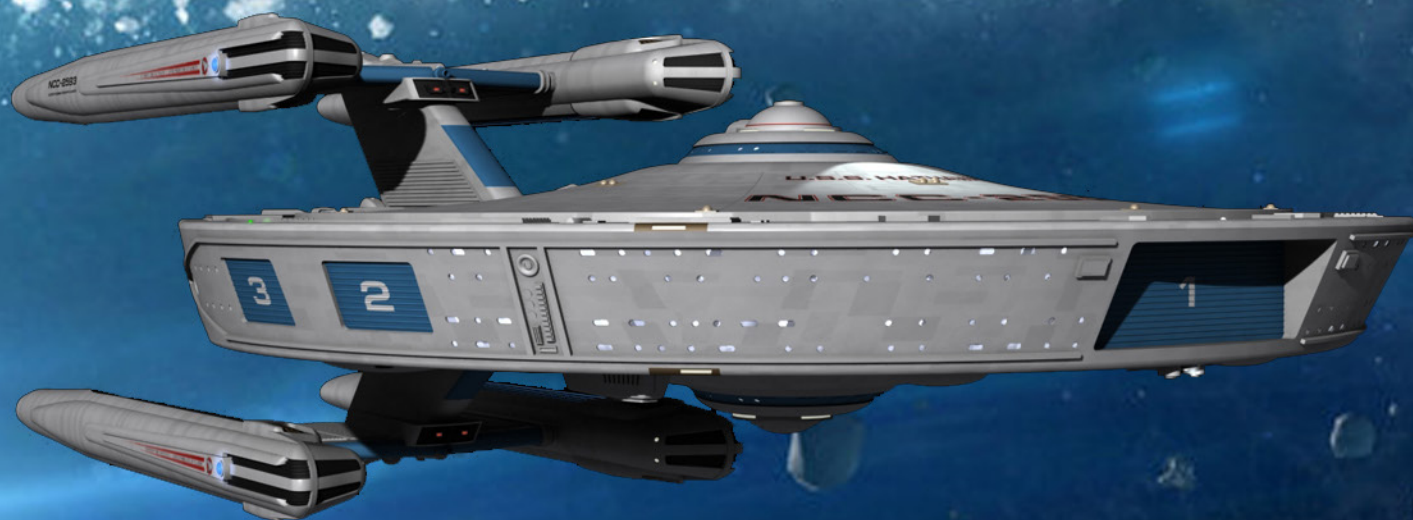
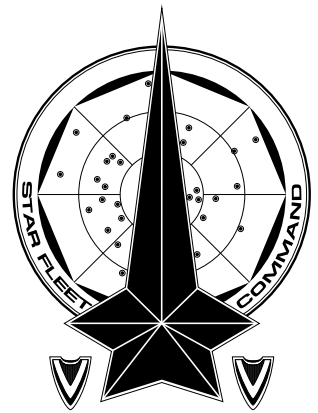


FEDERATION



SHIP RECOGNITION MANUAL II





CHANGES TO THIS MANUAL

Users of this manual are required to submit changes in the information in this publication pursuant to SFOPS. MAN. 307/A45T. Such changes or other comments regarding this publication must be keyed to the specific page, paragraph, and line of text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation.

Comments should be prepared using SFRD form 2028 (Recommended Changes to Publication) and forwarded directly to:

STAR FLEET INTELLIGENCE COMMAND

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Classified Document Directive 998.21C



Introduction

THE ROLE OF STAR FLEET

Star Fleet continues to expand the design and capabilities of the fleet of starship that support the exploration and protection of the United Federation of Planets. Since it's founding, Star Fleet has created dozens of unique ship design to help support explorer, colonists, researchers and defenders of the Federation and it's allies.

Star Fleet's role in the expansion and defense of the Federation has changed little in over 180 years. Many of the vessels in the fleet fulfill specific tasks or are designed to engage in a multitude of roles. With ongoing conflicts and new boarders being established every year, Star Fleet must continue to field capable combat platforms that can defend them selves as well as be utalized in a wide range of other roles.

Star Fleet's role also requires that its next generation of vessels be sturdier and more capable, with operational service lives well beyond that of the ships of old. As the roles of individual ships and full classes of vessels change and expand, individual ship must be able to adapt. This is created design that are larger and less specialized than ever before.

SCOPE OF THIS MANUAL

This manual describes ships of Star Fleet on a classified basis, providing an overview to authorized personnel and line officers. An effort has been made to provide a comprehensive and objective presentation despite the limitations of space. It is designed for general reading and quick reference.

A historical background of Star Fleet starship from the period of "The Great Awakening" to the present is provided. Discussions of all major ships include observations on their weaknesses and strengths, and complete combat data is provided for evaluation. The overall reliability of the data provided is subject to the level of classification authorized by Star Fleet Command. More detailed information on the performace charactersitics of each vessel may be found in the operations manuals of those particular vessels.

Published Stardate 26760.1

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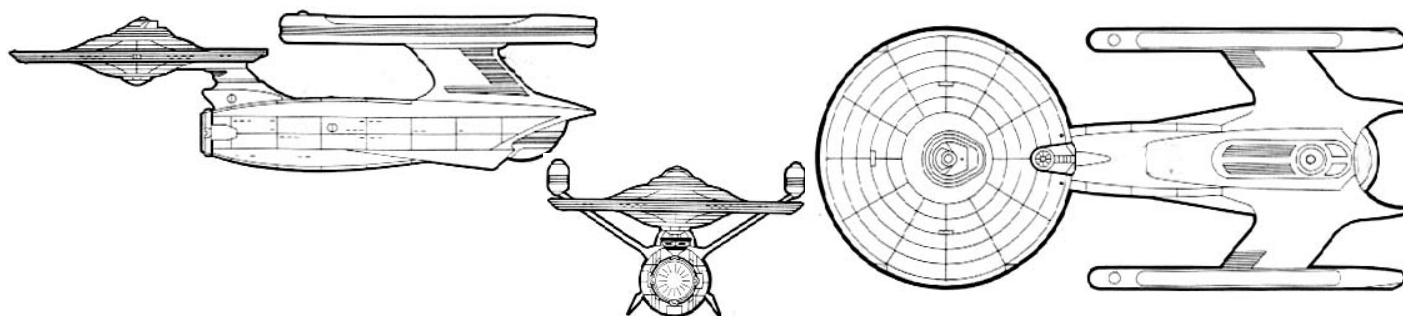
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KOLM-AN CLASS VIII ASSAULT SHIP



CONSTRUCTION DATA:

Class -	VIII
Model -	Mk I
Date Entering Service -	2278
Number Constructed -	39

HULL DATA:

Superstructure Points -	19
Damage Chart -	C
Size	
Length -	212 m
Width -	93 m
Height -	54 m
Weight -	117,148 mt
Cargo	
Cargo Units -	350 SCU
Cargo Capacity -	17,500 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	M-3
Transporters -	
Standard 6-person -	4
Combat 22-person -	4
Emergency 18-person -	2
Cargo -	4

OTHER DATA:

Crew -	50
Troops -	350
Passengers -	20
Shuttlecraft -	18

ENGINEERING:

Total Power Units Available -	38
Movement Point Ratio -	3/1
Warp Engine Type -	FWE-2
Number -	2
Power Units Available -	13 ea.
Stress Chart -	G/K
Max Safe Cruising Speed -	Warp 7
Emergency Speed -	Warp 9
Impulse Engine Type -	FIF-1
Power Units Available -	12

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-12
Number -	6
Firing Arcs -	2 f/p, 2 f, 2 f/s
Firing Chart -	R
Maximum Power -	6
Damage Modifiers	
+3	-
+2	(1-9)
+1	(10-16)
Torpedo Weapon Type -	FP-7
Number -	4
Firing Arcs -	4 f
Firing Chart -	R
Power To Arm -	1
Damage -	8

SHIELD DATA:

Deflector Shield Type -	FSI
Shield Point Ratio -	1/3
Maximum Shield Power -	13

COMBAT EFFICIENCY:

D -	99.2
WDF -	48.6



Notes:

"Muscular" is the word used to describe the formidable Kolm-An assault ship. The Makin and Continent classes carry more men and equipment, but the Kolm-An carries a heavier load of ship borne weaponry, the better to provide it's landed troops with fire support from orbit.

The Kolm-An class was designed to transport up to a company of Federation Marines, their vehicles and equipment, to land them on a hostile world via transporters and/or assault shuttlecraft, to provide all their support needs for up to 30 standard solar days without re-supply and to hold off minor counterattacks, all of this without aid or support from accompanying Star Fleet Vessels.

Star Fleet felt it necessary to have such ships as the Kolm-An class to provide swift deployment of needed defensive forces at short notice along the congested Klingon and Romulan Neutral Zones. Unlike the larger assault ships, Kolm-An need not be based or restricted to limited patrol routes, or provided with extensive escort and support ships, all of which increase response time. To deal with the threat of deliberate invasion or even sudden raids on Federation or neutral worlds on the frontier, the best course was to place single companies of Marines on constant combat patrol, and the best way to do that was to build a ship capable of holding its own with a minimum of external aid.

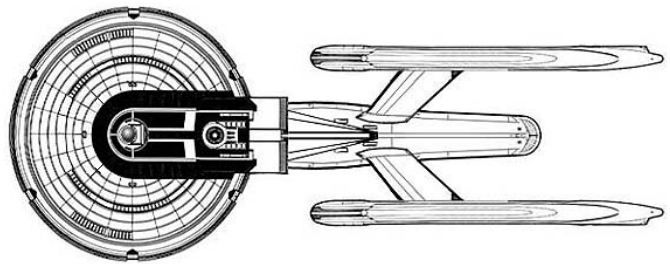
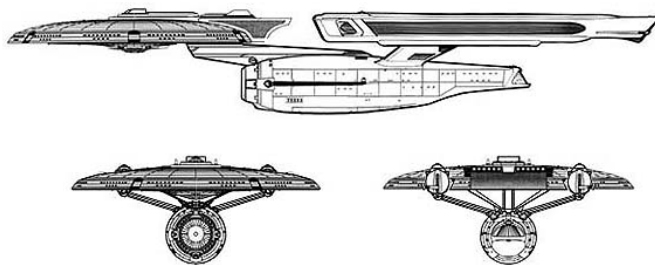
A Kolm-An can land its troops, combat-ready, in approximately ten minutes from "go". Its dual-purpose Combat Information Center on the bridge coordinates reports from the ground and monitors the space situation. The ground commander can order phaser or photon torpedo bombardment with pin-point accuracy in less than thirty second from receipt of the fire order, evaluate the overall terrain with spaceborne sensors to determine the local threat, and ensure backup communications control with the aid of the Kolm-An's sophisticated track-and-comm station.

For quick insertions and rapid extractions, the Kolm-An has no equal on either side of the frontier. But its mission profile demands that the local threat be conclusively dealt with in thirty minutes before the ship's orbit carrier it beyond the battle zone. Some Marine commanders have extended their full-combat ability time by landing as much as an orbit ahead of time and attacking the objective only as the Kolm-An arrives above the horizon (ATH). Time and circumstances do not always permit this; though standard orders always explicitly grand Marine commander the option to retreat from too large a threat, only once has a Kolm-An retreated before landing its forces.

Kolm-An's are being built at the rate of 16 per year at Salazaar, Sol II and Star Base 12 shipyards. Of the 39 Kolm-An class vessels built, 34 remain in active service. Of the remainder, 2 are used by Star Fleet Training Command, 2 have been scrapped and 1 has been destroyed.

Kolm-An class design by J.M. Kuzee and Pete Rogan.

INDOMITABLE CLASS XII BATTLESHIP



CONSTRUCTION DATA:

Class -	XII	XII
Model -	Mk I	Mk II
Date Entering Service -	2281	2285
Number Constructed -	4	1

HULL DATA:

Superstructure Points -	42	42
Damage Chart -	C	C
Size		
Length -	410 m	410 m
Width -	170 m	170 m
Height -	70 m	70 m
Weight -	182,165 mt	183,145 mt

Cargo

Cargo Units -	550 SCU	560 SCU
Cargo Capacity -	27,500 mt	28,000 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-7	M-8
Transporters -		
Standard 6-person -	5	5
Combat 22-person -	2	2
Emergency 18-person -	6	6
Cargo -	4	4

OTHER DATA:

Crew -	610	620
Troops -	40	40
Passengers -	20	20
Shuttlecraft -	16	16

ENGINEERING:

Total Power Units Available -	84	84
Movement Point Ratio -	4/1	4/1
Warp Engine Type -	FWG-1	FWG-1
Number -	2	2
Power Units Available -	26 ea.	26 ea.
Stress Chart -	D/F	D/F
Max Safe Cruising Speed -	Warp 8	Warp 8
Emergency Speed -	Warp 10	Warp 10
Impulse Engine Type -	FIG-2	FIG-2
Power Units Available -	32	32

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-11	FH-11
Number -	8	8
Firing Arcs -	2 f/p, 2 f, 2 f/s, 2 a	2 f/p, 2 f, 2 f/s, 2 a
Firing Chart -	Y	Y
Maximum Power -	10	10
Damage Modifiers		
+3	(1-10)	(1-10)
+2	(11-17)	(11-17)
+1	(18-24)	(18-24)
Torpedo Weapon Type -	FP-4	FP-4
Number -	4	6
Firing Arcs -	2 f, 2 a	4 f, 2 a
Firing Chart -	S	S
Power To Arm -	1	1
Damage -	20	20

SHIELD DATA:

Deflector Shield Type -	FSP	FSP
Shield Point Ratio -	1/4	1/4
Maximum Shield Power -	16	16

COMBAT EFFICIENCY:

D -	202.1	202.1
WDF -	135.6	160.6



NOTES:

Known Sphere of Operation: Federation Wide Borders

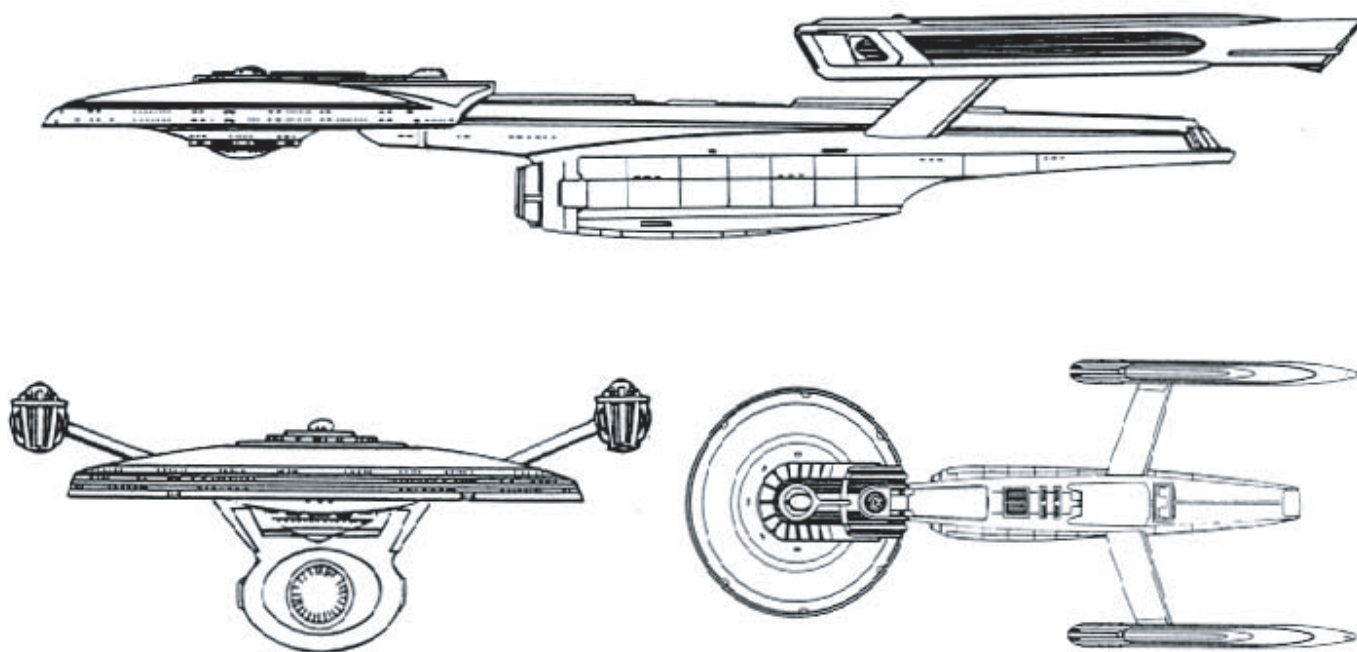
After the USS Enterprise was involved in the V'Ger Incident of 2271, and her resulting acid test of new systems, Star Fleet Procurement approved plans to build a battleship class. At this time, reports were also being received from Project Dixie and Project Grey Ghost intelligence agents that the Klingons were aspiring to build a successor to the L-13 class, and the Romulans were about to start construction on a battleship.

The approved design, code-named Indomitable, used the new FWG-1 units, along with the FIG-2 impulse drive system (which was not installed on the Enterprise), along with the advanced M-7 multitronic computer which had just been removed from the drawing boards and put into production. The M-7s use was a shot in the arm to Daystrom Data Concepts, since no one had yet found a use for the system. The go-ahead was given to build 10 Indomitable Class battleships, and construction began on the first four ships at the Sol III shipyards late 2274.

But in 2275, when Shuvinaaijis announced the development of TransWarp Drive theory, Star Fleet immediately cancelled the contract for the six additional Indomitables that were to be built, and announced that the four ships already under construction would be put into mothballs upon completion. The project contractors involved were startled. Everyone asked Star Fleet why, at a time when the Klingons and Romulans were about to deploy battleships along the borders, did they have to suspend construction on ten battleships?

Star Fleet offered no explanation. The four completed battleships were placed in mothballs late 2275, and the issue remained unresolved until the recently-promoted Admiral Joseph R Holman, the leading proponent of the "Warp 10 Navy" concept, met with Admiral Randolph Morrow, Commanding Officer of Star Fleet, in February of 2276 aboard Spacedock. Holman discussed with Morrow the Battleship dilemma; he also informed the Admiral that the Klingons were within six weeks of deploying a battleship capable of taking on the Enterprise Class one-on-one, and that the Romulans had already done so.

ORIGINAL SCHEMATICS:



NOTES - Cont.

Morrow revealed the real reason for canceling the Indomitable Class - "The Great Experiment" - to Holman, who agreed that the Excelsior Class was a welcome addition to Star Fleet, but while the Trans-Warp battleship was under construction and testing, the Indomitable was needed even more than ever to fill the void because, in simple terms, "The Klingons and Romulans have an enormous superiority over us when it comes to battleships. They have 2 while we still have none."

In addition, Holman convinced Morrow that the Indomitable would not be obsolete at all; their capabilities would be far superior to what the Klingons and Romulans would be producing. And when the time came to refit the class with Trans-Warp Drive, it would be just as capable as the Excelsior.

