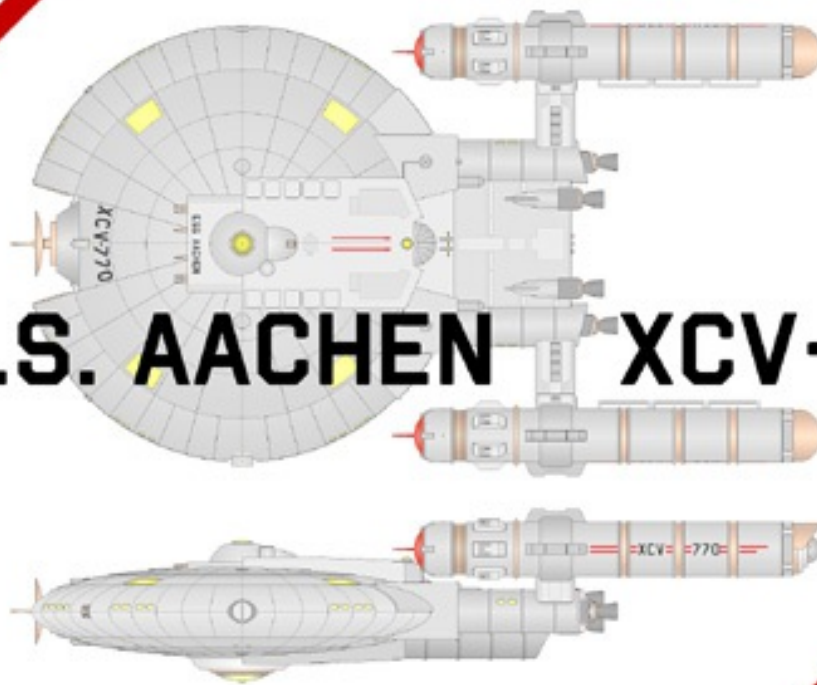


**BLUEPRINTS**

**DECK LAYOUTS**

# **E.S.S. AACHEN XCV-770**

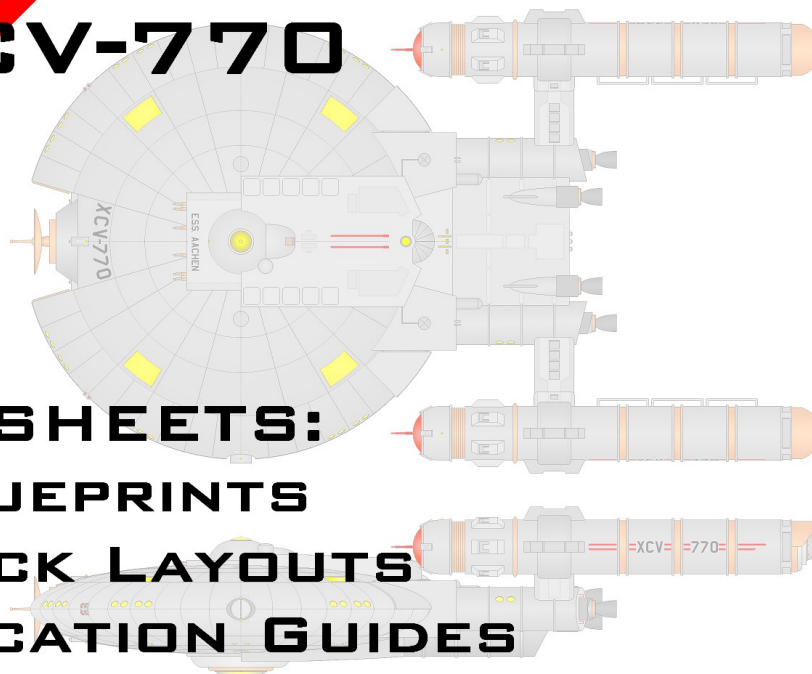


**HISTORY**

**LOCATION GUIDES**

# E.S.S. AACHEN

## XCV-770



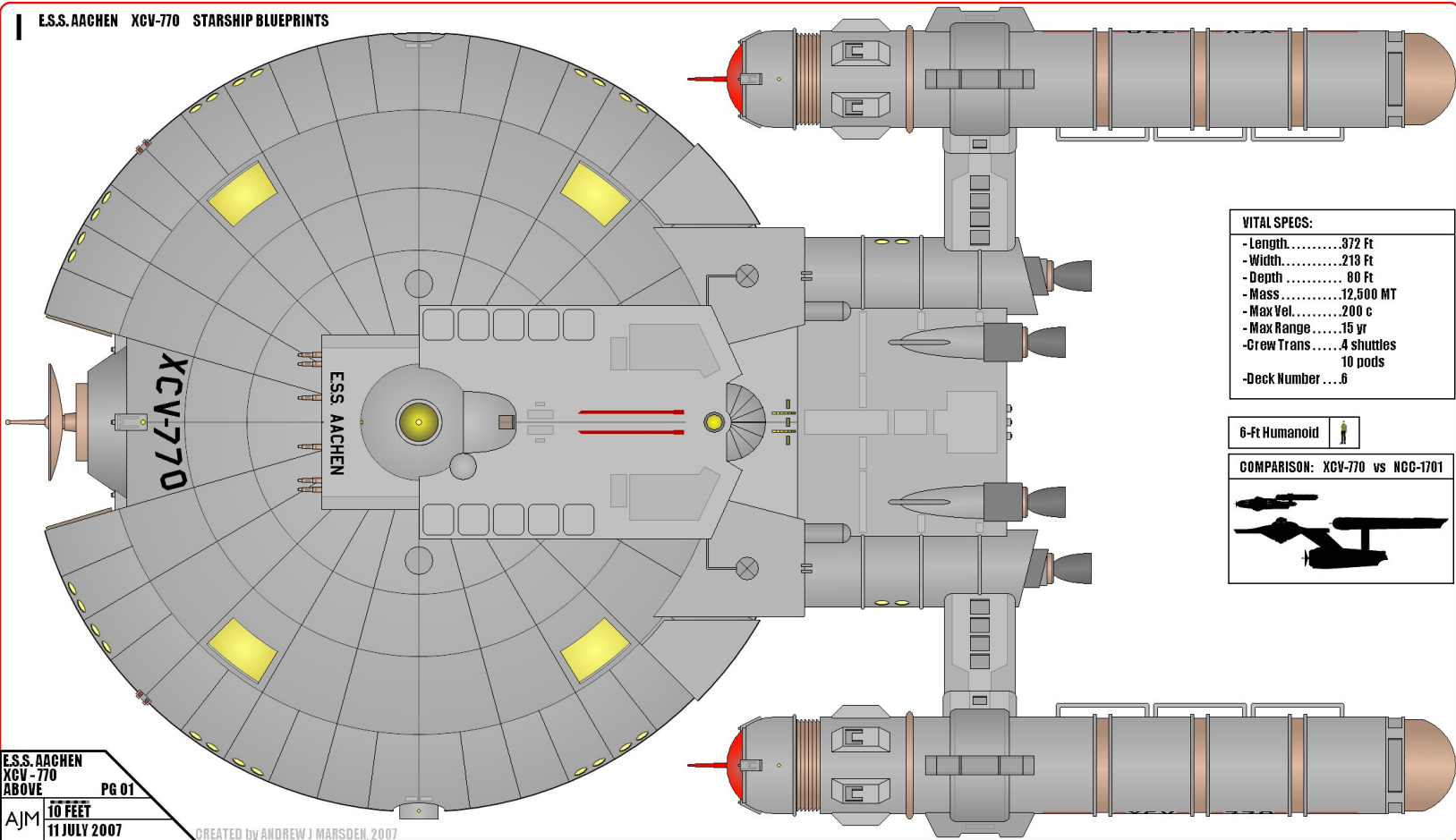
**12 SHEETS:**

- ▣ **BLUEPRINTS**
- ▣ **DECK LAYOUTS**
- ▣ **LOCATION GUIDES**
- ▣ **LINEAGE & HISTORY**
- ▣ **SHIP'S CREW**

### INDEX

00.....	OVERVIEW
01.....	ABOVE
02.....	BELOW
03.....	PORT/STARBOARD
04.....	FORWARD/AFT
05.....	CUTAWAY VIEWS
06.....	DECKS 1 & 2
07.....	DECK 3
08.....	DECK 4
09.....	DECK 5
10.....	DECK 6
11.....	NOTES & HISTORY





VITAL SPECS:

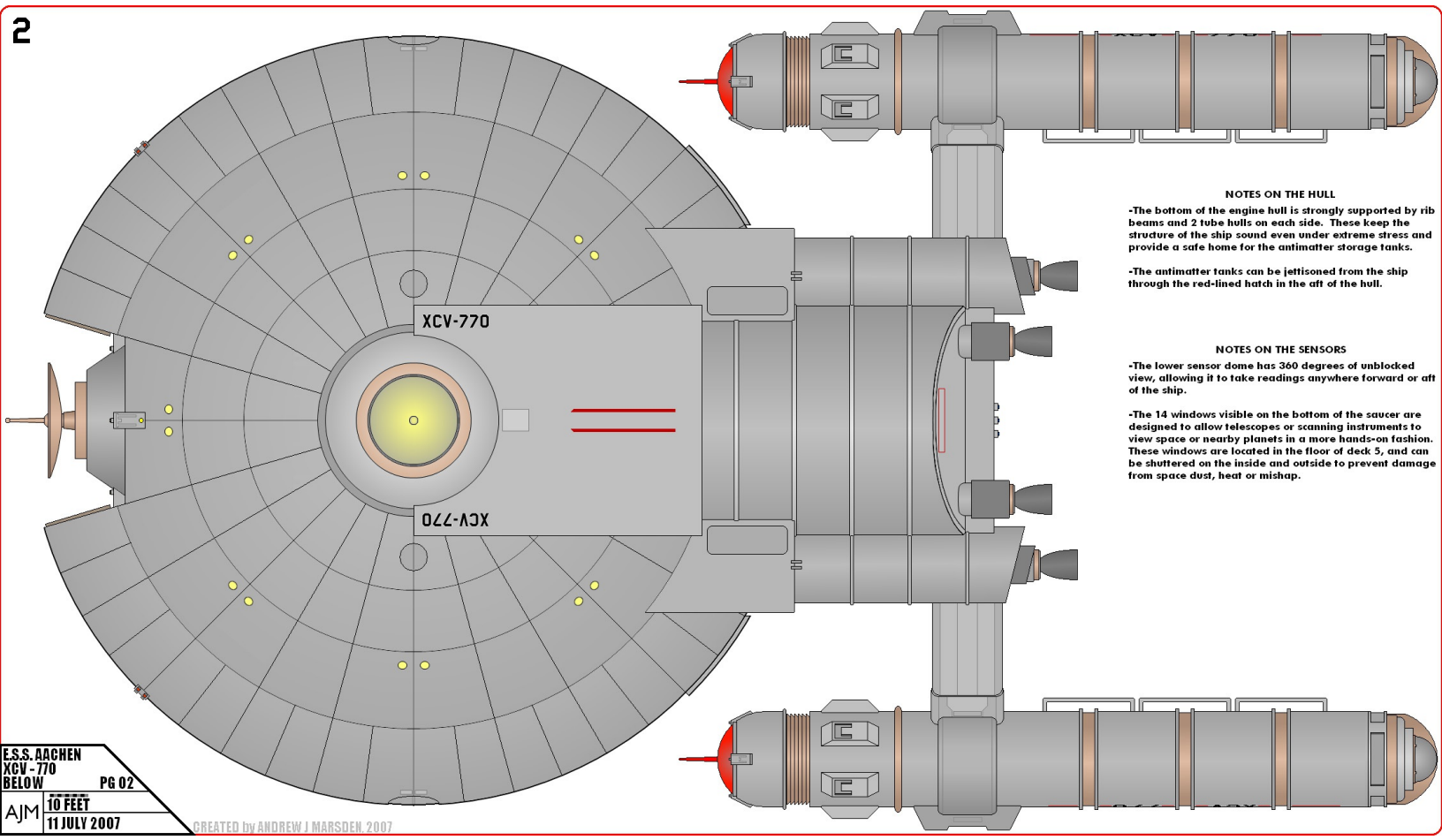
- Length.....372 Ft
- Width.....213 Ft
- Depth.....80 Ft
- Mass.....12,500 MT
- Max Vel.....200 c
- Max Range.....15 yr
- Crew Trans.....4 shuttles  
10 pods
- Deck Number....6

