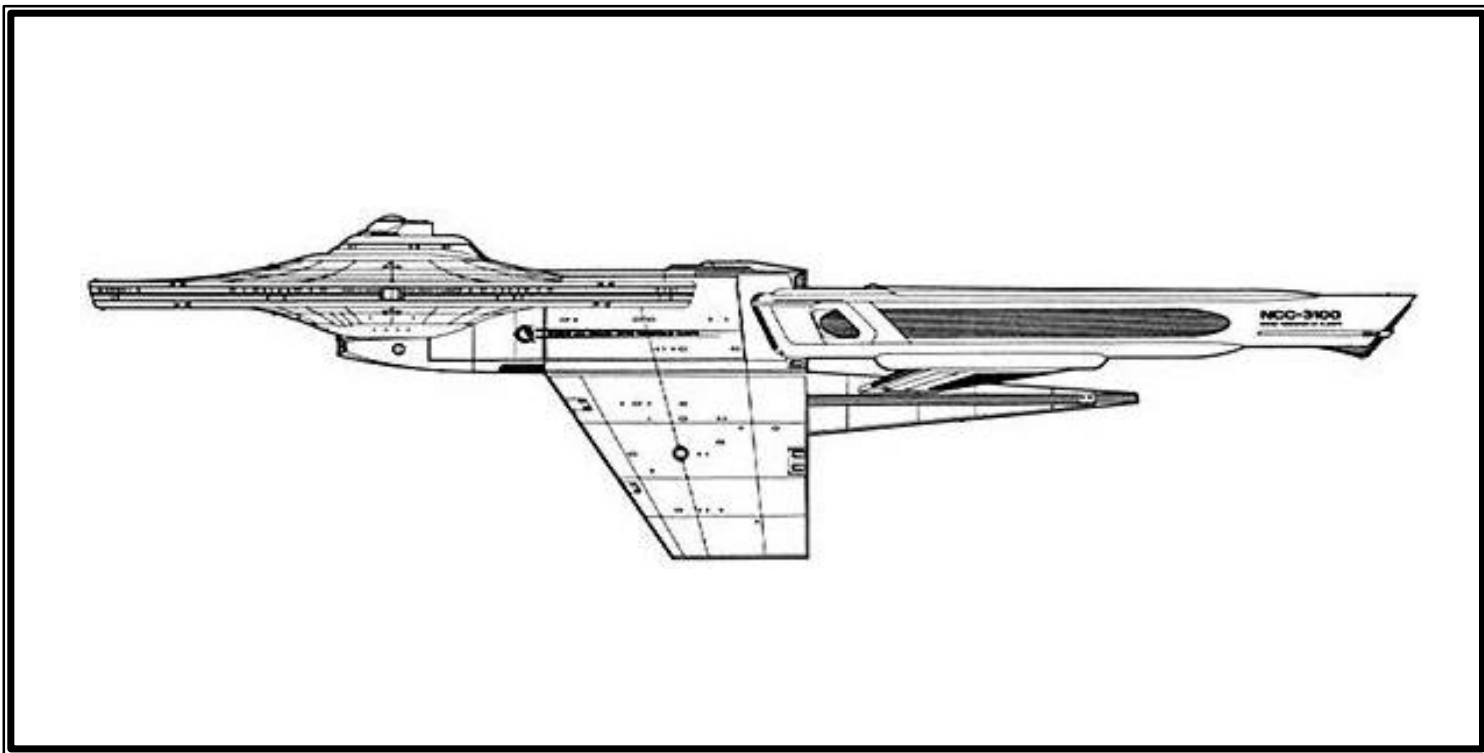

FEDERATION STARSHIP CONSTRUCTION MODULE 2230-2330

UNITED FEDERATION OF PLANETS
STAR FLEET COMMAND
Version 3.0



Created by: William Colley
Christopher Cornelius
Bryan Jecko
Sidney Maurer

Update/Upgrade: Compilation Material from
William Colley
Christopher Cornelius
Bryan Jecko
Sidney Maurer

Includes material from various official and unofficial Star Trek resources.

CONTENTS

This document is for designing Federation starships for use in the FASA Star Trek Starship Tactical Combat Simulator Game. Presented in this document is the statistics and game data for the warp engines, impulse engines, ship's computer, shields, hull, and the superstructure requirements for the Federation starships of the Star Trek universe. Star Trek is a trademark/copyright of Paramount Pictures Corporation. No infringement intended.

Formula's:

The formula's used to create the Impulse Engine Movement Efficiency Rating (IER), Warp Engine Movement Efficiency Rating (WER), Shield Efficiency Rating (SER), and Weapon Damage Factor (WDF) for this module were created by Sidney Maurer.