Following this meeting, Admiral Morrow called a press conference, with Admiral Holman in attendance. Morrow announced the reactivation of the Indomitable project, with the four completed ships to be brought out of mothballs at once and the construction of the six remaining ships begun immediately. Admiral Morrow also publicly revealed that the Klingons and Romulans were about to deploy the L-24 ("Ever-Victorious") and Z-1 ("Nova") battleships along their border areas. "This," he said, "only offers us solid proof that we need this type of ship where it (the Indomitable) is needed most. . . to deter possible Klingon and Romulan aggression." He also announced the existence of the heretofore rumored Trans-Warp Drive ship, the USS Excelsior, which was ready to undergo testing.

Four ships ,the USS Indomitable (NCC-2010), the USS Indefatigable (NCC-2011), the USS Dauntless (NCC-2012), and USS Incontestable (NCC-2013) were simultaneously commissioned on July 1st, 2276. All four ships were immediately sent to the Klingon and Romulan border areas. Their appearance has apparently evened the balance of power for the moment and having a smaller displacement than the L-24 or Z-1, with combat capabilities vastly superior to their Klingon and Romulan counterparts.

The Mk II is being fitted with the improved FWG-1 warp engines, the most powerful conventional mass produced warp drive engines in history, with Warp 8 standard and Warp 10 emergency speeds. The M-8 multitronic computer replaces the M-7, allowing the addition of two FP-4 photon torpedoes to the weapons complement, giving the Mk II firepower comparable to the Mk I Excelsior. The Indomitable Class is to be produced at the Sol IV shipyards at a rate of 2 per year, and will be produced in addition to the Excelsior Class.

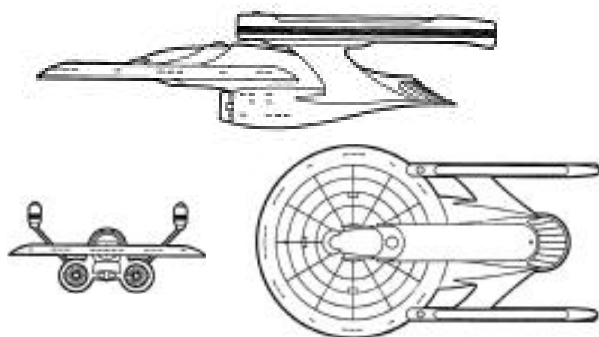
The following list of Indomitable Class battleships show their hull numbers, model number, date entering service, and current disposition. The disposition is represented by the letter codes given below and is followed by the date of occurrence, if known.

MK - Assigned to Klingon border, Military Operations Command
 MR - Assigned to Romulan border, Military Operations Command
 MG - Assigned to Gom border, Military Operations Command
 R2 - Refit to MkII
 UC - Under Construction

NCC-2010	Indomitable	I
NCC-2011	Indefatigable	I
NCC-2012	Dauntless	I
NCC-2013	Incontestable	I
NCC-2014	Inevitable	II
NCC-2015	Solidarity	II
NCC-2016	Inexorable	II
NCC-2017	Indestructible	II
NCC-2018	Dominion	II
NCC-2019	Inflexible	II

Indomitable Class original design: Josh W. Spencer

FINDER CLASS V SEARCH & RESCUE CORVETTE



CONSTRUCTION DATA:

Class -	V	V
Model -	Mk I	Mk II
Date Entering Service -	2274	2278
Number Constructed -	33	24

HULL DATA:

Superstructure Points -	4	6
Damage Chart -	C	C
Size		
Length -	140 m	140 m
Width -	80 m	80 m
Height -	32 m	32 m
Weight -	45,260 mt	48,775 mt

Cargo

Cargo Units -	15 SCU	15 SCU
Cargo Capacity -	750 mt	750 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-1	M-1
Transporters -		
Standard 6-person -	4	4
Emergency 18-person -	3	3
Cargo -	1	1

OTHER DATA:

Crew -	32	38
Passengers -	200	200
Shuttlecraft -	8	8

ENGINEERING:

Total Power Units Available -	32	32
Movement Point Ratio -	2/1	2/1
Warp Engine Type -	FWB-2	FWB-2
Number -	2	2
Power Units Available -	14 ea.	14 ea.
Stress Chart -	M/O	M/O
Max Safe Cruising Speed -	Warp 8	Warp 8
Emergency Speed -	Warp 9	Warp 9
Impulse Engine Type -	FIB-2	FIB-2
Power Units Available -	4	4

WEAPONS AND FIRING DATA:

Beam Weapon Type -	-	FH-1
Number -	-	2
Firing Arcs -	-	2 f
Firing Chart -	-	F
Maximum Power -	-	2
Damage Modifiers		

SHIELD DATA:

Deflector Shield Type -	FSC	FSD
Shield Point Ratio -	1/1	1/2
Maximum Shield Power -	10	8

COMBAT EFFICIENCY:

D -	41.7	65.6
WDF -	0	0.7



NOTES

Sphere of Operation: Federation Stations

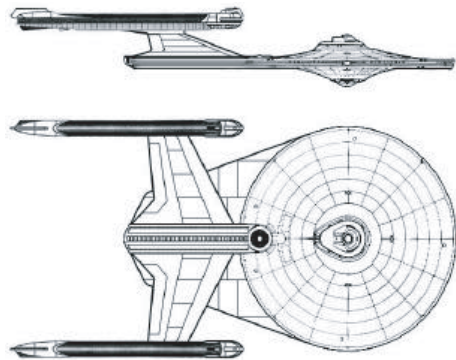
The St. Bernard that runs like a greyhound" is how Federation Admiral James Atosin described the D.S.S. Finder at its launch. Among the newest of the Federation's base auxiliary craft, the Finder Class IV Search and Rescue Corvette fills a need long lacking in Star Base operations: A quick-response large craft capable of locating and reaching vessels in distress in minimum time, and of rescuing their crew and passengers. Emergencies in space that result in loss of warp capability and life support are quite common in heavily-traveled space lanes, as well as near busy frontiers. The great number of vessels for the former, and the generally advanced age and poor condition of ships for the latter, are the main causes. The Federation has had to rely on a passing Star Fleet vessel for most of these rescues, even when the distress signal reached a Star Base or other permanent facility. It used to be common practice to dispatch whatever ships were available, including vessels under repair, Merchant Marine craft, tenders and tugs to ensure that sufficient vessels were on hand to take off all life forms in danger. Star Fleet Admiral Hugam Naroev of Materiel Command finally had a Tellarite blowup over this situation. A sector-wide or even a single-base callout to rescue one ship was costing thousands of man hours of repair and replenishment time for a dozen ships at a shot, time that could not be made up if a strict fleet maintenance schedule were to be maintained. His office prepared a study showing that 83% of this time could be saved if Star Fleet had one type of vessel devoted solely to the rescue of endangered lives. He got support from his opposite number in the Office of Shipping and Transportation and took his appeal directly to the Secretary of Star Fleet. Approval for a search-and-rescue corvette class of vessels to be designed and built was authorized 2268.

Star Fleet had already authorized the construction of merchant cutters and other patrol craft for heavily-trafficked space, and there was some friction over the necessity for a special-purpose vessel, but the near disaster of the Emperor Ankhon won over most of the critics. Life-saver vessels were a Federation necessity. The Finders were intended to respond to distress calls at high speed, to locate vessels in distress even if they had no transmissions, transponder or beacon, and to effect a maximum-speed evacuation of all life-forms from a stricken vessel back to its home base. They were designed, therefore, to be light, fast, roomy, and equipped exclusively with emergency medical facilities, expanded life-support systems, and an immense sensor array based on twin Chiokis scanner dishes. They also carried four specially-designed evacuation launches built with universal-adaptor airlocks, a miniature sickbay, and couches for up to 40 humanoid life-forms each, capable of planetary landings as a matter of course. Each Finder can carry up to 200 humanoid-sized life-forms, standard, but up to 500 or more can fit aboard in an emergency.

Any remaining doubts as to the class' usefulness were dispelled two months after the first launch, when the Finder itself intercepted a distress call on the way to its first duty station. The free trader Backspin had encountered an uncharted gravitic anomaly and suffered heavy damage; it was unable to resume warp and had less than a day's life support left for the 41 surviving crew and passengers. By the time the Finder reached the last reported position the free trader had already ceased to broadcast and the gravitic anomaly had confused the navigation sensors, but the Finder's crew spent less than two hours locating the vessel. By the time the Star Fleet craft hove alongside most of the free trader's crew were unconscious, but quick action saved them all without the loss of a single life.

Star Fleet's original deployment plan would have placed two Finders at every Star Base and major Federation world; plans are reportedly afoot even now to speed up production to place Finders on open patrol in frontier regions to improve their reaction time. The shipyards at Morena are producing three Finders a year, but this rate is expected to double shortly.

APOLLO CLASS XI CRUISER



NOTES:

Known Sphere of Operation: Federation Boarders

The Apollo class started life basically as a prototype design study and was never intended to go into production. When tensions between the Federation and the Romulan Empire increased following the Toma Incident, the Apollo class was put into full production in the event of war. In the end, only ten of these ships were built.

CONSTRUCTION DATA:

Class - XI
Model - Mk I
Date Entering Service - 2295
Number Constructed - 10

HULL DATA:

Superstructure Points - 31
Damage Chart - C
Size
Length - 363 m
Width - 147 m
Height - 42 m
Weight - 137,325 mt

Cargo

Cargo Units - 450 SCU
Cargo Capacity - 22,500 mt
Landing Capacity - None

EQUIPMENT DATA:

Control Computer Type - M-7
Transporters
Standard 8-person - 6
Combat 22-person - -
Emergency 18-person - 4
Cargo - 2

OTHER DATA:

Crew - 400
Troops - -
Passengers - 60
Shuttlecraft - 5

ENGINEERING:

Total Power Units Available - 76
Movement Point Ratio - 4/1
Warp Engine Type - FWG-1
Number - 2
Power Units Available - 26 ea.
Stress Chart - D/F
Max Safe Cruising Speed - Warp 8
Emergency Speed - Warp 10
Impulse Engine Type - FIG-1
Power Units Available - 24

WEAPONS AND FIRING DATA:

Beam Weapon Type - FH-11
Number - 6
Firing Arcs - 2 f/p/a, 2 f/s/a, 2 p/a/s
Firing Chart - Y
Maximum Power - 10
Damage Modifiers
+3 (1-10)
+2 (11-17)
+1 (18-24)
Torpedo Weapon Type - FP-4
Number - 4
Firing Arcs - 1 f/p, 1 f/s, 1 p/a, 1 s/a
Firing Chart - S
Power To Arm - 1
Damage - 20

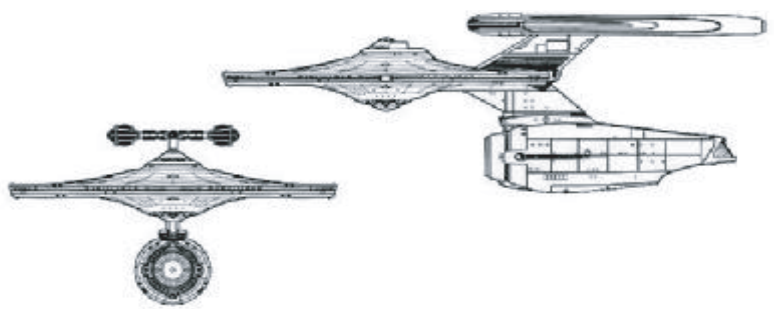
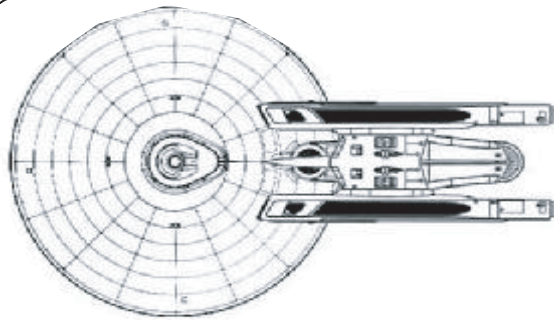
SHIELD DATA:

Deflector Shield Type - FSP
Shield Point Ratio - 1/4
Maximum Shield Power - 16

COMBAT EFFICIENCY:

D - 174.3
WDF - 114.2

ASHANTI CLASS XII HEAVY CRUISER



CONSTRUCTION DATA:

Class -	XII	XII
Model -	Mk I	Mk II
Date Entering Service -	2287	2312
Number Constructed -	18	17

HULL DATA:

Superstructure Points -	36	43
Damage Chart -	C	C
Size		
Length -	260 m	260 m
Width -	141 m	141 m
Height -	35 m	35 m
Weight -	209,240 mt	187,665 mt
Cargo		
Cargo Units -	300 SCU	300 SCU
Cargo Capacity -	15,000 mt	15,000 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-7a	M-7a
Transporters -		
Standard 6-person -	4	4
Combat 22-person -	-	-
Emergency 18-person -	7	7
Cargo -	6	6

OTHER DATA:

Crew -	550	495
Troops -	-	-
Passengers -	60	80
Shuttlecraft -	10	10

ENGINEERING:

Total Power Units Available -	108	82
Movement Point Ratio -	5/1	4/1
Warp Engine Type -	FWC-1	FWC-2
Number -	2	2
Power Units Available -	38 ea.	25 ea.
Stress Chart -	E/H	D/E
Max Safe Cruising Speed -	Warp 8	Warp 12
Emergency Speed -	Warp 10	Warp 14
Impulse Engine Type -	FIG-2	FIG-2
Power Units Available -	32	32

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-11	FH-11
Firing Arcs -	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s 2 f/p/a, 2 f/s/a, 2 p/a/s
Firing Chart -	Y	Y
Maximum Power -	10	10
Damage Modifiers		
+3	(1-10)	(1-10)
+2	(11-17)	(11-17)
+1	(18-24)	(18-24)
Beam Weapon Type -	FH-5	-
Firing Arcs -	2 f/p/a, 2 f/s/a, 2 p/a/s	-
Firing Chart -	W	-
Maximum Power -	5	-
Damage Modifiers		
+3	(1-10)	-
+2	(11-17)	-
+1	(18-20)	-
Torpedo Weapon Type -	FP-4	FP-4
Firing Arcs -	2 f, 2 a	2 f, 2 a
Firing Chart -	S	S
Power to Arm -	1	1
Damage -	20	20

SHIELD DATA:

Deflector Shield Type -	FSS	FSQ
Shield Point Ratio -	1/4	1/4
Maximum Shield Power -	20	30

COMBAT EFFICIENCY:

D -	
WDF -	



NOTES:

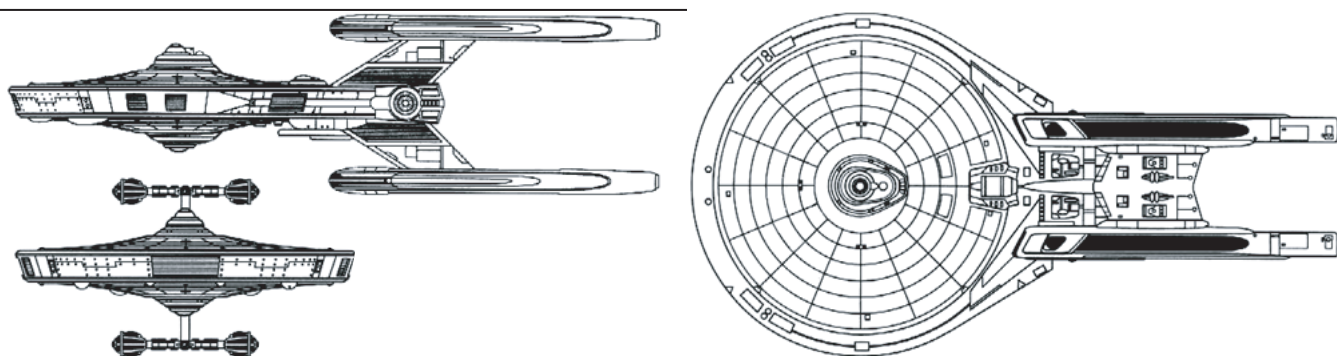
Federation Wide Use

The Ashanti was produced by a combination of Politics and technical innovation. The decision to decommission the Constitution class ships in 2285 meant that a successor was required. It was logical that the new design draw on the old. One major change that was dictated was the choice of Warp Drive, the new FWG-3 warp drive had just come onto the inventory, and it was proposed to use this engine on the new class. This choice forced a change in the Warp drive mountings, as it was felt that the Constitution class support struts would be insufficient to support the greater mass. The choice made was to attach a new support structure to the top of the primary hull, this structure was sturdier, and it also served to house main engineering, releasing a large amount of space in the secondary hull for enhanced shuttle bays and crew facilities. Additional science labs were also added to the secondary hull.

In the event the reversal of the decommissioning decision for the Constitution class meant that the Ashanti was built in relatively small numbers, just 18 ships were built from a projection of 40. The most famous of the ships was of course the USS Challenger NCC-2032, which featured prominently in the skirmishes prior to the signing of the first Khitomer treaty. Another ship of note was NCC- 2048 USS Ahwanne.

The other reason for the limited production run was the choice of warp drive, any growth in class weight would have adversely effected maneuverability and power efficiency. For this reason the Mk II adopted the far lighter FWL2 engine, with a resulting loss of power and efficiency, but speeds were radically improved, and the weight saving from the engines could be used for weapons enhancements. These modifications saw the ships through another 40 years service and into reserve or training duties after that. One ship was diverted from a training cruise to participate in the Battle of Wolf 359.

