Scenario 4: Black Ops

Your spy has successfully infiltrated the enemy's forward base, and obtained crucial data. Retrieve your spy and get her outsystem as soon as possible.

Setup: Use a planet map, and add two moons. Set up three colonies on the planet and one outpost on each moon. This scenario works best with low CVs all around. This should be a fast, tense scramble with small, quick ships.

Defender Setup: The defender sets up first. The defender's ships may be placed anywhere on the map. The defender may have up to two fighter bases on the map.

Attacker Setup: The attacker player places one counter on each colony and outpost, face down. Four are blank, the fifth is the spy. The attacker gets only 60% of the defender's CV. Once the defender is set up, the

attacker can choose which side of the map to enter on, at any speed up to 3 hexes per turn.

Special Rules: The attacker doesn't have to reveal the spy's location until he's ready to pick her up. If the attacker's race has transporters, then the spy simply waits at the base for a ship to come and beam her up. If not, then the spy has a small craft from that race hidden near the base, and uses that to rendezvous with her allies.

Attacker's Objective: Retrieve the spy, either by transporting her off the planet, or taking her fighter on board one of the attacking ships, and then escaping to any edge of the map other than the one he entered from. The spy must be on board one of the attacker's ships in order to escape.

Defender's Objective: Intercept the spy, and keep her from escaping. Capture her if possible, kill her if necessary.

SCENARIOS



Miniatures and Hexless Play

Many players prefer hex grid maps to regulate movement. Others prefer a clear playing surface and rulers for range finding. For those that prefer the freedom of a hexless playing surface, the following modifications to the rules can be used. If a particular rule isn't mentioned, assume that it stayed the same.

Movement Units (MUs)

Hexes become Movement Units or MUs. The size of MUs on the table is up to the players. An MU could be 1cm, 1 inch, 2.5 inches, or even 1 or 2 feet if you have a gymnasium and nice big ship models to play with. Recommended scale for most minis would probably be 1.5 to 2 inches. Keep in mind that most direct-fire combat takes place between 3 and 6 MUs and pick your MU size accordingly.

Actions

Most of these work the same as they did before, with these exceptions:

Dock: Both ships' bases should be touching, and so should their destination markers.

Launch & Recover Small Craft/Riders: Just put them in base contact. If launched by catapult, put them in base contact with the mothership's front end.

Movement

The ships' course & speed is measured between the center of the ship's base and the center of its destination counter. All ships may rotate up to 180 degrees before accelerating. Ships that have suffered maneuvering jet critical hits have this reduced to 120 degrees or 60 degrees, according to the critical hit result.

Acceleration

A thrust point can be used to move the ship's destination counter up to 1 MU in the direction the ship is pointing, or up to 1/4 MU in any other direction. If a ship has retrothrusters, the destination counter can be moved straight forward or back up to 1 MU per thrust point, or 1/4 MU in any other direction. If the ship is a small craft or has omnithrusters, the destination counter can be

moved up to 1 MU per thrust point in any direction.

Displacement

For every full 1 MU of acceleration applied, move the ship and its destination counter 1/2 MU in the direction of acceleration.

Firing Arcs

Fore & Aft are 60 degree arcs, Port & Starboard are 120 degrees. It may be helpful to mark the firing arcs on the ship's base.

To-hit Modifiers

-1 per full MU of displacement.

Drift

Line up a straightedge along the ship and destination counter centerpoints. Place a marker at the ship's center-point, move the ship to the destination counter's position, and then move the destination counter an equal distance in the same direction.

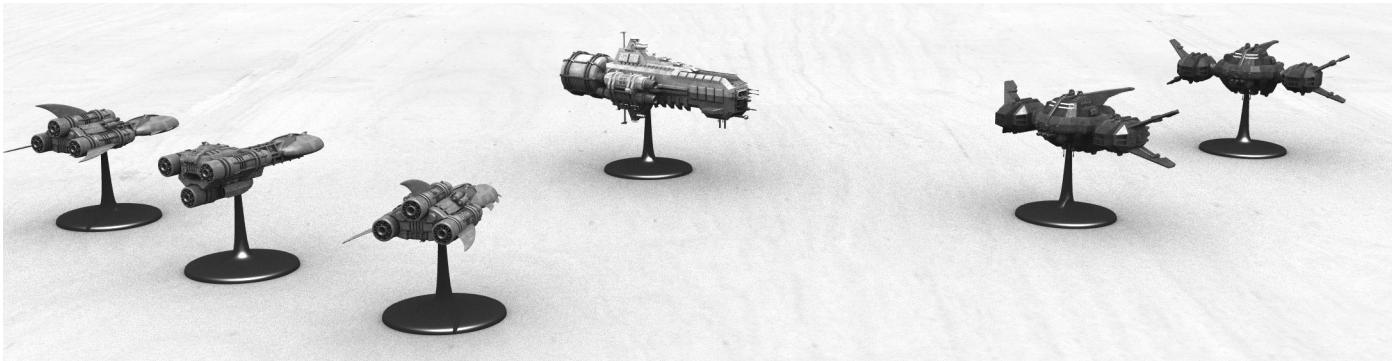
Planets

Use a compass to draw the planet template and its gravity bands. Refer to the table below.

Gravity

A ship in the full gravity zone will have its destination counter moved one MU in the direction from the ship's centerpoint to the planet's centerpoint. If the ship is in the planet's half gravity zone, move the destination counter 1/2 MU.

Planet Type	Radius	Full Gravity Radius	Half Gravity Radius
Moon	1/2 MU	—	1 MU
Small Planet	2 MUs	—	3 MUs
Medium Planet	3 MUs	4 MUs	7 MUs
Large Planet	4 MUs	6 MUs	10 MUs



SHIP DESIGN

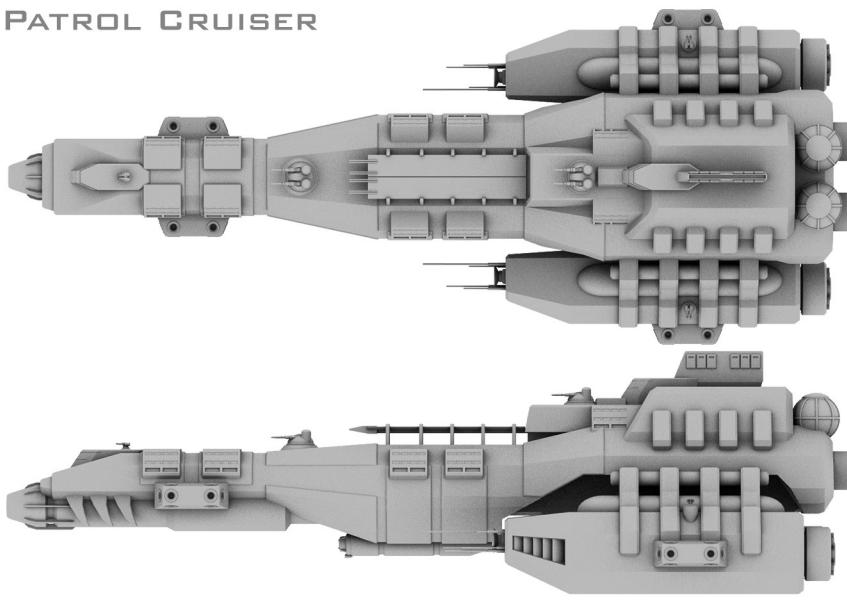
EESN JITSUREI CLASS PATROL CRUISER

MASS: 18,000 TONS

LENGTH: 358M

HEIGHT: 104M

WIDTH: 144M



Basic Information

Hulls

Ships are made of multiple sections called hulls. These hulls represent an unspecified amount of volume, and come in five types: Undifferentiated Starship Tissue (UDST), Containment, Magazines, Systems, and Hangars. UDST hulls hold the ship's drives, power plants, hardpoints, crew quarters and access areas, command decks, and everything else that a ship requires to function at a minimal level. Containment hulls hold reaction mass, cargo and troops. Magazines hold internally-stored bombs, missiles and torpedoes. Hangars hold small craft (fighters, shuttles and the like). Systems hulls hold short and long range scanners. Up to 80% (round down) of the ships hulls may be containment hulls, magazines, systems or hangars. The rest must be UDST hulls. A ship may have any number of hulls. There is no restriction on size in **Voidstriker**. However, there are practical limits, and the time taken to play big huge giant ships will start to tax anybody's attention span after a turn or two.

Example: For our example ship, Fred, playing the oppressive Example Empire Space Navy in his campaign, is designing the EESN Jitsurei class Patrol Cruiser, for "piracy suppression".

Hardpoints

Hardpoints come in four sizes, and are used to mount weapons, more powerful thrusters and some gadgets. The number and types of hardpoints available to a ship are dependent on the number of UDST hulls it has.

Thrusters

Thrusters allow the ship to maneuver. Thrusters run the range from weak low-tech remass hogs to strong omnidirectional reactionless drives.

Armor & Shields

Armor and shields don't in themselves take up hulls. The amount of armor and or shielding that a ship can mount is dependent solely on the number of UDST hulls it has.

Weapons

Weapons are mounted on the ship's hardpoints. Most weapons take up a single hardpoint, but larger spinal mount weapons may require several main hardpoints.

Gadgets

Gadgets are more freeform. Some take up hulls, some take up hardpoints, the rest add to the ship's CV.

Combat Values

Each ship has a combat value (CV) that indicates the ship's overall combat effectiveness. It's not perfect, but it'll do for this game. A ship's CV is actually the average value of its Offensive, Defensive, and Miscellaneous values. The Off, Def and Msc values are used during the design process, and can be used to fine-tune the ship's play balance if so desired.

Designing Ships

Decide on the ship's purpose, and grab a calculator.

Allocating Hulls

Containment hulls may contain up to 50 pts. worth of remass, cargo, or troops in any combination. Hangar hulls may carry four small craft each. Magazine hulls carry missiles, bombs and torpedoes. System hulls carry sensors. One system hull holds one short range scanner. Six system hulls are required to hold one long range scanner. UDST hulls carry the ship's guts, and allow the ship to carry weapons, armor and shields. A ship's actions are derived by rounding ($\text{SQRT}(\text{UDST Hulls}) * 2$) to the nearest whole number. A table is provided to save work.

Example: Fred feels that the Jitsurei should be big and imposing, so he decides on a 30-hull ship. He allocates his hulls first. Eleven container hulls are used, with Fred deciding that five will go to fuel, and the other six will be divided between troops and cargo later. Two more hulls are allocated to hangars, so the Jitsurei can carry up to eight small craft on strike missions. He puts one toward a missile magazine. The remaining 16 hulls are UDST hulls. 16 UDST Hulls grants the Jitsurei 8 actions.

Hardpoints

Hardpoints come in four sizes: Light, medium, heavy and main. A ship may trade 3 hardpoints of one size for one of the next larger size, or trade one hardpoint for one of each of the smaller sizes available.

Light: 1 per UDST hull.
Medium: 1 per 2 UDST hulls.
Heavy: 1 per 4 UDST hulls.
Main: 1 per 8 UDST hulls.

Example: The Jitsurei has 16 UDST hulls. This allows for 2 main hardpoints, 4 heavy hardpoints, 8 medium hardpoints, and 16 light hardpoints. Fred already knows he wants a big spinal mount and the fighter catapult, so he trades three heavies up to get a third main hardpoint.

UDST Hulls	Actions
1	2
2-3	3
4-5	4
6-7	5
8-10	6
11-14	7
15-18	8
19-22	9
23-27	10
28-33	11
34-39	12
40-45	13
46-52	14
53-60	15
61-68	16
69-76	17
77-85	18
86-95	19
96-105	20

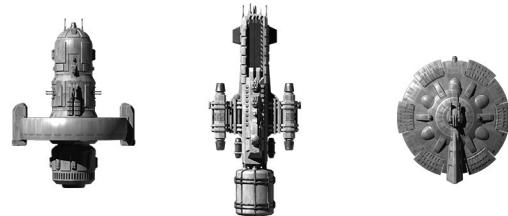
Thrusters

Thrusters come in two basic types (reaction and reactionless), three power levels (weak, normal, strong), four efficiency levels (low, medium high and very high) and three

delivery options (standard, retro thrust and omnithrusters). Thruster costs are multiplied by the number of hulls on the ship. A ship without thrusters is a base. The Thruster Type table shows the cost per hull and the hardpoint percentage. To get the point costs for thrusters, consult the following table, and then multiply by the ship's total hulls. Note that efficiency is not taken into account until burns are calculated a few steps later. To determine how many hardpoints the drive takes up, take the indicated percentage of the ship's total hulls and round up, and then allocate enough hardpoints to cover the resulting number, starting with the largest hardpoints on the ship. Mains are worth 8 hardpoints, heavies worth 4 hardpoints, mediums worth 2, and lights worth 1.

Reaction Drives use reaction mass to accelerate. Reaction drive ships require much of their hulls to be devoted to remass tanks, and some of their hull surface to be devoted to rocket engines. The efficiency of the reaction drive determines how much remass is needed to

Thruster Type	Cost	Hardpoints
Weak Thrusters	2	0%
Normal Thrusters	3	10%
Strong Thrusters	5	20%
Weak Reactionless	7	10%
Normal Reactionless	9	20%
Strong Reactionless	12	30%
Weak Retro Thrusters	4	5%
Normal Retro Thrusters	6	15%
Strong Retro Thrusters	10	25%
Weak Retro Reactionless	11	18%
Normal Retro Reactionless	14	28%
Strong Retro Reactionless	20	38%
Weak Omnithrusters	7	10%
Normal Omnithrusters	11	20%
Strong Omnithrusters	19	30%
Weak Omni Reactionless	17	25%
Normal Omni Reactionless	23	35%
Strong Omni Reactionless	35	45%



accelerate one hex in one turn. The power level determines how many actions are required to accelerate one hex in one turn.

Reactionless Drives utilize exotic, higher laws of physics to convert energy directly into velocity without the use of reaction mass. The power level determines how many actions are required to accelerate one hex in one turn.

Thrust Ratios

The table on page 28 describes the thrust ratios for ships up to 156 total hulls. To extend the table, take the square root of total hulls and round to the nearest integer. This generates the Low Thrust ratio for that ship. Subtract from that result to find the other power levels (-1 for medium, -2 for high). As an example, a 256 hull ship would need $\text{SQR}(256) = 16$ actions to accelerate 1 hex at low thrust.