6-Ft Humanoid

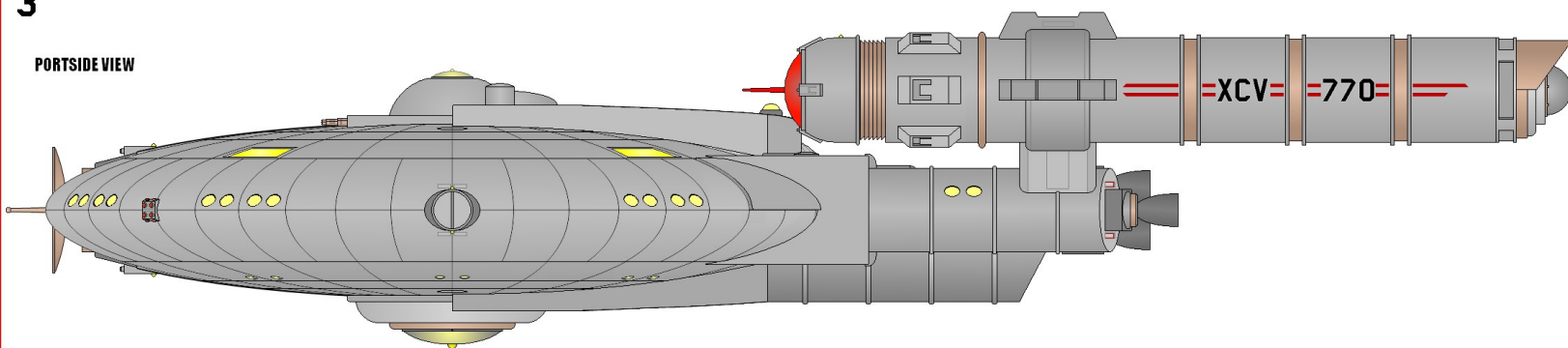


COMPARISON: XCV-770 vs NCC-1701

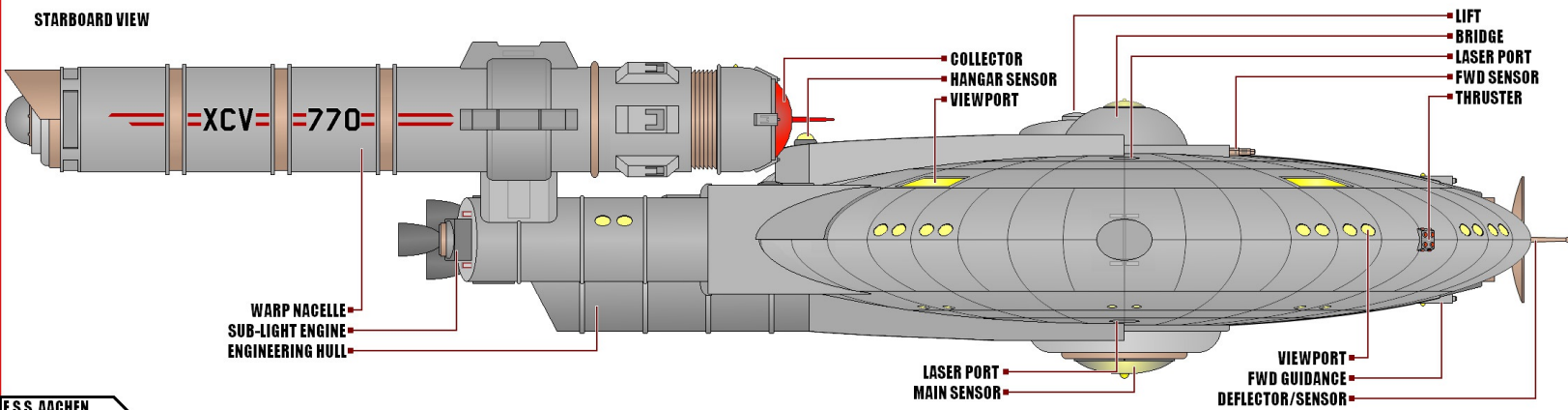




PORTSIDE VIEW

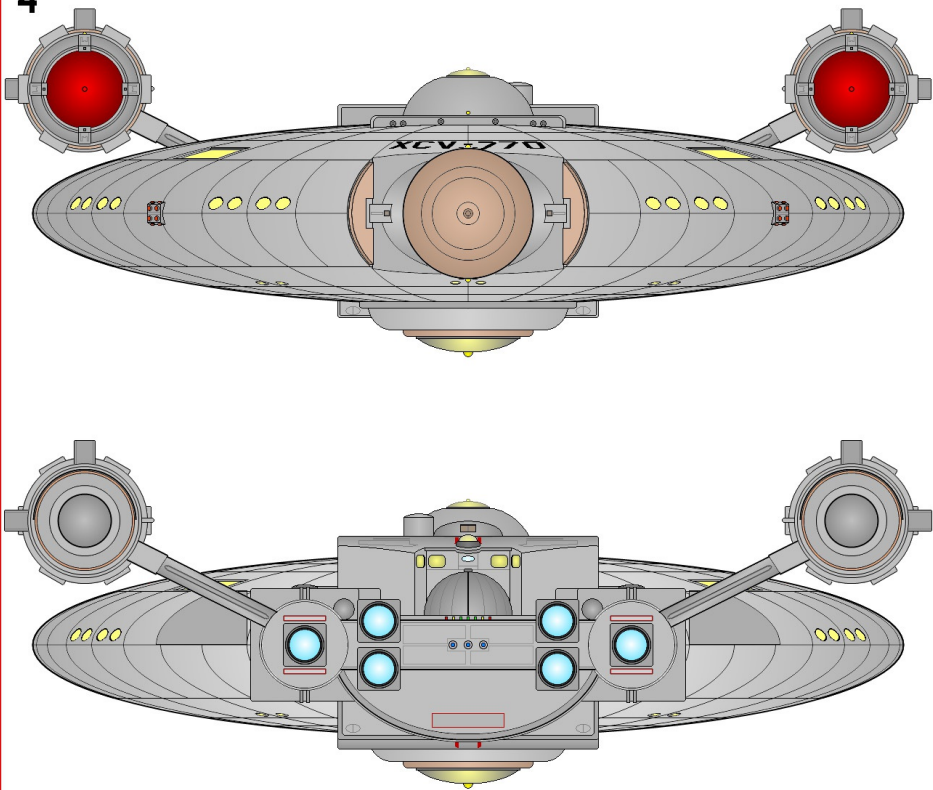


STARBOARD VIEW

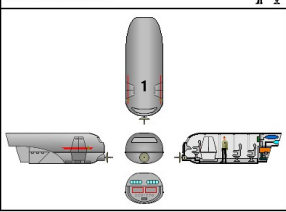


E.S.S. AACHEN  
XCV-770  
PORT/STBD Pg 03  
AJM 10 FEET  
11 JULY 2007

CREATED by ANDREW J MARSDEN, 2007



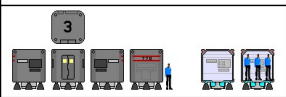
SHUTTLE VIEWS



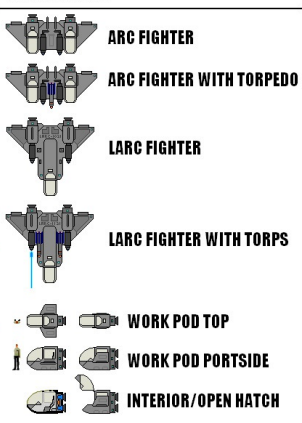
UNMANNED



LIFE BOAT VIEWS/INTERIOR



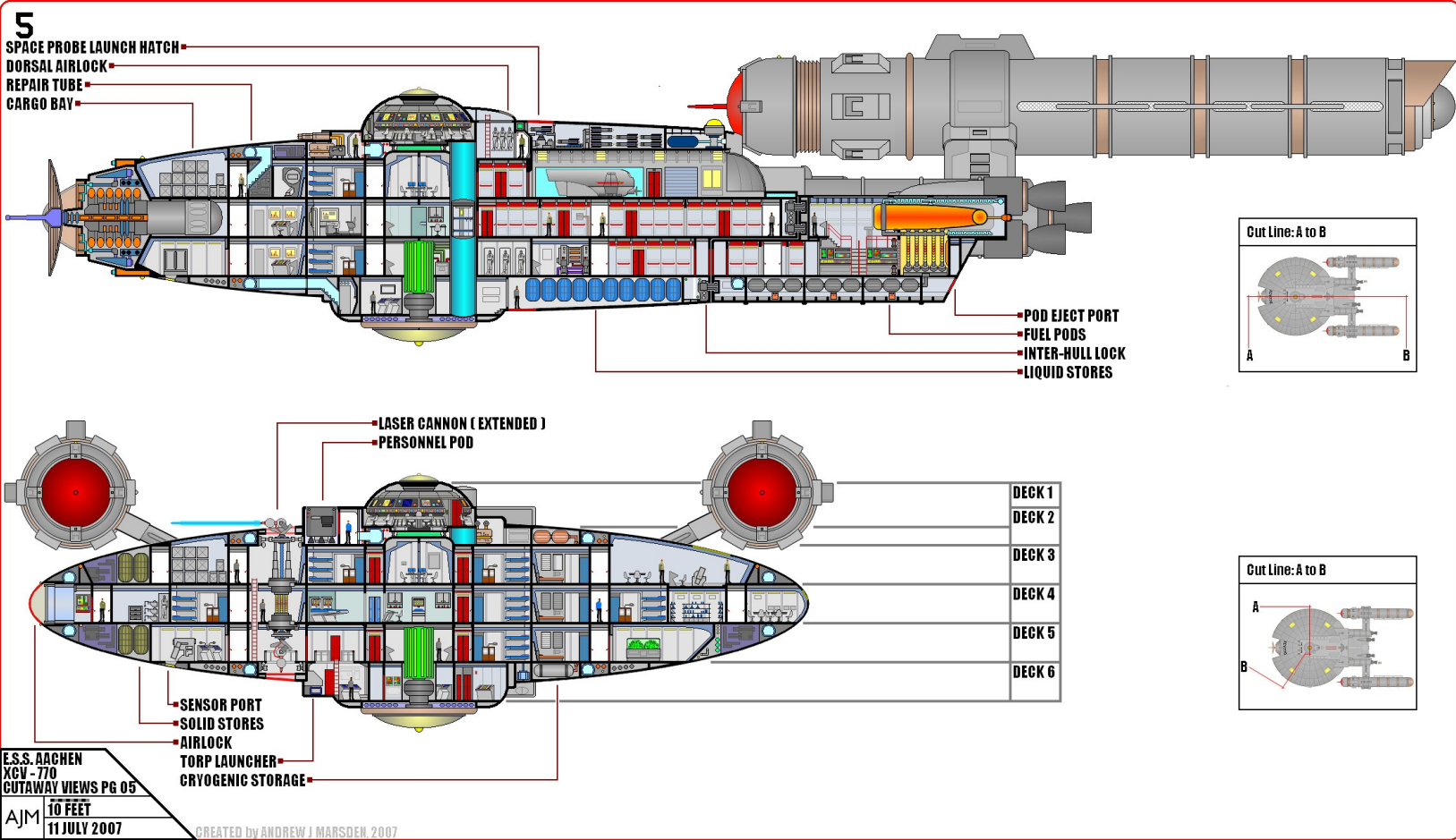
SUPPORT CRAFT



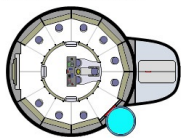
NOTES ON THE SUPPORT CRAFT & EQUIPMENT

- The AACHEN can carry a maximum of 2 shuttles. Each shuttle has a normal capacity of 6 people but may carry up to 8 passengers in emergency situations.
- In times of war, the shuttles can be switched out for more muscular support ships. The AACHEN can carry up to 4 Attack & Reconnaissance Craft (ARCs) or up to 2 Large Attack & Reconnaissance Craft (LARCs). ARCs require 2 operators. They carry two laser cannon, up to 6 small missiles or 4 large missiles, and one full-sized torpedo. The LARCs require 2-3 operators. It can carry two full-sized torpedoes and has more powerful lasers than the ARC. Both the ARC and LARC fold their wings down to land.
- The AACHEN carries 6 work pods at all times. These tiny vessels are used to train pilots and crew in weightless maneuvering, perform external repairs on the ship, move bulky cargo units, explore & gather samples from objects such as asteroids (under supervision from a larger vessel or the ship), and if necessary, provide replacement parts for other support craft. The work pods carry a maximum of 1 person, who is usually space-suited.
- The AACHEN carries an array of probes and satellites, as well as torpedoes and missiles. The standard compliment of class B probes is 70, and up to 6 class A. About 10 communication relay satellites can be stored in the drop-bays on deck 5. The ship carries 170 torpedoes, up to 50 small missiles, and any number of large/small missiles can be stored in the cargo sections.
- There are 10 life boats, located on deck 2. Each has a capacity of 7 people, and are designed to make landfall on their own if necessary. They can support 7 people for 1 month, or up to 6 months if the stasis system is used (plus the one month out of stasis adds up to a potential 7 months). The stasis system should not be used unless absolutely necessary. The boats have no gravity systems and cannot takeoff from a planet.