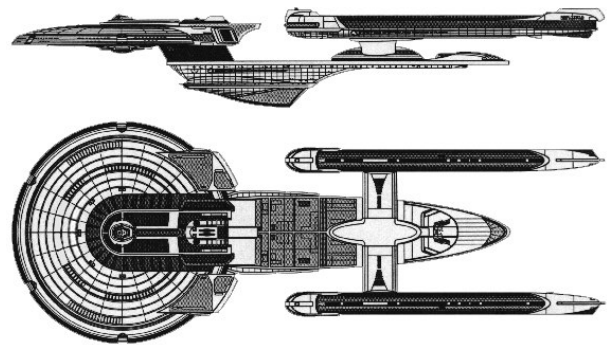
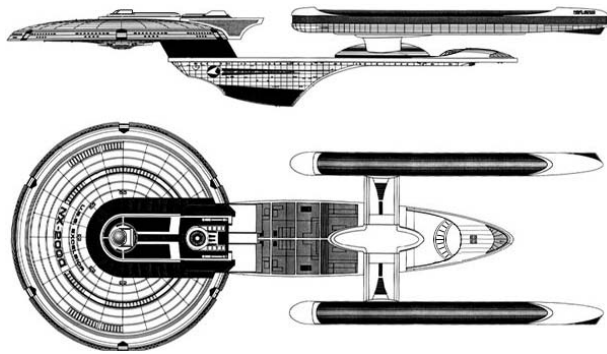
CONSTELLATION CLASS XIV-XV STAR CRUISER



CONSTRUCTION DATA:

Class -	XIV	XIV	XIV	XV
Model -	Mk I	Mk II	Mk III	Mk IV
Date Entering Service -	2284	2290	2301	2320
Number Constructed -	30	26	8	4
HULL DATA:				
Superstructure Points -	52	52	52	54
Damage Chart -	C	C	C	C
Size				
Length -	305 m	305 m	305 m	305 m
Width -	161 m	161 m	161 m	161 m
Height -	84 m	84 m	84 m	84 m
Weight -	298,068 mt	298,820 mt	298,085 mt	301,975 mt
Cargo				
Cargo Units -	610 SCU	610 SCU	610 SCU	620 SCU
Cargo Capacity -	30,500 mt	30,500 mt	30,500 mt	31,000 mt
Landing Capacity -	None	None	None	None
EQUIPMENT DATA:				
Control Computer Type -	M-7	M-7a	M-7a	M-8
Transporters -				
Standard 6-person -	4	4	4	4
Emergency 22-person -	6	6	6	6
Cargo -	12	12	12	12
OTHER DATA:				
Crew -	670	670	670	680
Passengers-	40	40	40	40
Shuttlecraft -	20	20	20	20
ENGINEERING:				
Total Power Units Available -	128	128	136	136
Movement Point Ratio -	6/1	6/1	6/1	6/1
Warp Engine Type -	FWG-1	FWG-1	FWG-1	FWG-1
Number -	4	4	4	4
Power Units Available -	26 ea.	26 ea.	26 ea.	26 ea.
Stress Chart -	C/D	C/D	C/D	C/D
Max Safe Cruising Speed -	Warp 10	Warp 10	Warp 10	Warp 10
Emergency Speed -	Warp 12	Warp 12	Warp 12	Warp 12
Impulse Engine Type -	FIG-1	FIG-1	FIG-2	FIG-2
Power Units Available -	24	24	32	32
WEAPONS AND FIRING DATA:				
Beam Weapon Type -	FH-11	FH-11	FH-11	FH-11
Number -	6	6	6	6
Firing Arcs -	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s
Firing Chart -	Y	Y	Y	Y
Maximum Power -	10	10	10	10
Damage Modifiers				
+3	(1-10)	(1-10)	(1-10)	(1-10)
+2	(11-17)	(11-17)	(11-17)	(11-17)
+1	(18-24)	(18-24)	(18-24)	(18-24)
Beam Weapon Type -	FMH-4	FMH-5	FMH-8	FMH-8
Number -	4	4	4	4
Firing Arcs -	2 f/p, 2 f/s	2 f/p, 2 f/s	2 f/p, 2 f/s	2 f/p, 2 f/s
Firing Chart -	S	W	S	S
Maximum Power -	16	15	20	20
Damage Modifiers				
+3	(1-8)	(1-10)	(1-8)	(1-8)
+2	(9-14)	(11-17)	(9-14)	(9-14)
+1	(15-18)	(18-20)	(15-18)	(15-18)
Torpedo Weapon Type -	FP-5	FP-4	FP-4	FP-9
Number -	4	4	4	4
Firing Arcs -	2 f, 2 a	2 f, 2 a	2 f, 2 a	2 f, 2 a
Firing Chart -	R	S	S	R
Power to Arm -	1	1	1	1
Damage-	16	20	20	28
SHIELD DATA:				
Deflector Shield Type -	FSS	FSS	FSQ	FSQ
Shield Point Ratio -	1/4	1/4	1/4	1/4
Maximum Shield Power -	20	20	30	28
COMBAT EFFICIENCY:				
D -	224.4	224.4	244.4	245.2
WDF -	149.8	168.6	172.2	201.0

EXCELSIOR CLASS XIII-XIV HEAVY CRUISER



CONSTRUCTION DATA:

Class -	XIII	XIV	XIII	XIV
Model -	Mk II	Mk III	Mk IV	Mk V
Date Entering Service -	2288	2290	2301	2315
Number Constructed -	88	38	87	62

HULL DATA:

Superstructure Points -	52	62	52	62
Damage Chart -	C	C	C	C
Size				
Length -	467 m	467 m	467 m	467 m
Width -	186 m	186 m	186 m	186 m
Height -	78 m	78 m	78 m	78 m
Weight -	236,480 mt	252,545 mt	237,065 mt	298,165 mt

Cargo

Cargo Units -	720 SCU	770 SCU	760 SCU	800 SCU
Cargo Capacity -	36,000 mt	38,500 mt	38,000 mt	40,000 mt
Landing Capacity -	None	None	None	None

EQUIPMENT DATA:

Control Computer Type -	M-7a	M-8	M-8	M-7a (x2)
Transporters -				
Standard 6-person -	5	5	5	6
Emergency 22-person -	7	8	8	8
Cargo -	12	12	12	13

OTHER DATA:

Crew -	620	660	660	690
Passengers-	60	70	60	70
Shuttlecraft -	43	48	78	108

ENGINEERING:

Total Power Units Available -	104	108	108	116
Movement Point Ratio -	5/1	5/1	5/1	5/1
Warp Engine Type -	FWG-3	FWG-3	FWG-3	FWJ-2
Number -	2	2	2	2
Power Units Available -	38	38	38	38
Stress Chart -	E/H	E/H	E/H	D/F
Max Safe Cruising Speed -	Warp 8	Warp 8	Warp 8	Warp 9
Emergency Speed -	Warp 10	Warp 10	Warp 10	Warp 10
Impulse Engine Type -	FIH-1	FIG-2	FIG-2	FIG-2
Power Units Available -	28	32	32	32

WEAPONS AND FIRING DATA:

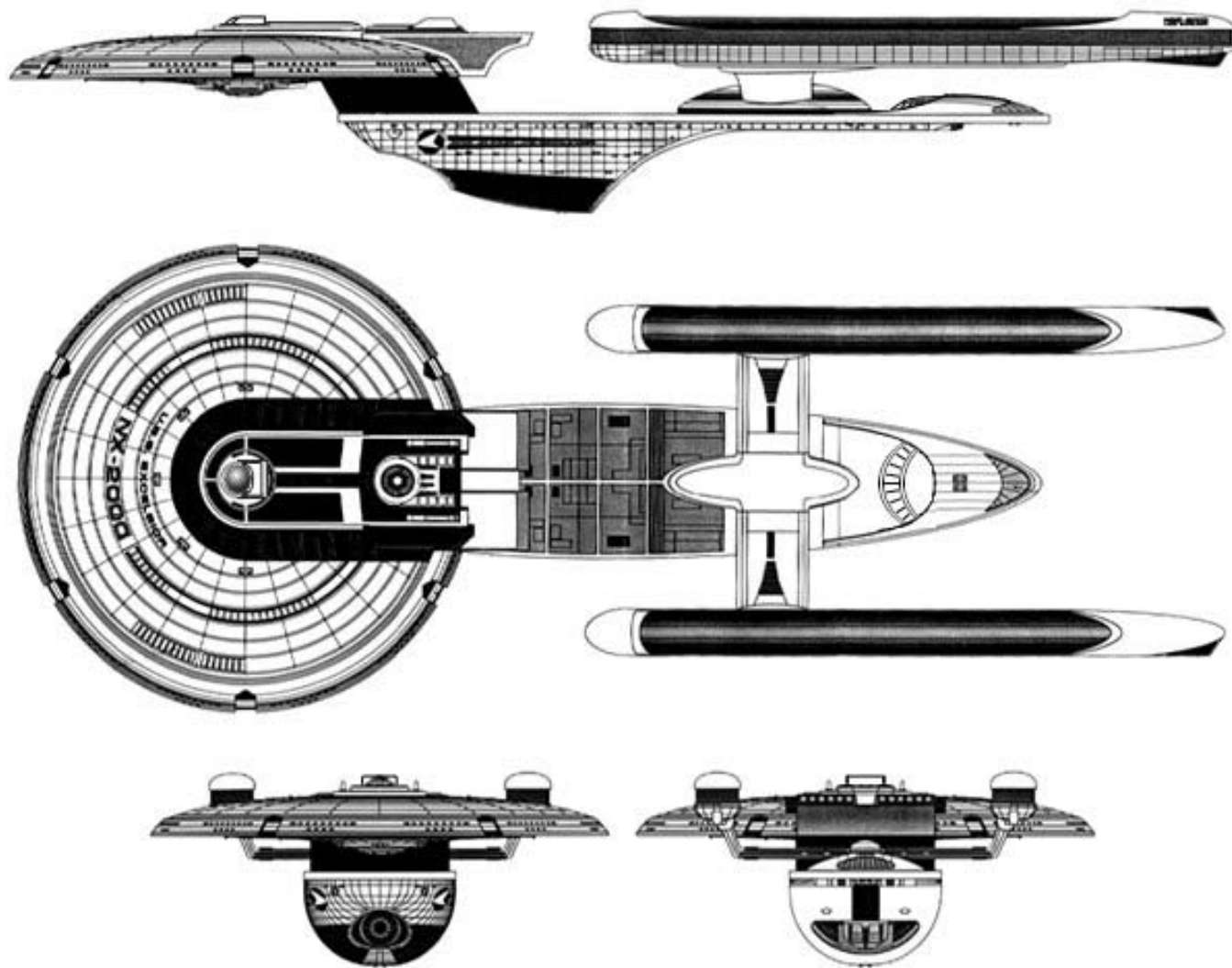
Beam Weapon Type -	FH-11	FH-11	FH-11	FH-18
Number -	10	10	10	10
Firing Arcs -	4 f/p, 2 f, 4 f/s	4 f/p, 2 f, 4 f/p	4 f/p, 2 f, 4 f/p	4 f/p, 2 f, 4 f/p
Firing Chart -	Y	Y	Y	Y
Maximum Power -	10	10	10	12
Damage Modifiers				
+3	(1-10)	(1-10)	(1-10)	(1-11)
+2	(11-17)	(11-17)	(11-17)	(12-20)
+1	(18-24)	(18-24)	(18-24)	(21-24)
Beam Weapon Type -	FH-7	FH-13	FH-16	FH-14
Number -	6	6	6	6
Firing Arcs -	1 f/p/a, 1 f/s/a, 2 pal/ 2 s/a	1 f/p/a, 1 f/s/a, 2 pal/ 2 s/a	1 f/p/a, 1 f/s/a, 2 pal/ 2 s/a	1 f/p/a, 1 f/s/a, 2 pal/ 2 s/a
Firing Chart -	Q	T	Y	T
Maximum Power -	4	8	4	12
Damage Modifiers				
+3	-	(1-5)	(1-10)	-
+2	(1-8)	(6-12)	(11-17)	(1-10)
+1	(9-16)	(13-18)	(18-24)	(11-18)
Torpedo Weapon Type -	FP-4	FP-4	FP-9	FP-9
Number -	4	4	4	4
Firing Arcs -	2 f, 2 a	2 f, 2 a	2 f, 2 a	2 f, 2 a
Firing Chart -	S	S	R	R
Power to Arm -	1	1	1	1
Damage-	20	20	28	28

SHIELD DATA:

Deflector Shield Type -	FSS	FSQ	FSQ	FSQ
Shield Point Ratio -	1/4	1/4	1/4	1/4
Maximum Shield Power -	20	30	30	30

COMBAT EFFICIENCY:

D -	224.4	256.7	242.4	264.7
WDF -	176.2	196.0	206.2	246.6



NOTES:

Dubbed the "Great Experiment" the Excelsior class of heavy cruiser has become the most recognized work horse in the Federation inventory. Originally constructed as a large exploratory cruiser, later changed to a battle ship and finally classified as a Heavy Cruiser, the Excelsior class continues to serve along most frontiers and in numerous mission roles. The Excelsior was originally constructed as the test bed vehicle for the failed Trans-Warp project or the late 2270's and early 2280's. Although the exact nature of the failure of the transwarp system still remains classified, it is known that there were multiple problems with the system.

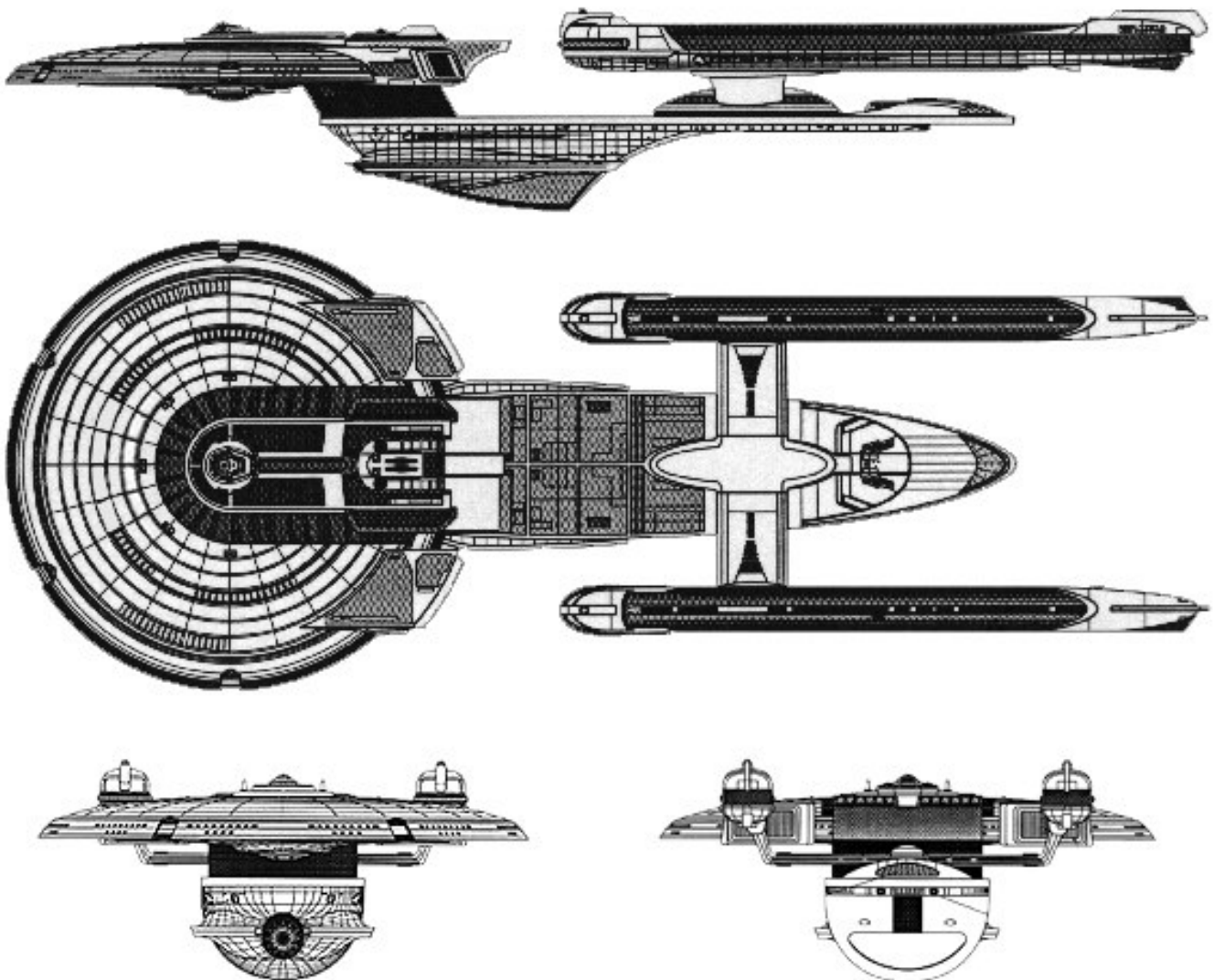
By 2287, Transwarp was declared a failure, and the Excelsior, along with several other designs on the drawing board, was retro fitted with the new FWG-3 driver coils. The FWG-3 was more powerful and significantly more stable than other engine designs, and provided the Mk II with the power and flexibility to conduct its multi-mission role with ease. The Basic design of the Excelsior expands on the much older Constitution class of vessels. Physical changes facilitated by engineering requirements quickly changed the entire appearance of the Excelsior class. The interior design provided for larger science stations and research facilities including 18 science suites, each designed to provide unique facilities on a moment's notice. The Basic layout of the ship also provided for better crew's quarters and more recreation facilities for enlisted personnel. The Excelsior could easily remain in deep space for its full 5 year capability with little support from other vessels. The Excelsior was the first vessel to use the newly designed FSS shield, which would soon become the standard in Deflector designs. The Mk II was also equipped with 10 primary phaser emplacements, capable of providing multiple target vectoring for combat operations. Also included were two lower banks and four aft firing banks, giving the Excelsior one of the most powerful combat ratings of the time. The Excelsior also incorporated 4 torpedo tubes, allowing for the powerful cruiser to fight in nearly any situation. Tests would continue on the Excelsior into the late 2280's as sister ships and new classes or vessels based on the design features were all started. By 2288, the Excelsior was officially commissioned and was soon exploring the frontier. When the USS Excelsior herself returned from a 3 year deep space mission in 2291, the Excelsior class was officially designated the Flagship class of the Federation. The Excelsior class went into mass production, and by 2292, nearly 50 were completed and in service.

In 2290, the third version of the popular heavy cruiser was prepared for launch. The USS Enterprise B was designed to incorporate new systems, including the FSQ deflector shield. This powerful defense system proved larger than the original space frame, and two large cowlings were added to the hull to provide room for the additional deflector generators. This unique design would later be used on other large cruisers. The increased internal space allowed for the inclusion of 4 additional labs and an additional two research teams. But the most radical design change was the expansion of the primary hull and impulse drive. Originally intended to house two separate FIF-1s, computer problems forced installation of the FIG-3. Using a unique design, the FIG-3's primary thrust systems were split between two locations on either side of the primary hull. Newly completed power transfer conduits allowed power from one set of fusion reactors to be shunted to the other thruster. But unlike a twin drive system, the FIG-3 needed only one set of control systems, which could be housed between the two thrust ports. This design allowed individual reactors and other components to be moved from one side of the ship to the other, without the interruption of power. An increase in firepower also marked the Mk III as a front line combatant. Although the Mk III was larger, it was hoped that the increase in capability would not slow production. Unfortunately, construction of the Mk III was nearly twice as long as construction of the Mk II. The Mk III was never produced in the large numbers of its smaller sibling, and by 2301, the Mk IV put production of the Mk III on hold.

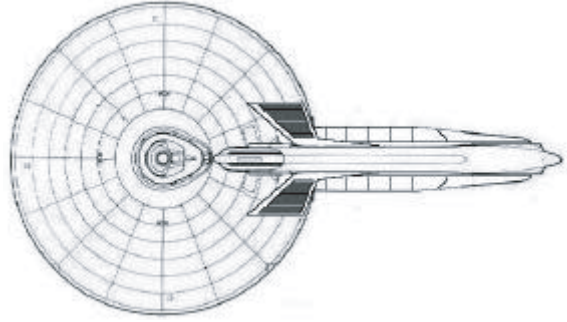
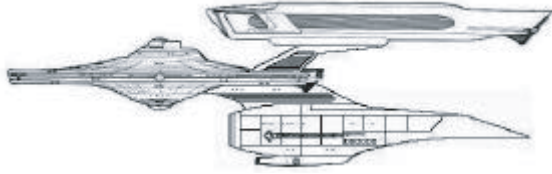
NOTES Cont.:

The Mk IV was started in 2299 in the hopes of a launch for the turn of the century. The improvements to the Mk III had not gone unnoticed, and designers at Utopia Planitia began design work to improve the Mk II. Utilizing new computers at the Jupiter Station Research Division, a fully holographic model of the Mk II was created and new components were moved in 3-d, allowing designers to evaluate their changes and impact on both space frame and crew. Although design work took longer than expected, it was found that with only a minimal re-arrangement of internal compartments, a single FIG-3 could be installed. Although the single drive location did make the Impulse Drive more vulnerable to damage, only a hand full of ships had been lost due to Impulse Drive loss. The cost associated with the Mk III's impulse deck was nearly eliminated, and other systems could be focused on. Included was the new FP-9, which delivered more damage over a wide spread area than other torpedo systems. In a surprising move, the FH-7s were replaced with the newly designed FH-16. Although only half as powerful as the Mk III's FH-13s, the new FH-16 did have extended range, and took up less internal space. The FH-16 was not as easy to maintain as the FH-13, but was less expensive and easy to install. With the extra internal space freed, the FSQ could easily be installed, and in early 2301, the Mk IV was launched.