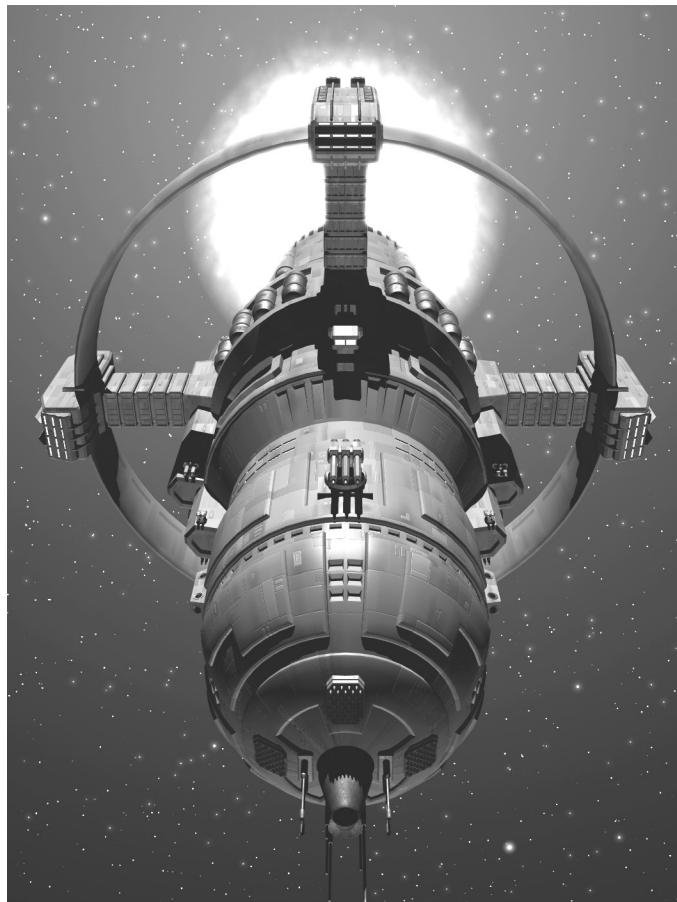
Example: Fred checks, and sees that the Example Empire uses normal thrusters. So he does an easy bit of math, calculating the thruster's cost from the table above (3 per hull) times the Jitsurei's hulls. $3 \times 30 = 90$, so the Jitsurei's thruster module costs 90 pts. He also notes that the thrusters take up (10% of 30 = 3) three light hardpoints, which adds up to one medium and one light hardpoint. He also makes a note of the ship's thrust ratio of 1/4. This means that for every 1 hex of thrust, he needs to use 4 actions. With 8 actions, that gets him 2 hexes per turn at maximum thrust. Nice...

Remass & Burns

Each ship automatically gets 1 remass pt. per hull, and can allocate an additional 50 per containment hull devoted to remass. Burns are calculated based on the remass efficiency:

Low: (remass pts. / hulls)

Total Hulls	Weak Thrust	Normal Thrust	Strong Thrust
1-2	1/1	2/1	3/1
3-6	1/2	1/1	2/1
7-12	1/3	1/2	1/1
13-20	1/4	1/3	1/2
21-30	1/5	1/4	1/3
31-42	1/6	1/5	1/4
43-56	1/7	1/6	1/5
57-72	1/8	1/7	1/6
73-90	1/9	1/8	1/7
91-110	1/10	1/9	1/8
111-132	1/11	1/10	1/9
133-156	1/12	1/11	1/10



Average: (remass pts. / hulls) x2

High: (remass pts. / hulls) x3

Very High: (remass pts. / hulls) x4

Ships with reactionless drives need no remass, so the free remass points provided with each hull may be allocated to cargo instead. Rider carriers must calculate this based on the sum of their own hulls and their carried hulls.

Example: The 30-hull Jitsurei with 5 containment hulls allocated to remass has $(30 + (50 \times 5)) = 280$ remass pts. At average fuel efficiency, that works out to 18 burns and a tiny fraction left over. Each burn works out to 15 remass pts, so the ship has 270 necessary remass pts, and the remaining 10 are added to the ship's cargo capacity.

Jump Drive

A starship needs a jump drive or a very, very long time to move from one star to another. Jump drives come in two basic components: The jump engine, which phases the ship into hyperspace; and the impellers, which move it through hyperspace.

The jump engine cost is multiplied by the number of hulls on the ship; 2 for Quantum I, 3 for Quantum II, and 5 for Quantum III. If the ship has only the jump engine,

it can move at 1, 2 or 3 hexes per campaign turn, respectively. Without a jump engine, it cannot move unless towed by a jump-capable ship.

The impellers are fitted to the ship's hardpoints, and come in four sizes. A ship may have any number or combination of impellers, so long as it has enough hardpoints available. A ship without a jump drive may not mount impellers.

To find the ship's speed in hyperspace, find the square root of (impeller points/(hulls/2)) and round down, and add the base speed provided by the jump engine. Rider carriers with grapples must calculate this twice. Once for their own hulls, and once with maximum carried hulls.

Example: Fred checks his notes, and finds that the Example Empire Star Navy has Quantum II jump engines available. For the 30-hull Jitsurei, this amounts to 90 (3 x 30) pts. In order to get a reasonable jump speed, he adds three medium impellers (75 jump factors total). This gains him a jump speed of ($\text{SQRT}(75/(30/2)}$ or $\text{SQRT}(75/15)$ or $\text{SQRT}(5) = 2.24$, rounded down) for 2 additional hexes per campaign turn, or Jump Speed 4. Total cost comes out to 90 for the jump engine, and 15 for the impellers.

Structure

The ship's structure is equal to its total hulls, regardless of type. If the race has advanced composites available for structure, then multiply structure by 1.25 (rounded down) to find the total structure. Look up the final Structure value on the table above to see how many rows it can use in the structure diagram, and then divide it as evenly as possible into those three rows.

To allocate the hull types to the structure boxes, start from the bottom right and count to the left and up, we marking them in order of UDST (U), system (S),

Jump Impeller	Factor	Cost
Light	10	2
Medium	25	5
Heavy	60	12
Main	150	30

Impeller Points per hull	Jump Speed
1	+1
2-4	+2
5-7	+3
8-12	+4
13-17	+5
18-24	+6
25-31	+7
32-40	+8
41-49	+9
50-60	+10

Structure	Number of Rows
1-6	1
7-16	2
17-34	3
35-65	4
66-108	5
109-172	6
173-284	7
285+	8

magazines (M), remass (R), hangars (H) and misc/containment (C). Then, starting from the bottom right of the UDST boxes, mark one box with (A) for every action the ship has, going up and to the left.

If the ship has advanced composites for its structure, leave the extra boxes blank. Those are effectively free hits. If writing a ship description, mark the extra hulls with O.

Example: Fred takes the Jitsurei's basic 30 hulls and checks the Structure Table. He notes that 30 is good for 3 rows, so he divides 30 by 3 and rounds up to find the number of columns (10 in this case) and writes it down as Structure 30 (10/10/10).

He then allocates the hull types to the structure box as follows:

```
CCCCC CHHRR
RRRMU UAAAA
UUUUU UAAAA
```

Frame

The ship's frame value is equal to its structure / 4, rounded up.

Example: The Jitsurei's frame is $30 / 4$ (rounded up) = 8 points.

Armor

Armor is available in four basic levels. Each UDST hull allows a ship to mount 1, 2, 3, or 4 pts. of armor. If the race has advanced composites available for armor, then multiply the armor by 1.25 (rounded down) to find the total armor. More than 1 pt/UDST hull of armor will adversely affect the ship's thrust ratio. The actual amount of armor affects the ship's thrust ratio like this:

1/UDST: This is the minimum required armor on a spacecraft. A ship with thrust 1/2 and 1 pt. Per UDST hull would get better performance, ending up with thrust 1/1.

2/UDST: This is the default level of armor.

SHIP DESIGN

3/UDST: A ship may choose to mount 3 pts. per UDST hull, and its thrust ratio is reduced by 1. For instance, a 10-hull ship with thrust 1/2 and 3 pts. per UDST hull would end up with thrust 1/3.

4/UDST: A ship may choose to mount 4 pts. per UDST hull, and its thrust ratio is reduced by 2. For instance, a 10-hull ship with thrust 1/2 and 4 pts. per UDST hull would end up with thrust 1/4.

When filling out the armor pips on the record sheet, the armor must be divided into rows that are the same length as the longest row of structure.

Example: Fred's ship has 16 UDST hulls, and has 32 pts. of armor automatically. Deciding that the ship will often be in over its head, he decides to pile on the armor, and adds 3 pts/UDST hull instead, for a total of 48 pts. Unfortunately for the Jitsurei, having to haul around this much armor really cuts into its performance, lowering its thrust ratio from 1/4 to 1/5. Emergency thrust will get him one extra hex of acceleration per turn, at a great cost in remass. He divides the armor into columns that match the ship's structure, and writes down Armor: 48 (10/10/10/10/8)

Shields

Shield systems come in two parts. A generator, and one or more emitters. The generator defines how many shield points a ship can regenerate per action (1, 2, 3, or 4). Cost is (points * 3) * the ship's total actions. The emitters actually create the defense shield, and project 1, 2, 3 or 4 points each. Each emitter takes up one light hardpoint. Cost is (points * 6) per emitter.

Example: The EESN's one claim to fame is that it's the only human empire with shields, and they're very good ones, too. Fred adds the generator-2 system, and 6 of the very costly emitter-4s. He writes down Shields: 24 (Regen 2, 6 emitter-4s) and notes the cost: $(16 * 3) + (6 * (6 * 4)) = 192$.

Electronic Warfare

EW hardware is used to make a ship harder to lock onto, counteract a target's EW, or refine targeting information on a single target. EW systems are fitted to the ship's hardpoints, and come in four sizes. A ship may have any number or combination of EW systems, so long as it has enough hardpoints available.

To find the ship's EW rating, find the square root of (total EW factors/(hulls/2)) and round down.

Gadgets

Aerodynamic Streamlining: 6 x the ship's total hulls, added to misc.

Flag Bridge: 60 (misc), and takes up 1 main hardpoint. A ship may only have one flag bridge.

Grapples: Light: 3 (misc), Medium: 6 (misc), Heavy: 9

EW System	Factor	Cost
Light	10	30
Medium	25	70
Heavy	60	150
Main	150	360

EW Points per Hull	EW Rating
1	1
2-4	2
5-7	3
8-12	4
13-17	5
18-24	6

(misc), Main: 15 (misc). Each grapple can hold its points worth of ship hulls. Thus, a light grapple can hold 3 hulls' worth of external ship, a main can hold 15 hulls' worth. Multiple grapples can be used to hold larger vessels. A grapple can also hold a single small craft of any type.

Long Range Scanner: 90 (misc). Takes up 6 system hulls. Long range scanners are useful in campaigns for peeking into nearby star systems.

Short Range Scanner: 20 (misc). Takes up 1 system hull.

Fighter Catapult: 50 (misc), takes up one main hardpoint.

Fire Control Sensor: A ship may have one of these, but does not require one. They come in three sizes:

FCS-1: 20 (off), takes up one medium hardpoint.

FCS-2: 50 (off), takes up one heavy hardpoint.

FCS-3: 80 (off), takes up one main hardpoint.

Solar Panel: 10 (misc), takes up one light hardpoint. Solar panels reduce a ship's need for supplies. They are not useful outside of campaigns.

Weapon Concealment: 6 per concealed weapon (offensive), takes up a light hardpoint per weapon concealed.

Transporter: 30 (misc), takes up one light hardpoint.

Antimatter Spread: 60 (def), takes up one light hardpoint.

Chaff Pod: 48 (def), takes up one light hardpoint.

Example: Fred puts on a catapult, so that he can launch all his fighters in one turn for 2 actions. This leaves him 2 main hardpoints for the spinal weapon.

Weapons

Weapons are placed on hardpoints. Add 50% to the weapon's cost for each extra facing the weapon can fire

into. Any weapons in the ship's largest hardpoints are fixed forward, all the others can be turreted for the above cost. Seeking weapons have no facing.

Weapon Banks: Weapon banks are groups of identical weapons mounted in a single weapon housing that track and fire as a single unit. A weapon bank may only fire on one target, but can fire one, some or all of the guns in the bank with the same action. If the weapons in the bank require charging, each weapon must be charged individually. Weapon banks come in dual (2), triple (3) and quad (4) versions. A fixed, single-arc weapon bank is called a mount, while a multi-arc weapon bank is a turret.

Dual Bank: -10% total weapon CV

Triple Bank: -15% total weapon CV

Quad Bank: -20% total weapon CV

Spinal Mount: Spinal mount weapons take up one or more main hardpoints, and can only be fixed forward. A ship may only have one spinal mount weapon.

Example: *Secretly, Fred knows that "Patrol Cruiser" is a lie. The Jitsurei is a mainline cruiser, so he buys it an appropriate weapon set. The main hardpoints get a Spinal Particle Beam 2 for short-range frying power. The heavy hardpoint gets a torpedo tube, and he stocks the magazine with 6 medium very long range torpedoes.*

The 4 remaining medium hardpoints are given 2 dual light pulse laser turrets that cover the forward, port and starboard arcs. For reasons only known to Fred, he also puts on 3 SRRP-6s (1 forward, 1 port, 1 starboard). Finally, he adds 3 dual Pd Gun turrets (1 FPS, 1 FPA, 1 FSA) covering all arcs.

Target Size

A ship's target size (TS) is $(v^3 \text{ of total hulls}) - 2$, rounded to the nearest whole number, up to a maximum of +9. The table above shows target sizes for ships ranging up to over 1100 hulls as a point of reference. Ships that big tend to be not so much fun as tedious to play, and they definitely won't fit on the included ship record sheets.

Example: *Fred looks up 30 hulls on the table above, and notes that the Jitsurei has Target Size +1.*

Calculating the Ship's Combat Value

Now you've got all the information you need to determine the ship's combat value. Use these formulae:

Offensive Value: Total value of all weaponry, modified by weapon arcs + thruster cost + jump drive cost.

Defensive Value: $(2 \times \text{Structure}) + (4 \times \text{Armor pts.}) + \text{shield generator} + \text{shield emitters} + \text{stealth} + \text{defensive gadgets} + \text{point defense guns}$ modified by weapon arcs.

Miscellaneous Value: $(30 \times (\text{Actions} - 2)) + (\text{squads} * 10) + (\text{cargo} / 5) + (\text{Burns} \times 2) + \text{gadgets}$.

Combat Value: (Offensive + Defensive + Miscellaneous)

Total Hulls	Target Size
1-3	-1
4-15	0
16-42	+1
43-91	+2
92-166	+3
167-274	+4
275-421	+5
422-614	+6
615-857	+7
858-1158	+8
1159+	+9

ous) / 3, rounded up.