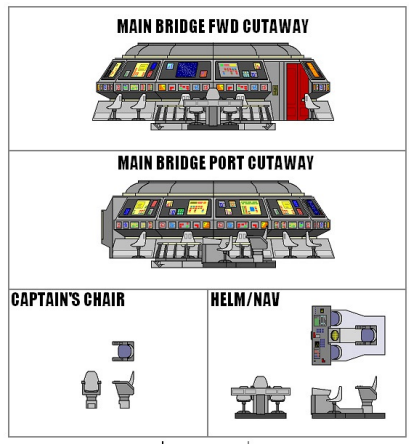




DECK 1: MAIN BRIDGE



- VIEW SCREEN
- ENVIRONMENTAL ENG
- TACTICAL 1
- TACTICAL 2
- SCIENCE 1
- SCIENCE 2
- COMMUNICATIONS
- DORSAL PERSONNEL HATCH
- LIFT
- ENGINEERING
- SECURITY
- NAVIGATION 2



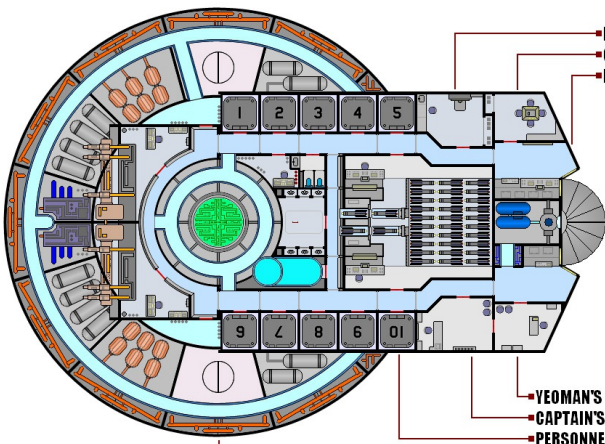
NOTES ON DECK 1

- The main bridge is manned by up to 12 people. Under non-alert conditions, the bridge may be manned by 6 to 8 crew members.
- All ship functions can be routed to the captain's chair through the chair's interface system, which can be personalized by the user.

NOTES ON DECK 2

- Deck 2 has a number of support systems. A specialized computer sits in the recess directly below deck 1. Storage, recycling, and power distribution systems ring the forward part of the deck. Two scanner rooms take navigation readings, allowing the ship to maneuver even with the main sensors and scanners off-line.
- The 10 life boats are located on the port and starboard parts of the deck.
- Aft of the deck 1 computer is a space-suit storage area, which leads to the dorsal airlock.
- Aft of the space-suit storage are the 2 probe launch hatches, and storage for 70 probes. These probes allow the ship to explore much larger regions of space more quickly, or take readings in hazardous locations that the ship cannot enter safely.
- In the very aft, above the hangar doors, is the hangar pressurization system.