The Mk IV was also rushed into production, with plans for another 100 to be built. But the end of production, another 87 had been added to the fleet, many of which are still in use. But designers had not given up on the Mk III. In 2312, design work began on the Mk V in an attempt to keep the larger version of the Excelsior in use. Using a new software configuration, two separate M-7a's were installed, one in the primary and one in the secondary hull. Although this necessitated a large re-arrangement of internal compartments, the additional computing power allowed for the installment of more powerful weapons and sensors. The installation of the FH-18 and FH-14 catapulted the Excelsior class past other heavy cruisers and battleships, making it the most powerful twin engine design of it's time. Although other vessels would soon surpass this distinction, the Mk V proved cost efficient enough for over 20 to be built and commissioned. Although original production of the Excelsior was scheduled to exceed 200 by 2330, only 150 had been finished or converted. The Excelsior's designation as the fleet work-horse would take its toll on the venerable design. As of 2330, 275 space frames have been completed. Currently, 159 Mk IV's and 85 Mk V's are in active service. 5 Excelsior's are listed as missing, including 1 Mk II, 1 Mk III, 1 Mk IV and 2 Mk Vs. 2 Mk IIs, 3 Mk III's, 9 Mk IV's and 5 Mk V's have been destroyed; 1 Mk III, 3 Mk IV's and 3 Mk V's have been scrapped; 6 Mk IV's are currently used jointly by Star Fleet Training Command and Reserve Fleet Operations command, all based in the Sol system. The Excelsior is produced at various shipyards throughout the year at a standard production rate of 4 per year. Current production is expected to last through 2350.



MIDWAY CLASS VIII-IX LIGHT CRUISER



CONSTRUCTION DATA:

Class -	VIII	IX
Model -	Mk I	Mk II
Date Entering Service -	2293	2305
Number Constructed -	50	20

HULL DATA:

Superstructure Points -	24	26
Damage Chart -	C	C
Size		
Length -	245.2 m	245.2 m
Width -	141.7 m	141.7 m
Height -	74.3 m	74.3 m
Weight -	115,943 mt	121,878 mt

Cargo

Cargo Units -	200 SCU	200 SCU
Cargo Capacity -	10,000 mt	10,000 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-6a	M-6a
Transporters -		
Standard 6-person -	2	2
Combat 22-person -	-	-
Emergency 18-person -	3	3
Cargo -	5	5

OTHER DATA:

Crew -	226	238
Troops -	-	-
Passengers -	30	30
Shuttlecraft -	10	10

ENGINEERING:

Total Power Units Available -	52	52
Movement Point Ratio -	3/1	3/1
Warp Engine Type -	FWK-1	FWK-1
Number -	1	1
Power Units Available -	36	36
Stress Chart -	G/F	G/F
Max Safe Cruising Speed -	Warp 9	Warp 9
Emergency Speed -	Warp 10	Warp 10
Impulse Engine Type -	FIF-2	FIF-2
Power Units Available -	16	16

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-10	FH-17
Number -	6	8
Firing Arcs -	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s, 2 a
Firing Chart -	W	Y
Maximum Power -	7	6
Damage Modifiers		
+3	(1-10)	(1-10)
+2	(11-17)	(11-17)
+1	(18-20)	(18-24)
Torpedo Weapon Type -	FP-5	FP-4
Number -	2	2
Firing Arcs -	2 f	2 f
Firing Chart -	R	S
Power To Arm -	1	1
Damage -	16	20

SHIELD DATA:

Deflector Shield Type -	FSP	FSS
Shield Point Ratio -	1/4	1/4
Maximum Shield Power -	16	20

COMBAT EFFICIENCY:

D -	126.3	167.2
WDF -	77.2	82.6



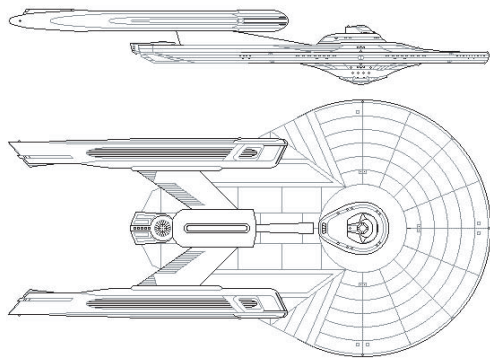
Notes:

The Midway class light cruiser development project began in early 2285 after the start of the Great Experiment. The original design concept called for a high speed, single engine light cruiser equipped with Transwarp drive. With the failure of the Transwarp Development Project in 2287, the Midway class development was placed on hold and the USS Midway was placed into the mothball. In 2292, the USS Midway was removed from mothball and used in the development of the FWK-1 warp engine.

The FWK-1 warp engine gave new life to the Midway class. Finally, an engine that was able to completed most of the original design perimeters. In early 2294, Starfleet ordered 49 more vessels to provide the Exploration Command with new deep space research vessel. At this role, the Midway class excelled beyond all expectations.

Mk II went into production in late 2305 after six months review of the performance of the original 50 starships. It was decided the class would benefit from improvements to the weapon systems and shield generators. The improvements called for the installation of the new FH-17 phasers, FP-4 photon torpedoes, and FSS shield generator. In addition, it was decided that the installation of an aft phaser bank would improve defensive capabilities. These modifications allowed the Midway class vessels to serve the Federation until 2369 when the last ship of the class was retired from active duty in and placed into the Starfleet museum that same year.

PEGASUS CLASS XI CRUISER



NOTES:

When problems developed with the Explorer class, Starfleet looked to the old Vagabond class for the inspiration to resolve the problems. The result was the Pegasus class. Sporting a shorter, broader support strut to increase stability and front-saucer mounted photon tubes in the event of the loss of the nacelle assembly. The Pegasus class was very successful and served as the basis for many of the elements found in the Constellation, Odysseus, and Questar classes.

CONSTRUCTION DATA:

Class -	X
Model -	Mk I
Date Entering Service -	2285
Number Constructed -	50

HULL DATA:

Superstructure Points -	26
Damage Chart -	C
Size	
Length -	247 m
Width -	186 m
Height -	52 m
Weight -	149,383 mt

Cargo

Cargo Units -	300 SCU
Cargo Capacity -	15,000 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	M-6A
Transporters -	
Standard 6-person -	4
Emergency 22-person -	3
Cargo -	3

OTHER DATA:

Crew -	300
Passengers -	30
Shuttlecraft -	4

ENGINEERING:

Total Power Units Available -	68
Movement Point Ratio -	4/1
Warp Engine Type -	FWG-1
Number -	2
Power Units Available -	26 ea.
Stress Chart -	D/F
Max Safe Cruising Speed:	Warp 8
Emergency Speed -	Warp 10
Impulse Engine Type -	FIF-2
Power Units Available -	16

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-10
Number -	6
Firing Arcs -	2 f, 2 p/a, 2 s/a
Firing Chart -	W
Maximum Power -	7
Damage Modifiers	
+3	(1-10)
+2	(11-17)
+1	(18-20)

Torpedo Weapon Type -

Number -	FP-4
Firing Arcs -	2
Firing Chart -	1 f/p, 1 f/s
Power to Arm -	S
Damage -	1
	20

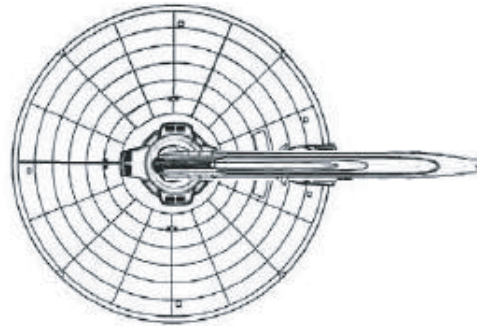
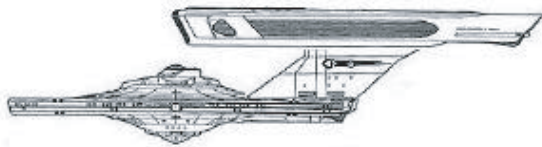
SHIELD DATA:

Deflector Shield Type -	FSP
Shield Point Ratio -	1/4
Maximum Shield Power -	16

COMBAT EFFICIENCY:

D -	157.2
WDF -	83.2

RICHTHOFEN CLASS VIII PATROL CRUISER



CONSTRUCTION DATA:

Class -	VIII
Model -	Mk I
Date Entering Service -	2283
Number Constructed -	124

HULL DATA:

Superstructure Points -	41
Damage Chart -	C
Size	
Length -	222 m
Width -	141.7 m
Height -	80 m
Weight -	119,013 mt
Cargo	
Cargo Units -	60 SCU
Cargo Capacity -	3,000 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	M-3
Transporters -	
Standard 6-person -	2
Combat 22-person -	2
Emergency 18-person -	1
Cargo -	2

OTHER DATA:

Crew -	156
Troops -	40
Passengers -	20
Shuttlecraft -	3

ENGINEERING:

Total Power Units Available -	32
Movement Point Ratio -	4/1
Warp Engine Type -	FWG-1
Number -	1
Power Units Available -	20 ea.
Stress Chart -	C/D
Max Safe Cruising Speed -	Warp 8
Emergency Speed -	Warp 10
Impulse Engine Type -	FIF-1
Power Units Available -	12

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-11
Number -	2
Firing Arcs -	2 p/f/s
Firing Chart -	Y
Maximum Power -	10
Damage Modifiers	
+3	(1-10)
+2	(11-17)
+1	(18-24)
Torpedo Weapon Type -	FP-5
Number -	3
Firing Arcs -	1 f/p, 1 f/s, 1 a
Firing Chart -	R
Power To Arm -	1
Damage -	16

SHIELD DATA:

Deflector Shield Type -	FSL
Shield Point Ratio -	1/3
Maximum Shield Power -	16

COMBAT EFFICIENCY:

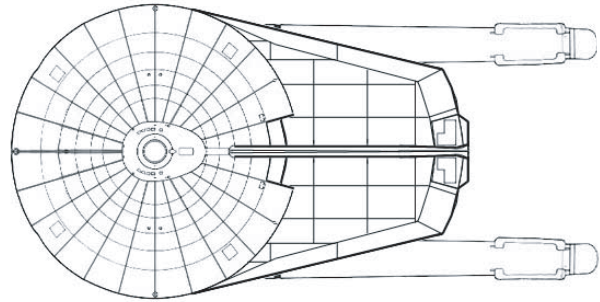
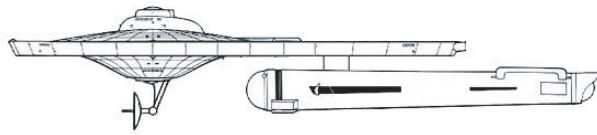
D -	111.1
WDF -	49.9



Notes:

The Richthofen Class is a real military ship. After the raid of an unknown species along the rimward border, Starfleet needed a fast and strong patrol ship to stop such attacks. With the commissioning of the first twenty Richthofen Patrol Class Cruiser, the raids ended and never started again. After this successful operation the Richthofen Class was on duty along the whole federation border. Of the 124 constructed ships 17 were lost, 53 were destroyed (12 by the Klingons, 23 by the Romulans, 6 by the Orions, 4 by unknown species, 8 by an explosion of a space dock), 34 were scrapped (12 of them had construction failures), 3 were used as training vessels, 4 were sold. Today 11 ships are still on duty along the neutral zone.

TYRANNIS CLASS IX RESEARCH CRUISER



CONSTRUCTION DATA:

Class -	IX	IX	IX	IX
Model -	Mk I	Mk II	Mk III	Mk IV
Date Entering Service -	2249	2255	2258	2264
Number Constructed -	20	8	10	10

HULL DATA:

Superstructure Points -	24	24	24	26
Damage Chart -	C	C	C	C
Size				
Length -	245 m	245 m	245 m	245 m
Width -	127 m	127 m	127 m	127 m
Height -	46.6 m	46.8 m	46.8 m	46.8 m
Weight -	126,065 mt	123,930 mt	125,860 mt	129,825 mt

Cargo

Cargo Units -	165 SCU	165 SCU	100 SCU	165 SCU
Cargo Capacity -	8,250 mt	8,250 mt	5,000 mt	8,250 mt
Landing Capacity -	None	None	None	None

EQUIPMENT DATA:

Control Computer Type -	M-2	M-3	M-4	M-4
Transporters -				
Standard 6-person -	2	2	2	2
Emergency 22-person -	3	3	3	3
Cargo -	2	2	2	2

OTHER DATA:

Crew -	205	275	275	275
Passengers-	30	30	30	30
Shuttlecraft -	8	8	11	11

ENGINEERING:

Total Power Units Available -	22	22	30	34
Movement Point Ratio -	3/1	3/1	3/1	3/1
Warp Engine Type -	FWE-1	FWE-1	FWE-2	FWE-2
Number -	2	2	2	2
Power Units Available -	8 ea.	8 ea.	12 ea.	12 ea.
Stress Chart -	G/K	G/K	G/K	G/K
Max Safe Cruising Speed -	Warp 7	Warp 7	Warp 7	Warp 7
Emergency Speed -	Warp 8	Warp 8	Warp 8	Warp 8
Impulse Engine Type -	FIB-3	FIB-3	FIB-3	FIE-2
Power Units Available -	6	6	6	8

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FL-4	FH-2	FH-5	FH-3
Number -	6	6	6	6
Firing Arcs -	2 p, 2 f, 2 s	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s	2 f/p, 2 f/, 2 f/s
Firing Chart -	G	H	R	W
Maximum Power -	3	3	4	5
Damage Modifiers				
+3	-	-	-	(1-10)
+2	-	-	(1-8)	(11-17)
+1	(1-4)	(1-10)	(9-16)	(18-20)
Torpedo Weapon Type -	FAC-2	FP-1	FP-1	FP-1
Number -	2	2	2	2
Firing Arcs -	2 f	2 f	2 f	2 f
Firing Chart -	G	L	L	L
Power to Arm -	4	1	1	1
Damage-	10	10	10	10

SHIELD DATA:

Deflector Shield Type -	FSH	FSK	FSI	FSL
Shield Point Ratio -	1/2	1/2	1/3	1/3
Maximum Shield Power -	12	15	12	15

COMBAT EFFICIENCY:

D -	72.3	76.3	95.8	106.2
WDF -	8.8	16.6	27.4	43.6



NOTES:

One of the most basic of designs, the Tyrannis class of research cruisers were well loved by Star Fleet and the early Science Council of the UFP. Built specifically around a large research deck, the Tyrannis class provided numerous expandable research bays dedicated to a single research project. No other vessel at the time had so much space dedicated to research in a single starship.

The Mk I version of the Tyrannis incorporated the latest in research equipment and was designed using the new FWE-1 engine as its central power plant. This provided sufficient power for the vessel to operate in forward areas while also providing speed and maneuverability. The roomy interior allowed for extensive reinforcing of the hull. Built shortly after the end of the Four-Years war, the Tyrannis was surprisingly well armed for a vessel of its size, allowing it to also operate near hostile boarders. This gave Star Fleet a chance to follow up on scouting missions while keeping a military presence visible.

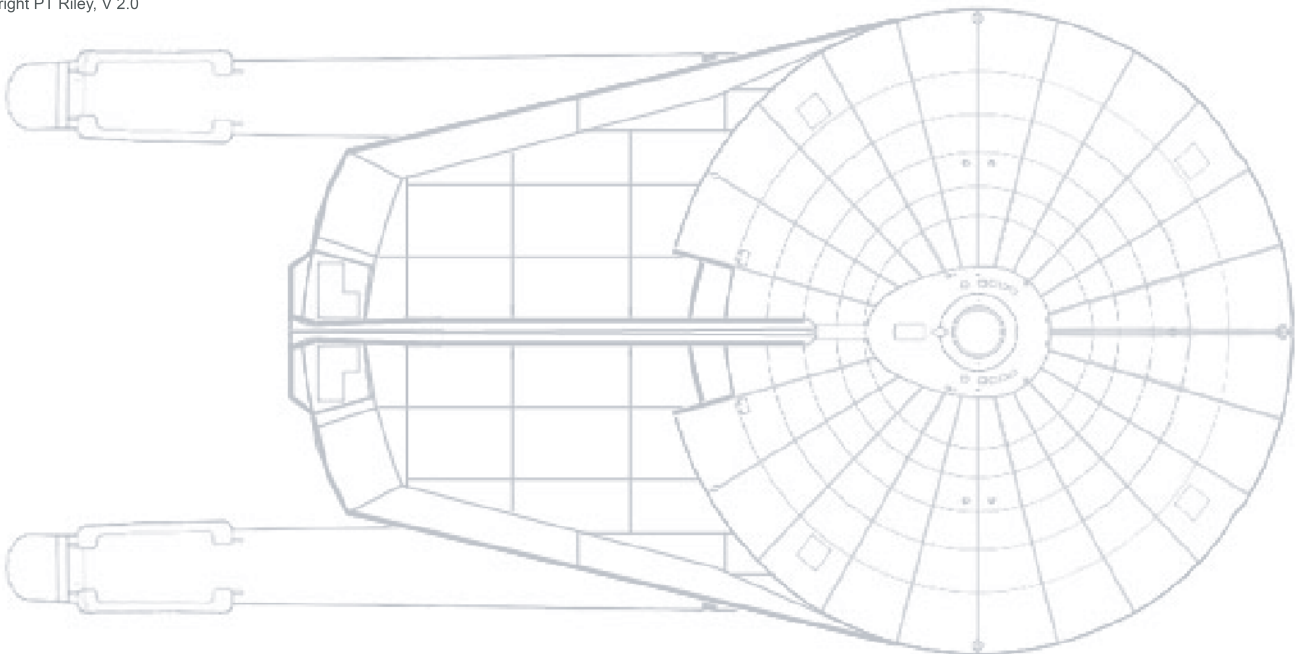
The Mk II saw the installment of the new FH-2 coupled with the FP-1, providing the medium cruisers with increased range and more internal space. This led to the increase of the crew complement and allowed more labs to be installed, giving the Tyrannis a better research base, second only to the Constitution class.

The Mk III saw the installment of the FWE-2 engine to increase both power and range. An upgrade to the weapons kept the vessel in the forefront of both military and exploration efforts. Unfortunately, even with its reinforced hull, the Tyrannis suffered from a dangerous vulnerability to its engineering spaces, a vulnerability born true when the USS Chandris was crippled by a single volley of disruptor fire from an Orion purchased gunboat. The Tyrannis was looted by transporter and had to be towed to a Star Base after a rescue ship arrived 16 days later. Despite this setback, the Tyrannis class continued to serve in the front lines, and was often assigned to dangerous missions.