Supply

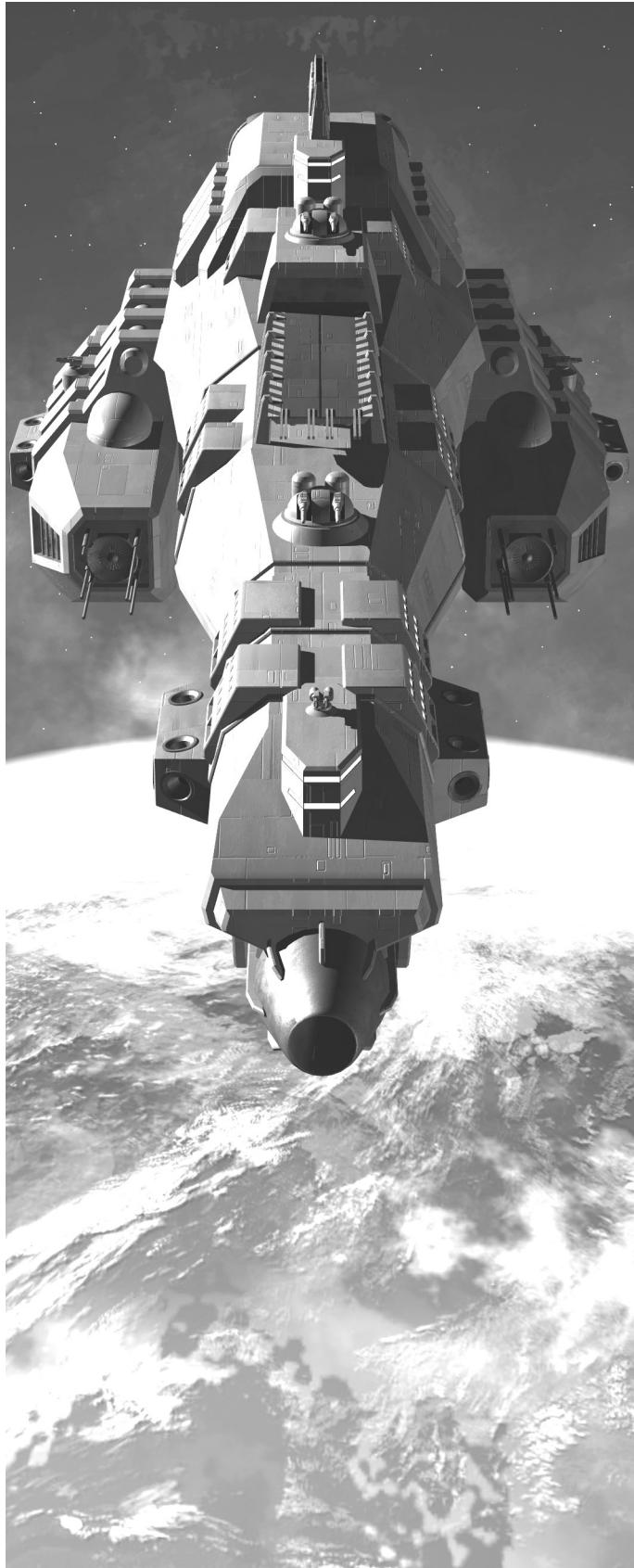
In campaigns, a ship's supply rating becomes important. It defines how long a ship can remain out in the field before heading home. To determine the ship's supply rating, use the following formula, and round up: $\text{UDST Hulls} / (1 + (\text{solar panels}/\text{UDST Hulls}))$

If you don't have solar panels, then the ship's supply rate is the number of UDST Hulls on it. Add 1 for every 2 squads, and another 2 for every hangar hull on board. To determine the ship's endurance in months, simply divide the ship's cargo points by its supply rating, rounding down.

Example: *Fred pulls out his calculator and gets to work. First, he calculates his offensive value. The spinal particle beam-2 costs 120. The torpedo tube costs 24, and the torpedoes at 94 each, cost a whopping 564. The four light pulse lasers cost 27 each for a total of 108. Organized as two dual mounts, they cost 97.2 rounded up to 93, doubled for the extra two firing arcs for a final total cost of 196. The 3 SRRPs cost a mere 4 each, for a total of 12. The six Pd Guns are defensive weapons, so he ignores them while he adds up the other numbers. The Jitsurei has an offensive value of 120 (spinal particle beam) + 24 (torpedo tube) + 564 (torpedoes) + 196 (2 dual light pulse laser turrets w/2 extra arcs each) + 12 (3 SRRP-6s) + 90 (thrusters) + 105 (jump drive & impellers) = 1,111.*

*Second, he calculates the ship's defensive value. He notes the structure (30 pts.) and armor pts. (48) and the shield generator (72) and emitters (144). He also gets to the PdGs (5 each, but with two additional arcs each, they're actually 10 each. Being mounted as 3 dual weapon banks, they save 10% for 3 18-pt turrets. Total value: 54). The Jitsurei's defensive value is 60 (structure x 2) + 192 (armor * 4) + 48 (shield generator) + 144 (six shield emitter 4s) + 46 (3 dual PdG turrets, 3*

SHIP DESIGN



arcs each) = 490.

Third, he calculates the ship's Misc. value. The ship has 8 actions ($30 \times (8 - 2)$) = 180. It has 15 squads of troops (150 pts.) and 160 cargo pts (32). It also has 18 burns (36 pts.) and a fighter catapult (50). The Jitsurei's misc. value is 180 (actions) + 150 (troops) + 32 (cargo). + 36 (burns * 2) + 50 (catapult) = 448.

Finally, he calculates the ship's combat value: (Off: 1,111 + Def: 490 + Msc: 448) / 3 = 2,049 / 3 = 683 The Jitsurei has 16 UDST hulls, 15 squads, 2 hangars and no solar panels, so its Supply rating is $16 + (15/2 \text{ or } 7.5 \text{ rounded up to } 8) + 4 = 28$. Without an external supply source, this ship has five month's loitering time, plus a generous surplus for repairs.

Designing Small Craft

Body

Small craft bodies come in four basic sizes: light, medium, heavy and superheavy. Each body size also comes with one of three speeds; slow, medium or fast, and a number of hardpoints based on the body size and speed. Heavy and superheavy small craft are bulky, and take up two hangar slots instead of one.

	Light	Medium	Heavy	Superheavy
Body Cost	15	17	32	48
Hits	1	1	2	3
Target Size	-3	-2	-2	-1
Actions	2	2	2	3

Speed

Speed determines a small craft's performance after a movement type is applied. Note that Very Slow speed only occurs if a slow small craft has the heavy armor option. .

	Light	Medium	Heavy	Superheavy
Very Slow	2/1	1/1	1/2	1/3
Slow	3/1	2/1	1/1	1/2
Medium	4/1	3/1	2/1	1/1
Fast	5/1	4/1	3/1	2/1

Hardpoints

Light hardpoints may be traded up at 3 light hardpoints per medium hardpoint. No small craft may use large or main hardpoints. The small craft's speed determines how many hardpoints are available, and modifies the small craft's base cost.

	Light	Medium	Heavy	Superheavy	Cost
Slow	4	5	6	8	—
Medium	3	4	5	7	+2 per hit
Fast	2	3	4	6	+5 per hit

Remass

If a small craft is using a reaction drive, it automatically has one hardpoint's worth built in. Extra remass can be allocated according to the table below, at one hardpoint per increment.

Cost: 1 per burn.

Efficiency	Light	Medium	Heavy	Superheavy
Low	6	5	4	3
Medium	12	10	8	6
High	18	15	12	9
Very High	24	20	16	12

Modifications

Streamlining: +3 per hit. Streamlining is required for small craft using space flight movement in atmosphere.

Heavy Armor: +12. Adds 1 extra hit, makes small craft immune to antipersonnel and antimissile weaponry. Reduces small craft's speed rating one lower. This is the only way a small craft can have the very slow rating.

Two-seat: +30. Adds one extra action.

Radiator: no cost, one light hardpoint. Allows the small craft to use lasers and energy weapons.

EW: +30. Gives the small craft 2 EW points.

Troops: 1 Squad per hardpoint. +10 per hardpoint.

Cargo: 5 pts per hardpoint. +1 per hardpoint.

Battleframe: +4 per hit, takes up 1 light hardpoint.

Hands: Battleframes only, allows the battleframe to carry hand weapons. 1 lt. hardpoint, +15 pts.

Battlesuit: +5, no hardpoints, only available for light small craft.

Reaction Drive: Standard option, no additional cost.

Reactionless Drives: +5 per hit. A small craft with reactionless drives requires no fuel.

Shield Generator: Only usable on bulky small craft. Cost is (points * 3) * the small craft's total actions. Small craft with shield emitters and no generator can only recharge their emitters while on board a ship with a shield generator. Small craft use standard shield emitters.

Life Support: Takes up one light hardpoint, and gives the small craft one month of endurance. +12 pts.

Hyperdrive: Only usable on bulky small craft. (2 for low, 3 for medium, and 5 for high power) * hits. Not very useful unless the life support module is included.

Small Craft Final Cost

(Base Model + Weapons & Gadgets + Modifications)/3, rounding up.

Example: Fred designs the Sanpuru heavy strike fighter. He starts with a heavy small craft, and chooses fast speed. He adds a light turbo-laser and 2 SRRP-6s, then adds a radiator for the turbo-laser. He assumes high efficiency, and adds the free hardpoint's worth of remass: 12 burns. He streamlines the ship and drops in an extra crewman with the two-seat option. He adds up the totals: Base Model: 32 + 10 (fast thrusters) + 12 (remass) = 54. Weapons & Gadgets: 16 (turbolaser & SRRPs) + 30 (two-seat) = 46. Modifications: 6 (streamlining).

Total Cost: (54 + 46 + 6)/3 = CV 36.

WEAPONS



The actual weapon combat statistics are in the tables on pages 38-39.

A Note on Spiral Mounts: While spinal mount weapons can be impressively huge, we've only worked out spinal mounts up to 5 main hardpoints in size. If you want to increase them further, just figure out how many hardpoints you want it to take up. Actions to charge will be equal to the hardpoints used. The weapon's damage goes up 50% (round up) for every hardpoint past the first, and the weapon's cost goes up 25% (round up) for every hardpoint past the first. So if you want a Spinal Rail Cannon 12, it would require 12 actions to charge, cost $57 + (11 \times 15) = 222$, and inflict $12 + (6 \times 11) = 78$ points of damage at all range bands, and require 12 main hardpoints.

Slugthrowers

Slugthrowers use chemical explosives or electromagnetic accelerators to fire kinetic kill warheads. There are three basic varieties, the chain gun, rail gun, and coil gun. Chain guns are short-range, direct fire weapons. Rail guns and coil guns are projectile weapons, firing heavy, semiguided shells. Rail gun and coil gun shells are vulnerable to point defense weapons. Slugthrowers are assumed to have enough ammunition to last through several battles.

Chain Guns

Chain guns are multibarrel rapid-fire mass drivers, firing tiny semi-guided hypervelocity warheads. Chain guns are direct-fire strafing weapons. They have low penetration, and are best used against lightly armored or heavily damaged targets.

Light Chain Gun: Light hardpoint. Cost: 7

Medium Chain Gun: Medium hardpoint. Cost: 11

Heavy Chain Gun: Heavy hardpoint. Cost: 21

Point Defense Gun (PdG): Light hardpoint. Cost: 5(D)

Railguns

Railguns are heavy mass drivers, using a pair of rails

and a lot of current to launch projectiles at high speed. Railguns are projectile weapons; their shells can be dodged and can be intercepted by point defense fire, though they are immune to chaff.

Light Railgun: Medium hardpoint, Cost: 13.

Heavy Railgun: Heavy hardpoint, Cost: 26.

Spinal Railgun: Main hardpoints. Cost: 39, +10 for each additional hardpoint.

Coilguns

Coilguns use a sequence of electromagnetic rings to accelerate projectiles up to high speeds. As there is less wear and tear on components, coilguns can be pushed to a higher rate of fire than rail guns. When given a charge action before firing, a coilgun will strafe. The Spinal Coilgun requires a charge simply to fire, and always strafes. Coilguns are projectile weapons; their shells can be dodged and can be intercepted by point defense fire, though they are immune to chaff.

Light Coilgun: Medium hardpoint. Cost: 16

Heavy Coilgun: Heavy hardpoint. Cost: 38

Spinal Coilgun: Main hardpoints. Cost: 96, +24 for each additional hardpoint.

Laser Weapons

All lasers use coherent light to damage the enemy. All lasers are direct-fire weapons, and most are very accu-

rate. Laser weapons usually replace slugthrowers as a race's technology advances.

Lasers

Lasers fire a single burst of coherent energy at their target. Lasers are direct-fire weapons. Lasers do much more damage at closer ranges than they do at longer ranges. These are the simplest laser weapons available.

Light Laser: Light hardpoint. Cost: 4.

Medium Laser: Medium hardpoint. Cost: 8

Heavy Laser: Heavy hardpoint. Cost: 17

Turbolasers

Turbolasers are a midlevel technology between lasers and pulse lasers. They can be fired normally, or they can be charged to strafe like pulse lasers do. Turbolasers are direct-fire weapons.

Light Turbolaser: Light hardpoint. Cost: 8.

Medium Turbolaser: Medium hardpoint. Cost: 19.

Heavy Turbolaser: Heavy hardpoint. Cost: 41.

Pulse Lasers

Pulse lasers fire a series of high-powered bursts. They are direct-fire strafing weapons, inflicting multiple hits on the same target.

Light Pulse Laser: Medium hardpoint. Cost: 27.

Heavy Pulse Laser: Heavy hardpoint. Cost: 58.

Spinal Pulse Laser: Main hardpoints. Costs: 91, +23 for each additional hardpoint.

Point Defense Pulse Laser (PdPL): Light hardpoint. Cost: 6 (D).

Beam Lasers

Beam lasers fire a continuous beam which is held on the target for greater damage. Beam lasers are very accurate direct-fire weapons, and extremely damaging at close range. The light and heavy beam lasers are available in two types: The basic model that needs a charge action before firing, and an advanced, higher-tech form that doesn't.

Light Beam Laser: Medium hardpoint. Cost: 32

Advanced Light Beam Laser: Cost: 53.

Heavy Beam Laser: Heavy hardpoint. Cost: 70.

Advanced Heavy Beam Laser: Cost: 118.

Spinal Beam Laser: Main hardpoints. Costs: 149, +38 for each additional hardpoint.

Point Defense Beam Laser (PdBL): Light hardpoint. Costs: 10 (D).

Energy Weapons

Particle beams, plasma weapons, fusion weapons. In all cases, guns and beams are direct-fire, cannon are projectile.

Particle Beams

These are short-ranged direct-fire weapons that do blast damage. Particle beams can do impressive damage if the ship can get close enough to use them.

Light Particle Beam: Medium hardpoint. Cost: 22.

Heavy Particle Beam: Heavy hardpoint. Cost: 61.

Spinal Particle Beam: Main hardpoints. Costs: 97, +25 for each additional hardpoint.

Point Defense Particle Beam (PdPB): Light Hardpoint. Cost: 9 (D).

Plasma Guns

These fire a burst of highly ionized plasma at the target. Plasma guns are direct-fire weapons. Plasma repeaters are direct-fire strafing weapons.

Light Plasma Gun: Light hardpoint. Cost: 10.

Heavy Plasma Gun: Medium hardpoint. Cost: 20.

Light Plasma Repeater: Medium hardpoint. Cost: 23.

Heavy Plasma Repeater: Heavy hardpoint. Cost: 49.

Fusion Cannon

These are an evolutionary upgrade of plasma guns that heat the plasma to a fusion state. The fusing plasma lasts longer than the plasma burst, but travels slower. Fusion cannon are projectile strafing weapons.

Light Fusion Cannon: Medium hardpoint. Cost: 33.

Heavy Fusion Cannon: Heavy hardpoint. Cost: 52.

Spinal Fusion Cannon: Main hardpoints. Costs: 118, +30 for each additional hardpoint.

Ordnance

Ordnance includes rockets, missiles and torpedoes. Ordnance weapons are generally one-shot items. Missiles and torpedoes may be carried in magazines, allowing multiple shots from the same launcher.

Swarmers

Swarmers are small, group-fired one-shot seeking



WEAPONS

weapons. They come in three standard sizes. Swarmers are vulnerable to point-defense fire.