Starship Picture Credits:

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TITLE

AUTHOR

Federation Starship Construction Module 2230 through 2330
William Colley / Christopher Cornelius / Bryan Jecko / Sidney Maurer

Control Computers
William Colley / Bryan Jecko

Warp Engines
Bryan Jecko

Impulse and Sublight Engines
Bryan Jecko

Shield Generators
Bryan Jecko

Weapon Systems
William Colley / Christopher Cornelius / Bryan Jecko

FEDERATION STARSHIP CONSTRUCTION MODULE 2230 THROUGH 2330

Control Computer Type					
Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Date Entered Service
L-12A	30	I-IV	0.1	None	2265
L-13A	250	I-XIV	0.2	None	2266
L-14A	550	II-XIV	0.3	None	2266
M-1A	1,500	III-XX	0.5	None	2267
M-2A	2,000	IV-XX	0.7	None	2268
M-3A	2,350	IV-XX	1.2	None	2269
M-3B	5,000	VI-XV	1.6	90	2301
M-4A	2,900	IV-XX	1.7	None	2269
M-4B	5,900	VII-XVII	2.1	110	2305
M-6A	6,100	IX-XVII	2.1	130	2272
M-7A	11,500	X-XX	3.1	180	2288
M-8	12,000	XI-XIX	3.4	210	2284

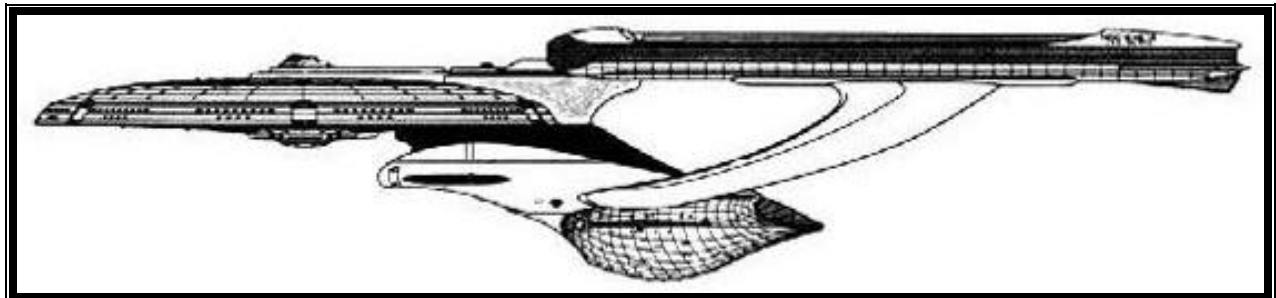
WARP ENGINE TYPES						
Single Engine Use						
Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Stress Column (Eng/SS)	SS Requirement	Date Entered Service
FWF-2	62,000	34	M-1	G/L	5.0	2291
FWG-3	67,280	38	M-4A	E/H	4.9	2287
FWH-2	30,000	12	L-14	Q/R	5.6	2299
FWI-1	1,000	5	L-12	N/P	0.3	2298
FWJ-1	78,000	38	M-4B**	D/F	6.2	2287
FWJ-2	83,000	42	M-7	D/F	6.2	2300
FWK-1	70,000	36	M-4B*	G/F	6.4	2293
FWL-1	50,480	20	M-3B*	D/E	3.0	2297
FWL-2	50,480	25	M-3B*	D/E	4.1	2298
FWM-1	75,000	32	M-6	E/F	5.6	2308
FWM-2	75,000	34	M-6A	E/F	5.6	2318
Tandem Engine Use						
Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Stress Column (Eng/SS)	SS Requirement	Date Entered Service
FWF-2	124,000	34	M-4A	G/L	10.0	2291
FWG-3	134,560	38	M-6	E/H	9.7	2287
FWH-2	60,000	12	M-2	Q/R	5.6	2299
FWI-1	2,000	5	L-13	N/P	0.6	2298
FWJ-1	156,000	38	M-7	D/F	12.4	2287
FWJ-2	166,000	42	M-8	D/F	12.4	2300
FWK-1	140,000	36	M-7A	G/F	12.8	2293
FWL-1	100,960	20	M-3B*	D/E	6.0	2297
FWL-2	100,960	25	M-3B*	D/E	8.2	2298
FWM-1	150,000	32	M-6	E/F	11.6	2308
FWM-2	150,000	34	M-6	E/F	11.6	2318

* M-6 / ** M-7 will be required if you are using this warp engine prior to the creation of this control computer.