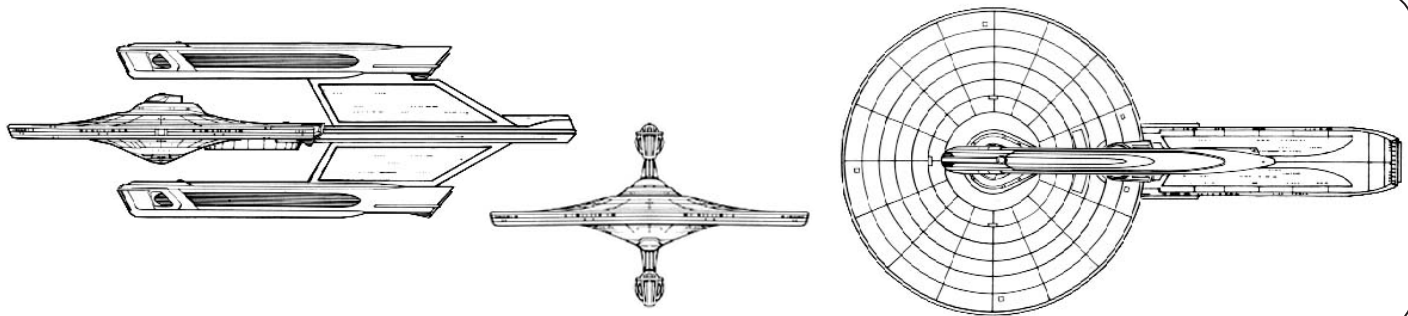
But the Tyrannis' days were numbered. The Mk IV saw very little success. Out powered by many other vessels, the Mk IV proved to be the last variant of the venerable cruiser. Although extremely well armed and shielded, the under-powered nature of the vessel forced its withdrawal from front line research. Most were converted to Mk IV within a year of its introduction, and shortly after were assigned to research escort missions in multi-ship projects along the coreward and spinward expansions. The Tyrannis was still a popular vessel, though and its lines can clearly be seen in the Coventry and Miranda designs.

Of the 50 ships built, 5 have been lost, 10 have been destroyed, 7 have been scrapped, 1 was captured by forces in the triangle, and 16 have been sold to various interests, including 4 Mk I's, 4 Mk III's and 7 Mk IV's. One is currently a museum at the Brell Ship Museum of Andor. The Tyrannis was built at the Sol III shipyards at a rate of 6 per year.

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TICONDEROGA CLASS X MEDIUM CRUISER



CONSTRUCTION DATA:

Class -	X
Model -	Mk I
Date Entering Service -	2276
Number Constructed -	49

HULL DATA:

Superstructure Points -	24
Damage Chart -	C
Size	
Length -	243 m
Width -	130 m
Height -	69 m
Weight -	144,980 mt

Cargo

Cargo Units -	250 SCU
Cargo Capacity -	12,500 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	M-4
Transporters -	
Standard 6-person -	3
Combat 22-person -	-
Emergency 18-person -	4
Cargo -	1

OTHER DATA:

Crew -	330
Troops -	-
Passengers -	40
Shuttlecraft -	6

ENGINEERING:

Total Power Units Available -	56
Movement Point Ratio -	4/1
Warp Engine Type -	FWG-1
Number -	2
Power Units Available -	26 ea.
Stress Chart -	D/F
Max Safe Cruising Speed -	Warp 8
Emergency Speed -	Warp 10
Impulse Engine Type -	FID-2
Power Units Available -	4

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-10
Number -	5
Firing Arcs -	2 f/p, 1 p/f/s, 2 f/s
Firing Chart -	W
Maximum Power -	7
Damage Modifiers	
+3	(1-10)
+2	(11-17)
+1	(18-20)
Torpedo Weapon Type -	FP-5
Number -	1
Firing Arcs -	1 f
Firing Chart -	R
Power To Arm -	1
Damage -	16

SHIELD DATA:

Deflector Shield Type -	FSO
Shield Point Ratio -	1/3
Maximum Shield Power -	16

COMBAT EFFICIENCY:

D -	116.8
WDF -	58



Notes:

The Toconderoga Class Medium Cruiser is the newest class of vessel to come off the Federation assembly lines. At present only 49 Ticonderogas have been completed, with the construction of 24 more vessels to be completed if and when the class successfully completes long term operational trials.

The Ticonderoga was the first Star Fleet vessel to employ the "Up & Down" warp nacelle design as apposed to the conventional side to side method of dual engines in the past. Great study and design experimentation had gone into this alignment, with a number of new theories in warp field engineering occurring as well. Not until the evidence of improved performance came about was this radical design ever seriously considered.

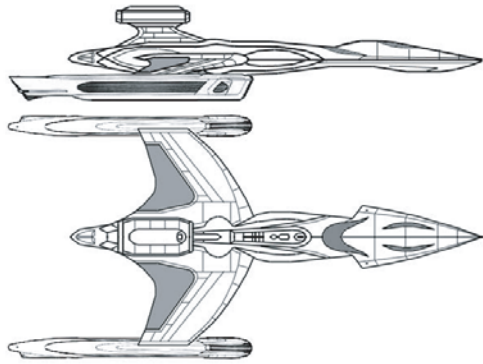
Tests had shown that, through some still-not-understood principle of matter/anti-matter balance and subspace field mechanics, a vessel using this warp field configuration should attain greater speeds with more safety than a vessel using the conventional configuration. Practice trials had only been tested on vessels less than 40,000 tons but designer and warp engineering specialists could find no reason why this advantage could not help larger ships as well. The Ticonderoga class was built to test that theory.

As the design achieved success, Star Fleet intended to use the vessels for such missions as escorting important convoys and pirate suppression duty. It was felt that the privateers who prey on helpless shipping would come up against a vessel that could both outgun them and outrun them. This never-before-seen situation was looked upon with great expectation by many merchant corporations and far-flung frontier worlds reliant on successful shipping for survival.

The trials of the Ticonderoga began late 2276. Only after a year of testing was it determined that the class was indeed a success. The Ticonderoga class one of the last major Star Fleet vessels to be fitted with standard warp drive. Although it was hoped that the trials of the Excelsior and Transwarp would dynamically change Warp Drive technology, the failure of the project none the less produced extensive changes to warp technology that were soon standard designs before the Ticonderoga's production run completed.

Since being commissioned, a total of 46 Ticonderoga remain on active duty. Plans have not yet been approved for a Mk II variant for the remainin 24 contracted by Star Fleet. Two Mk I's have been destroyed and one was sold.

BEARCLAW CLASS IV CUTTER



NOTES:

Known Sphere of Operation: Federation Interior

Conceived as a cutter for dealing with smaller pirates and smugglers, the Bearclaw combines speed and firepower with good shielding for its size. Her sleek shape is intended to make atmospheric flight easier should the need arise for the craft to land.

CONSTRUCTION DATA:

Class - IV
Model - Mk I
Date Entering Service - 2289
Number Constructed - 245

HULL DATA:

Superstructure Points - 10
Damage Chart - C
Size
Length - 45 m
Width - 22 m
Height - 9 m
Weight - 28,080 mt

Cargo

Cargo Units - 5 SCU
Cargo Capacity - 250 mt
Landing Capacity - Yes

EQUIPMENT DATA:

Control Computer Type - M-1
Transporters -
Standard 6-person - 2
Combat 20-person - -
Emergency 22-person - 1
Cargo - 1

OTHER DATA:

Crew - 40
Troops - 10
Passengers - 10
Shuttlecraft - -

ENGINEERING:

Total Power Units Available - 24
Movement Point Ratio - 3/1
Warp Engine Type - FWH-1
Number - 2
Power Units Available - 10 ea.
Stress Chart - Q/R
Max Safe Cruising Speed - Warp 7
Emergency Speed - Warp 9
Impulse Engine Type - FIB-2
Power Units Available - 4

WEAPONS AND FIRING DATA:

Beam Weapon Type - FH-12
Number - 4
Firing Arcs - 2 p/t/s, 1 p/a, 1 s/a
Firing Chart - R
Maximum Power - 6
Damage Modifiers
+3 -
+2 - (1-9)
+1 - (10-16)

Torpedo Weapon Type -

FP-1
Number - 2
Firing Arcs - 2 f
Firing Chart - L
Power To Arm - 1
Damage - 10

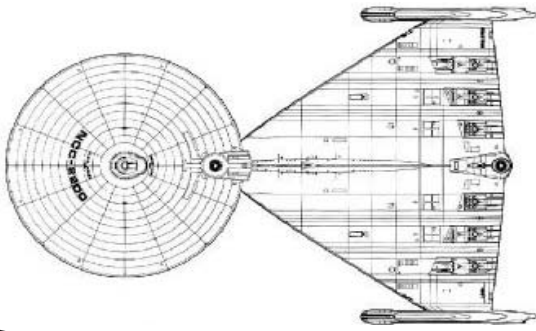
SHIELD DATA:

Deflector Shield Type - FSB
Shield Point Ratio - 1/2
Maximum Shield Power - 8

COMBAT EFFICIENCY:

D - 47.3
WDF - 28.4

ARIEL CLASS XVIII SHUTTLECARRIER



CONSTRUCTION DATA:

Class -	XVII	XVII
Model -	Mk I	Mk II
Date Entering Service -	2276	2301
Number Constructed -	4	4 (converted)

HULL DATA:

Superstructure Points -	168	146
Damage Chart -	C	C
Size		
Length -	496.1 m	496.1 m
Width -	316.1 m	316.1 m
Height -	79.2 m	79.2 m
Weight -	400,651 mt	430,795 mt
Cargo		
Cargo Units -	1,843 SCU	1,882 SCU
Cargo Capacity -	91,690 mt	94,080 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-6a (x3)	M-7 (x3)
Transporters -		
Standard 6-person -	13	13
Combat 22-person -	38	38
Emergency 18-person -	19	19
Cargo -	60	60

OTHER DATA:

Crew -	2,379	2,472
Troops -	750	720
Passengers -	1,000	1,000
Shuttlecraft -	98	90

ENGINEERING:

Total Power Units Available -	84	164
Movement Point Ratio -	7/1	7/1
Warp Engine Type -	FWG-2	FWJ-1
Number -	2	2
Power Units Available -	26 ea.	38 ea.
Stress Chart -	H/K	D/F
Max Safe Cruising Speed -	Warp 8	Warp 9
Emergency Speed -	Warp 9	Warp 9.9
Impulse Engine Type -	FIH-3 (x2)	FIH-3 (x2)
Power Units Available -	20 ea.	44 ea.

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-11	FH-11
Number -	18	18
Firing Arcs -	4 f/p, 4 f, 4 f/s	4 f/p, 4 f, 4 f/s
Firing Chart -	2 p/a, 2 a/ 2 s/a	2 p/a, 2 a, 2 s/a
Maximum Power -	Y	Y
Damage Modifiers		
+3	10	10
+2	(1-10)	(1-10)
+1	(11-17)	(11-17)
Torpedo Weapon Type -	(18-24)	(18-24)
Number -	-	FP-4
Firing Arcs -	-	6
Firing Chart -	-	4 f, 2 a
Power To Arm -	-	S
Damage -	-	1
	-	20

SHIELD DATA:

Deflector Shield Type -	FSP	FSQ
Shield Point Ratio -	1/4	1/4
Maximum Shield Power -	16	26

COMBAT EFFICIENCY:

D -	318.2	410.8
WDF -	192.6	292.8



NOTES:

Known Sphere of Operation: Federation Wide Boarders

The Ariel Class have their origins in proposals for Heavy Cruiser redesign. In its original form the great delta winged Starship was to be much smaller, with only one flight deck at the stern. Tests revealed that the warp dynamics of this shape were greatly enhanced with a much larger "belly" area however.

Accordingly the size and purpose were thus changed. As built the shuttlecarrier can act as the focal point for fleet operations, on detached Task Force duty, or alone as a means of emergency re-supply or evacuation. It carries a complement of 80+ embarked craft, and has capacity to carry cargo equal in mass to an entire small Starship.

What is most intriguing about the design is its shape, which is so Warp dynamic it initially need only slightly modified FWG-2 warp engines to create a Warp Field for a Starship far larger than such engines are usually attached to. As such, it may prove to be the shape which will eventually succeed the Heavy Cruiser to the title of most versatile starship.

Star Fleet has been pressing for the development of deep space exploration Starships externally similar to the Ariel design. It may be that a new generation of huge delta winged Starships will soon open the door to intergalactic travel.

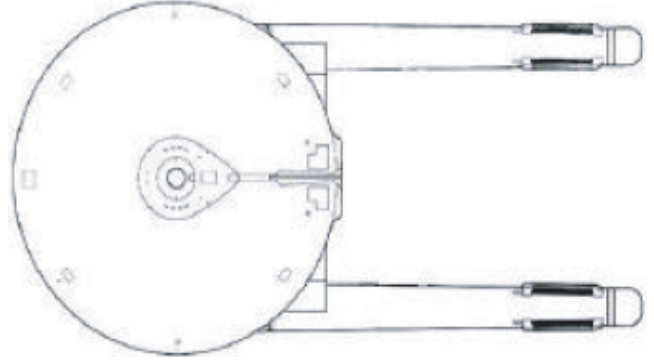
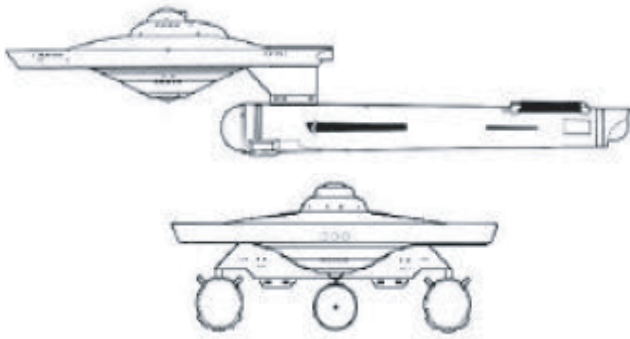
Unfortunately the sheer size and cost of these ships provoked controversy, and Star Fleet was unwilling to jeopardize these ships on independent duty except deep within the treaty zone. Any operations near the frontier were always as part of a fleet. The reason was that despite their great size, and massively strong structure they were underpowered, and incapable of moving at a respectable speed and maintaining fire at the same time.

These weaknesses were addressed in the 2301 refit, when new FWJ-1 warp engines were fitted, along with the FIH-3 impulse drive. The engine power output was almost doubled, as were the Ship's cursing and maximum speeds. Photon Torpedoes were also fitted at this time, at the expense of some hanger capacity and armor.

The other notable feature of the class was that it was the first operational vessel with two impulse systems in use at once, the great size of the ship removed the problem with interference with the warp drive. One ship of this class was pulled from reserve and lost in the battle of Wolf 359.

VESSEL	REGISTRY	DISPOSITION
USS Ariel	NCC 2200	2276 / R 2301
USS Ichkeul	NCC 2201	2278 / R 2302
USS Manna	NCC 2202	2279 / R 2304
USS Adjuvant	NCC 2203	2280 / R 2306, D 2367

CASSARD CLASS VI MISSILE DESTROYER



CONSTRUCTION DATA:

Class -	VI	VI	VI
Model -	Mk I	Mk II	Mk III
Date Entering Service -	2243	2258	2268
Number Constructed -	12	12	12

HULL DATA:

Superstructure Points -	12	13	15
Damage Chart -	C	C	C
Size			
Length -	280 m	280 m	280 m
Width -	127 m	127 m	127 m
Height -	59 m	59 m	59 m
Weight -	60,350 mt	60,350 mt	64,295 mt

Cargo

Cargo Units -	100 SCU	100 SCU	100 SCU
Cargo Capacity -	5,000 mt	5,000 mt	5,000 mt
Landing Capacity -	None	None	None

EQUIPMENT DATA:

Control Computer Type -	M-1	M-1	M-1
Transporters -			
Standard 6-person -	1	1	1
Emergency 22-person -	1	1	1
Cargo -	1	1	1

OTHER DATA:

Crew -	91	91	91
Passengers -	4	4	4
Shuttlecraft -	2	2	2

ENGINEERING:

Total Power Units Available -	22	22	30
Movement Point Ratio -	3/1	3/1	3/1
Warp Engine Type -	FWB-1	FWB-2	FWB-2
Number -	2	2	2
Power Units Available -	9 ea.	12 ea.	12 ea.
Stress Chart -	M/O	M/O	M/O
Max Safe Cruising Speed -	Warp 6	Warp 7	Warp 7
Emergency Speed -	Warp 7	Warp 8	Warp 8
Impulse Engine Type -	FIB-2	FIB-2	FIB-3
Power Units Available -	4	4	6

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FL-2	FH-4	FH-4
Number -	2	2	4
Firing Arcs -	2 f	2 f	2 f/p, 2 f/s
Firing Chart -	F	Q	Q
Maximum Power -	2	3	3
Damage Modifiers			
+3	-	-	-
+2	-	(1-8)	(1-8)
+1	-	(9-14)	(9-14)
Torpedo Weapon Type -	FAC-1	FP-2	FP-2
Number -	4	6	8
Firing Arcs -	4 f	6 f	8 f
Firing Chart -	F	H	H
Power To Arm -	3	1	1
Damage -	8	6	6

SHIELD DATA:

Deflector Shield Type -	FSA	FSF	FSF
Shield Point Ratio -	1/1	1/2	1/2
Maximum Shield Power -	8	10	10

COMBAT EFFICIENCY:

D -	38.7	62.6	67.5
WDF -	3.4	17.2	26.4

NOTES:

The Cassard class Missile Destroyer was conceived in late 2242 as fleet combat support vessel. Starfleet felt the need to provide the fleet with a starship that was capable of providing overwhelming accelerator cannon support to the battle. This ship was designed to serve as the equivalent of an artillery battery for ground troops. In mid 2243 the Cassard class became a reality for Starfleet when the finalized design was approved utilizing the new M-1 control computer.