MRS-3: Light hardpoint. Cost: 3

MRS-10: Medium hardpoint. Cost: 8

MRS-40: Heavy hardpoint. Cost: 31

LRS-3: Light hardpoint. Cost: 5

LRS-10: Medium hardpoint. Cost: 15

LRS-40: Heavy hardpoint. Cost: 57

VRS-3: Light hardpoint. Cost: 8

VRS-10: Medium hardpoint. Cost: 25

VRS-40: Heavy hardpoint. Cost: 99

XRS-3: Light hardpoint. Cost: 15

XRS-10: Medium hardpoint. Cost: 48

XRS-40: Heavy hardpoint. Cost: 190

Rockets

Rockets are one-shot projectile weapons that come in two basic varieties; short-ranged and medium-ranged. Rockets, like swarmers, are purchased in sets. Rockets are vulnerable to point-defense fire.

SRRP-6: Light hardpoint. Cost: 4.

SRRP-25: Medium hardpoint. Cost: 16.

MRRP-4: Light hardpoint. Cost: 5.

MRRP-15: Medium hardpoint. Cost: 18.

Missiles

Missiles are small one-shot seeking weapons, usually fired one at a time. Unlike swarmers, missiles are stored in magazine hulls, at 50 per hull. Note that the to-hit numbers in parentheses are for situations where a lot of missiles are launched, and the player wishes to use the Swarmer/Rocket Pack Hits Table. All missiles do 1 point of damage each. Missiles are vulnerable to point-defense fire.

MRM: Cost: 0.76

LRM: Cost: 1.41

VRM: Cost: 2.46

XRM: Cost: 4.74

Missile Rack: Launches 1 missile per action. Light hardpoint, 6 pts.

Light Missile Bay: Launches 6 missiles per action. Medium hardpoint, 15 pts.

Heavy Missile Bay: Launches 25 missiles per action. Heavy hardpoint, 40 pts.

Torpedoes

Torpedoes are one-shot seeking weapons like missiles, but with larger, more powerful warheads. Torpedoes can be stored in magazines, or carried on hardpoints. Torpedoes are vulnerable to point defense fire. Torpedoes do blast damage.

Light long-range Torpedo: Light hardpoint, Cost: 23.

Medium Long-range Torpedo: Medium hardpoint, Cost: 57.

Heavy Long-range Torpedo: Heavy hardpoint, Cost: 130.

Light Very long range Torpedo: Light hardpoint, Cost: 38.

Medium Very long range Torpedo: Medium hardpoint, Cost: 94.

Heavy Very long range Torpedo: Heavy hardpoint, Cost: 215.

Light Extreme-range Torpedo: Light hardpoint, Cost: 65.

Medium Extreme-range Torpedo: Medium hardpoint, Cost: 163.

Heavy Extreme-range Torpedo: Heavy hardpoint, Cost: 373.

Torpedo Tube: Can launch one torpedo (any size) per action. Heavy hardpoint, 24 pts.

Torpedo Magazine: One specialized containment hull, holds 3 heavy torpedoes. A heavy torpedo can be traded for two mediums or four lights. No cost, apart from the torpedoes themselves.

Bombs

Bomb Launcher: This item allows a bomb to be given an initial acceleration equal to 1 hex per action put into the launch. Thus, if a ship with one of these puts 5 actions into launching one bomb, that bomb's vector counter can be moved 5 hexes in the direction fired. Heavy hardpoint. Cost: 12.

Bomb Magazine: Similar to a torpedo magazine, the bomb launcher is a containment-type hull. A bomb magazine holds up to 25 bombs in any combination. **Iron Bombs:** These are pure kinetic weapons; little more than a streamlined hunk of metal. Iron bombs do damage based on the relative speed of the bomb to its target. An iron bomb does 5 pts. damage for every hex of relative velocity. Iron bombs cannot hit if the target is capable of maneuver. An iron bomb will hit its target on a 3 or less, or on an 8 or less if the target has already been pinpointed. Iron bombs are not vulnerable to point defense fire. Light hardpoint; cost: 9.

Detonation Laser (Detlaser) Bomb: A small nuclear explosive that powers a bundle of three single-shot lasers when detonated. Does direct-fire strafing damage to the chosen target. Light hardpoint, Cost: 11.

Gamma-Ray Laser (Graser) Bomb: An advanced detonation laser. Does beam damage to the chosen target. Light hardpoint, Cost: 32.

X-Ray Laser (Xraser) Bomb: Xraser Bombs consist of a small nuclear explosive and 25 rods. The Xraser rods have a range of three hexes, and the onboard targeting sensors can track up to five targets, where each target is a ship, base, or fighter squadron. When detonated, roll for every 5-rod attack on the 5 column of the *Swarmer/Rocket Pack Hits* table, taking into account any appropriate targeting modifiers. Each successful hit does 1 pt. of damage at medium range, or 2 pts. at short range. Light hardpoint, cost: 33.

Exotic Weapons

Exotic Weapons are all those weapons that utilize technologies unimaginable by modern science. Ancient and powerful races use these, but no one else can figure them out.

Fusion Torpedoes

Working along similar principles as the fusion cannon above, fusion torpedoes continue to heat the plasma until fusion actually occurs, and then spit the fusing plasma at the target. The fusion torpedo includes a controlling warhead that generates a powerful magnetic bottle. The bottle leaks in a controlled manner, allowing the fusion torpedo to maneuver to intercept its target. Fusion torpedoes are seeking weapons.

Light Fusion Torpedo: Medium hardpoint, Cost: 22.

Heavy Fusion Torpedo: Heavy hardpoint, Cost: 53.

Spinal Fusion Torpedo: Main hardpoints, Costs: 112, +28 for each additional hardpoint.

Vortex Mine

Vortex Mines are bomb type weapons which, when detonated, damage all targets within range automatically by violently twisting the fabric of space/time itself. At short range, they do 2d6 damage. At medium, they do 1d6. At long, they do 1d6-3.

Vortex Mine: Light hardpoint, cost: 42.

Vortex Cannon

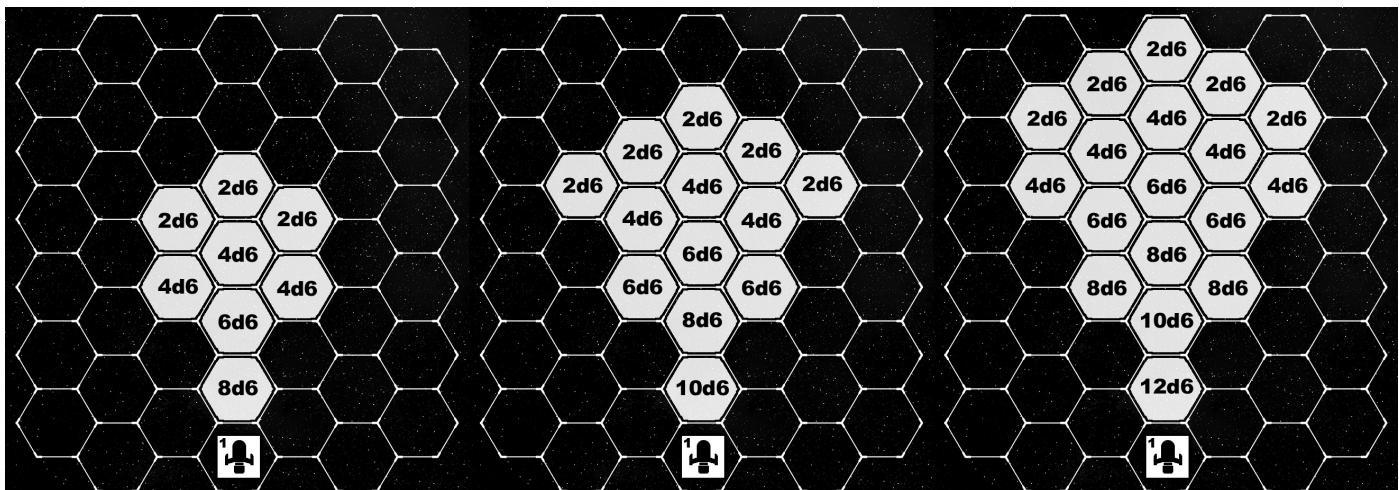
The Vortex cannon is an area-effect weapon that can fill a sixty-degree cone of space with reality-shattering doom. Anything within its area of effect is automatically damaged. Vortex cannons require an enormous amount of power, often using most or all of a ship's actions to fire. When fired, the cannon inflicts damage on every target in its area of effect (see diagram below). Firing the cannon disables it, and it must be repaired (very

hard repair) before firing again. The vortex cannon, despite its size, is not a spinal mount weapon. A ship may mount more than one, provided that enough main hardpoints are available.

Light Vortex Cannon: 1 main hardpoint, Cost: 27. Requires 6 actions to charge.

Medium Vortex Cannon: 2 main hardpoints, Cost: 38. Requires 8 actions to charge.

Heavy Vortex Cannon: 3 main hardpoints, Cost: 71. Requires 10 actions to charge.



In the diagram above, the light, medium and heavy vortex cannons show their lethality. For each ship or fighter squadron affected, roll the number of dice shown and inflict the damage as a single attack.

WEAPON TABLES

Weapon	Short Range (0-1)		Medium Range (2-3)		Long Range (4-6)		Very Long Range (7-10)		Extreme Range (11-15)		Notes
	To Hit	Damage	To Hit	Damage	To Hit	Damage	To Hit	Damage	To Hit	Damage	
Slugthrowers											
Light Chaingun	6	1	5	1	-	-	-	-	-	-	Strafes.
Medium Chaingun	7	2	5	1	-	-	-	-	-	-	Strafes.
Heavy Chaingun	7	3	5	2	4	1	-	-	-	-	Strafes.
Light Railgun	4	3	7	3	5	3	2	3	-	-	Projectile.
Heavy Railgun	4	8	7	8	5	8	2	8	-	-	Charge. Projectile.
Spinal Railgun-1	4	12	7	12	5	12	2	12	-	-	Charge. Projectile.
Spinal Railgun-2	4	18	7	18	5	18	2	18	-	-	2xCharge. Projectile.
Spinal Railgun-3	4	24	7	24	5	24	2	24	-	-	3xCharge. Projectile.
Spinal Railgun-4	4	30	7	30	5	30	2	30	-	-	4xCharge. Projectile.
Spinal Railgun-5	4	36	7	36	5	36	2	36	-	-	5xCharge. Projectile.
Light Coilgun	7	2	6	2	4	2	3	2	-	-	Projectile. Charge to strafe.
Heavy Coilgun	7	5	6	5	4	5	3	5	-	-	Projectile. Charge to strafe.
Spinal Coilgun-1	7	12	6	12	4	12	3	12	-	-	Charge. Strafing Projectile.
Spinal Coilgun-2	7	18	6	18	4	18	3	18	-	-	2xCharge. Strafing Projectile.
Spinal Coilgun-3	7	24	6	24	4	24	3	24	-	-	3xCharge. Strafing Projectile
Spinal Coilgun-4	7	30	6	30	4	30	3	30	-	-	4xCharge. Strafing Projectile.
Spinal Coilgun-5	7	36	6	36	4	36	3	36	-	-	5xCharge. Strafing Projectile.
Point Defense Gun (PdG)	6	1	-	-	-	-	-	-	-	-	Antimissile. Strafes.
Lasers											
Light Laser	6	2	4	1	-	-	-	-	-	-	
Medium Laser	6	4	4	2	3	1	-	-	-	-	
Heavy Laser	6	8	5	4	3	2	-	-	-	-	
Light Turbolaser	7	2	6	1	-	-	-	-	-	-	Charge to strafe.
Medium Turbolaser	7	4	6	2	5	1	-	-	-	-	Charge to strafe.
Heavy Turbolaser	7	8	6	4	5	2	3	1	-	-	Charge to strafe.
Light Pulse Laser	7	4	6	2	5	1	-	-	-	-	Strafes.
Heavy Pulse Laser	7	8	6	4	5	2	3	1	-	-	Strafes.
Spinal Pulse Laser 1	7	16	6	8	5	4	3	2	2	1	Charge. Strafes.
Spinal Pulse Laser 2	7	24	6	12	5	6	3	3	2	1	2xCharge. Strafes.
Spinal Pulse Laser 3	7	32	6	16	5	8	3	4	2	2	3xCharge. Strafes.
Spinal Pulse Laser 4	7	40	6	20	5	10	3	5	2	2	4xCharge. Strafes.
Spinal Pulse Laser 5	7	48	6	24	5	12	3	6	2	3	5xCharge. Strafes.
Pd Pulse Laser (PdPL)	7	1	-	-	-	-	-	-	-	-	Antimissile. Strafes.
Light Beam Laser	8	4	8	2	7	1	-	-	-	-	Charge. Beam.
Light Advanced Beam Laser	8	4	8	2	7	1	-	-	-	-	Beam.
Heavy Beam Laser	8	8	8	4	7	2	5	1	-	-	Charge. Beam.
Advanced Heavy Beam Laser	8	8	8	4	7	2	5	1	-	-	Beam.
Spinal Beam Laser 1	8	16	8	8	7	4	5	2	3	1	Charge. Beam.
Spinal Beam Laser 2	8	24	8	12	7	6	5	3	3	1	2xCharge. Beam.
Spinal Beam Laser 3	8	32	8	16	7	8	5	4	3	2	3xCharge. Beam.
Spinal Beam Laser 4	8	40	8	20	7	10	5	5	3	2	4xCharge. Beam.
Spinal Beam Laser 5	8	48	8	24	7	12	5	6	3	3	5xCharge. Beam.
Pd Beam Laser (PdBL)	8	1	-	-	-	-	-	-	-	-	Antimissile. Beam.