**MOVEMENT POINT RATIO TABLE:
SINGLE WARP ENGINES**
Movement Point Ratios

Ship Class	1/4	1/3	1/2	1/1	1/2	1/3	1/4	1/5	1/6
I	FWI-1 29.0 8/10	FWI-1 22.0 8/10	FWI-1 14.5 8/10	FWI-1 7.5 8/9					
II		FWI-1 22.0 8/10	FWI-1 14.5 8/10	FWI-1 7.5 8/9					
III			FWI-1 14.5 8/10	FWI-1 7.5 8/9	FWI-1 4.0 7/8				
IV					FWI-1 4.0 7/8	FWI-1 2.5 6/7			
Ship Class	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1
V	FWH-2 9.0 7/9	FWH-2 6.0 7/8	FWH-2 4.5 6/8						
VI	FWH-2 9.0 7/9 FWL-1 14.5 13/15	FWF-2 16.5 6/8 FWH-2 6.0 7/8 FWL-1 12/14	FWL-1 9.5 13/14 FWL-2 12.0 13/14	FWF-2 12.5 6/7 FWL-1 7.5 11/13 FWL-2 9.0 12/14	FWF-2 10.0 5/7 FWL-1 6.0 12/13	FWL-2 7.5 12/13 FWL-1 6.0 12/13			
VII	FWH-2 9.0 7/9 FWL-1 14.5 13/15	FWF-2 16.5 8/10 FWG-3 18.5 8/10 FWH-2 6.0 7/8 FWJ-1 18.5 13/15 FWK-1 17.5 13/15	FWL-1 9.5 12/14 FWL-2 12.0 13/14 FWM-1 15.5 12/14 FWM-2 16.5 12/14	FWF-2 12.5 8/10 FWG-3 14.0 8/9 FWH-2 4.5 6/8 FWJ-1 14.0 13/14 FWJ-2 11.5 12/13 FWK-1 13.0 13/14	FWL-1 7.5 11/13 FWL-2 9.0 12/14 FWM-1 11.5 12/13 FWM-2 12.5 12/13	FWF-2 10 5/7 FWL-1 6.0 12/13 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWM-1 9.5 11/13 FWJ-2 10.0 11/13 FWK-1 10.5 12/13	FWL-2 5.0 11/13 FWL-1 6.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12		
VIII		FWF-2 16.5 8/10 FWG-3 18.5 8/10 FWH-2 6.0 7/8 FWJ-1 18.5 13/15 FWK-1 17.5 13/15	FWL-1 9.5 12/14 FWL-2 12.0 13/14 FWM-1 15.5 12/14 FWM-2 16.5 12/14	FWF-2 12.5 8/10 FWG-3 14.0 8/9 FWH-2 4.5 6/8 FWJ-1 14.0 13/14 FWJ-2 11.5 12/13 FWK-1 13.0 13/14	FWL-1 7.5 11/13 FWL-2 9.0 12/14 FWM-1 11.5 12/13 FWM-2 12.5 12/13	FWF-2 10 5/7 FWL-1 6.0 12/13 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWM-1 9.5 11/13 FWJ-2 10.0 11/13 FWK-1 10.5 12/13	FWL-2 5.0 11/13 FWL-1 6.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12		
IX		FWF-2 16.5 8/10 FWG-3 18.5 8/10 FWH-2 6.0 7/8 FWK-1 17.5 13/15	FWL-1 9.5 12/14 FWL-2 12.0 13/14 FWM-1 15.5 12/14	FWF-2 12.5 8/10 FWG-3 14.0 8/9 FWH-2 4.5 6/8 FWJ-1 14.0 13/14 FWJ-2 11.5 12/13 FWK-1 13.0 13/14	FWL-1 7.5 11/13 FWL-2 9.0 12/14 FWM-1 11.5 12/13 FWM-2 12.5 12/13	FWF-2 10 5/7 FWL-1 6.0 12/13 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWM-1 9.5 11/13 FWJ-2 10.0 11/13 FWK-1 10.5 12/13	FWL-2 5.0 11/13 FWL-1 6.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12		
X			FWF-2 12.5 8/10 FWG-3 14.0 8/9 FWJ-1 14.0 13/14 FWJ-2 15.5 13/15 FWK-1 13.0 13/14 FWL-1 7.5 11/13 FWL-2 9.0 12/14	FWM-1 11.5 12/13 FWM-2 12.5 12/13	FWF-2 10 5/7 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWJ-2 12.5 12/14 FWK-1 10.5 12/13 FWL-1 6.0 12/13 FWL-2 7.5 12/13	FWM-1 9.5 11/13 FWM-2 10.0 11/13	FWF-2 8.5 6/9 FWG-3 9.5 7/9 FWJ-1 9.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12		

