

JOAN'S FIGHTING SPACECRAFT 2664.128 UPDATE

Since the last edition of *Joan's Fighting Spacecraft*, several new Kilrathi ship-types have been encountered and several new Confederation craft have been added to the fleet. The *2664.128 Update* provides a description of each spacecraft you are likely to fly or encounter in the current conflict, followed by notes on the offensive and defensive systems currently active in the Terran-Kilrathi conflict. This material could mean the difference between a successful mission and a quick death.

Though most of the information presented in *Joan's* evaluations is self-explanatory, some data types may require additional explanation. (The following text is reprinted here with the permission of Ivan Borger, Jr., publisher of *Joan's Fighting Spacecraft*):

Maximum Velocity/Cruise Velocity. These are the settings for the ship's governors. This is always a relative velocity; a ship's computer calculates it relative to (a) the flagship, (b) an escorted vessel, (c) a nearby planetary body, (d) a Confederation beacon or (e) a value derived from radar positions of all visible ships. Velocity is expressed in kilometers per second (kps). The higher the values, the faster the ship.

Acceleration. This shows the *Joan's* evaluation of the ship's acceleration rate, described as "Bad," "Poor," "Average," "Good" or "Excellent."

Maximum Yaw, Pitch and Roll*. These characteristics, measures of a spacecraft's maneuverability, are expressed in degrees per second (dps). The higher the number, the more maneuverable the ship.

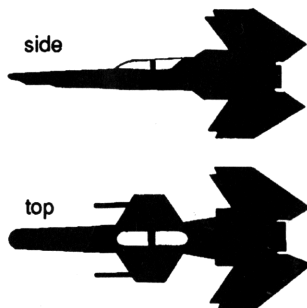
* Yaw—ability of a ship to turn to the right or left. Pitch—ability to change direction up or down. Roll—ability to rotate around the length-wise axis.

Ship's Armor. Joan's evaluation of a ship's defensive armor is expressed in centimeters thickness of Durasteel. Fore and aft shields are given in values equivalent to centimeters thickness of Durasteel. The effectiveness of phase shields is classified—listings indicate which capital ships are equipped with these technological wonders, but no Durasteel equivalents are provided. The higher the shield and/or armor rating, the better.

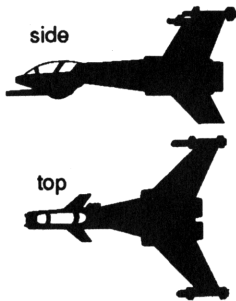
CONFEDERATION FIGHTERS

P-64C Ferret

Class	Patrol Fighter
Length	10.2 meters
Maximum Velocity	500 kps
Cruise Velocity	360 kps
Acceleration	Good
Max. Yaw, Pitch, Roll	8 dps
Mass	10.5 tonnes
Ship's Weapons	
Mass Drivers (2)	
Ship's Armor	
Fore and Aft Shield	6 cm equivalent each
Front and Rear	6.5 cm each
Right and Left	4.5 cm each

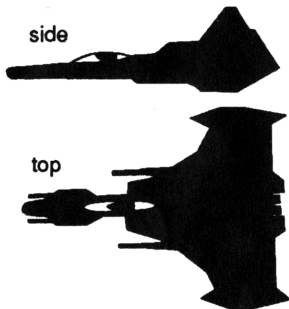


F-54C Epee



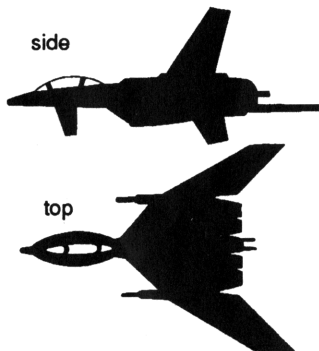
<i>Class</i>	Light Attack Fighter
<i>Length</i>	12.4 meters
<i>Maximum Velocity</i>	480 kps
<i>Cruise Velocity</i>	250 kps
<i>Acceleration</i>	Excellent
<i>Max. Yaw, Pitch, Roll</i>	10 dps
<i>Mass</i>	13 tonnes
<i>Ship's Weapons</i>	
Particle Cannon (2)	Dumb Fire Missiles (2)
Heat-Seeking Missiles (2)	
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	6 cm equivalent each
<i>Front and Rear</i>	3.5 cm each
<i>Right and Left</i>	3 cm each