WEAPON TABLES

Weapon	Short Range (0-1)		Medium Range (2-3)		Long Range (4-6)		Very Long Range (7-10)		Extreme Range (11-15)		Notes
	To Hit	Damage	To Hit	Damage	To Hit	Damage	To Hit	Damage	To Hit	Damage	
Energy Weapons											
Light Particle Beam	6	5	4	3	-	-	-	-	-	-	Charge. Blast.
Heavy Particle Beam	7	12	5	6	3	1	-	-	-	-	Charge. Blast.
Spinal Particle Beam 1	7	20	5	8	3	2	-	-	-	-	Charge. Blast.
Spinal Particle Beam 2	7	30	5	12	3	3	-	-	-	-	2xCharge. Blast.
Spinal Particle Beam 3	7	40	5	16	3	4	-	-	-	-	3xCharge. Blast.
Spinal Particle Beam 4	7	50	5	20	3	5	-	-	-	-	4xCharge. Blast.
Spinal Particle Beam 5	7	60	5	24	3	6	-	-	-	-	5xCharge. Blast.
Pd Particle Beam	7	1	-	-	-	-	-	-	-	-	Antimissile. Blast.
Light Plasma Gun	7	3	6	2	5	1	-	-	-	-	
Heavy Plasma Gun	7	6	6	3	5	2	4	1	-	-	
Light Plasma Repeater	7	3	6	2	5	1	-	-	-	-	Strafes.
Heavy Plasma Repeater	7	6	6	3	5	2	4	1	-	-	Strafes.
Light Fusion Cannon	7	4	6	3	5	1	-	-	-	-	Strafing Projectile.
Heavy Fusion Cannon	7	8	6	4	5	2	3	1	-	-	Charge. Strafing Projectile.
Spinal Fusion Cannon 1	7	20	6	10	5	5	3	2	-	-	Charge. Projectile.
Spinal Fusion Cannon 2	7	30	6	15	5	8	4	3	-	-	2xCharge. Projectile.
Spinal Fusion Cannon 3	7	40	6	20	5	10	4	4	-	-	3xCharge. Projectile.
Spinal Fusion Cannon 4	7	50	6	25	5	13	4	5	-	-	4xCharge. Projectile.
Spinal Fusion Cannon 5	7	60	6	30	5	15	4	6	-	-	5xCharge. Projectile
Ordnance											
MRS-#	-2	1	+1	1	-	-	-	-	-	-	One-shot Seeker.
LRS-#	-2	1	0	1	+1	1	-	-	-	-	One-shot Seeker.
VRS-#	-3	1	-1	1	0	1	+1	1	-	-	One-shot Seeker.
XRS-#	-4	1	-2	1	0	1	+1	1	+1	1	One-shot Seeker.
MRM	4 (-2)	1	7 (+1)	1	-	-	-	-	-	-	One-shot Seeker.
LRM	4 (-2)	1	6 (0)	1	7 (+1)	1	-	-	-	-	One-shot Seeker.
VRM	3 (-3)	1	5 (-1)	1	6 (0)	1	7 (+1)	1	-	-	One-shot Seeker.
XRM	2 (-4)	1	4 (-2)	1	6 (0)	1	7 (+1)	1	7 (+1)	1	One-shot Seeker.
SRRP-#	+1	2	-	-	-	-	-	-	-	-	One-shot Projectile.
MRRP-#	+1	2	-1	2	-	-	-	-	-	-	One-shot Projectile.
LLR Torpedo	4	4	6	4	7	4	-	-	-	-	One-shot Seeker. Blast.
MLR Torpedo	4	10	6	10	7	10	-	-	-	-	One-shot Seeker. Blast.
HLR Torpedo	4	23	6	23	7	23	-	-	-	-	One-shot Seeker. Blast.
LVR Torpedo	4	4	5	4	6	4	6	4	-	-	One-shot Seeker. Blast.
MVR Torpedo	4	10	5	10	6	10	6	10	-	-	One-shot Seeker. Blast.
HVR Torpedo	4	23	5	23	6	23	6	23	-	-	One-shot Seeker. Blast.
LXR Torpedo	3	4	4	4	5	4	6	4	5	4	One-shot Seeker. Blast.
MXR Torpedo	3	10	4	10	5	10	6	10	5	10	One-shot Seeker. Blast.
HXR Torpedo	3	23	4	23	5	23	6	23	5	23	One-shot Seeker. Blast.
Bombs											
Detlaser Bomb	7	4	6	2	5	1	-	-	-	-	One-shot Strafe. Bomb.
Graser Bomb	7	8	6	4	5	2	4	1	-	-	One-shot Beam. Bomb.
Xraser Bomb	+1	2	0	1	-	-	-	-	-	-	See Description.
Vortex Mine	N/A	2d6	N/A	1d6	N/A	1d6-3	-	-	-	-	See Description.
Exotic Weapons											
Light Fusion Torpedo	8	6	7	3	5	1	-	-	-	-	Seeker.
Heavy Fusion Torpedo	8	15	7	10	5	5	-	-	-	-	Charge. Seeker.
Spinal Fusion Torpedo 1	8	30	7	20	5	10	2	5	-	-	Charge. Seeker.
Spinal Fusion Torpedo 2	8	45	7	30	5	15	2	8	-	-	2xCharge. Seeker.
Spinal Fusion Torpedo 3	8	60	7	40	5	20	2	10	-	-	3xCharge. Seeker.
Spinal Fusion Torpedo 4	8	75	7	50	5	25	2	13	-	-	4xCharge. Seeker.
Spinal Fusion Torpedo 5	8	90	7	60	5	30	2	15	-	-	5xCharge. Seeker.

CONSTRUCTION TABLES

Weapon Banks	
Dual bank:	-10% total CV
Triple bank:	-15% total CV
Quad bank:	-20% total CV
Turrets	
Add 50% to the weapon or weapon bank's cost for each extra facing.	

Combat Value	
Offensive Value:	Total value of all weaponry + thruster + jump drive.
Defensive Value:	(2 x Structure) + (4 x Armor pts.) + shield generator + shield emitters + stealth + defensive gadgets + pt defense.
Miscellaneous Value:	(30 x (Actions - 2)) + (squads * 10) + (cargo / 5) + (Burns x 2) + gadgets.
Combat Value:	(Offensive + Defensive +

Frame: 1/4 total Structure, rounded up.

UDST Hulls	Actions
1	2
2-3	3
4-5	4
6-7	5
8-10	6
11-14	7
15-18	8
19-22	9
23-27	10
28-33	11
34-39	12
40-45	13
46-52	14
53-60	15
61-68	16
69-76	17
77-85	18
86-95	19
96-105	20
106-115	21
116-126	22
127-138	23
139-150	24
151-162	25
163-175	26
176-189	27
190-203	28
204-217	29
218-232	30
233-248	31
249-264	32
265-280	33
281-297	34
298-315	35
316-333	36
334-351	37
352-370	38
371-390	39
391-410	40

Hardpoints	
Light:	1 per UDST hull
Medium:	1 per 2 UDST hulls
Heavy:	1 per 4 UDST hulls
Main:	1 per 8 UDST hulls

Ordnance Magazines

Missiles: 50 per magazine hull
Bombs: 25 per magazine hull
Light Torpedoes: 12 per magazine hull
Medium Torpedoes: 6 per magazine hull
Heavy Torpedoes: 3 per magazine hull

Structure	Number of Rows
1-6	1
7-16	2
17-34	3
35-65	4
66-108	5
109-172	6
173-284	7
285+	8

Total Hulls

Total Hulls	Target Size
1-3	-1
4-15	0
16-42	+1
43-91	+2
92-166	+3
167-274	+4

EW Points per Hull	EW Rating
1	1
2-4	2
5-7	3
8-12	4
13-17	5

Impeller Points per hull	Jump Speed Bonus
1	+1
2-4	+2
5-7	+3
8-12	+4
13-17	+5
18-24	+6

Armor Level	Pts. Per UDST Hull	Thrust Level
Very Light	1	One higher
Light	2	Normal
Normal	3	One lower
Heavy	4	Two lower

Jump Impeller	Factor	Cost
Light	10	2
Medium	25	5
Heavy	60	12
Main	150	30

EW System	Factor	Cost
Light	10	30
Medium	25	70
Heavy	60	150
Main	150	360

Thruster Type	Cost	Hardpoints
Weak Thrusters	2	0%
Normal Thrusters	3	10%
Strong Thrusters	5	20%
Weak Reactionless	7	10%
Normal Reactionless	9	20%
Strong Reactionless	12	30%
Weak Retro Thrusters	4	5%
Normal Retro Thrusters	6	15%
Strong Retro Thrusters	10	25%
Weak Retro Reactionless	11	18%
Normal Retro Reactionless	14	28%
Strong Retro Reactionless	20	38%
Weak Omnidrusters	7	10%
Normal Omnidrusters	11	20%
Strong Omnidrusters	19	30%
Weak Omni Reactionless	17	25%
Normal Omni Reactionless	23	35%
Strong Omni Reactionless	35	45%

Total Hulls	Weak Thrust	Normal Thrust	Strong Thrust
1-2	1/1	2/1	3/1
3-6	1/2	1/1	2/1
7-12	1/3	1/2	1/1
13-20	1/4	1/3	1/2
21-30	1/5	1/4	1/3
31-42	1/6	1/5	1/4
43-56	1/7	1/6	1/5
57-72	1/8	1/7	1/6
73-90	1/9	1/8	1/7
91-110	1/10	1/9	1/8
111-132	1/11	1/10	1/9
133-156	1/12	1/11	1/10

Sequence of Play

1. Command Points
2. Initiative
3. Actions
4. Drift
5. Gravity
6. Point Defense Fire
7. Missile Resolution
8. Record Keeping.

Actions

Move	Dock
Target Lock	Coordinate Fire Control
Charge Weapon	Aim
Attack	Activate Hyperdrive
Repair	Launch/Recover Small Craft
Recharge Shields	Launch/Recover Riders
Activate Point Defense	Ready Troops
Support Troops	Board Enemy Vessel
Transport	Scuttle
Drop Chaff Pod	Activate Antimatter Spread

Attack Procedures

Direct Fire Attack: Count the range between attacker and target's ship counters. Check the appropriate line of the weapon table and add any modifiers to the to-hit number for that range. Use an attack action for every weapon or weapon bank firing on that target, and roll 1d10 per weapon used in the attack. If the roll is equal to or less than the target number, the weapon hits. If the roll is higher than the target number or a natural 10, you miss. There are no automatic hits.

Projectile/Seeker Attack: Count the range between the attacker and target's destination counters. Check the appropriate line of the weapon table and add any modifiers to the to-hit number for that range. Use an attack action for every weapon or weapon bank firing on that target and place an appropriate marking counter in the target's destination hex. Note the counter's ID, target ID, range from attacker's destination counter to target's destination counter, and weapon type. Use one counter per salvo.

During the missile resolution phase, discard any projectile counters that are not in the same hex as the target's ship counter.

Target Lock

Automatic within 2 + FCS rating hexes, otherwise roll 7 or less on 1d6, plus the modifiers below.

Modifiers

- 1 for every 2 full hexes of range to the target ship
- + Onboard FCS sensor rating, if there is one
- + Enemy Target Size Modifier
- Enemy Stealth Rating
- +2 if the enemy is using reaction drives
- +1 for multiple enemies in the same hex
- Nearby ship using reactionless drive: -1 in same hex.
- Nearby ship using reaction drive: -2 in same hex, -1 in adjacent hex.

To-hit Modifiers

Target thrusting: -1 per hex of displacement. *

Target size

Warhead ** -3

* Seeking weapons ignore this modifier

** Dedicated antimissile weapons ignore this modifier

Structure Damage

Containment (C): 1d10 cargo points lost. When all (C) are lost, lose 1d10 cargo on every maneuver or acceleration.

Remass (R): 1d6-3 burns lost. When all (R) are lost, lose 1d6 burns/turn until tanks are empty.

Magazine (M): Jam, plus 1d6-1 warheads lost to space. When all (M) are lost, all warheads are lost.

System (S): Disable a long range or short range scanner. If already disabled, destroy it.

Hangar (H): Roll 1d6 on the Hangar table. When the last (H) is lost, the ship's hangar is unusable.

UDST (U): Roll on the Surface Features table, adding +2 if attack came from the aft arc. If the system rolled is already destroyed or doesn't exist, roll on the Internal Damage table. If that result doesn't exist or is already destroyed, roll again.

Action (A): Lose one action. If more than one (A) is lost in the same attack, roll on the Core Hit table.

Hangar Table

1. Hangar Door
2. Small Craft Bay
3. Small Craft Bay
4. Small Craft Bay
5. 1d6 Small Craft Bays
6. Catapult

Internal Damage

1. Fixed Weapon
2. Transporter
3. Thruster
4. Crew Deck
5. Troops
6. Fixed Weapon

Surface Features

1. Turret Weapon
2. Sensors
3. Turret Weapon
4. Maneuvering Jets
5. Solar Panel
6. Shield Emitter
7. Hyperdrive Impeller
8. Turret Weapon

Core Hit

1. Fire Control
2. Flag Bridge
3. Power Plant
4. Spinal Mount
5. Hyperdrive
6. Shield Generator

Repairs

Easy: 7 or less on 1d10

Average: 5 or less on 1d10

Hard: 4 or less on 1d10

Very Hard: 2 or less on 1d10

Swarmer/Rocket Pack Hits Table

Roll	3	4	5	6	10	12	15	20	25	40
0-	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	2	2	2
2	1	1	1	1	1	2	2	2	3	4
3	1	2	2	2	2	2	3	3	5	7
4	1	2	2	2	3	3	4	5	8	11
5	2	2	3	3	4	5	6	8	11	17
6	2	3	3	4	5	6	8	10	14	20
7	2	3	3	4	7	8	10	13	16	26
8	2	3	4	5	7	9	11	15	18	29
9	3	4	4	5	8	10	12	17	21	34
10	3	4	4	5	8	11	14	18	23	37
11	3	4	5	6	9	11	14	19	24	39
12+	3	4	5	6	10	12	15	20	25	40

TIMELINE



2016 - The US, exhausted and bitter after a long and exhaustive war on terror, withdraws from the UN and most world affairs. Overseas military assets are brought home. This, along with the economic instability brought on by America's isolationism, causes tensions to rise across the globe. China and the EU attempt to fill the resulting power vacuum, and small, despotic nations turn greedy eyes toward their neighbors. Small brush wars break out all over the globe. The UN Headquarters move to Paris, France.

2021 - Japan founds first lunar industrial colony at Aristarchus Crater. USA, China and EU scramble to claim lunar soil of their own. The frontier of space opens up.

2038 - EU establishes first manned permanent base on Mars. Other nations follow. Unlike the lunar colonies, the ones on Mars cluster together, and the Martian society, inconveniently far from Earth's oversight, becomes quite cosmopolitan.

2041 - USA establishes permanent orbital base at L5, begins construction on joint US/Japan orbital habitats. Scientific and commercial survey missions head out for Jupiter and Saturn. Most nations subsidize private offworld colonial expeditions, and humanity tentatively spreads out into the belt.

2052 - Life confirmed on Europa. Underneath the ice, Europa's oceans display a rich ecology, teeming with strange, advanced life forms. Europa's biology is eerily compatible with Earth's. Preservationist factions gain considerable political clout, and plans to harvest Europa's oceans and terraform Mars are halted.

2055 - Orbital, lunar, and outsystem colonies multiply enormously. New nations grow in orbit; some started by wealthy nations or individuals, others declare themselves sovereign when their parent nations suffer economic collapse. Dosei Shipping Corporation, a Japanese freight hauling company, rises out of obscurity, moving over 12% of all bulk freight in the inner solar system. DSC branches out into zero-gee construction and other space industries, and funds prospecting missions to the outer worlds.

2062 - The governing body of the European Union, led by its most powerful members, France and Germany, exerts itself, overriding the sovereign governments of

many of its member nations. Protests in the smaller nations are suppressed harshly. As the EU turns inward, space colonies grow bolder, breaking free of their motherlands with alarming frequency.

2063 - Martian colonists, no longer under the close scrutiny of preservationist factions on Earth, begin clandestine terraforming. As it becomes clear that nobody is paying attention from Earth any more, they grow bolder, melting vast tracts of permafrost with orbital mirrors, and releasing a huge variety of engineered bacteria, plants and lichens into the wild. Surface temperatures rise rapidly as greenhouse gases are manufactured.

2087 - Radical separatists capture Triple Star Manufacturing (a European industrial colony in high earth orbit) and declare its independence as separatists kill the station's supervisory committee. Now renamed Littletree Station, the colony launches nuclear missiles in a surprise attack at its neighbors and at ground targets in the US, Japan, Europe, Africa and China. Combined UN forces move in and "pacify" the orbital, removing its government and placing a UN-run bureaucracy in charge. Over the next ten years, three more stations have their governing bodies replaced by UN representatives.