Ship Class	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1				
XI			FWF-2 12.5 8/10 FWJ-1 14.0 13/14 FWJ-2 15.5 13/15 FWK-1 13.0 13/14	FWF-2 10 5/7 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWJ-2 12.5 12/14 FWK-1 10.5 12/13	FWL-1 6.0 12/13 FWL-2 7.5 12/13 FWM-1 9.5 11/13 FWM-2 10.0 11/13	FWF-2 8.5 6/9 FWG-3 9.5 7/9 FWJ-1 9.5 11/13 FWJ-2 10.5 11/13 FWK-1 9.0 11/13	FWL-1 5.0 11/13 FWL-2 6.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12						
XII			FWJ-2 15.5 13/15 FWK-1 13.0 13/14	FWF-2 10 5/7 FWG-3 11.0 7/9 FWJ-1 11.0 12/13 FWJ-2 12.5 12/14 FWK-1 10.5 12/13	FWM-1 9.5 11/13 FWM-2 10.0 11/13	FWF-2 8.5 6/9 FWG-3 9.5 7/9 FWJ-1 9.5 11/13 FWJ-2 10.5 11/13 FWK-1 9.0 11/13	FWL-1 5.0 11/13 FWL-2 6.5 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12						
XIII				FWJ-1 11.0 12/13 FWJ-2 12.5 12/14 FWK-1 10.5 12/13	FWF-2 8.5 6/9 FWG-3 9.5 7/9 FWJ-1 9.5 11/13 FWJ-2 10.5 11/13	FWK-1 9.0 11/13 FWM-1 8.0 10/12 FWM-2 8.5 10/12	FWF-2 7 4/6 FWG-3 8 6/8 FWJ-1 8 11/12 FWJ-2 9 10/12	FWK-1 7.5 10/12 FWM-1 6.5 9/11 FWM-2 7 9/11					
XIV				FWJ-2 12.5 12/14	FWG-3 9.5 7/9 FWJ-1 9.5 11/13 FWJ-2 10.5 11/13 FWK-1 9.0 11/13	FWM-2 8.5 10/12	FWF-2 7 4/6 FWG-3 8 6/8 FWJ-1 8 11/12 FWJ-2 9 10/12	FWK-1 7.5 10/12 FWM-1 6.5 9/11 FWM-2 7 9/11	FWF-2 6.5 4/5 FWG-3 7 6/7 FWJ-1 7 10/12 FWJ-2 7.5 9/11	FWK-1 6.5 9/11 FWM-2 6.5 9/10			
XV					FWJ-2 10.5 11/13		FWJ-1 8 11/12 FWJ-2 9 10/12	FWM-2 7 9/11	FWJ-1 7 10/12 FWJ-2 7.5 9/11	FWM-2 6.5 9/10	FWJ-1 6.5 10/11		
XVI											FWJ-1 6.5 10/11		
XVII													
XVIII													
XIX													
XX													