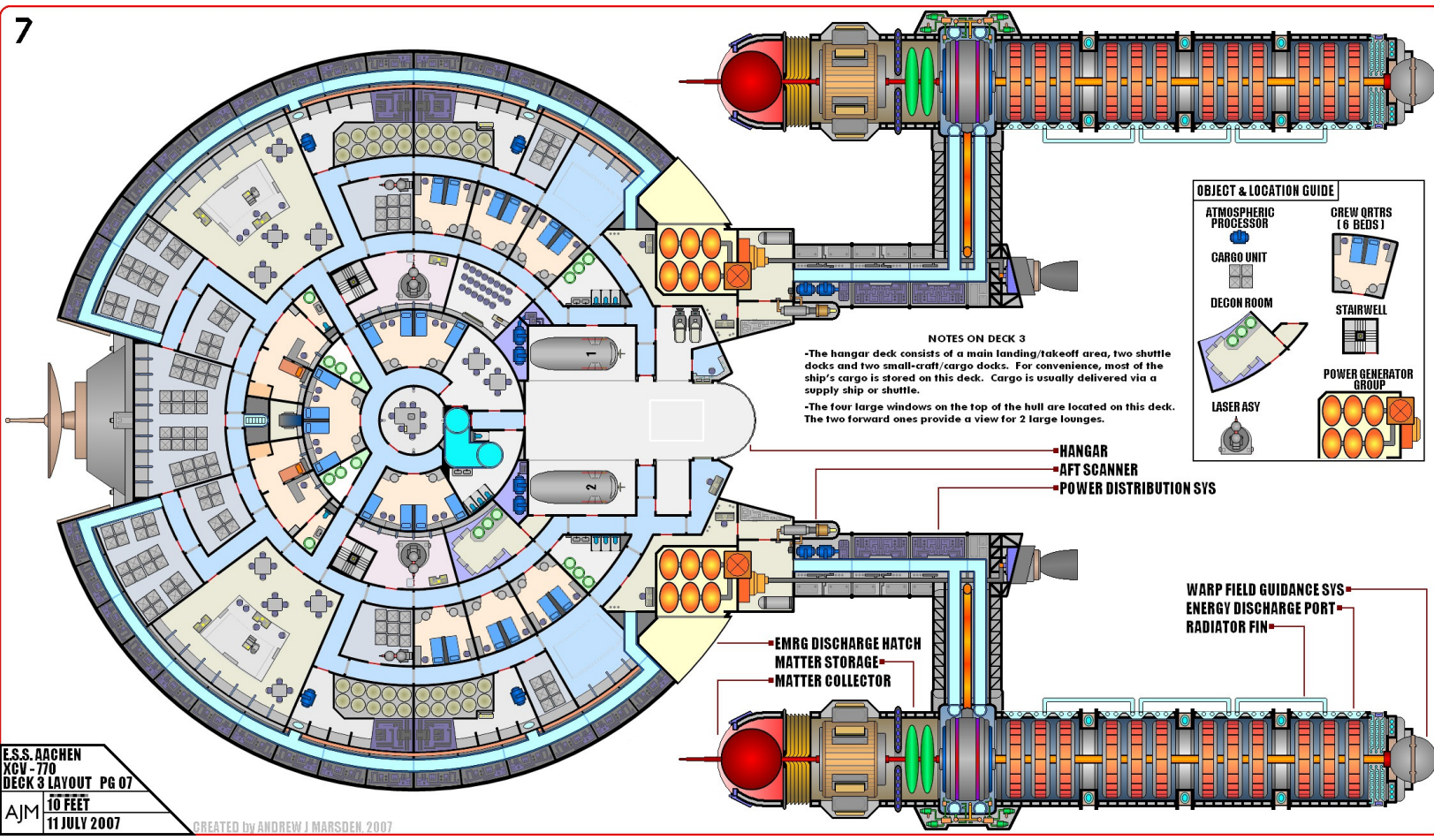
DECK 2



- REPAIR SHOP
- COMPUTER LAB
- HANGAR CONTROL BOOTH

- YEOMAN'S OFFICE
- CAPTAIN'S OFFICE
- PERSONNEL POD
- POWER SYS





DINING HALL  
THRUSTER  
LOUNGE

INFORMATION & ARTIFACT LIBRARY  
ARTIFACT STORAGE

NOTES ON DECK 4

-Deck 4 is the largest deck of the AACHEN, and houses many of the most vital systems, including the Warp Core and most of the ships labs (see sheet 10 for more on the labs).

-The impulse engines are also located on this deck, as well as the thrusters. All can be powered by the warp core or by the secondary power generators on deck 3.