2094 - In the US, Harrison Fremont takes the presidency in a landslide election. Promising to restore the United States' lost dominance in world affairs, he immediately starts building the American military up to alarming levels.

2101 - "More atrocities have been committed in the name of Nationalism than any other. It is time to put an end to borders!" With these words, UN Secretary General Andre Vauquelin set off the First Unification War. The EU subsumes itself into the UN and provided its armed forces. The newly powerful United Nations consolidates power in the inner solar system, determined to place all of humanity under one new world order.

In reaction, outsystem colonies form new solar nations at Jupiter, Mars and Saturn. Many orbital factories and habitats are looted, captured or destroyed in the fighting; others deploy makeshift thrusters and mag-sails, and scatter for the belt.

2106 - Dosei Shipping Corporation prospectors discov-

er the ruins of an ancient automated factory deep inside Mimas. DSC keeps the discovery quiet, proceeds to make amazing new leaps in robotics and metallurgy, and quietly becomes the wealthiest part of the solar system. Unification War moves outward, but the outsystem and belter colonies put up stiff resistance.

2107 - Seismic activity under Yellowstone National Park indicates that the supervolcano is building up to a major eruption. Scientists predict that the Big One will happen within the next hundred years.

2108 - First Unification War ends. UN directly controls most of the Earth, the moon and select factory states in the belt, and spends most of its energy suppressing rebellions and controlling national economies for the good of all. As the UN Security Council tightens control in one area, others attempt to break free. The US prevents invasion, just barely, but becomes a third world backwater as the high tech leaders move off-world. Inability to maintain governmental services in the face of rapidly dwindling resources causes secession of several groups. The fiscal crisis that caused the secessions is the reason that the groups are allowed to leave without contest - the US is tired of war. The UN and US turn their attention towards survival. Ambitious plans to build self-sufficient arcologies and domed cities are put into motion, with the hope that earthbound humanity can survive the Big One. Those with less faith emigrate to the solar nations or try to ignore the coming disaster.

2158 - The Big One comes early. Yellowstone Park erupts violently, setting off sympathetic eruptions in volcanoes up and down the North American west coast. Volcanic ash blackens the atmosphere, sending global temperatures plummeting.

2163 - The UN is torn apart by insurrection as frustrated member nations rebel against the overbearing UN government. Nuclear weapons are used in great numbers in the northern hemisphere. Earth grows cold as a mini ice age drives the survivors toward the equator. Completed arcologies put their citizens into hibernation.

Most national governments collapse over the next twenty years.

2175 - The crash terraforming of Mars is wildly successful. The red planet seems unnaturally eager to be reborn. First natural rainfall on Mars recorded. The Martian atmosphere is just barely livable at this point. Much of the Martian surface is covered in black and dark green plant life, and lakes and oceans fill the northern hemisphere.

2182 - First attempted hyperspace jump results in destruction of the test platform. Communications from earth cease; the surviving cities are dark. On Mars, a global attitude shift occurs. Martians discover an automated factory deep beneath Cydonia and turn secretive, cutting off trade with the other nations. Sporadic reports indicate that humans born on Mars are very different.

2185 - First successful hyperspace jump by an experi-

mental Saturn ship. Colonization and exploitation of nearby stars commences. Hyperdrive secrets spread with unnatural quickness to the other powers.

2192 - Ruins of an unknown civilization are discovered on 61 Ursae Majoris III by DSC survey teams. While sifting through the remains, they discover two important things. Whoever built the ruined city did not evolve on this world, and the ruins themselves are less than 200 years old. A permanent research outpost is set up. Over time, Uma-ku grows into a major colony, becoming the economic heart of the Ursa Majoris cluster.

2291 - Martians attack Jovian and Saturn extrasolar colonies, fighting both nations to a standstill. To the other nations, the Martian Supreme Leader is clearly insane, but their fleets are too powerful to ignore. Belter factory states choose sides.

2317 - Terran Commonwealth rises up out of the ruins of old earth, with the initial aid of DSC, who hope to leverage Earth against Mars. Mars, ever hostile, interferes with everyone involved. In addition to all this, rumors circulate of alien ships sighted out on the fringes.

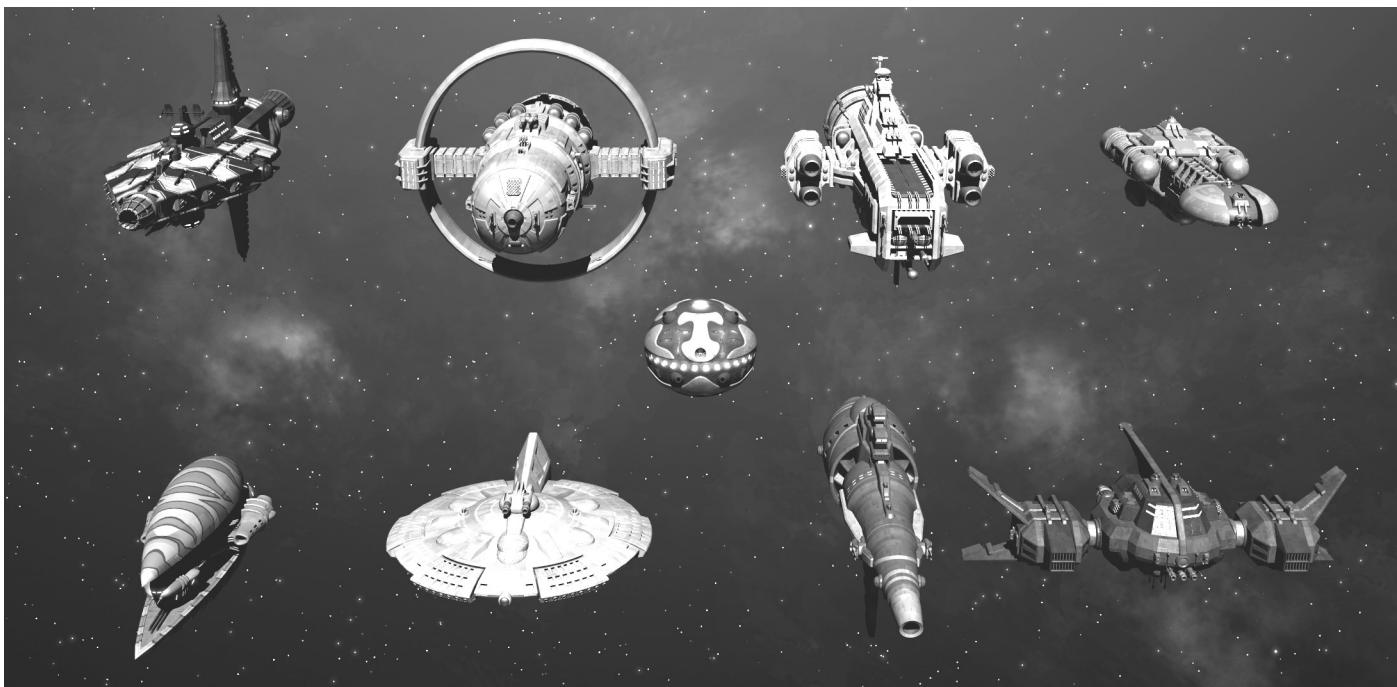
2326 - Having gained and then lost a lot of territory, the Martian Republic sues for peace. An uneasy quiet settles through human space. Despite the occasional flare ups, the peace seems to hold.

2335 - First contact between Mavrideans and DSC occurs at Xi Bootis. Outraged that humans are desecrating their old worlds, the Mavrideans attack.

2332 - Uma-ku grows restless, defying the DSC's ever greater attempts to micromanage the Cluster's activities. Defiance gives way to rebellion. The DSC makes a deal with the TDF to bring order to the Ursa Majoris cluster.

2335 - A Martian task force stumbles across a Qri' listening post in the Iota Piscium II system, over 40 ly from Sol. The Martian ships overwhelm the small Qri' defense force and pillage the base, leaving no survivors. Months later, hostile Qri' ships are sighted in the deep frontier, looking for blood.

EXPLORED SPACE



The universe is more crowded than we thought. In the last 150 years, humanity has explored an irregular blob of space nearly 80 light years across, and we have made contact with several spacegoing alien races, many of whom are more technologically advanced than we. So far, contact has not gone well.

Humanity

The human race has continued its scattered way, colonizing the solar system and nearby stars with a multitude of governments, peoples and faiths. Taking lessons from the one disastrous attempt to unify mankind under one state, humanity seems to have chosen competition over cooperation. There are countless small colonies and settlements within 35 light years of earth, ranging from tiny scientific outposts and mining stations to self-sufficient city states and larger. Most are inhabited, some are ghost towns, wiped out by accidents, natural disasters, or negligence.

Terran Commonwealth

The Terran Commonwealth is the reborn government of Earth. China, Peru, and Australia. Many smaller survivors of the Yosemite eruption and fall of the Unification make up the Commonwealth's member states. While all are equal in theory, China's size and strength easily make it first among equals. With the financial and technical help of the Dosei Shipping Corporation, the Commonwealth is hard at work catching up with the solar nations and re-terraforming Earth back to the garden world it once was. They are also working hard to expand their influence, bringing lunar and belter city states under its protection while claiming abandoned and lost

colonies for rebuilding and resettlement. The Commonwealth's influence grows even stronger every time a sleeper arcology comes out of hibernation. While many arcologies have already revived their citizens and become powerful again, many more are still in the deep sleep, with their automated defenses protecting them from looters, premature wakers and random vagrants. Most survivors of the Caldera Ice Age know better than to approach the Cities of the Dreamers. The Commonwealth has good relations with DSC, and has fought alongside them against the Martian Republic. The Jovian Alliance, still remembering the atrocities of the Unification wars, has rejected every Commonwealth treaty offer, fearing another wave of good-intentioned totalitarianism. The TDF has had multiple firefights with Mavrideans and Tharsi raiders in the outer worlds.

The Terran Defense Force

The TDF Space Navy is organized into the Earth Defense Force and the Expeditionary Forces. The EDF makes up about one third of the TDF, and is solely concerned with maintaining the peace and protecting Earth's solar system interests. The Expeditionary force extends the Commonwealth's reach to the stars. TDF capital ships are slow and heavy, able to take considerable abuse. As such, TDF task forces often stand their ground well past the point where other fleets would have broken off, a tendency other navy commanders find both intimidating and frustrating.

Martian Republic

Mars is a strange, strange world. Early in human expansion, Mars was colonized and terraformed with unusual speed and amazing success. It was almost as if the

planet itself wanted to live again. The biosphere on Mars is thin but lush around the northern ocean, and creeping into the dusty southern hemisphere. Interestingly, not all the life on Mars is transplanted Earth stock. There are odd red plants growing in the deep deserts and around the ice caps, and rumors of monsters to the south. The Martian colonists themselves are changing, becoming smaller of stature, with bigger heads. The Martian Republic is an aggressive and secretive state. After decades of insular seclusion, the Martian armed forces burst out and began occupying small colonies belonging to DSC and the Jovian Alliance.

Traditionalists that they are, the elite Martian Republican Guard fields fleets of agile saucer-shaped starships and tripod battleframes. The Martian Maximum Leader (name unknown) rebuffs contact with other governments, and insists that others stay away from "their" territories, even the ones they took by force.

Jovian Alliance

The Jovian Alliance is a loose confederation of orbital and surface nation states centered around Jupiter's moons. When the EU began to override the sovereignty of its member nations, many earth orbital colonies declared independence, deployed plasma sails and left Earth behind for the riches of the outer solar system. This was a hard blow to the EU's pride. When the First Unification War broke out, fighting was particularly brutal in the Jovian states. Now, even though the Terran Confederation has little relation to the long-gone UN, the Jovians still carry a grudge, and are unwilling to cut the Earth government any slack. Recent hostilities with Mars and alien raids on their outsystem colonies have pushed the normally pacifistic Alliance back to wartime production. Due to a largely hands-off approach to local government, several Alliance member nations are hotbeds of criminal activity, and the cash-strapped Alliance has instituted a bounty program in lieu of funding larger police forces.

Jovian Space Navy

The Jovian Alliance Navy has the largest variety of fighter craft of any navy in explored space. Much of this is political - nearly every sovereign power in the Alliance has its own small craft pork barrel projects, and new fighter construction contracts are used to sweeten deals in the Senate. In combat, the Alliance Navy treats its fighters as its first-strike weapons, holding its own ships back until the enemy fleet has been sufficiently weakened. The carriers will fire clouds of swarmer missiles, hoping to overwhelm enemy point defenses so that their fighters can safely attack at close range, and only then will the carriers close in for the kill.

Dosei Shipping Corporation

DSC has evolved from a minor cargo hauling outfit into a powerful corporate juggernaut, providing everything

from advanced home electronics to robotics to mega scale construction services. After the Yellowstone eruption took Earth out of the scene, DSC evolved from a company into a nation of its own. With the technology provided by the Mimas automated factory, DSC has leaped ahead in robotics, advanced building techniques, terraforming, and even faster than light travel. DSC views colonization as a long term process. Colonies start out as investments; all expenditures and profits are tracked. Eventually, if the colony is profitable enough, it can buy all its own shares and go independent, while still being part of the DSC economy. So far, none have managed to do so through normal channels, and some colonial district managers are convinced that DSC's central planning cooks the books to make buyouts impossible.

The Cluster

The Cluster is a rich grouping of K and G stars in the area of 61 Ursae Majoris. Originally made up of DSC company settlements, the people of the cluster worlds declared independence from Dosei's harsh controls and took down the company's local management. The DSC Corporate Security Force with aid from the Terran Commonwealth is attempting to restore control, and the fighting is getting intense.

Aliens

We are not alone. While many believed there was other life in the universe, nobody expected there to be so much of it, so close to us. To nobody's surprise, few of the aliens we've met so far have shown themselves to be enlightened, beneficent elders.

Tharsi

Of the aliens we have made contact with in our explorations, the Tharsi have proved to be the most interested in contact, and thus are the one alien race we know the most about. That's not to say they're friends...

The Tharsi are large, heavyset mammals that vaguely resemble a mix of oxen and hyenas. They have four thick legs and two long, thin arms that are usually folded under the body. Regular Tharsi weigh about 800 lbs., dominants are up to 200 lbs. heavier. Most are about twelve feet long from nose to stubby tail. They have thick fur, usually made up of reddish-brown, grey, black, or white patches in bold, asymmetric patterns. Tharsi heads are triangular, with four wide-set eyes placed just above the jawline, and a blunt, wide snout. Two long, expressive ears tip the back corners of the head.

Life on the Tharsi homeworld took the bigger-is-better route early on; the large, hulking Tharsi were actually small and agile compared to much of their prey. Tharsi evolved in a cold, predator-heavy environment, racing a larger, more dangerous species to sentience. The Tharsi and Lioch fought bitterly for limited territory and prey;

and eventually the Tharsi gained the upper hand. Lioch are nearly extinct; small numbers of them skulk about the fringes of Tharsi civilization, just barely able to comprehend the heights to which Tharsi have risen. Socially, Tharsi are family oriented, with family encompassing all the citizens of their native city-state. Children are raised in crèches; there's little of the human nuclear family lifestyle. This leads to a widespread closeness; a Tharsi city-state has very little internal crime. Disputes between settlements are common; a large percentage of these disputes erupt into all-out war. When the conflict is over, one of the settlements will have decimated the other and absorbed their survivors into its own.