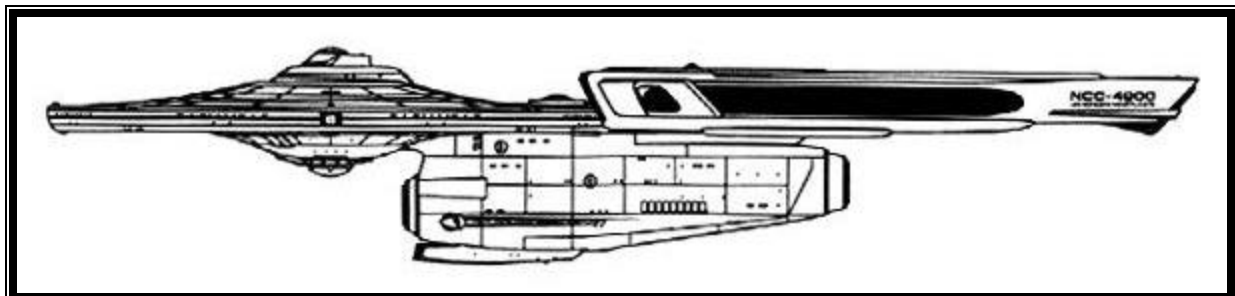


Federation Solaris Class Cruiser

**MOVEMENT POINT RATIO TABLE:
TANDUM WARP ENGINES**
Movement Point Ratios

Ship Class	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1
I	FWI-1 29.0 8/10	FWI-1 14.5 8/9	FWI-1 7.5 7/8						
II	FWI-1 29.0 8/10	FWI-1 14.5 8/9	FWI-1 7.5 7/8						
III		FWI-1 14.5 8/9	FWI-1 7.5 7/8	FWI-1 5.0 6/7					
IV			FWI-1 7.5 7/8	FWI-1 5.0 6/7	FWI-1 4.0 5/6				
Ship Class	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1
VI	FWH-2 17.5 7/8	FWH-2 11.5 7/8	FWH-2 10.0 5/7						
VII		FWH-2 11.5 7/8	FWH-2 10.0 5/7	FWH-2 8 4/6					
VIII		FWH-2 11.5 7/8	FWL-1 19.5 12/14	FWH-2 10 5/7	FWL-1 14.5 12/13	FWH-2 8 4/6	FWL-1 11.5 11/13	FWL-1 9.5 10/12	
IX		FWH-2 11.5 7/8	FWL-1 19.5 12/14	FWH-2 10.0 5/7	FWL-2 18.0 12/14	FWH-2 8 4/6	FWL-2 14.5 11/13	FWL-1 9.5 10/12	
X		FWH-2 11.5 7/8	FWL-1 19.5 12/14	FWF-2 24.5 7/9	FWL-1 14.5 12/13	FWF-2 19.5 7/8	FWL-1 10.5 10/12	FWF-2 16.5 6/8	FWL-1 9.5 10/12
				FWG-3 27.5 8/10	FWL-2 18.0 12/14	FWG-3 22.0 8/10	FWL-2 14.5 11/13	FWG-3 18.5 8/9	FWL-2 12 11/13
				FWH-2 10.0 5/7	FWH-2 8.0 4/6	FWH-2 8.0 4/6			
XI			FWF-2 24.5 7/9	FWL-1 13.5 11/13	FWF-2 19.5 7/8	FWL-1 11.5 11/13	FWF-2 16.5 6/8	FWL-1 9.5 10/12	
			FWG-3 27.5 8/10	FWL-2 18.0 12/14	FWG-3 22.0 8/10	FWL-2 14.5 12/14	FWG-3 18.5 8/9	FWL-2 12.0 11/13	
			FWH-2 10.0 5/7	FWM-1 23.0 12/14	FWH-2 8.0 5/7	FWM-1 18.5 12/14	FWH-2 6.0 5/6	FWM-1 15.5 12/13	
			FWK-1 13.0 12/14	FWM-2 24.5 12/14	FWK-1 21.0 12/14	FWM-2 20.0 12/14	FWK-1 17.5 12/14	FWM-2 16.5 12/14	
XII			FWF-2 24.5 7/9	FWL-1 13.5 11/13	FWF-2 19.5 7/8	FWK-1 21.0 12/14	FWF-2 16.5 6/8	FWK-1 17.5 12/14	
			FWG-3 27.5 8/10	FWL-2 18.0 12/14	FWG-3 22.0 8/10	FWL-1 11.5 11/13	FWG-3 18.5 8/9	FWL-1 9.5 10/12	
			FWH-2 10.0 5/7	FWM-1 23.0 12/14	FWH-2 8.0 5/7	FWL-2 14.5 12/14	FWH-2 6.0 5/6	FWL-2 12.0 11/13	
			FWK-1 13.0 12/14	FWM-2 24.5 12/14	FWJ-1 22.0 12/14	FWM-1 18.5 12/14	FWJ-1 18.5 12/14	FWM-1 15.5 12/13	
					FWJ-2 24.0 12/14	FWM-2 20.0 12/14	FWJ-2 20.0 12/14	FWM-2 16.5 12/14	
XIII					FWF-2 19.5 7/8	FWK-1 21.0 12/14	FWF-2 16.5 6/8	FWK-1 17.5 12/14	
					FWG-3 22.0 8/10	FWL-1 11.5 11/13	FWG-3 18.5 8/9	FWL-1 9.5 10/12	
					FWH-2 8.0 5/7	FWL-2 14.5 12/14	FWH-2 6.0 5/6	FWL-2 12.0 11/13	
					FWJ-1 22.0 12/14	FWM-1 18.5 12/14	FWJ-1 18.5 12/14	FWM-1 15.5 12/13	
					FWJ-2 24.0 12/14	FWM-2 20.0 12/14	FWJ-2 20.0 12/14	FWM-2 16.5 12/14	
XIV					FWF-2 19.5 7/8	FWL-1 11.5 11/13	FWF-2 16.5 6/8	FWL-1 9.5 10/12	FWF-2 14 6/7
					FWJ-1 22.0 12/14	FWL-2 14.5 12/14	FWG-3 18.5 8/9	FWL-2 12.0 11/13	FWG-3 15.5 7/9
					FWJ-2 24.0 12/14	FWM-1 18.5 12/14	FWJ-1 18.5 12/14	FWM-1 15.5 12/13	FWJ-1 15.5 12/13
					FWK-1 21.0 12/14	FWM-2 20.0 12/14	FWJ-2 20.0 12/14	FWM-2 17.5 12/13	FWJ-2 17.5 12/13
							FWK-1 17.5 12/14	FWK-1 15.0 11/13	