F-44G Rapier



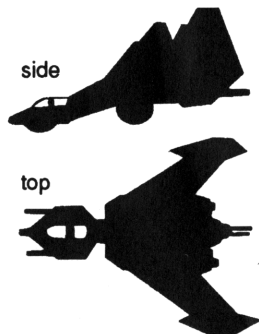
<i>Class</i>	Medium Attack Fighter
<i>Length</i>	19.0 meters
<i>Maximum Velocity</i>	450 kps
<i>Cruise Velocity</i>	250 kps
<i>Acceleration</i>	Excellent
<i>Max. Yaw, Pitch, Roll</i>	10 dps
<i>Mass</i>	15 tonnes
<i>Ship's Weapons</i>	
Laser Cannon (2)	Dumb Fire Missiles (2)
Particle Cannon (2)	Heat-Seeking Missiles (2)
Chaff Pod (1)	Friend or Foe Missiles (2)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	8 cm equivalent each
<i>Front and Rear</i>	6.5 cm each
<i>Right and Left</i>	5 cm each

F-57A Sabre



<i>Class</i>	Heavy Attack Fighter
<i>Length</i>	23.6 meters
<i>Maximum Velocity</i>	400 kps
<i>Cruise Velocity</i>	220 kps
<i>Acceleration</i>	Excellent
<i>Max. Yaw, Pitch, Roll</i>	8 dps
<i>Mass</i>	22 tonnes
<i>Ship's Weapons</i>	
Particle Cannon (2)	Image Rec. Missiles (4)
Mass Drivers (2)	Friend or Foe Missiles (2)
Chaff Pods (1)	Dumb Fire Missiles (2)
<i>Turret</i>	
Neutron Guns (2)	
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	10 cm equivalent each
<i>Front and Rear</i>	16 cm each
<i>Right and Left</i>	11 cm each

A-17D Broadsword

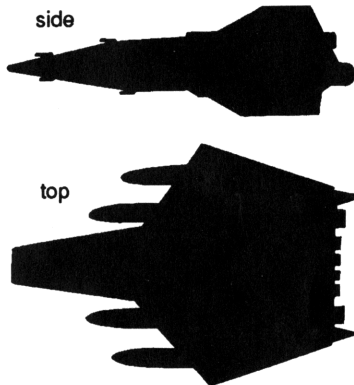


<i>Class</i>	Heavy Bomber
<i>Length</i>	36.0 meters
<i>Maximum Velocity</i>	320 kps (jump capable)
<i>Cruise Velocity</i>	150 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	5 dps
<i>Mass</i>	100 tonnes
<i>Ship's Weapons</i>	
Torpedoes (4)	Friend or Foe Missiles (3)
Mass Driver Cannon (3)	
<i>Turrets (3)</i>	
Neutron Guns (2 per)	Tractor Beam (1 to rear)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	18 cm equivalent each
<i>Front and Rear</i>	15 cm each
<i>Right and Left</i>	13 cm each

CONFEDERATION CAPITAL SHIPS

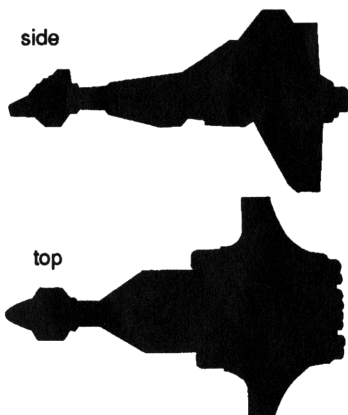
Gilgamesh

<i>Class</i>	Destroyer
<i>Length</i>	312.1 meters
<i>Maximum Velocity</i>	250 kps
<i>Cruise Velocity</i>	150 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	2 dps
<i>Mass</i>	10,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (2)	Anti-Matter Guns (2)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	Phase Shields
<i>Front and Rear</i>	250 cm each
<i>Right and Left</i>	200 cm each



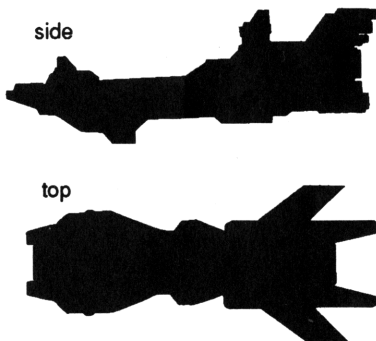
Waterloo

<i>Class</i>	Cruiser
<i>Length</i>	503.9 meters
<i>Maximum Velocity</i>	200 kps
<i>Cruise Velocity</i>	100 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	1 dps
<i>Mass</i>	19,500 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (3)	Anti-Matter Guns (4)
Light complement of fighters	
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	Phase Shields
<i>Front and Rear</i>	300 cm each
<i>Right and Left</i>	250 cm each