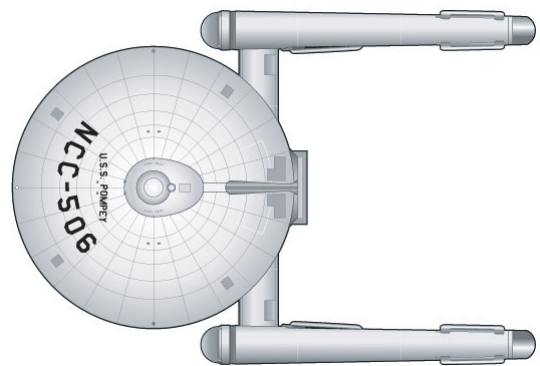
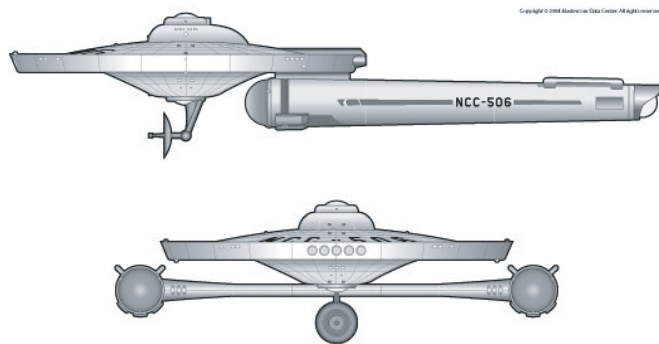
The Cassard class proved their worth during the on and off conflicts with the Klingon Empire over the years of service from 2243 through 2288. Their first baptism of fire occurred with the Imperial Klingon Navy in 2248. This proved to be a devastating learning experience for the Klingons. The Federation 6th Fleet was conducting maneuvers in an uninhabited system near Federation Outpost 1. A Klingon scout spotted the six red force ships and radioed a near by Klingon fleet of the current situation. The scout never spotted the other eight ships of blue force that were hiding behind the second planet of the system preparing for the upcoming practice engagement. Blue fleet had four ships of the Cassard class participating in the maneuvers. This was the first time the Cassard class ship participated in a major fleet exercise. Ironically, the maneuvers were testing integration strategies for the Cassard class into current battle fleets. An hour before the exercise was to begin a Klingon task force of three D-7A's and six D-16's entered the system and engaged the red force. Red force began a slow retreat to the second planet in an attempt to set up the Klingon fleet for an ambush with the blue fleet. The Cassard class ships lead the blue fleet counter attack by moving around the planet and attacked the Klingon fleet from the rear with complete surprise. The Cassard's launched the counter attack with a volley of their accelerator cannon's. They destroyed the Klingon flagship and proceeded to attack the other ships one at a time in concentrated volleys with the rest of blue fleet provided defensive support. The battle ended 30 minutes later with the loss of three Federation vessels, two heavily damaged, and the rest with light to moderate damage. Three D-16's managed to retreat back to Klingon space with moderate damage and the rest were destroyed. The Cassard's proved their worth in fleet size battles with other starships providing beam weapon support, but remained untested until six months later when three Cassard's were forced into battle without fleet support near the Klingon border. All three ships were lost in the engagement. After that incident, all Cassard's were removed from long-range patrol duties and assigned to outpost defense duties and fleet support actions only. Starfleet felt the ships were too vulnerable to operate without support from other starships due to the lack of beam weapons.

In 2258 the MK II version was commissioned using the new Photon Torpedoes as the primary weapon system. Other systems were also upgraded to improve the survival ability of the class, but the beam weapon problem still existed. This remained unchanged until 2268 when the MK III version entered service.

In 2288 the last Cassard class removed from service and placed into mothball status. The ships remained in mothball until 2304, when 26 ships were sold to the Affiliation of Outer Free Worlds. The USS Cassard was placed into the Starfleet museum in 2305.

Mk II Tangent by Terry Atkins - Stardate Magazine July/Aug. 1985

POMPEII CLASS VI DESTROYER



CONSTRUCTION DATA:

Class -	VI	VI	VI
Model -	Mk I	Mk II	Mk III
Date Entering Service -	2243	2246	2259
Number Constructed -	20	26	36

HULL DATA:

Superstructure Points -	12	17	18
Damage Chart -	C	C	C
Size			
Length -	242 m	242 m	242 m
Width -	127 m	127 m	127 m
Height -	42 m	42 m	42 m
Weight -	60,975 mt	71,465 mt	70,930 mt

Cargo

Cargo Units -	41 SCU	38 SCU	58 SCU
Cargo Capacity -	2,040 mt	1,910 mt	2,900 mt
Landing Capacity -	None	None	None

EQUIPMENT DATA:

Control Computer Type -	M-1	M-1	M-3
Transporters -			
Standard 6-person -	2	2	2
Emergency 22-person -	2	2	2
Cargo -	1	1	1

OTHER DATA:

Crew -	111	109	159
Passengers -	15	8	20
Shuttlecraft -	2	2	2

ENGINEERING:

Total Power Units Available -	21	24	30
Movement Point Ratio -	3/1	3/1	3/1
Warp Engine Type -	FWB-1	FWB-1	FWB-2
Number -	2	2	2
Power Units Available -	9 ea.	9 ea.	12 ea.
Stress Chart -	M/O	M/O	M/O
Max Safe Cruising Speed -	Warp 6	Warp 6	Warp 7
Emergency Speed -	Warp 7	Warp 7	Warp 8
Impulse Engine Type -	FIC-2	FIB-3	FIB-3
Power Units Available -	3	6	6

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FL-2	FH-4	FH-2
Number -	6	2	6
Firing Arcs -	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s	2 f/p, 2 f, 2 f/s
Firing Chart -	F	H	H
Maximum Power -	2	2	3
Damage Modifiers			
+3	-	-	-
+2	-	(1-4)	-
+1	-	(5-7)	(1-10)
Torpedo Weapon Type -	-	FAC-3	FP-1
Number -	-	2	2
Firing Arcs -	-	2 f	2 f
Firing Chart -	-	H	L
Power To Arm -	-	4	1
Damage -	-	12	10

SHIELD DATA:

Deflector Shield Type -	FSC	FSG	FSK
Shield Point Ratio -	1/1	1/1	1/2
Maximum Shield Power -	9	11	16

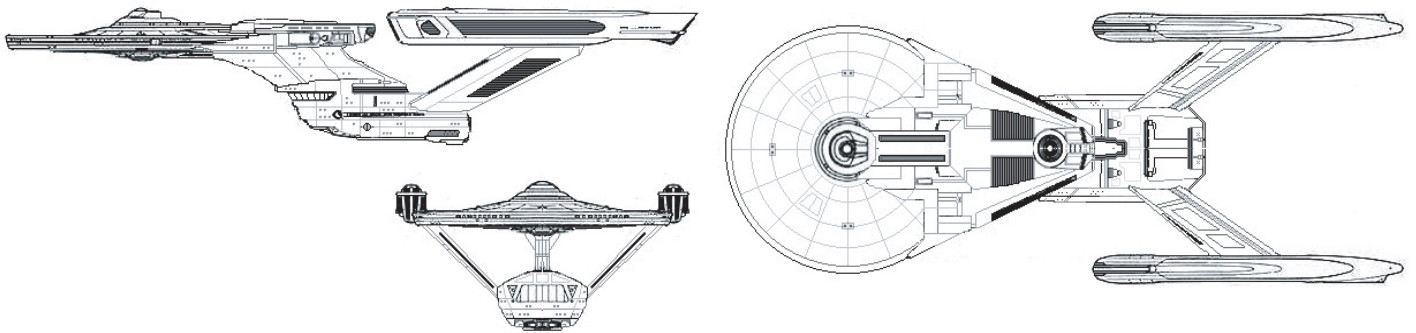
COMBAT EFFICIENCY:

D -	40.7	51.8	80.7
WDF -	3.0	10.6	16.6



NOTES:

TANGENT CLASS VIII DESTROYER



CONSTRUCTION DATA:

Class -	VIII	VIII	VIII
Model -	Mk II	Mk III	Mk IV
Date Entering Service -	2273	2278	2303
Number Constructed -	26	10	7

HULL DATA:

Superstructure Points -	21	21	18
Damage Chart -	C	C	C
Size			
Length -	280 m	280 m	280 m
Width -	120 m	120 m	120 m
Height -	59 m	59 m	59 m
Weight -	121,423 mt	121,468 mt	139,938 mt

Cargo			
Cargo Units -	250 SCU	250 SCU	290 SCU
Cargo Capacity -	12,500 mt	12,500 mt	14,500 mt
Landing Capacity -	None	None	None

EQUIPMENT DATA:

Control Computer Type -	M-3	M-3	M-3b
Transporters -			
Standard 6-person -	2	2	2
Emergency 18-person -	3	3	3
Cargo -	1	1	1

OTHER DATA:

Crew -	270	270	320
Passengers -	12	12	12
Shuttlecraft -	4	4	2

ENGINEERING:

Total Power Units Available -	38	38	52
Movement Point Ratio -	3/1	3/1	3/1
Warp Engine Type -	FWE-2	FWE-2	FWL-1
Number -	2	2	2
Power Units Available -	13 ea.	13 ea.	20 ea.
Stress Chart -	G/K	G/K	C/D
Max Safe Cruising Speed -	Warp 7	Warp 7	Warp 9
Emergency Speed -	Warp 9	Warp 9	Warp 10
Impulse Engine Type -	FIF-1	FIF-1	FIF-1
Power Units Available -	12	12	12

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-8	FH-8	FH-3
Number -	6	6	6
Firing Arcs -	2 f/p, 2 f/s, 2 a	2 f/p, 2 f/s, 2 a	2 f/p, 2 f/s, 2 a
Firing Chart -	T	T	W
Maximum Power -	5	5	5
Damage Modifiers			
+3	-	-	(1-10)
+2	(1-10)	(1-10)	(11-17)
+1	(11-18)	(11-18)	(18-20)
Torpedo Weapon Type -	FP-2	FP-6	FP-4
Number -	4	2	2
Firing Arcs -	2 f, 2 a	1 f, 1 a	1 f, 1 a
Firing Chart -	H	O	S
Power To Arm -	1	1	1
Damage -	6	12	20

SHIELD DATA:

Deflector Shield Type -	FSH	FSI	FSS
Shield Point Ratio -	1/2	1/3	1/4
Maximum Shield Power -	12	12	20

COMBAT EFFICIENCY:

D -	83.0	100.5	153.7
WDF -	42.4	47.8	71.4



NOTES:

The Tangent class was originally designed to supplement the Loknar Class frigate, but Star Fleet's design commission determined that the latter's service life could be extended by major refitting. They were so impressed by the Tangent Class design, however, that they approved it for construction, intending that it take the boarder patrol duties of the Brenton Class cruiser as they entered their refitting schedule.

Using state-of-the-art technology, the Tangent Class was equipped with firepower superior to its predecessors. Heavy phasers and photon torpedo armament aft made it a formidable opponent in a chase situation. It's enlarged shuttle bay housed armed warp-capable shuttles; one of the first instances of such a modified warp shuttle being carried by another ship.

It's superstructure was reinforced, making it stronger than the Brenton Class, and it's impulse engine was upgraded, giving the Tangent Mk I an excellent power base.

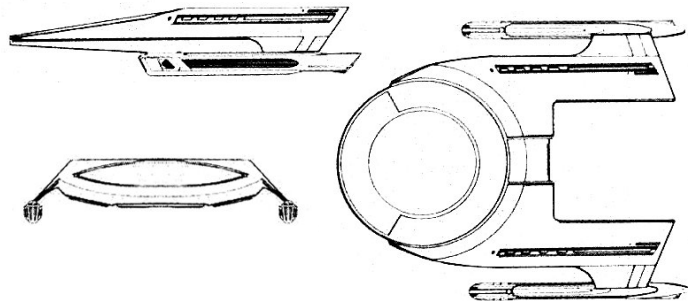
In answer to increasingly powerful armaments found on both Romulan and Klingon warships in the 2270's, Star Fleet upgraded the Tangent's main torpedo armament to the FP-6. The Mk III also increased the shield efficiency, giving ship commanders more flexibility. The Tangent proved an excellent combat vessel and remained in active service in it's destroyer roll until the late 2280's. By 2290, the Tangent was relegated to more restricted rolls, though, and many felt the design should be retired all together. Then in mid 2303, Morena shipyards upgraded the Wixian that was undergoing routine repairs. Within 6 months, the Mk IV was in trial runs and the new design revitalized the Tangent's roll in Star Fleet

The Mk IV was vastly more powerful, using the latest FWL drive system. The FWL-1 could maintain high warp speeds for prolonged periods and gave the Tangent sufficient power to take on most modern enemy destroyers. But the extra power did come with a price. The engineering space needed to be enlarged to handle the new drive, reducing superstructure and available internal space. New weapons and shielding required a more powerful computer. The M-3b, the latest in Multitronic-Isoleneur computer systems was difficult to maintain, but gave the Tangent class nearly twice the firepower.

The Mk IV remain in service, and 10 more are planned before construction is finished. Of the 43 so far built, 39 remain in active service. 1 Mk I was destroyed by Klingon forces. 1 Mk I and 1 Mk II were scrapped, also after combat. 1 Mk I was sold to Darran V Defense Force. The Tangent is produced at Morena at a rate of 2 per year.

Mk II Tangent by Terry Atkins - Stardate Magazine July/Aug. 1985

KAREKH CLASS II SCOUT



CONSTRUCTION DATA:

Class -	II	II
Model -	Mk I	Mk II
Date Entering Service -	2258	2278
Number Constructed -	125	5
HULL DATA:		
Superstructure Points -	2	4
Damage Chart -	B	B
Size		
Length -	35 m	35 m
Width -	27 m	27 m
Height -	7 m	7 m
Weight -	9,140 mt	13,640 mt
Cargo		
Cargo Units -	8 SCU	8 SCU
Cargo Capacity -	400 mt	400 mt
Landing Capacity -	Yes	Yes

EQUIPMENT DATA:

Control Computer Type -	L-14	L-14
Transporters -		
Standard 6-person -	1	1

OTHER DATA:

Crew -	5	7
Passengers -	4	3
Shuttlecraft -	-	-

ENGINEERING:

Total Power Units Available -	14	14
Movement Point Ratio -	3/2	3/2
Warp Engine Type -	FWA-1	FWA-1
Number -	2	2
Power Units Available -	6 ea.	6 ea.
Stress Chart -	G/K	G/K
Max Safe Cruising Speed -	Warp 7	Warp 7
Emergency Speed -	Warp 9	Warp 9
Impulse Engine Type -	FIA-2	FIA-2
Power Units Available -	2	2
WEAPONS AND FIRING DATA:		
Beam Weapon Type -	-	FH-2
Number -	-	4
Firing Arcs -	-	2 f/p/a, 2 f/s/a
Firing Chart -	-	H
Maximum Power -	-	4
Damage Modifiers		
+1	-	(1-10)

SHIELD DATA:

Deflector Shield Type -	FSB	FSB
Shield Point Ratio -	1/2	1/2
Maximum Shield Power -	11	11

COMBAT EFFICIENCY:

D -	45.9	48.7
WDF -	0	5.2



NOTES:

Known Sphere of Operation: Federation Interior

The Karekh Class explorer is a Vulcan-designed and manufactured exploration vessel. This class was designed specifically for mapping space and performing related duties. As a result, the Karekh has an unusually powerful computer for a starship of its size. It is not a particularly well-known class, but it is very well suited for its mission. The vessel's overall reliability is one of its greatest strengths. The interior configuration is similar to the more common Mission Class, except that the Karekh has two decks instead of three.

As part of its mapping and patrol procedures, the Karekh locates new planetary systems. After detecting a new system, the explorer investigates further and determines whether the planet is suitable for colonization, or needs further evaluation by a more fully-equipped starship. Karekhs have made a great deal of celestial discoveries and first contacts, a source of satisfaction for Star Fleet and the ship's Vulcan builders.

One notable difference between the Karekh Mk I and other Star Fleet explorers and scouts was the vessels total lack of weaponry. This characteristic made the ship very popular with Vulcan crews (for whom it was originally designed) and less popular with most other races. In particular, no Andorians would willingly serve aboard a Karekh Mk I.

Because it was unarmed, there were certain restrictions placed on the duties performed by many Karekhs. The Mk I was generally used to patrol, monitor and explore 'safe' regions within the Federation, especially areas not deemed important enough to warrant a larger vessel. The Mk I's FSB deflector shields are still considered adequate protection against most unknown dangers, and the ship's high speed protected it from most anything it could not handle via peaceful means.

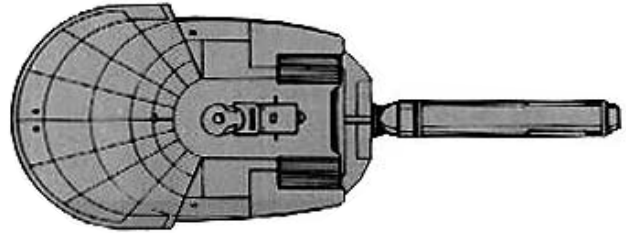
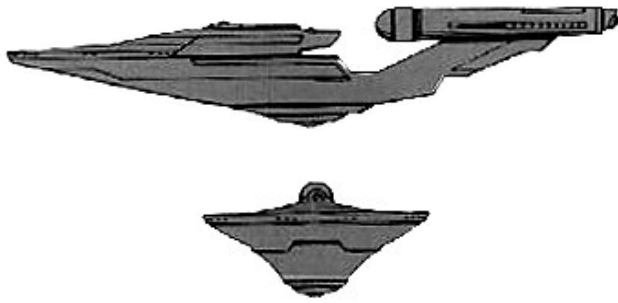
None the less, Star Fleet Command felt that the vessel's operational life would be best served by arming the small scout. The Mk II saw almost no change in the overall design with the addition of two banks of FH-2's added. In typical Vulcan fashion, the weapons were more efficiently mounted and required no other sub-system additions. The Mk II was no combat vessel, but could defend itself against pirate vessels and discourage other hostiles if need be. Only half of all Mk I's have been converted, with many Vulcan captains preferring to pilot the un-armed version.

Most Karekhs serve with the Galactic Exploration Command, though a small number have also been assigned to the Merchant Marines and other Commands. The design is currently being examined for the possibility of upgrading to a larger and more powerful Mk III variant.

Of the 130 Karekhs built, 90 are still serving with the Galactic Exploration Command, including 45 Mk I's and 45 Mk II's. 17 Mk I's are serving with the Merchant Marine Command, 3 Mk I's are used by Star Fleet Training Command and 12 Mk II's are assigned to Star Fleet Intelligence. Of the remainder, 2 Mk I's have been destroyed, 1 Mk I is listed as missing and 5 Mk I's have been sold to private individuals.

The Karekh, manufactured at Vulcan, is no longer in production. In the event the Karekh is upgraded to a Mk III variant, modifications will be made at the Sol IV and Vulcan shipyards.

K'KMARK CLASS VI RESEARCH SCOUT



CONSTRUCTION DATA:

Class -	VI	VI
Model -	Mk I	Mk III
Date Entering Service -	2258	2264
Number Constructed -	8	6

HULL DATA:

Superstructure Points -	8	8
Damage Chart -	C	C
Size		
Length -	180 m	180 m
Width -	68 m	68 m
Height -	35 m	35 m
Weight -	74,165 mt	76,015 mt

Cargo

Cargo Units -	90 SCU	90 SCU
Cargo Capacity -	4,500 mt	4,500 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	L-14	M-1
Transporters -		
Standard 6-person -	1	1
Combat 22-person -	-	-
Emergency 18-person -	2	2
Cargo -	1	1

OTHER DATA:

Crew -	120	123
Troops -	-	-
Passengers -	20	20
Shuttlecraft -	7	7

ENGINEERING:

Total Power Units Available -	17	23
Movement Point Ratio -	2/1	2/1
Warp Engine Type -	FWC-1	FWC-2
Number -	1	1
Power Units Available -	14	20
Stress Chart -	N/L	M/K
Max Safe Cruising Speed -	Warp 8	Warp 7
Emergency Speed -	Warp 10	Warp 9
Impulse Engine Type -	FIC-2	FIC-2
Power Units Available -	3	3

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FH-2	FH-2
Number -	2	2
Firing Arcs -	1 f/p, 1 f/s	1 f/p, 1 f/s
Firing Chart -	H	H
Maximum Power -	3	3
Damage Modifiers		
+3	-	-
+2	-	-
+1	(1-10)	(1-10)

SHIELD DATA:

Deflector Shield Type -	FSA	FSA
Shield Point Ratio -	1/1	1/1
Maximum Shield Power -	7	7

COMBAT EFFICIENCY:

D -	33.4	37.4
WDF -	2.6	2.6



NOTES:

Federation Wide Use

These vessels have been named in honor of an early Vulcan scientist and explorer. K'Kmarak vessels carry on in the tradition of their namesakes. All ships in this class are designed for extended stays and therefore have large living quarters and working areas.