Ship Class	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1				
XV				FWM-1 18.5 12/14	FWG-3 18.5 8/9 FWJ-1 18.5 12/14 FWK-1 17.5 12/14 FWL-1 9.5 10/12	FWL-2 12.0 11/13 FWM-1 15.5 12/13 FWM-2 16.5 12/14	FWF-2 14.0 6/7 FWG-3 15.5 7/9 FWJ-1 15.5 12/13 FWJ-2 17.5 12/13 FWK-1 15.0 11/13	FWL-1 8.5 9/11 FWL-2 10.5 11/12 FWM-1 13.5 11/13 FWM-2 14.0 12/13	FWF-2 12.5 5/7 FWG-3 14.0 6/8 FWJ-1 14.0 11/13 FWJ-2 15.5 11/13	FWL-2 10.5 11/12 FWM-1 13.5 11/13 FWM-2 14.0 12/13			
XVI					FWJ-1 18.5 12/14 FWK-1 17.5 12/14 FWL-1 9.5 10/12	FWM-1 15.5 12/13	FWF-2 14.0 6/7 FWG-3 15.5 7/9 FWJ-1 15.5 12/13 FWK-1 15.0 11/13	FWL-1 8.5 9/11 FWL-2 10.5 11/12 FWM-1 13.5 11/13	FWF-2 12.5 5/7 FWG-3 14.0 6/8 FWJ-1 14.0 11/13 FWJ-2 15.5 11/13	FWK-1 13.0 11/13			
XVII					FWJ-1 18.5 12/14 FWK-1 17.5 12/14	FWM-1 15.5 12/13	FWJ-1 14.0 12/13 FWK-1 15.0 11/13	FWL-1 8.5 9/11 FWM-1 13.5 11/13	FWF-2 12.5 5/7 FWG-3 14.0 6/8 FWJ-1 14.0 11/13 FWJ-2 15.5 11/13	FWK-1 13.0 11/13	FWF-2 11.0 5/6 FWG-3 12.5 6/8 FWJ-1 12.5 11/12 FWJ-2 13.5 11/12	FWK-1 11.5 10/12 FWL-2 8.0 9/11 FWM-1 10.5 10/12 FWM-2 11.0 11/12	
XVIII						FWJ-1 15.5 12/13	FWJ-1 14.0 11/13 FWJ-2 15.5 11/13	FWL-1 8.5 9/11 FWM-1 13.5 11/13	FWF-2 12.5 5/7 FWG-3 14.0 6/8 FWJ-1 14.0 11/13 FWJ-2 15.5 11/13	FWK-1 13.0 11/13	FWF-2 11.0 5/6 FWG-3 12.5 6/8 FWJ-1 12.5 11/12 FWJ-2 13.5 11/12	FWK-1 11.5 10/12 FWM-1 10.5 10/12 FWM-2 11.0 11/12	
XIX							FWJ-1 14.0 11/13	FWK-1 13.0 11/13	FWG-3 12.5 6/8 FWJ-1 12.5 11/12 FWJ-2 13.5 11/12	FWK-1 11.5 10/12 FWM-1 10.5 10/12 FWM-2 11.0 11/12	FWG-3 11.0 6/7 FWJ-1 11.0 10/12 FWJ-2 12.5 11/12	FWK-1 10.5 9/11 FWM-1 9.5 10/11 FWM-2 10.0 10/12	
XX								FWJ-1 12.5 11/12	FWK-1 10.0 10/12	FWJ-1 11.0 10/12 FWJ-2 12.5 11/12	FWK-1 10.5 10/12		



Federation Hellion Class Heavy Destroyer

IMPULSE ENGINE TYPES						
Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Ship Classes Powered	SS Requirement	Date Entered Service
FMIB	20	2	L-12	I	0.1	2265
FMIC	30	3	L-12	I	0.1	2270
FIH-1	2,000	28	M-4	XIII-XVII	0.1	2281
FIH-2	2,000	36	M-4	XIV-XX	0.1	2290
FIH-3	2,000	44	M-4	XV-XX	0.1	2301

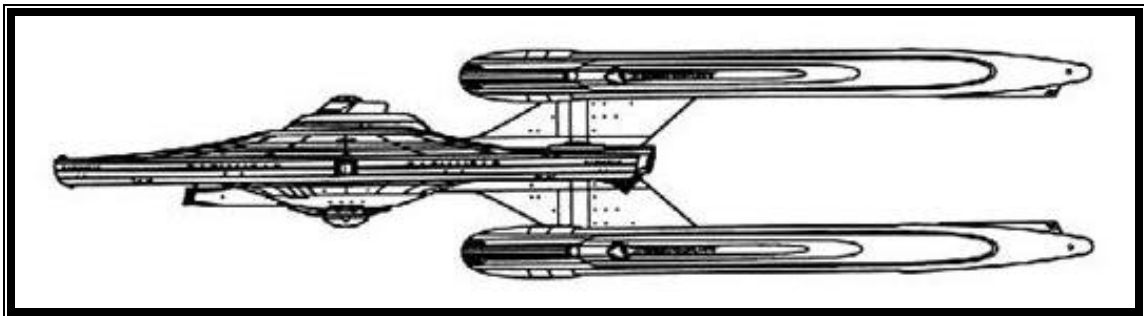
SUBLIGHT ENGINE TYPES						
Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Ship Classes Powered	SS Requirement	Date Entered Service
FSLA	12,700	8	L-14	III-VI	0.1	2230
FSLB	21,250	12	M-1	IV-VIII	0.1	2250