Concordia

<i>Class</i>	Confederation
<i>Length</i>	983.7 meters
<i>Maximum Velocity</i>	100 kps
<i>Cruise Velocity</i>	50 kps
<i>Acceleration</i>	Bad
<i>Max. Yaw, Pitch, Roll</i>	1 dps
<i>Mass</i>	73,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (3)	Anti-Matter Guns (8)
Phase-Transit Cannon	
Full complement of fighters	
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	Phase Shields
<i>Front and Rear</i>	500 cm each
<i>Right and Left</i>	400 cm each



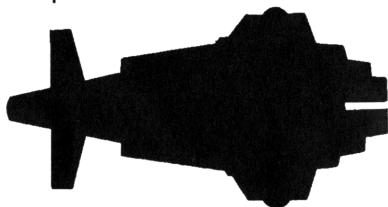
CONFEDERATION SUPPORT SHIPS

Free Trader

side



top



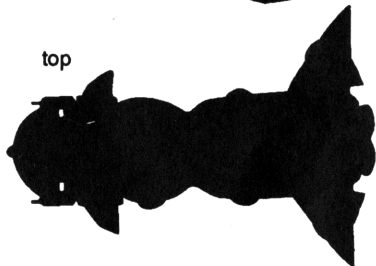
<i>Class</i>	Transport (civilian)
<i>Length</i>	83.0 meters
<i>Maximum Velocity</i>	150 kps
<i>Cruise Velocity</i>	100 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	2 dps
<i>Mass</i>	2,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (1)	
<i>Ship's Armor</i>	
Fore and Aft Shield	10 cm equivalent each
Front and Rear	9 cm each
Right and Left	7 cm each

Clydesdale

side



top



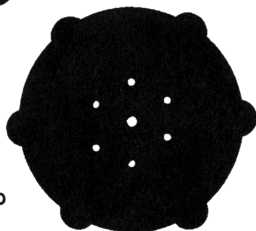
<i>Class</i>	Transport (military)
<i>Length</i>	73.3 meters
<i>Maximum Velocity</i>	150 kps
<i>Cruise Velocity</i>	100 kps
<i>Acceleration</i>	Bad
<i>Max. Yaw, Pitch, Roll</i>	2 dps
<i>Mass</i>	4,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (2)	
<i>Ship's Armor</i>	
Fore and Aft Shield	25 cm equivalent each
Front and Rear	12 cm each
Right and Left	11 cm each

Star Base

side



top

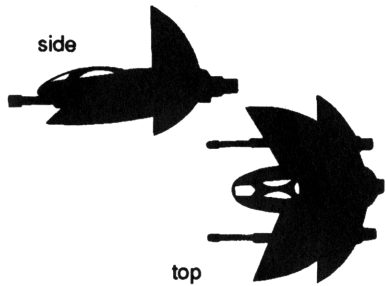


<i>Class</i>	Space Station
<i>Radius</i>	1,200 meters
<i>Maximum Velocity</i>	10 kps
<i>Cruise Velocity</i>	10 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	NA
<i>Mass</i>	230,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (4)	
Full complement of fighters	
<i>Ship's Armor</i>	
Fore and Aft Shield	Phase Shields
Front and Rear	700 cm each
Right and Left	700 cm each

KILRATHI FIGHTERS

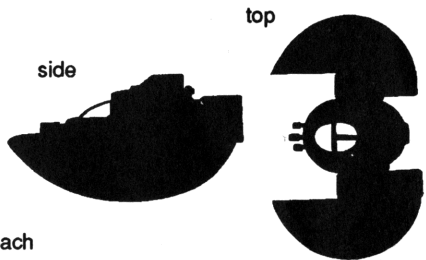
Sartha

<i>Class</i>	Light Fighter
<i>Length</i>	8.3 meters
<i>Maximum Velocity</i>	400 kps
<i>Cruise Velocity</i>	220 kps
<i>Acceleration</i>	Good
<i>Max. Yaw, Pitch, Roll</i>	4 dps
<i>Mass</i>	12.5 tonnes
<i>Ship's Weapons</i>	
Neutron Guns (2)	Dumb Fire Missile (1)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	5 cm equivalent each
<i>Front and Rear</i>	4 cm each
<i>Right and Left</i>	3 cm each