The K'Kmarak was developed as a research ship only. It was never intended for combat and only carries its phaser compliment to meet with Star Fleet regulations. No ships in the research or exploration missions are allowed to travel without minimum weapons.

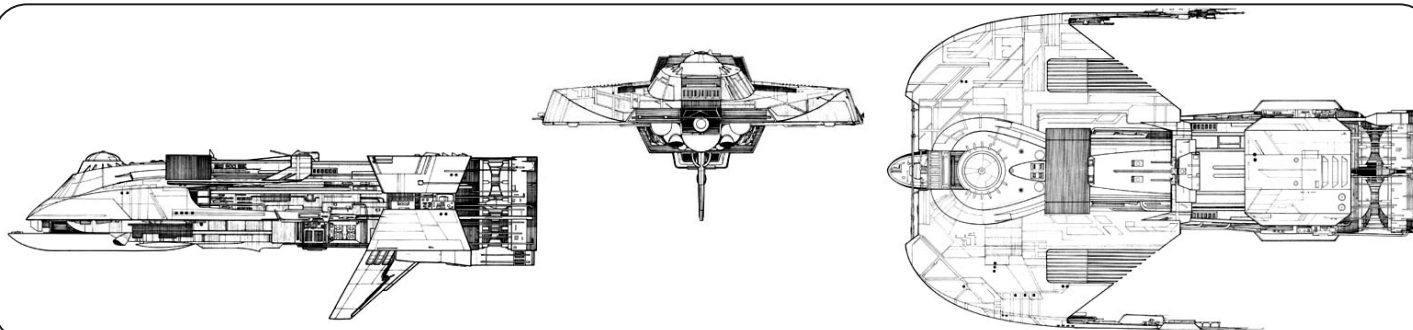
When the Mk I was first commissioned, the need for a research vessel in the rimward areas of the Federation was greatest. As each ship in this class was completed, it was sent to this area to aid in the expansion of the territory. The K'Kmarak was instrumental in mapping this great expanse of space and in establishing contact with heretofore unknown races.

All ships of this type have the most extensive laboratory facilities aboard any Star Fleet scout. They are capable of performing the most intricate of planetary studies and have monitored and recorded several novas.

It was during on of these investigation that a K'Kmarak class vessel, the USS T'Pool (NCC 24307) was engulfed by a stellar explosion that covered 1200 A.U.'s in 20 hours. Luckily for the Vulcans aboard, their ship was caught up in a solar wind of phenomenal proportions and pushed away from the main thrust of the radiation. When all had settled, the T'Pool was still intact and flight worthy. The crew, however, had suffered within a few days. The ship wandered about for several weeks after when the shockwave damaged the navigational sub-systems, until it was discovered by the USS Agnicourt (NCC 4314), a Larson Class destroyer dispatched to locate the T'Pool. The crew were beamed aboard and the T'Pool was left adrift with marker beacons on, warning any approaching vessel to stay away. When ships were dispatched to recover the hulk, it was nowhere to be found and has not been seen or heard of since.

All in all, the K'Kmarak class has served it purpose well and is still in service today. It should be noted that all K'Kmarak class ships are still crewed exclusively by Vulcans.

MONARCH CLASS IX DEEP SPACE FREIGHTER



CONSTRUCTION DATA:

Class -	IX
Model -	Mk XXVI
Date Entering Service -	2259
Number Constructed -	1884

HULL DATA:

Superstructure Points -	8
Damage Chart -	C
Size	
Length -	201 m
Width -	125 m
Height -	56 m
Weight -	125,000 mt

Cargo

Cargo Units -	
Internal -	2,000 SCU
External -	12,000 SCU
Cargo Capacity -	
Internal -	100,000 mt
External -	600,000 mt

Landing Capacity -

None

EQUIPMENT DATA:

Control Computer Type -	M-2
Transporters -	
Standard 6-person -	1
Emergency 18-person -	2
Small Cargo -	3
Large Cargo -	2

OTHER DATA:

Crew -	61
Passengers -	15
Shuttlecraft -	4

ENGINEERING:

Total Power Units Available -	36
Movement Point Ratio -	4/1 (unloaded) 6/1 (loaded)
Warp Engine Type -	FWF-1
Number -	1
Power Units Available -	16
Stress Chart -	F/K
Max Safe Cruising Speed -	Warp 6
loaded -	Warp 4
Emergency Speed -	Warp 8
loaded -	Warp 5
Impulse Engine Type -	FIF-2
Power Units Available -	20

SHIELD DATA:

Deflector Shield Type -	FSA
Shield Point Ratio -	1/1
Maximum Shield Power -	6

COMBAT EFFICIENCY:

D -	
WDF -	0



Notes:

The Monarch Class Deep Space Freighter is one of the oldest ship types in existence. Originally a Klingon design, this freighter class has found its way into every region of know space and has been adapted by nearly every space faring navy to date.

The Monarch is a P-type (Pusher) freighter capable of mounting adaptors to transport most types of cargo container pods. This has made the sip a favorite for crews, as it is able to drop its cargo in emergency situations and gain higher rates of speed and maneuverability.

The design of the Monarch has three major drawbacks. The first is it's lack of sufficient shielding in the area around the warp engine. Most of the shielding problems have been overcome by adding extra shielding and/or higher pay for crewmembers to endure the potential dangers of radiation. Second, the inability to separate the warp field coils from the main hull has always been a problem and is not correctable in this design. The third drawback for this ship is the lack of hard points for weapons. The original manufacture of this ship was for civil use and as a military transport. As a transport, the Monarch was not intended to ever operate without armed escort. In its civil role, designers were not overly concerned with its welfare. This deficiency has been overcome with the addition of weapon mounting points by those owners who have wished to arm their vessels.

It must be remembered that this is a commercial vessel and is no longer in active production by government contracts and therefore any modification are made by the owners past or present. This make for a wide variety of Monarchs in use. The Mk XXVI was licensed by Monarch Industries and were built throughout the Federation, Orion Colonies and within the Triangle. Over 1800 were built and registered by Star Fleet. To date, 103 have been destroyed, 16 are listed as missing, 28 have been scrapped, 71 have been captured by a wide variety of adversaries, 10 are used as training vessels within the Federation and nearly 1200 have been sold to various contractors and independent haulers. License of the Monarch design still resides with Monarch Industries who occasionally sell construction rights to larger transport firms.

NILRON CLASS V Freighter

CONSTRUCTION DATA:

Class -	V	V
Model -	Mk I	Mk II
Date Entering Service -	2242	2253
Cost -	125.9 MCr.	150.9 MCr.
Number Constructed -	254	792

HULL DATA:

Superstructure Points -	7	7
Damage Chart -	B	B
Size		
Length -	156.5 m	156.5 m
Width -	100 m	100 m
Height -	46 m	36 m
Weight -	48,735 mt	49,775 mt
Cargo		
Cargo Units -	2,300 SCU	2,300 SCU
Cargo Capacity -	115,000 mt	115,000 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-1a	M-1
Transporters -		
Standard 6-person -	1	1
Cargo -		
Small -	2	2
Medium -	2	4
Large -	2	4

OTHER DATA:

Crew -	7	None
Passengers -	4	None

ENGINEERING:

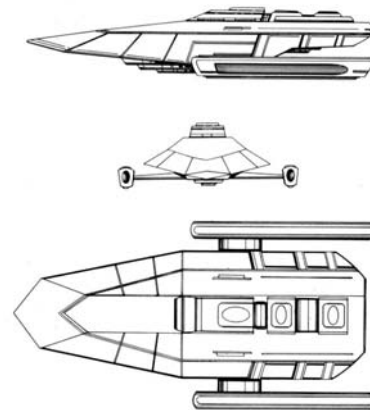
Total Power Units Available -	32	32
Movement Point Ratio -		
Unloaded -	2/1	2/1
Loaded -	6/1	6/1
Warp Engine Type -	FWB-2	FWB-2
Number -	2	2
Power Units Available -	14 ea.	14 ea.
Stress Chart -	M/O	M/O
Max Safe Cruising Speed -		
Unloaded -	Warp 8	Warp 8
Loaded -	Warp 4	Warp 4
Emergency Speed -		
Unloaded -	Warp 9	Warp 9
Loaded -	Warp 5	Warp 5
Impulse Engine Type -	FIB-2	FIB-2
Power Units Available -	4	4

SHIELD DATA:

Deflector Shield Type -	FSD	FSD
Shield Point Ratio -	1/2	1/2
Maximum Shield Power -	8	8

COMBAT EFFICIENCY:

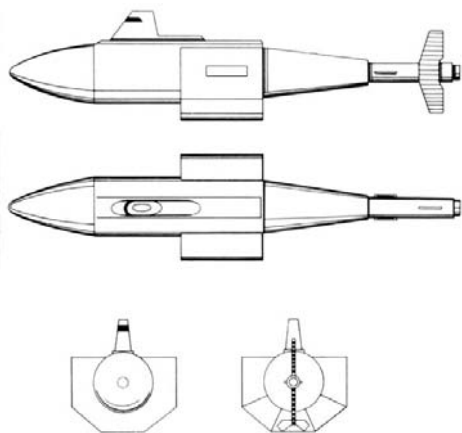
D -	67/36	67/36
WDF -	0	0



NOTES:

The Mk II version is a robot freighter, and requires an M-1 computer for the extra control. The Mk I version has a personnel pod attached, but has the simpler M-1a computer installed. There is no provisions for shuttle storage in the ship, but a shuttle landing pad is provided, with in-space transfer through a flexible airlock tunnel.

Only 254 of the 1046 Nilron ships have been built for crew use. Star Fleet does not own any of the Nilron Class vessels. Approximately 730 of the robot version Mk IIs are still in service, mostly in the fleets of major trading companies. Only about 210 of the Mk I manned versions are still in operation.



Notes:

The Zeus Class, unlike other automated freighters, was designed solely as a robot transport. She has no crew quarters, and only the first three decks (the so-called conning tower) are designated for Human use. Deck 1 is an auxiliary bridge, to be used only when it is either impossible or undesirable for the computer to maneuver the ship, as in complex docking maneuvers. Deck 2 is a small lounge with table and a food synthesizer, designed for the comfort of the cargo-handlers; the synthesizer is not designed for long journeys.

Historians have noted the amazing similarity between the Zeus and the old-style DY-100/500 series of the early 21st century. The original designer of the Zeus liked the lines of the old DY series ships so much that he incorporated them in the new design. The major difference is that the Zeus has one warp engine instead of a primitive, space normal chemical or fusion engine.

To date, 1273 Zeus Class transports have been built. Star Fleet has purchased 435 and 416 are still running today. Of the rest, about 750 are still in operation with major shipping companies. Of those destroyed, the most notable was the Woden (NCC-B39068). The M-5 controlled Enterprise destroyed the vessel during the war games held to test that infamous computer.

ZEUS CLASS III ROBOT FREIGHTER

CONSTRUCTION DATA:

Class -	III
Model -	Mk I
Date Entering Service -	2234
Cost -	17.67 MCr.
Number Constructed -	1273

HULL DATA:

Superstructure Points -	8
Damage Chart -	C
Size	
Length -	180 m
Width -	45 m
Height -	49.5 m
Weight -	16,310 mt
Cargo	
Cargo Units -	585 SCU
Cargo Capacity -	29,250 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	L-12
Transporters -	
Standard 6-person -	1
Cargo -	1

OTHER DATA:

Crew -	-
--------	---

ENGINEERING:

Total Power Units Available -	13
Movement Point Ratio -	
Unloaded -	2/1
Loaded -	3/1
Warp Engine Type -	FWH-1
Number -	1
Power Units Available -	10
Stress Chart -	P/Q
Max Safe Cruising Speed -	
Unloaded -	Warp 5
Loaded -	Warp 4
Emergency Speed -	
Unloaded -	Warp 6
Loaded -	Warp 5
Impulse Engine Type -	FIA-3
Power Units Available -	3

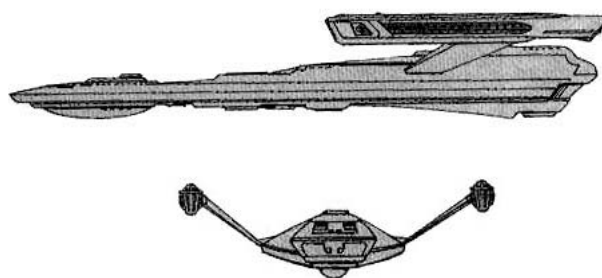
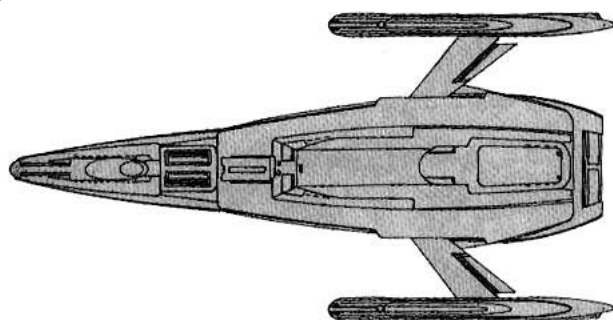
SHIELD DATA:

Deflector Shield Type -	FSA
Shield Point Ratio -	1/1
Maximum Shield Power -	10

COMBAT EFFICIENCY:

D -	34.4/30.4
WDF -	0

COSMOS ROYALE CLASS X LUXURY LINER



CONSTRUCTION DATA:

Class -	X	X
Model -	Mk I	Mk II
Date Entering Service -	2275	2289
Number Constructed -	8	3

HULL DATA:

Superstructure Points -	13	19
Damage Chart -	C	C
Size		
Length -	253 m	253 m
Width -	135 m	135 m
Height -	47 m	47 m
Weight -	146,115 mt	153,420 mt

Cargo

Cargo Units -	350 SCU	500 SCU
Cargo Capacity -	17,500 mt	25,000 mt

Landing Capacity -

None	None
------	------

EQUIPMENT DATA:

Control Computer Type -	M-4	M-4
Transporters -		
Standard 6-person -	4	4
Emergency 20-person -	4	3
Small Cargo -	2	2
Large Cargo -	1	2

OTHER DATA:

Crew -	75	90
Passengers -	220	150
Shuttlecraft -	8	6

ENGINEERING:

Total Power Units Available -	46	54
Movement Point Ratio -	4/1	4/1
Warp Engine Type -	FWC-2	TEWD-1
Number -	2	2
Power Units Available -	20	24
Stress Chart -	N/M	M/N
Max Safe Cruising Speed -	Warp 6	Warp 6
Emergency Speed -	Warp 8	Warp 7
Impulse Engine Type -	FIC-3	TIEB-2
Power Units Available -	6	6

WEAPONS AND FIRING DATA:

Beam Weapon Type -	FL-1	TLL-3
Number -	1	3
Firing Arcs -	1 a	1 f/p, 1 f/s, 1 a
Firing Chart -	D	G
Maximum Power -	2	6
Damage Modifiers		
+3	-	-
+2	-	(1-5)
+1	-	(6-9)

SHIELD DATA:

Deflector Shield Type -	FSA	FSM
Shield Point Ratio -	1/1	1/1
Maximum Shield Power -	1	11

COMBAT EFFICIENCY:

D -	36.1	61.7
WDF -	0.4	6.0



Notes:

The Cosmos Royale class of luxury liner was the first general design financed by Kinglines Corporation of Ectair, a planet found deep within the "Outmarch" regions bordering the Gorn and Romulan spheres of influence. Although officially of Ectairian registry, the first Cosmos Royale was built and commissioned at Monera shipyards, were 6 other liners were built. A seventh, built at Salazzar, was also registered with Kinglines, who quickly built a popular tourist run to several planetary systems within the Outmarch region.

The Mk I proved as popular as the destinations that Kinglines serviced. Over 100 grand royal suites and 120 luxury suites were complemented by a full range of entertainment and business facilities. Kinglines provided both 1 month and 3 month getaways from Ectair that were comparable to the best that Federation companies could provide.

But the Mk I's opulence was also considered a major short coming for Kinglines. While all 8 commissioned vessels easily broke even with costs, Kinglines rarely posted a profit, a major frustration for investors. Its most popular run was to Vedia VI, a fabulously beautiful gas giant surrounded by a massive silicate and ice ring system purported to be the most appealing for 100 parsecs. While the Vedia system was uninhabited, it lay dangerously close to Romulan territory. Profits were often reduced with the need to escort vessels. Political turmoil on Ectair also took its tolls on profits, and by 2286, Kinglines posted its first loss.

Tellarite Mining, Inc. took an interest in the Kinglines problem in 2287. TMI had several mining operations in the Vedia system and offered to subsidize the construction of three more Cosmos Royale liners. The Mk II was first launched in 2289 and was the economic boost that Kinglines was looking for. The Mk II reduced the number of passengers, but fitted out all of its berths as luxury suites and made room for 200 SCU of ore and supplies. TMI was able to place a small supply station at Vedia VI and both companies quickly profited from the arrangement.

Currently, 10 Cosmos Royales are still in service. Two more are scheduled to be launched in the near future. Kinglines has announced that no further liners will be built. 1 Mk I was sold to Axros, and Edoan entertainment firm, and is registered out of Rigley's Pleasure Planet. A Mk III is planned when profits allow an upgrade of the Mk I. Heavier weapons and shielding are planned to alleviate the need for escorts near Vedia. Rumors abound that Kinglines may sell the Cosmos Royale design in the near future.