MOVEMENT POINT RATIO TABLE: IMPULSE AND SUBLIGHT ENGINES											
Movement Point Ratios											
Ship Class	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1
I	FMIC 8.6	FMIB 2.9 FMIC 4.3	FMIB 1.4 FMIC 2.1								
II		FSLA 11.4	FMIC 2.1 FSLA 5.7	FSLA 3.8							
III		FSLA 11.4 FSLB 17.1	FSLA 5.7 FSLB 8.6	FSLA 3.8 FSLB 5.7							
IV		FSLB 17.1	FSLA 5.7 FSLB 8.6	FSLA 3.8 FSLB 5.7							
V			FSLA 5.7 FSLB 8.6	FSLA 3.8 FSLB 5.7							
VI				FSLB 5.7							
VII				FSLB 5.7							
XIII						FIH-1 8	FIH-1 6.7	FIH-1 5.7			
XIV						FIH-1 8	FIH-1 6.7	FIH-1 5.7 FIH-2 7.3	FIH-2 6.4		
XV						FIH-1 8	FIH-1 6.7 FIH-2 8.6	FIH-1 5.7 FIH-2 7.3 FIH-3 9	FIH-1 5 FIH-2 6.4	FIH-3 7.9	FIH-2 5.7 FIH-3 7
XVI							FIH-1 6.7 FIH-2 8.6	FIH-1 5.7 FIH-2 7.3 FIH-3 9	FIH-1 5 FIH-2 6.4	FIH-3 7.9	FIH-2 5.7 FIH-3 7
XVII							FIH-1 6.7	FIH-1 5.7 FIH-2 7.3 FIH-3 9	FIH-1 5 FIH-2 6.4	FIH-3 7.9	FIH-2 5.7 FIH-3 7
XVIII								FIH-2 7.3 FIH-3 9	FIH-2 6.4 FIH-3 7.9		FIH-2 5.7 FIH-3 7
XIX								FIH-2 7.3 FIH-3 9	FIH-2 6.4 FIH-3 7.9		FIH-2 5.7 FIH-3 7
XX									FIH-2 6.4 FIH-3 7.9		FIH-2 5.7 FIH-3 7
											FIH-2 5.1 FIH-3 6.3
											FIH-2 5.1 FIH-3 6.3

SHIELD GENERATOR TYPES					
Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Date Entered Service
FSQ	1245	M-7A	4	4.5	2292
FSR	1875	M-8	3	4.8	2296
FSS	1060	M-3B*	4	2.5	2284

* M-6 will be required if you are using this shield generator to 2301. M-4 and M-4A control computers are not compatible with this shield generator.

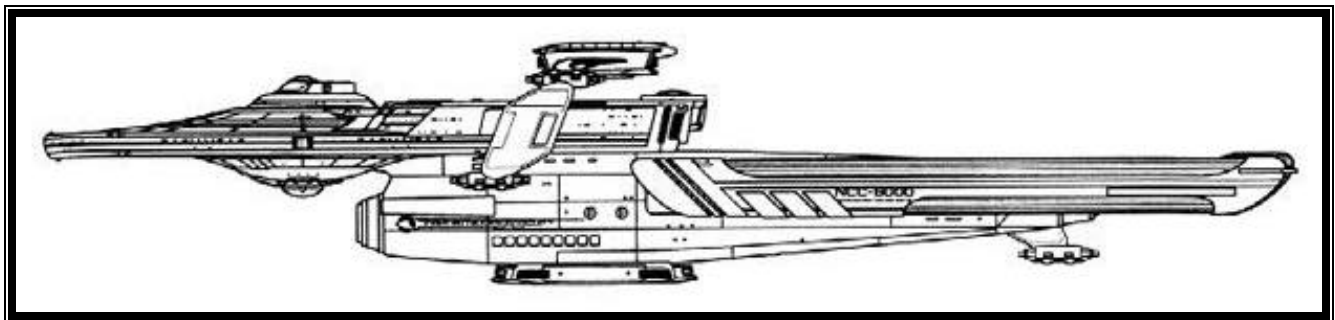
MAXIMUM SHIELD POWER			
Shield Types/Shield Point Ratios			
Ship Class	1/3	1/4	
	FSR	FSQ	FSS
I	40	30	20
I	18	11	7.5
II	40	30	20
II	18	11	7.5
III	40	30	20
III	18	11	7.5
IV	40	30	20
IV	18	11	7.5
V	40	30	20
V	18	11	7.5
VI	40	30	20
VI	18	11	7.5
VII	40	30	20
VII	18	11	7.5
VIII	40	30	20
VIII	18	11	7.5
IX	40	30	20
IX	18	11	7.5
X	40	30	20
X	18	11	7.5
XI	40	30	20
XI	18	11	7.5
XII	40	30	20
XII	18	11	7.5
XIII	40	30	20
XIII	18	11	7.5
XIV	40	30	20
XIV	18	11	7.5
XV	38	28	20
XV	17	10.5	7.5
XVI	38	28	20
XVI	17	10.5	7.5
XVII	36	26	20
XVII	16	9.5	7.5
XVIII	36	26	19
XVIII	16	9.5	7
XIX	34	24	19
XIX	15	8.5	7
XX	34	24	19
XX	15	8.5	7