Some Tharsi worlds near human space are experimenting with the UN model; creating meeting halls for neighboring city-states where disputes can sometimes be resolved with less bloodshed. Tharsi worlds are spread out all over. They don't have much respect for borders, and when one colony gets too crowded, it will split into two, with the smaller group moving to claim any nearby territory.

The Tharsi have a long, violent history with the Ryuushi. Before the Dominion broke free of their home system, the Tharsi used to raid them constantly; stealing weapons, power plants and other technology. The Ryuushis' lack of hyperdrives and long range scanners made them easy prey for the Tharsi raiders.

Mavrideans

The Mavridean Republic was once a vast, enlightened, star-spanning and peaceful civilization -- then the Bularcks came. The technologically superior Bularck forces tore savagely through their worlds, enslaving and killing millions, and reducing their colonies to rubble. Now, the Mavrideans are belligerent and warlike, reclaiming their old territories without regard for any current inhabitants. The Reclamation has brought them into conflict with humanity; and while they understand that there are several nations involved on our end, they see no need to discriminate between us, and treat us all as enemies.

Mavrideans are an insectile race, cold-blooded, covered in a soft carapace, and standing on four segmented legs. There are two types of Mavridean; the rare leaders and the much more numerous workers. The leaders are tall, thin, and elegant, with large brains and dexterous hands. In comparison, the workers are short, heavyset, and clearly none too bright.

Ryuushi

The Ryuushi Dominion is a tiny interstellar empire centered around the G1-3V star 20 Leo Minoris, almost 50 light years away from Sol. First contact took place at 47 Ursae Majoris, where the Ryuushi expedition intruded into a battle between Cluster and DSC forces. Avoiding

the heavy fighting, the Ryuushi ships captured and made off with several supply ships. Subsequent contacts with the Ryuushi ships have been tense.

The Ryuushi seem to be a hive mind of several related reptilian species. They travel in tight groups, and lone captives revert to an aggressive animalistic state until reunited with their kin.

Conversations with the Ryuushi have been terse; according to the Tharsi, they have considerable difficulty with languages, as they have little need for language among their own people.

Qri'

The Qri' are an older race, slow to change, frugal, wary of innovation, and aloof. The Qri' Triune consists of three clans, each comprised of three major families. Dominance games are constant among the families, and occasional among clans.

The Qri' themselves are tall, feathered bipeds, bearing a strong resemblance to Terran barn owls. They've never had wings; all four limbs end in long, dexterous talons and can be used as arms or legs interchangeably. Qri' are thought to have evolved from nocturnal tree-climbing omnivores.

Qri' society has been shaped by longevity and advanced medical technology. The Autarchs of the various houses and clans have been alive for centuries in most cases, and their attitudes have become excessively brittle and conservative.

Martian raiding has set them to a war footing again; hostile Qri' ships are being seen more and more in the outer systems.

Bularcks

Nobody in explored space has any idea where the Bularcks came from, or how they ended up fielding the most advanced technology around. In contact situations, they've done everything from ignore us to broadcasting odd rambling musical tones to fleeing or attacking, seemingly at random.

Bularcks themselves defy common sense. They resemble giant nightmarish tropical fish, and move around on land with what seem to be anti-gravity cradles. Their ships are swift and dangerous, on the odd occasions when they choose to attack. It is advised that contact with Bularck ships be avoided if possible.

The Aratouk Expanses

The following information was pieced together from the



ravings of an unstable A.I. system discovered on board a battered Qri' derelict. Given the vast distances between human space and the Expanses, there has been little chance to confirm any of the following data.

The Aratouk Expanses is the name for the anarchic battlezone formerly controlled by the long dead Aratouk Empire. The Aratouk were brutal and expansionistic, taking advantage of their advanced technology to enslave countless races. Arrogant and overconfident, they met their match when they turned their mighty fleets toward our worlds. Crushed between the hammer of the Fiahox and the anvil of the Istesu clans, the Aratouk lost control of their subjects. Rebellion tore the Empire apart. Now, the strongest of their subjects have split up most of the Empire's old domains.

The Xuvaxi, Ngaksu, Murustan, and Tusokk, free but knowing only conquest, struggle for supremacy. Border disputes are frequent and violent, as each race carves out its slice of the old empire. In addition, the economic exhaustion that the Aratouk had been staving off hit the new empires full on, and frustrated, they rage and tear at each other like starving wild dogs. Regular incursions into the borders are necessary to contain them lest they spread their anarchy into the Triune.

Xuvaxi

Xuvaxi are land-dwelling cephalopods, boneless and slow-moving. They breed by budding, and have an in-born talent for the bureaucratic arts. The Xuvaxi are the strongest and most numerous of the four major races, with a technological edge and an overbearing moral smugness. Their central position in the expanses puts them between all the other races, and the Xuvaxi find themselves working to keep the peace between the others. There are many minor races within Xuvaxi space; most are kept isolated. The Xuvaxi deny the other races the right to expand, and otherwise ignore them or exploit them as they see fit. Xuvaxi may be worthwhile allies in the future, if they are strong enough and determined enough to tame the other Aratouk slave races.

Ngaksu

The Ngaksu are slinky, nervous little carnivores, with a very limited gliding ability. Their small, low-gravity

homeworld is a windy, stormy place, and many Ngaksu myths start with the hapless protagonist being swept up by strong winds and carried to far off places.

The Aratouk found them to be troublesome slaves, as Ngaksu would take any opportunity to escape, no matter how slim the odds. Due to their small physical stature and poor access to resources, Ngaksu-built ships are smaller by class name than those of other races.

Murustan

Murustan are squat, spiky reptilian omnivores, curious and suspicious. Of the four major Aratouk slave races, their territory is the smallest. They alternate between isolationism and expansionism almost randomly, as different political groups vie for control of Murustan space. They are the only known species besides Bularcks to have stealth technology. Limited to two small shipyards, they can seldom afford the ships for a stand-up fight; and instead lurk in the shadows and strike when their enemy's attention is elsewhere.

Tusokk

Tusokk are strong, heavily built primates. Tusokk society is martial, honor-bound, and sexist: Women are in charge, men do the fighting and hard work, and on the whole they're fine with that arrangement. Abstract face and body tattoos are common. In the Aratouk Empire, Tusokk men made up the bulk of the infantry and security forces. When the empire collapsed, the Tusokk remained loyal, and still officially hope for their master's return. The other races in the expanse resent them.

SAMPLE SHIPS: TERRAN DEFENSE FORCE

FC-37 Sha Yu Strike Fighter: Streamlined medium fighter, 15 burns, thrust 3/1, 2 actions, 1 hit, TS: -2, dual light chain guns, MRRP-4. **CV: 19**

Cavalry Dropship: Streamlined heavy fighter, 16 burns, thrust 1/1, 3 actions, 2 hits, TS: -2, two-seat, 2 squads, chain gun, 2 MRRP-4s. **CV: 42.**

TDF Nazca class Heavy Cruiser

Nazca heavy cruisers are general purpose ships built for independent operation. With long legs and high endurance, they can operate away from base for up to 5 months. They're popular with navy personnel, both for their survivability and their spacious living quarters.

Nazca Heavy Cruiser

Off: 514, Def: 450, Msc: 336, **CV: 434**

Hull Data

30 Hulls (17 UDST, 7 Remass, 4 Misc, 2 Hangars).

TS: 1

Armor: 51 (10/10/10/10/10/1)

Structure: 30 (10/10/10)

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UUUUU UAAAAA

Frame: 8

Troops: 8 Squads.

Cargo: 140, Supply: 25, Endurance: 5 months.

Hangar: 8 craft.

Performance

8 Actions.

Normal Thrusters.

Thrust Ratio: 1/5.

Remass: 360 pts., 24 burns.

Quantum I jump engine, 1 heavy impeller.

Jump speed: 3. 20 actions to jump.

Weapons

Spinal Rail Gun x2

1 Dual Heavy Chain Gun Turret (FPS)

2 Triple Light Railgun Turrets (2 FPS)

1 LRS-40

1 MRRP-15 (F)

2 Dual MRRP-4s (1 P, 1 S)

5 Dual PdG Turrets (3 FPS, 2 APS)

2 Chaff Pods

TDF Beijing Rising class Battleship

One of a kind, the Beijing Rising is the Commonwealth's pride and joy. The Rising's crew is the finest the TDF has to offer, and the ship itself is the largest mainline combat vessel in any human navy. The Rising is regularly transferred between the EDF and the Expeditionary fleet; as battles with the Martian Republic and Tharsi raiders heat up, the appearance of the battleship is often enough to send the enemy running.

Beijing Rising Battleship

Off: 1,112, Def: 1,200, Msc: 782, **CV: 1,032**

Hull Data

80 Hulls (40 UDST, 18 Remass, 9 Misc, 6 Hangars, 7 System). TS: 2

Armor: 160 (16/16/16/16/16/16/16/16/16/16).

Structure: 80 (16/16/16/16/16/16).

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Frame: 20

Troops: 16 Squads.

Cargo: 390, Supply: 60, Endurance: 6 months.

Hangar: 24 craft.

Long Range Scanner

Short Range Scanner

Flag Bridge

Heavy Fire Control Sensor

Performance

13 Actions.

Normal Thrusters.

Thrust Ratio: 1/10.

Remass: 880 pts., 22 burns.

Quantum I jump engine, 3 heavy impellers.

Jump speed: 3. 54 actions to jump.

Weapons

Spinal Railgun x4

2 Triple Heavy Railgun Turrets (2 FPS)

4 Dual Medium Chaingun Turrets (2 FP, 2 FS)

3 LRS-40s

8 Dual PdG Turrets (2 FP, 2 FS, 2 AP, 2 AS)

6 Chaff Pods



SAMPLE SHIPS: MARTIAN REPUBLICAN GUARD

MSS Aelita class Corvette

Aelitas are scout ships, built by the Martian Republican Guard for long-term deployment and commerce raiding deep in enemy territory. They hunt for easy targets, attacking shipping and unprotected settlements and fleeing if met with strong resistance. Traditionally, Aelita class ships are named by their captain during their third victory celebration. Given the fragility of these tiny ships, not many of them earn their names.

Aelita Corvette

Off: 171, Def: 69, Msc: 184, CV: 142

Hull Data

7 Hulls (4 UDST, 2 Remass, 1 Misc). Streamlined.

TS: 0

Armor: 8 (4/4).

Structure: 7 (4/3)

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Frame: 2

Troops: 2 Squads.

Cargo: 46, Supply: 5, Endurance: 9 months.

Performance

4 Actions.

Normal Omnithrusters.

Thrust Ratio: 1/2.

Remass: 91 pts., 26 burns.

Quantum I jump engine, 2 light impellers.

Jump speed: 3. 5 actions to jump.

Weapons

1 Heavy Particle Beam (F)

1 LRS-10

1 Dual PdG Turret (360)

MSS Zhukov class Light Cruiser

Designed to fight at any range, Zhukovs are the backbone of the Republican Guard's space division. Carrying the same torpedo loadout as its larger cousins allows the Zhukov to strike hard on the approach, while its generous power curve lets it recharge its energy weapons and maneuver at the same time, allowing it to stay with its target and keep the pressure on.

Zhukov Light Cruiser

Off: 729, Def: 192, Msc: 418, CV: 447

Hull Data

20 Hulls (12 UDST, 6 Remass, 2 Misc). Streamlined.

TS: +1

Armor: 24 (7/7/7/3).

Structure: 20 (7/7/6).

CCRRR RR

RUUAA AA

UUUAA A

Frame: 5

Troops: 8 Squads.

Cargo: 90, Supply: 16, Endurance: 5 months.

Performance

7 Actions.

Normal Omnithrusters.

Thrust Ratio: 1/3.

Remass: 250 pts., 25 burns.

Quantum I jump engine, 2 medium impellers.

Jump speed: 3. 14 actions to jump.

Weapons

Spinal Pulse Laser x1 (F)

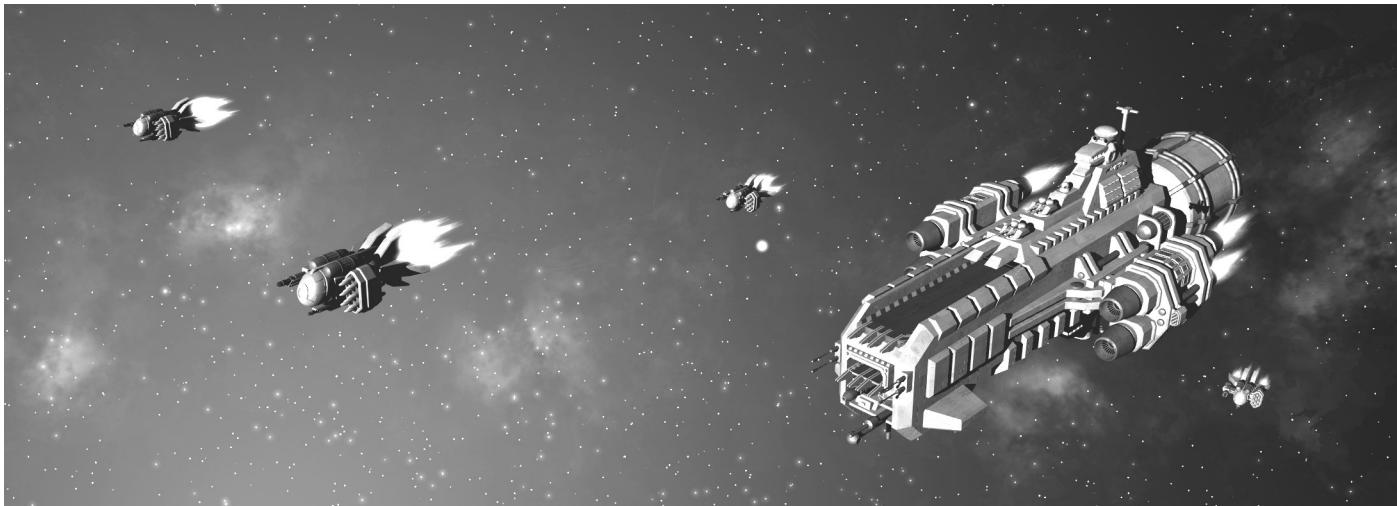
1 Dual Heavy Particle Beam Turret (FPS)

2 Quad LLR Torpedoes 4

4 Dual PdG Turrets (2 FPA, 2 FSA)



SAMPLE SHIPS: JOVIAN ALLIANCE NAVY



Avispa Interceptor: Light Fighter, 24 burns, thrust 4/1, 2 actions, 1 hit, TS: -3, Dual Heavy Arms, 1 LRS-3. **CV: 18.**

Meteor Light Fighter: Streamlined Light Fighter, 18 burns, thrust 3/1, 2 actions, 1 hit, TS: -3, radiator, light turbolaser, dual MRRP-4s. **CV: 18**

Spada Fighter: Medium Fighter, 10 burns, thrust 2/1, 2 actions, 1 hit, TS: -2, 1 LRS-10, 1 PdG, 1 lt. chain gun. **CV: 18.**
Option 1: Replace LRS-10 with MLR Torpedo. **CV: 31.**
Option 2: Replace LRS-10 with MRRP-15. **CV: 19.**
Option 3: Replace LRS-10 and light chain gun with medium chain gun and LRS-3. **CV: 16.**

Tornade Fighter: Medium Fighter, 20 burns, thrust 3/1, 2 actions, 1 hit, TS: -2, light chain gun, PdG, graser bomb. **CV: 28.**

Tempeste Strike fighter: Heavy Fighter, 16 burns, thrust 2/1, 2 actions, 2 hits, TS: -2, light chain gun, PdG, 2 LLR Torpedoes. **CV: 37.**
Option 1: Replace torpedoes with graser bombs. **CV: 43.**
Option 2: Replace torpedoes with LRS-3s. **CV: 25.**
Option 3: Replace torpedoes with MRRP-4s. **CV: 25.**

Drache Gunboat: Superheavy Fighter, 12 burns, thrust 1/1, 4 actions, 3 hits, TS: -1, radiator, two-seat, 1 medium turbolaser, 1 PdG, 1 LRS-3. **CV: 42.**

JAN Lanze class Strike Carrier

The Jovian Alliance's most common ship of the line is the Lanze strike carrier. Hurried into mass production, the class is small, cramped, and suffers from a myriad of low-grade maintenance problems and designed-by-committee features. Many Lanzes get by without their troop complement, allowing the flight deck crews to take over the marine's quarters. A few have removed the short range scanner array and put that hull space to different uses. Lanzes are named after heroic soldiers and freedom fighters.