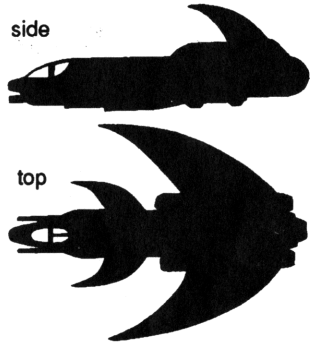
Drakhri

<i>Class</i>	Medium Fighter
<i>Length</i>	11.7 meters
<i>Maximum Velocity</i>	400 kps
<i>Cruise Velocity</i>	200 kps
<i>Acceleration</i>	Good
<i>Max. Yaw, Pitch, Roll</i>	7 dps
<i>Mass</i>	14 tonnes
<i>Ship's Weapons</i>	
Laser Cannon (3)	Chaff Pod (1)
Dumb Fire Missiles (4)	
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	5.5 cm equivalent each
<i>Front and Rear</i>	4 cm each
<i>Right and Left</i>	3.5 cm each



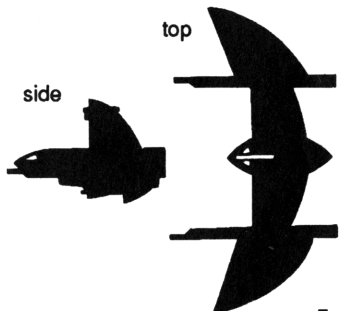
Jalkehi

<i>Class</i>	Heavy Fighter
<i>Length</i>	25.2 meters
<i>Maximum Velocity</i>	360 kps
<i>Cruise Velocity</i>	200 kps
<i>Acceleration</i>	Average
<i>Max. Yaw, Pitch, Roll</i>	2 dps
<i>Mass</i>	20 tonnes
<i>Ship's Weapons</i>	
Particle Cannon (1)	Image Recognition Missiles (4)
Laser Cannon (4)	Dumb Fire Missile (1)
<i>Turret</i>	Neutron Gun (1)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	15 cm equivalent each
<i>Front and Rear</i>	13 cm each
<i>Right and Left</i>	11 cm each



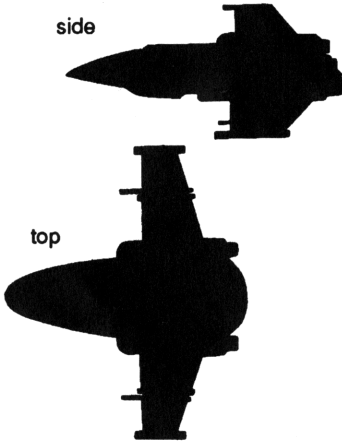
Grikath

<i>Class</i>	Heavy Fighter
<i>Length</i>	17.7 meters
<i>Maximum Velocity</i>	330 kps
<i>Cruise Velocity</i>	200 kps
<i>Acceleration</i>	Bad
<i>Max. Yaw, Pitch, Roll</i>	3 dps
<i>Mass</i>	27 tonnes
<i>Ship's Weapons</i>	
Torpedoes (3)	Chaff Pods (3)
Neutron Guns (3)	Friend or Foe Missiles (2)
<i>Turret</i>	Neutron Guns (2)
<i>Ship's Armor</i>	
<i>Fore and Aft Shield</i>	17 cm equivalent each
<i>Front and Rear</i>	16 cm each
<i>Right and Left</i>	14 cm each



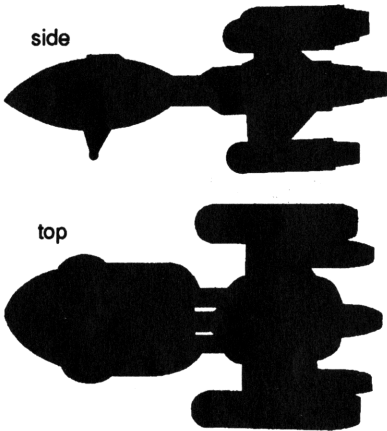
KILRATHI CAPITAL SHIPS

Kamekh



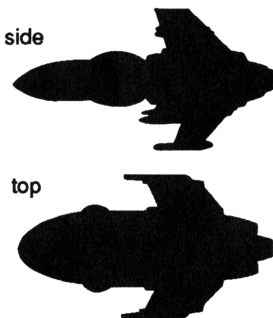
<i>Class</i>	Corvette
<i>Length</i>	135 meters
<i>Maximum Velocity</i>	200 kps
<i>Cruise Velocity</i>	100 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	3 dps
<i>Mass</i>	1,300 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (3)	Image Rec. Missiles (6)
Torpedoes (4)	
<i>Ship's Armor</i>	
Fore and Aft Shield	Phase Shields
Front and Rear	300 cm each
Right and Left	280 cm each