Federation Cheetah Class Fast Cruiser

BEAM WEAPON TYPES										
Beam Weapon Type	Total Mass (mt)	Maximum Beam Power	+3	Damage Modifiers +2	+1	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Date Entered Service
FH-14	760	12	-	(1-10)	(11-18)	18	T	8.8	2.2/3.8	2284
FH-15	650	12	(1-5)	(6-12)	(13-18)	18	T	9.1	2.5/ 4.2	2298
FH-16	500	4	(1-10)	(11-17)	(18-24)	24	Y	5.4	.9/1.3	2301
FH-17	600	6	(1-10)	(11-17)	(18-24)	24	Y	7.2	1.8/2.6	2302
FH-18	625	12	(1-11)	(12-20)	(21-24)	24	Y	12.7	2.2/ 3.5	2315
FH-19	750	14	(1-10)	(11-17)	(18-24)	24	Y	14.3	2.8/4.2	2320
FH-20	675	14	(1-14)	(15-19)	(20-24)	24	Y	14.6	3.1/ 4.9	2330

MISSILE WEAPON TYPES									
Missile Weapon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Date Entered Service	
FP-8	250	1	10	16	S	6.3	1.1	2294	
FP-9	300	1	28	16	R	16.7	2.2	2297	
FP-11	12	1	3	6	D	0.6	0.1	2277	



Federation Kodiak Class Battleship

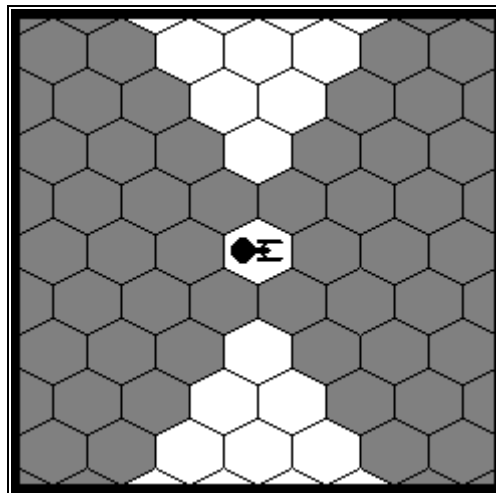
MEGA PHASER CANNON WEAPON TYPES										
Beam Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers			Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Date Entered Service
			+3	+2	+1					
FMH-1	215	10	(1-4)	(5-9)	(10-15)	15	K	5.2	1.0/ 2.0	2269
FMH-2	320	12	(1-3)	(4-8)	(9-12)	12	L	6.3	1.5/ 2.3	2269
FMH-3	418	14	(1-6)	(7-10)	(11-14)	14	O	8.6	1.7/ 2.9	2271
FMH-4	512	16	(1-8)	(9-14)	(15-16)	16	S	11.9	1.9/ 3.6	2274
FMH-5	660	15	(1-10)	(11-17)	(18-20)	20	W	13.6	2.0/ 3.7	2275
FMH-6	570	18	(1-6)	(7-12)	(13-18)	18	P	11.4	2.2/ 4.0	2280
FMH-7	520	16	(1-3)	(4-9)	(10-14)	14	Q	10.2	2.4/ 4.5	2281
FMH-8	430	20	(1-8)	(9-14)	(15-16)	16	S	14.5	2.6/ 4.7	2282
FMH-9	420	25	(1-5)	(6-12)	(13-18)	18	T	17.8	2.8/ 5.1	2298
FMH-10	475	28	(1-10)	(11-16)	(17-21)	21	V	21.4	3.2/ 5.6	2301
FMH-11	760	30	(1-7)	(8-15)	(16-22)	22	X	25.5	3.5/ 5.8	2304
FMH-12	870	35	(1-14)	(15-19)	(20-24)	24	Y	33.2	3.9/ 6.1	2310
FMH-13	470	24	(1-3)	(4-6)	(7-18)	18	T	16.8	3.0/5.4	2297
FMH-14	900	36	(1-4)	(4-7)	(8-18)	18	T	24.9	4.4/6.6	2325
FMH-15	950	42	(1-8)	(9-14)	(15-24)	24	Y	39.0	4.7/7.0	2330

MEGAPHASER CANNONS INFORMATION:

Megaphaser Cannons are unique beam weapons used by Starfleet to provide high-powered beam offensive support. They are installed mostly on warships designed for defense and patrol duties. Rarely does Starfleet ever install this weapon system on ships designed for exploration or multi-mission roles. This weapon system is considered an offensive weapon system designed for heavy combat.

Megaphaser can only cover only one special firing arc shown in the figure below. The reason for this unusual firing arc is do to the design of the weapon system. Megaphaser's require large amounts of power that is feed to it by an energy conduit equal in size to those feeding the Warp Drive Nacelles from the Warp Engine Core/Intermix Shaft. At the end of the energy conduit lies the energy chamber which is linked to two emission nozzles. One nozzle faces forward and the other aft. This allows the Megaphaser cannon have a large weapons firing arc as shown below.

Due to the immense energies involved and the possible overload of the energy chamber, this weapon is always mounted away from the hull on a pylon, which can be jettisoned in an emergency.



Mega Phaser Cannon Firing Arc