Lanze Strike Carrier

Off: 478, Def: 208, Msc: 374, **CV: 354**

Hull Data

29 Hulls (12 UDST, 6 Remass, 4 Misc, 6 Hangars, 1 System). TS: 1

Armor: 24 (10/10/4).

Structure: 29 (10/10/9).

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UUUUU AAAA

Frame: 8

Troops: 8 Squads.

Cargo: 188, Supply: 28, Endurance: 6 months.

Hangar: 24 craft, 1 Catapult

Short Range Scanner

Performance

7 Actions.

Normal Retro Thrusters.

Thrust Ratio: 1/4.

Fuel: 261 pts., 18 burns.

Quantum I jump engine, 1 heavy impeller.

Jump speed: 3. 20 actions to jump.

Weapons

1 Heavy Turbolaser (F)

2 Dual Medium Turbolaser Turrets (2 FPS)

2 LRS-10s

5 LRS-3s

3 Dual PdG Turrets (2 FPS, 1 APS)

SAMPLE SHIPS: DSC CORPORATE SECURITY



Centurion Medium Battleframe: medium battleframe, 15 burns, thrust 3/1, 2 actions, 1 hit, TS: -3, hands, 2 LRS-3s. **CV: 21**

Assault Centurion: Remove LRS-3s, add heavy armor, 2 MRRP-4s. Thrust 2/1, 2 hits. **CV: 23**

Titan Fire Support Battleframe: heavy battleframe, 16 burns, thrust 1/1, 2 actions, 3 hits, TS: -3, heavy armor, radiator, hands, 1 LRS-10 **CV: 35**

One-handed Weapons

Blade: 5
Shield: 3
Lt. Chain Gun: 4
Lt. Turbolaser*: 5
MRRP-4: 4
LRS-3: 4
Lt. LR Torpedo: 10

Two-handed Weapons

Med. Chaingun: 6
Lt. Railgun: 7
Med. Turbolaser*: 8
Lt. Particle Beam*: 9
Med. LR Torpedo: 21

* These weapons are only usable by battleframes equipped with radiators.

CSF Gijouhei class Attack Cruiser

Like most of the Corporate Security Force space fleet, the Gijouhei ("honor guard") attack cruiser is built to function with or without its battle-frame squadron. In combat, the Gijouhei is aggressive, closing in tight to gut the enemy with its particle beams and turbolasers. When working with its battleframes, the attack cruiser will shower the squadron's target with swarmers, tying up its point defense so the battleframes can attack freely.

Gijouhei Attack Cruiser

Off: 748, Def: 268, Msc: 282, **CV: 433**

Hull Data

28 Hulls (16 UDST, 5 Remass, 3 Misc, 2 Hangars, 2 Magazine). TS: 1

Armor: 32 (10/10/10/2).

Structure: 28 (10/10/8).

CCCHH RRRRR

MMUUU AAAAA

UUUUU AAA

Frame: 7

Troops: 4 Squads.

Cargo: 108, Supply: 22, Endurance: 4 months.

Hangar: 8 craft.

Performance

8 Actions.

Strong Thrusters.

Thrust Ratio: 1/3.

Remass: 280 pts., 20 burns.

Quantum I jump engine, 1 lt., 2 hvy. impellers.

Jump speed: 4. 14 actions to jump.

Weapons

Spinal Particle Beam x2
2 Dual Medium Turbolaser Turrets (1 FP, 1 FS)
1 Dual Lt. Particle Beam (F)
1 Heavy & 2 Light Missile Bays (96 LRMs)
6 Dual PdG Turrets (4 FPS, 2 APS)

SAMPLE SHIPS: THARSI RAIDERS

Jalaak Interceptor: Streamlined medium fighter, 20 burns, thrust 4/1, 2 actions, 1 hit, TS: -2, radiator, light plasma gun. **CV: 20.**

Turana class Light Raider

Turanas are always spotted in groups, loitering like sharks in the Mavridean and Ryuushi war zones. The Tharsi seem to have learned to wait until human ships have used their ordnance up in combat before diving in to loot the survivors. Up close, their energy weapons can do significant damage, and their ships are fast enough to force a close range fight.

Turana Light Raider

Off: 402, Def: 168, Msc: 290, **CV: 287**

Hull Data

18 Hulls (11 UDST, 3 Remass, 2 Misc, 2 Hangars).

TS: 1

Armor: 22 (6/6/4).

Structure: 18 (6/6/6).

CCHHR R

RUUAA A

UUAAA A

Frame: 5

Troops: 4 Squads.

Cargo: 66, Supply: 17, Endurance: 3 months.

Hangar: 8 craft, 1 catapult

Performance

7 Actions.

Strong Thrusters.

Thrust Ratio: 1/2.

Remass: 162 pts., 20 burns.

Quantum II jump engine, 4 light impellers.

Jump speed: 4. 9 actions to jump.

Weapons

1 Dual Lt Beam Laser (F)

2 Dual Lt Fusion Cannon (1 F, 1 A)

2 Dual Lt Plasma Gun Turrets (1 FPS, 1 APS)

2 Dual PdPL Turrets (1 FPS, 1 APS)

Taturok Heavy Fighter: Streamlined heavy fighter, 16 burns, thrust 3/1, 3 actions, 1 hit, TS: -2, two-seat, radiator, dual light plasma guns. **CV: 38.**

Kina class Attack Ship

Where the Turanas play it cautiously, the rarely seen Kina attack ships often chase the fighters in, closing to point blank range with reckless abandon. With all their offensive weapons facing forward and deeper remass tanks than their raider cousins, these light, fast Tharsi warships are a serious threat.

Kina Attack Ship

Off: 361, Def: 182, Msc: 340, **CV: 295**

Hull Data

16 Hulls (11 UDST, 4 Remass, 1 Misc). Streamlined.

TS: 1

Armor: 22 (8/8/6).

Structure: 16 (8/8).

CRRRR AAA

UUUUA AAA

Frame: 4

Troops: 4 Squads.

Cargo: 66, Supply: 13, Endurance: 5 months.

Performance

7 Actions.

Strong Thrusters.

Thrust Ratio: 1/2.

Remass: 160 pts., 20 burns.

Quantum II jump engine, 3 light impellers.

Jump speed: 3. 11 actions to jump.

Weapons

1 Single Heavy Beam Laser (F)

2 Dual Heavy Plasma Guns (2 F)

1 Triple Light Fusion Cannon (F)

2 Triple PdPL Turrets (1 FPS, 1 APS)



SAMPLE SHIPS: RYUUSHI DOMINION

Hunter

The Ryuushi Hunter is this hive-mind race's equivalent to a heavy fighter. Hunters fly in squadrons, using their shields to bear the brunt of the enemy's first strike, then attempting to cut them apart with their beam lasers. It's a rare Ryuushi clench that bothers to recharge the shields after the first pass; most will simply press the attack for as long as they can.

Hunter

Off: 140, Def: 106, Msc: 188, **CV: 145**

Hull Data

8 Hulls (5 UDST, 2 Remass, 1 Misc). Streamlined.

TS: 0

Shields: 3 (Regen 1, 3 emitter-1s)

Armor: 10 (4/4/2).

Structure: 8 (4/4).

CRRA

UAAA

Frame: 2

Troops: 3 Squads.

Cargo: 48, Supply: 7, Endurance: 6 months.

Performance

4 Actions.

Strong Retro Thrusters.

Thrust Ratio: 1/1.

Remass: 80 pts., 20 burns.

Quantum I jump engine, 2 light impellers.

Jump speed: 3. 6 actions to jump.

Weapons

1 Single Light Beam Laser (F)

1 VRS-3

1 Single PdBL Turret (FPS)

Dominator

Dominators are multipurpose cruisers, able to perform combat, troop transport, and even scientific missions without internal modifications. There are several rumored variants to this design, but the one listed here is the only design confirmed. Dominators are tough fighters, with shields, powerful weapons and strong retrothrusters that give them the ability to stay close to an enemy and keep the spinal beam laser on target.

Dominator

Off: 541, Def: 323, Msc: 450, **CV: 438**

Hull Data

23 Hulls (14 UDST, 5 Remass, 3 Misc, 1 System).

Streamlined. TS: 1

Shields: 12 (Regen 1, 12 emitter-1s)

Armor: 28 (8/8/4).

Structure: 23 (8/8/7).

CCCR RRR

SUUUA AAA

UUUUA AA

Frame: 6

Troops: 8 Squads.

Cargo: 90, Supply: 18, Endurance: 5 months.

Short Range Scanner

Performance

7 Actions.

Strong Retro Thrusters.

Thrust Ratio: 1/3.

Remass: 253 pts., 22 burns.

Quantum I jump engine, 3 medium impellers.

Jump speed: 3. 16 actions to jump.

Weapons

Spinal Beam Laser x1

1 Triple Heavy Plasma Gun (F)

2 VRS-10s

2 Dual PdBL Turrets (1 FPA, 1 FSA)



SAMPLE SHIPS: MAVRIDEAN RECLAIMER FLEET



Eristi class Destroyer

Eristis operate in loose squadrons, and seem reluctant to engage the enemy, preferring to skim the edge of combat and harass enemy ships with their fusion cannons. When organized, they've got a talent for herding enemy ships into the Mavridean capital ships' kill zones. Recently, they've started flying close escort, using their point defense to protect the command ships.

Eristi Destroyer

Off: 132, Def: 90, Msc: 213, **CV: 145**

Hull Data

8 Hulls (5 UDST, 2 Remass, 1 Misc). Streamlined. TS: 0

Armor: 10 (4/4/2).

Structure: 8 (4/4).

CRRA

UAAA

Frame: 2

Troops: 4 Squads.

Cargo: 44, Supply: 7, Endurance: 6 months.

Performance

4 Actions.

Normal Thrusters.

Thrust Ratio: 1/2.

Remass: 74 pts., 28 burns.

Quantum II jump engine, 1 medium impeller.

Jump speed: 4. 4 actions to jump.

Weapons

1 Heavy Fusion Cannon (F)

1 Light Pulse Laser (F)

2 Dual PdPL Turrets (1 FP, 1 FS)

Imoran class Battlecruiser

The Imoran cruiser seems to have been built around its massive spinal fusion cannon. Imorans usually operate in pairs, with one using the fusion cannon to force an enemy ship to evade, and the other firing for the killing shot after the target's new vector is known. With their long endurance, Imorans can stay out on the edges of a star system, waiting patiently for the best time to attack.

Imoran Battlecruiser

Off: 644, Def: 298, Msc: 312, **CV: 420**

Hull Data

26 Hulls (18 UDST, 5 Remass, 3 Misc). TS: 1

Armor: 36 (9/9/9).

Structure: 26 (9/9/8).

CCCR RRR

UUUUU AAAA

UUUUU AAA

Frame: 7

Troops: 5 Squads.

Cargo: 168, Supply: 21, Endurance: 8 months.

Performance

8 Actions.

Normal Thrusters.

Thrust Ratio: 1/4.

Remass: 208 pts., 24 burns.

Quantum II jump engine, 2 light, 2 medium impellers.

Jump speed: 4. 13 actions to jump.

Weapons

Spinal Fusion Cannon x3

1 Dual Heavy Pulse Laser (F)

2 Dual Light Pulse Laser Turrets (2 FPS)

6 Dual PdPL Turrets (3 FP, 3 FS)



Qri' Falcon class Cruiser

These ships have been spotted on the frontiers of human space. Based on survivors reports, the Qri' ships favor a jousting attack run, burning through their opponents and gaining distance enough to regenerate shields before attacking again, or boldly jumping directly into the heart of the enemy fleet and boarding the enemy command ship with their marine teleport systems.

Qri' Falcon Cruiser

Off: 516, Def: 400, Msc: 408, CV: 442

Hull Data

16 Hulls (12 UDST, 3 Misc, 1 System). Streamlined.

TS: 1

Shields: 15 (Regen 2, 5 emitter-3s)

Armor: 30 (7/7/7/7/2).

Structure: 20 (7/7/6).

OOOC CC

SUUA AA

UUUAA A

Frame: 5

Troops: 6 Squads, 2 transporters.

Cargo: 106, Supply: 15, Endurance: 7 months.

Short Range Scanner

Performance

7 Actions.

Strong Reactionless Drives.

Thrust Ratio: 1/2.

Quantum III jump engine, 1 heavy impeller.

Jump speed: 5. 7 actions to jump.

Weapons

2 Heavy Fusion Torpedoes.

2 Dual Lt. Plasma Repeater Turrets (1 FP, 1 FS)

4 Dual PdBL Turrets (2 FPA, 2 FSA)

Bularck Pike class Scout Ship

So far, there have been few violent encounters with Bularck ships. More often than not, they jump outsystem or otherwise avoid contact. The Mavrideans blame them for the collapse of their old republic, and the Ryuushi claim to owe their shield technology to reverse-engineered components from a badly damaged, captured Pike. In the one known engagement against TDF ships, the Bularck scouts were swift and merciless, tearing apart cruisers three times their size.

Bularck Pike Scout

Off: 695, Def: 422, Msc: 174, CV: 431

Hull Data

10 Hulls (8 UDST, 2 Misc). TS: 0

Shields: 16 (Regen 4, 4 emitter-4s)

Armor: 20 (6/6/6/2).

Structure: 12 (6/6).

OCCA A

UUAAA A

Frame: 3

Troops: 4 Squads.

Cargo: 70, Supply: 10, Endurance: 7 months.

EW: -1

Performance

6 Actions.

Strong Reactionless Omnidrivers.

Thrust Ratio: 1/1.

Quantum III jump engine, 1 heavy impeller.

Jump speed: 6. 4 actions to jump.

Weapons

1 Light Vortex Cannon (F)

1 Dual Light Adv Beam Laser (F)

2 Single Lt. Adv Beam Laser Turrets (1 FP, 1 FS)

2 Antimatter Spreads (2 F)

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