Ralatha



<i>Class</i>	Destroyer
<i>Length</i>	394.2 meters
<i>Maximum Velocity</i>	250 kps
<i>Cruise Velocity</i>	150 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	1 dps
<i>Mass</i>	11,000 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (2)	Anti-Matter Cannon (2)
Light complement of fighters	
<i>Ship's Armor</i>	
Fore and Aft Shield	Phase Shields
Front and Rear	500 cm each
Right and Left	500 cm each

Fralthra

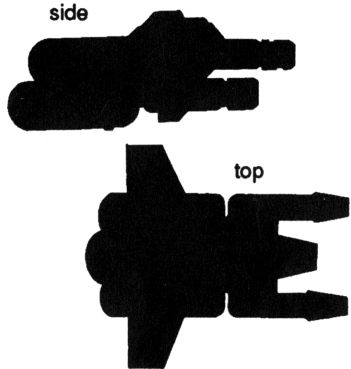


<i>Class</i>	Cruiser
<i>Length</i>	612.0 meters
<i>Maximum Velocity</i>	150 kps
<i>Cruise Velocity</i>	100 kps
<i>Acceleration</i>	Poor
<i>Max. Yaw, Pitch, Roll</i>	1 dps
<i>Mass</i>	20,500 tonnes
<i>Ship's Weapons</i>	
Flak Cannon (3)	Anti-Matter Guns (3)
Light complement of fighters	
<i>Ship's Armor</i>	
Fore and Aft Shield	Phase Shields
Front and Rear	700 cm each
Right and Left	600 cm each

KILRATHI SUPPORT SHIPS

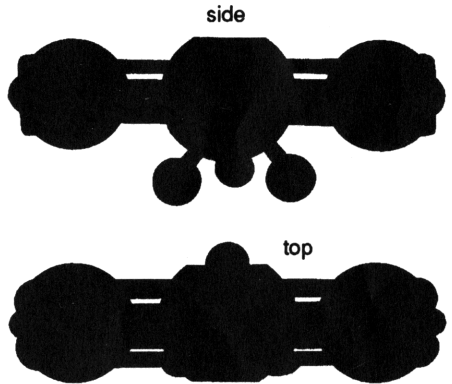
Dorkathi

Class	Transport (military)
Length	95.0 meters
Maximum Velocity	200 kps
Cruise Velocity	100 kps
Acceleration	Poor
Max. Yaw, Pitch, Roll	2 dps
Mass	5,000 tonnes
Ship's Weapons	
Flak Cannon (2)	
Ship's Armor	
Fore and Aft Shield	19 cm equivalent each
Front and Rear	17 cm each
Right and Left	16 cm each



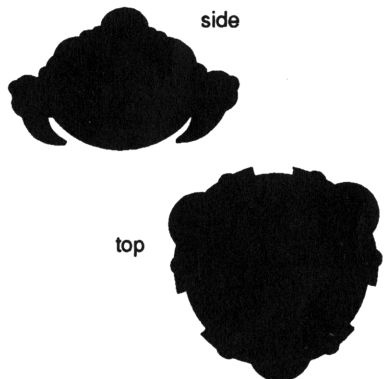
Supply Depot

Class	Space Station
Length	806.3 meters
Maximum Velocity	NA
Cruise Velocity	NA
Acceleration	NA
Max. Yaw, Pitch, Roll	NA
Mass	40,000 tonnes
Ship's Weapons	
Flak Cannon (2)	
Light complement of fighters	
Ship's Armor	
Fore and Aft Shield	Phase Shields
Front and Rear	400 cm each
Right and Left	300 cm each



K'tithrak Mang

Class	Space Station
Radius	1,100 meters
Maximum Velocity	NA
Cruise Velocity	NA
Acceleration	NA
Max. Yaw, Pitch, Roll	NA
Mass	240,000 tonnes
Ship's Weapons	
Flak Cannon (4)	Anti-Matter Guns (2)
Full complement of fighters	
Ship's Armor	
Fore and Aft Shield	Phase Shields
Front and Rear	700 cm each
Right and Left	700 cm each



WEAPONS

OF THE TERRAN AND KILRATHI FLEETS

Offensive Systems

Dumb Fire Missile. This is a point-and-shoot weapon with no homing capability. Aim it at a target and hope the target doesn't get out of the way. When possible, dumb fires should be reserved for use in close quarters against slow-moving targets.