SUNSHINE CLASS VII PASSENGER LINER

CONSTRUCTION DATA:

Class -	VII
Model -	Mk I
Date Entering Service -	2270
Cost -	961.3 MCr.
Number Constructed -	60

HULL DATA:

Superstructure Points -	8
Damage Chart -	C
Size	
Length -	327 m
Width -	232 m
Height -	74 m
Weight -	96,165 mt

Cargo

Cargo Units -	1,000 SCU
Cargo Capacity -	50,000 mt
Landing Capacity -	None

EQUIPMENT DATA:

Control Computer Type -	M-2
Transporters -	
Standard 6-person -	10
Emergency 18-person -	10
Cargo -	5

OTHER DATA:

Crew -	220
Passengers -	600
Shuttlecraft -	25

ENGINEERING:

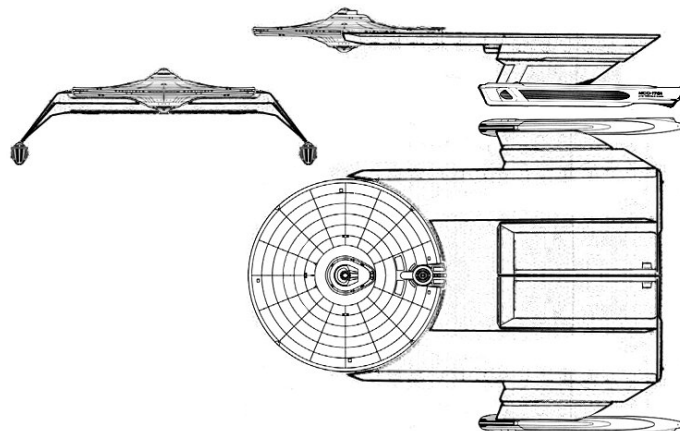
Total Power Units Available -		17
Movement Point Ratio -	4/1	
Warp Engine Type -	FWE-1	
Number -		2
Power Units Available -		8 ea.
Stress Chart -	G/K	
Max Safe Cruising Speed -	Warp 7	
Emergency Speed -	Warp 9	
Impulse Engine Type -	FIC-1	
Power Units Available -		1

SHIELD DATA:

Deflector Shield Type -	FSA
Shield Point Ratio -	1/1
Maximum Shield Power -	6

COMBAT EFFICIENCY:

D -	25.9
WDF -	0

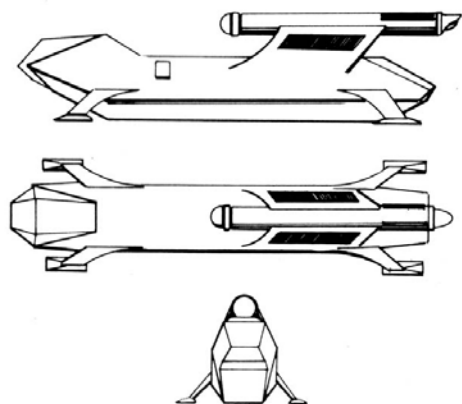


Note:

The Sunshine class passenger liner is considered the most luxurious commercially available transport in the Federation. The service is ranked among the best, the staterooms are considered some of the finest, the gambling is honest (most of the time) and prices are the highest. Regular accomodation staterooms are affordable for most vacationers, and waiting lists can be up to one year long for passage on a round trip ticket. These staterooms are comparable to those found on many ocean-going luxury vessels throughout the Federation. The Royal Suites, however, have to be seen to be believed. Some of these suites have private physical fitness centers with staff, and the largest suite on the vessel even had their own private pools.

The Sunshine class is equipped with deflectors for minimal combat strength, instead of just the normal navigational deflectors. Although these ships do not operate in hostile area, there is always the risk or pirates, so the deflectors were incorporated into the design. No offensive weaponry is carried for ship-to-ship combat, but hand weaponry is carried aboard, locked in several small arms lockers.

Of the 60 Mk I's completed, only 1 has been scrapped after being attacked by pirates operating near Andor. The USS Nova Watcher had both her engines destroyed and was forced to eject her warp core. Subsequent boarding action by the pirates resulted in the loss of the boarding party, the capture of two pirate commandos and the loss of the attacking vessel when Star Fleet security forces responded to the Nova Watcher's mayday. No passengers were hurt and no other Sunshine class has been attacked since.



The Chameleon Class ship is a modified version of an older scout ship design. The cargo pod is detachable, and can be removed at a starport, at any landing site, or even jettisoned in flight.

Of the 833 Mk II's built, 282 are in service with Star Fleet as one-man scout/resupply transports. Approximately 420 Mk II's are in the private sector, with the remainder lost or destroyed over the years.

CHAMELEON CLASS I TRADER

CONSTRUCTION DATA:

Class -	I
Model -	Mk II
Date Entering Service -	2239
Cost -	6.67 MCr.
Number Constructed -	833

HULL DATA:

Superstructure Points -	1
Damage Chart -	C
Size	
Length -	32 m
Width -	10 m
Height -	10 m
Weight -	2,700 mt

Cargo

Cargo Units -	45 SCU
Cargo Capacity -	2,250 mt
Landing Capacity -	Yes

EQUIPMENT DATA:

Control Computer Type -	L-13a
Transporters -	
Standard 2-person -	1
Cargo: Small -	1

OTHER DATA:

Crew -	1
--------	---

ENGINEERING:

Total Power Units Available -	6
Movement Point Ratio -	1/1
Warp Engine Type -	FWI-1
Number -	1
Power Units Available -	5
Stress Chart -	N/P
Max Safe Cruising Speed -	Warp 6
Emergency Speed -	Warp 7
Impulse Engine Type -	FIA-1
Power Units Available -	1

SHIELD DATA:

Deflector Shield Type -	NAV
Shield Point Ratio -	1/1
Maximum Shield Power -	1

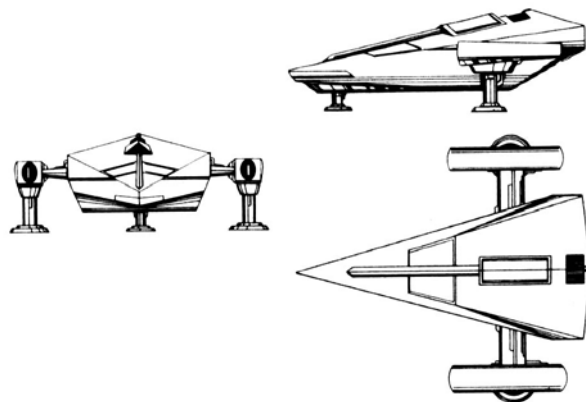
COMBAT EFFICIENCY:

D -	0
WDF -	0

ARGON CLASS III MEDIUM COMMERCIAL TRANSPORT

CONSTRUCTION DATA:

Class -	III	III
Model -	Mk I	Mk II
Date Entering Service -	2240	2246
Cost -	19.2 MCr.	21.7 MCr.
Number Constructed -	308	626
HULL DATA:		
Superstructure Points -	4	4
Damage Chart -	B	B
Size		
Length -	90 m	90 m
Width -	106 m	106 m
Height -	18 m	18 m
Weight -	15,000 mt	15,100 mt
Cargo		
Cargo Units -	1,200 SCU	1,200 SCU
Cargo Capacity -	60,000 mt	60,000 mt
Landing Capacity -	Yes	Yes
EQUIPMENT DATA:		
Control Computer Type -	L-14a	L-14a
Transporters -		
Standard 6-person -	1	1
Cargo -		
Large -	1	1
Small -	2	2
OTHER DATA:		
Crew -	18	18
Passengers -	2	2
ENGINEERING:		
Total Power Units Available -	22	22
Movement Point Ratio		
Unloaded -	3/1	3/1
Loaded -	4/1	4/1
Warp Engine Type -	FWH-1	FWH-1
Number -	2	2
Power Units Available -	10 ea.	10 ea.
Stress Chart -	Q/R	Q/R
Max Safe Cruising Speed		
Unloaded -	Warp 5	Warp 5
Loaded -	Warp 4	Warp 4
Emergency Speed -		
Unloaded -	Warp 6	Warp 6
Loaded -	Warp 5	Warp 5
Impulse Engine Type -	FIB-1	FIB-1
Power Units Available -	2	2
SHIELD DATA:		
Deflector Shield Type -	NAV	FSA
Shield Point Ratio -	1/1	1/1
Maximum Shield Power -	1	10
COMBAT EFFICIENCY:		
D -	0	29.7/27.7
WDF -	0	0



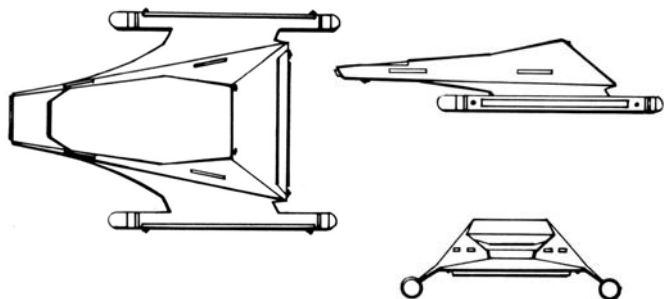
The Argon is a sturdy freighter. The ship's designers decided that merchants didn't want to pay for fancy curves, but were instead interested in cargo space. That philosophy had paid off, as over 900 Argons have been produced. The top deck is bridge, living quarters, transporters and recreation lounge. The lower deck is actually three decks high and can be partitioned off to the owner's tastes.

Of the 934 built, 135 Mk Is and 147 Mk IIs are in service with Star Fleet. At last count, approximately 140 Mk Is and 380 Mk IIs are in private hands. The rest are listed as lost, destroyed, or stolen.

MISSION CLASS II COMMERCIAL TRANSPORT

CONSTRUCTION DATA:

Class -	II
Model -	Mk Iv
Date Entering Service -	2256
Cost -	12.7 MCr.
Number Constructed -	682
HULL DATA:	
Superstructure Points -	4
Damage Chart -	b
Size	
Length -	32 m
Width -	25 m
Height -	13 m
Weight -	9,000 mt
Cargo	
Cargo Units -	150 SCU
Cargo Capacity -	7,500 mt
Landing Capacity -	Yes
EQUIPMENT DATA:	
Control Computer Type -	L-13a
Transporters -	
Standard 6-person -	1
Cargo -	1
OTHER DATA:	
Crew -	9
ENGINEERING:	
Total Power Units Available -	12
Movement Point Ratio	
Unloaded -	1/1
Loaded -	3/1
Warp Engine Type -	FWI-1
Number -	2
Power Units Available -	5 ea.
Stress Chart -	N/P
Max Safe Cruising Speed	
Unloaded -	Warp 6
Loaded -	Warp 5
Emergency Speed -	
Unloaded -	Warp 7
Loaded -	Warp 6
Impulse Engine Type -	FIA-2
Power Units Available -	2
SHIELD DATA:	
Deflector Shield Type -	FSA
Shield Point Ratio -	1/1
Maximum Shield Power -	11
COMBAT EFFICIENCY:	
D -	38.2/27.2
WDF -	0

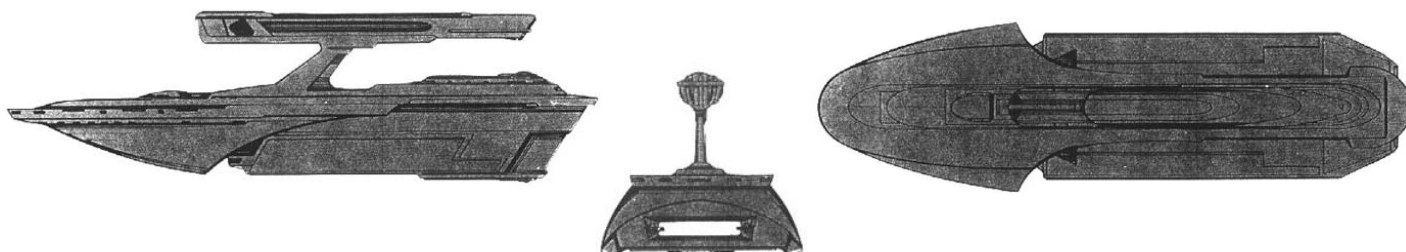


Notes:

The Mk IV Mission Class ship is a version of the Mk I Mission class scout, modified for cargo carrying. The top deck is given over to engineering, whereas the middle deck contains crew quarters and lounge. The lower deck contains the bridge, transporter, and cargo area.

Thus far, 682 Mission Class commercial transports have been built, with 238 remaining in Star Fleet service. Of the remainder, about 400 are still operating in private hands, with the rest listed as lost or destroyed. Of these, the most famous is the John Paul Jones (NCC-61001) which vanished without a trace while reputedly carrying a large cache of valuable gems. Legends about the John Paul Jones persist, even though the tales are thought to be apocryphal.

GRAYSON CLASS V REPAIR TENDER



CONSTRUCTION DATA:

<i>Class -</i>	V
<i>Model -</i>	Mk V
<i>Date Entering Service -</i>	2269
<i>Number Constructed -</i>	140

HULL DATA:

<i>Superstructure Points -</i>	6
<i>Damage Chart -</i>	C
<i>Size</i>	
Length -	220 m
Width -	85 m
Height -	58 m
Weight -	52,765 mt

Cargo

Cargo Units -	250 SCU
Cargo Capacity -	12,500 mt
Landing Capacity -	None

EQUIPMENT DATA:

<i>Control Computer Type -</i>	M-1
<i>Transporters -</i>	
Standard 6-person -	1
Combat 22-person -	-
Emergency 18-person -	1
Cargo -	1

OTHER DATA:

<i>Crew -</i>	80
<i>Troops -</i>	-
<i>Passengers -</i>	20
<i>Shuttlecraft -</i>	18

ENGINEERING:

<i>Total Power Units Available -</i>	16
<i>Movement Point Ratio -</i>	3/1
<i>Warp Engine Type -</i>	FWE-2
Number -	1
Power Units Available -	13
Stress Chart -	F/J
Max Safe Cruising Speed -	Warp 7
Emergency Speed -	Warp 9
<i>Impulse Engine Type -</i>	FIC-2
Power Units Available -	3

WEAPONS AND FIRING DATA:

<i>Beam Weapon Type -</i>	FH-8
Number -	1
Firing Arcs -	1 p/f/s
Firing Chart -	T
Maximum Power -	5
Damage Modifiers	
+3	-
+2	(1-10)
+1	(11-18)

SHIELD DATA:

<i>Deflector Shield Type -</i>	FSA
Shield Point Ratio -	1/1
Maximum Shield Power -	8

COMBAT EFFICIENCY:

<i>D -</i>	27.1
<i>WDF -</i>	4.3



Notes:

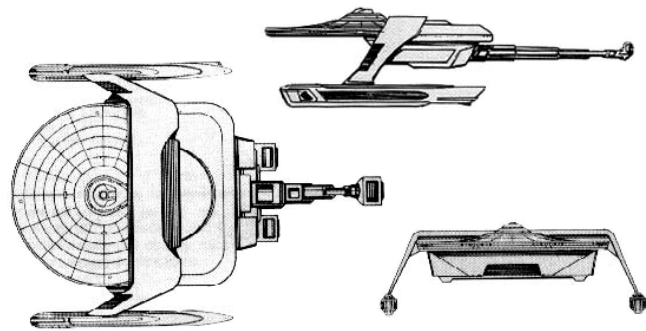
The Grayson Class repair tenders were designed to fill the need for full-time navigational beacon repair. The first assignments were well within Federation territory, and therefore the first models were unarmed. However, after several unpleasant encounters with pirates and marauders, it was decided to give the Grayson weapons for defensive purposes. This light armament in no way makes the Grayson Class ships combat vessels, but it allows for their use as patrol ships in their duty areas.

The design of this tender incorporates an assembly-line style repair facility that is detachable from the main hull in case of emergencies, which usually take the form of escaping adversaries with overwhelming firepower. As with all Federation ships, the warp engine can be separated from the main hull to protect the crew and allow escape from a plasma overload.

Duty aboard a Grayson is not the most cherished in Star Fleet. Considered to be boring and unglamorous, beacon repair duty is usually reserved for those who have performed badly in the past and are being given a second chance and for new ship commanders and junior officers.

The Grayson has ended its production run with a total of 140 Mk V's being constructed. Although there is talk of a more heavily armed Mk VI, no contracts have yet been authorized. Of the 140 Mk V's built, 6 have been destroyed, 4 have been scrapped, 1 has been declared missing and 30 have been sold. The Grayson was produced at the Sol IV production facility.

SAMSON CLASS X WARP TENDER



CONSTRUCTION DATA:

Class -	X	X
Model -	Mk I	Mk II
Date Entering Service -	2267	2272
Number Constructed -	25	7

HULL DATA:

Superstructure Points -	19	22
Damage Chart -	B	B
Size		
Length -	200 m	200 m
Width -	141 m	141 m
Height -	60 m	60 m
Weight -	158,705 mt	140,009 mt
Cargo		
Cargo Units -	100 SCU	200 SCU
Cargo Capacity -	5,000 mt	10,000 mt
Landing Capacity -	None	None

EQUIPMENT DATA:

Control Computer Type -	M-4	M-6
Transporters -		
Standard 6-person -	1	2
Emergency 22-person -	2	2
Cargo:		
Small -	1	3
Large -	1	1

OTHER DATA:

Crew -	52	108
Passengers -	20	60
Shuttlecraft -	8	8

ENGINEERING:

Total Power Units Available -	44	56
Movement Point Ratio:		
Unloaded -	4/1	4/1
Loaded -	8/1	8/1
Warp Engine Type -	FWF-1	FWG-1
Number -	2	2
Power Units Available -	20 ea.	26 ea.
Stress Chart -	G/L	D/E
Max Safe Cruising Speed:		
Unloaded -	Warp 6	Warp 8
Loaded -	Warp 3	Warp 5
Emergency Speed -		
Unloaded -	Warp 8	Warp 10
Loaded -	Warp 5	Warp 7
Impulse Engine Type -	FID-2	FID-2
Power Units Available -	2	2

WEAPONS AND FIRING DATA:

Beam Weapon Type -	None	FH-13
Number -	-	3
Firing Arcs -	-	1 f/p, 1 f, 1 f/s
Firing Chart -	-	T
Maximum Power -	-	8
Damage Modifiers		
+3	-	(1-5)
+2	-	(6-12)
+1	-	(13-18)

SHIELD DATA:

Deflector Shield Type -	FSB	FSN
Shield Point Ratio -	1/2	1/2
Maximum Shield Power -	6	16

COMBAT EFFICIENCY:

D -	61.2	93.0
WDF -	0	19.5



NOTES:

Known Sphere of Operation: Federation Interior

Developed by a joint commercial venture between Rantura Shipping Lines and Chiokis Starship Construction, the Samson Class X warp tender is designed primarily to provide warp mobility to all R-1 Type stations.

The Mk I dedicated so much of it's power to creating the enlarged warp field around both ship and station that if was felt weapons were impractical for the vessel. Likewise, only minimal shields were installed on the Mk I. The initial concept also had most Samsons operating directly from frontline bases near construction centers where they could quickly link up with R-1 components and transfer them to their final destination.

Duty aboard the Mk I Samson was far from glorious, and often extremely uneventful. Even at best possible speed, transfer of an R-1 station could take months, and in several cases years. Luxurious crew quarters and spacious recreation facilities could not delay the tedious nature of the operation. With growing military tension between the Federation and the Klingon Empire at the time, Star Fleet began planning an upgarde to the existing Mk I in the hopes of creating a more powerful version.

The Mk II Samson was considered only a moderate success, but did fulfill the contract requirements. The use of the FWG-1 drive required a larger engineering crew to maintain and monitor the more powerful drive, but increase the overall speed significantly. The instillation of the FH-13 phaser system also gave the Samsons the ability to conduct moderate combat operations in the event that it's escorts were unable to fend off enemy units. Crew quarters were slimmed down and nearly 40 additional cabins were installed to allow the transfer of skeleton crews with the stations. This allowed the stations to be brought on line faster and more efficiently.

The Samson is still produced at a rate of 2 every three years. Currently, plan call for an additional 24 to be completed. Of the 32 so far built, none have been lost. On Mk I was sold to Entertainment Industries to help support their R-1 Recreational facility in the Vilmas system.

CLASSIFIED AUTHORIZED PERSONNEL ONLY

The **Federation Ship Recognition Manual II** is intended for Star Fleet personnel with a “need to know” concerning information on the Star Fleet Vessels. This comprehensive study discloses all known combat, visual, and historical data on 29 different Federation ships and their variants. This manual is a must for all *Star Trek* enthusiasts.

*Shown on the front cover is a view of the Constellation class deep space exploration cruiser.
Shown on the back cover are the Bearclaw corvettes.*