Friend or Foe Missile. Capable of identifying the distinctive signal broadcast by all Terran ships, the friend or foe locks onto the nearest ship that isn't broadcasting that signal. (This weapon will target friendly ships whose communications systems are damaged.)

Heat-Seeking Missile. To use a heat-seeker, park yourself on an enemy's tail, wait for the missile to lock onto its engine and/or exhaust system and then fire. (If the target shakes the heat-seeker, the missile locks onto the nearest heat source, perhaps even your own ship.)

Image Recognition Missile. Within seconds, this missile memorizes the ship type in your sights. Once it locks, it doesn't let go, tracking its target until it is outpaced or it hits.

Torpedo. Both Terran and Kilrathi capital ships now have phase shield technology that renders missiles and fighter-scale guns useless. Terran scientists developed powerful torpedoes capable of penetrating the new shields; soon thereafter, spies leaked the new technology to the Kilrathi. Torpedoes are not without disadvantages: they can only lock on to capital ships; they are slow and can sometimes be shot down by the target ship or its fighter escort; and they take approximately twenty seconds to determine the phase pattern of the shields, leaving the firing ship vulnerable to attack for extended periods. But when all the conditions are satisfied, torpedoes' large warheads can be very effective.

Laser Cannon. The least powerful, most reliable blaster-type weapons, lasers don't inflict much damage, but are effective at long range.

Mass Driver Cannon. This blaster is the basic fighter weapon—reliable, accurate at medium range, capable of moderate damage. Heat build-up and power drain are minimal.

Neutron Gun. Neutron guns cause the heaviest damage of all blasters, but only at close range. They heat up quickly and consume power at an alarming rate.

Particle Cannon. A recent Terran innovation, particle cannon have almost completely replaced neutron guns in the Confederation Navy. They combine the extended range of lasers with the strong punch of neutron guns.

Turrets. Many of the heavier fighters are equipped with swivel-mounted neutron guns, to fend off enemy fighters during torpedo runs. These two guns are modified for a higher fire rate but shorter range.

Anti-Matter Gun. These huge weapons are found only on capital ships for use against other capital ships. Like torpedoes, they ignore shields, directly attacking armor. Anti-matter guns are slow to aim and cannot readily be used against fighter-sized craft, but a single shot can vaporize a fighter. Be sure to stay out of the fire lanes between two warring cruisers!

Phase-Transit Cannon. This weapon actually forms the keel of the new Terran *Confederation*-class dreadnought; it is too large to be mounted on any other ship in the Confederation Navy. The phase-transit cannon bypasses shields and is capable of destroying any ship with a single shot. It is a refinement of a similar weapon found in the wreckage of the *Sivar*, the Kilrathi dreadnought that single-handedly destroyed the Goddard colony in 2654. Presumably the Kilrathi have more *Sivar*-class dreadnoughts, but none have been spotted since that first appearance.

Defensive Systems

Chaff Pod. The Confederation recently developed chaff pods, sophisticated electronic devices that fool enemy missiles into diverting away from your ship. There are some drawbacks to chaff pods, of course. You must deploy chaff pods at the last moment before missile impact, because the pods' effect lasts only a short while. Chaff only works on missiles that are *currently* targeted on your ship; any missiles launched after you drop the pod aren't fooled. Finally, chaff doesn't destroy the enemy missile, it simply diverts it. If you're too close to the chaff when the missile hits it, you might take damage anyway. It's best to be moving at least 150 kps when you drop a pod.

Flak Cannon. Fighters provide the bulk of a capital ship's defenses, but the largest ships also lay down heavy flak barrages that can bring down any fighter. In addition, flak cannon are used for point-defense against torpedoes.

Phase Shield. The latest in defense technology, these capital ship shields are impervious to damage from all fighter-mounted missiles and guns. Torpedoes are the only fighter-mounted weapons capable of getting through. Unfortunately, the number of torpedoes available to Terran Confederation forces is low. Pilots are advised to use them wisely.

Other Systems

"Stealth Technology." Rumors of Kilrathi stealth fighters, invisible to human or instrument detection, are completely unfounded. Such technology is far beyond the capabilities of Confederation or Kilrathi scientists.

Tractor Beam. A tractor beam locks onto a small target (an ejected pilot, for example), pulling it to your ship. The tractor beam is a vital tool in search-and-rescue missions.