OBJECT & LOCATION GUIDE

SHORT-RANGE  
PARTICLE DETECTOR

DECON ROOM

TRANSPORTER  
CHAMBER

HIGH-RES  
SCANNING CHAMBER

LASER PWR  
REG NODE

SUPPLEMENTAL FOOD  
PROCESSING SYS

PERISHABLES STORAGE

AUX BRIDGE

GALLEY

DECK 4 ENGINE COMPARTMENT

COOLANT PUMP  
WARP CORE  
MAIN ENGINEERING  
ENERGY CONVERTERS  
REPAIR BAY

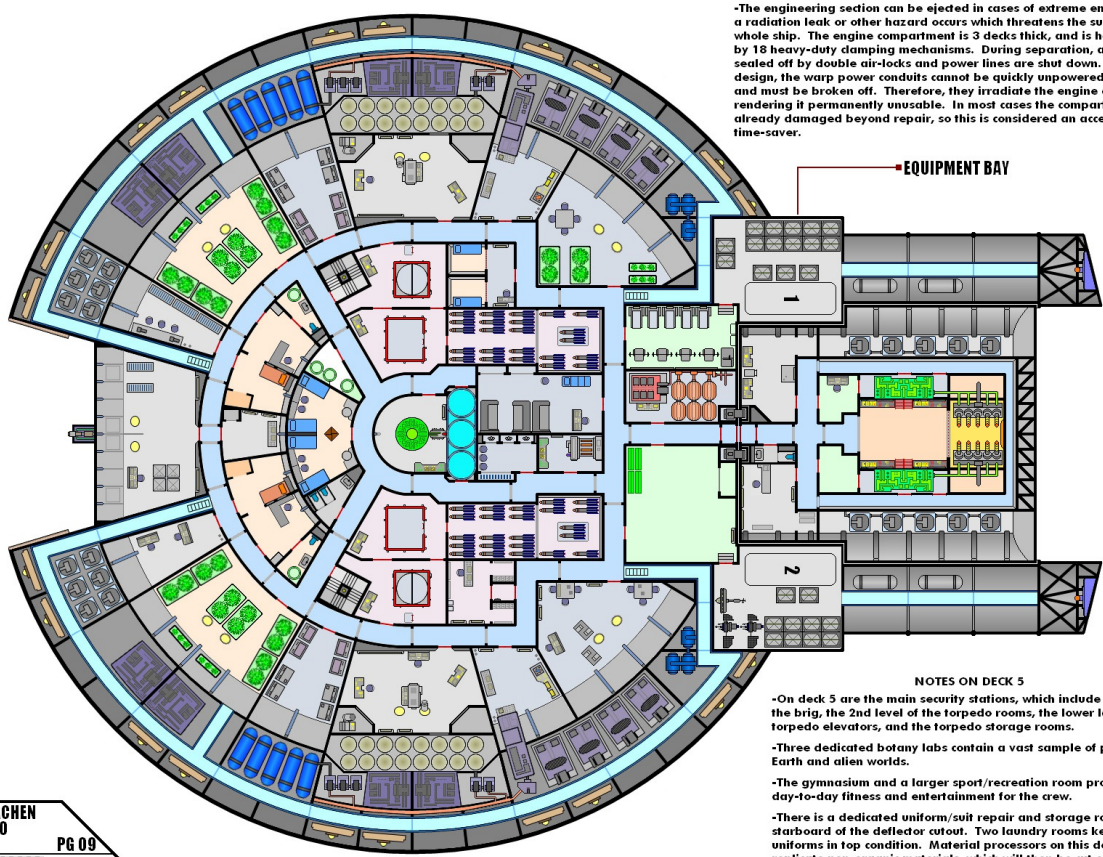
RADIATOR  
COMPRESSION CHAMBER  
CONFERENCE HALL  
ARC BAY

DOCKING AIRLOCK (EXTENDED)

E.S.S. AACHEN  
XCV - 770  
DECK 4  
PG 08  
AJM  
10 FEET  
11 JULY 2007

CREATED by ANDREW J MARSDEN, 2007





NOTES ON THE ENGINE COMPARTMENT

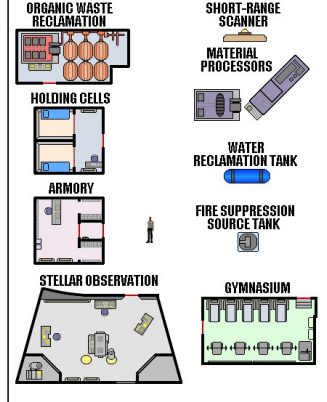
-The engineering section can be ejected in cases of extreme emergency, when a radiation leak or other hazard occurs which threatens the survival of the whole ship. The engine compartment is 3 decks thick, and is held to the ship by 16 heavy-duty damping mechanisms. During separation, all corridors are sealed off by double air-locks and power lines are shut down. Due to their design, the warp power conduits cannot be quickly unpowered/separated and must be broken off. Therefore, they irradiate the engine compartment, rendering it permanently unusable. In most cases the compartment is already damaged beyond repair, so this is considered an acceptable time-saver.

EQUIPMENT BAY

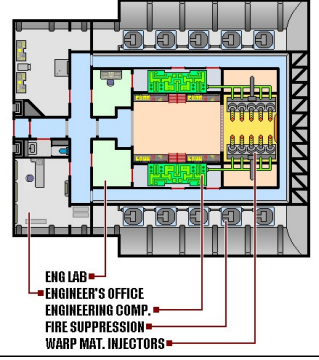
NOTES ON DECK 5

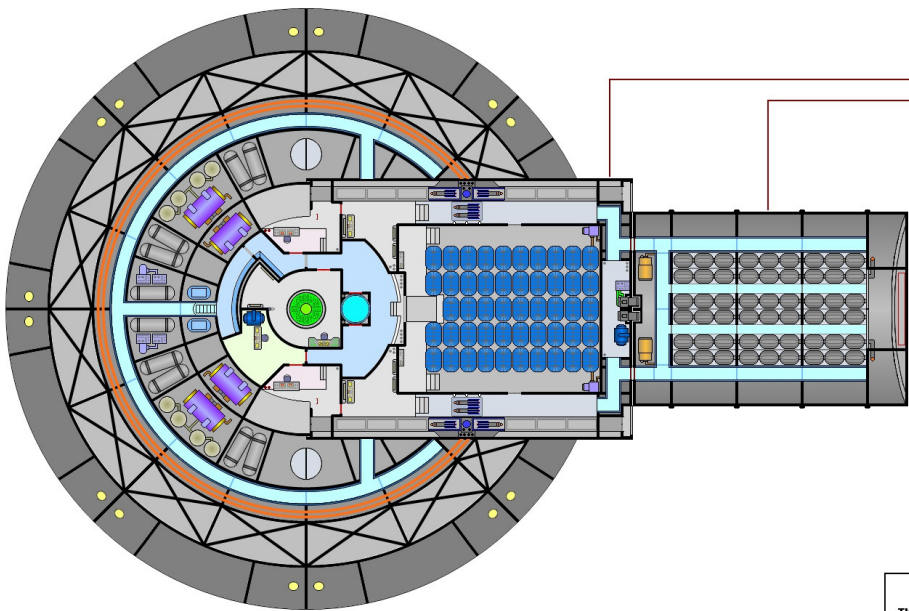
- On deck 5 are the main security stations, which include the armory, the brig, the 2nd level of the torpedo rooms, the lower laser rooms, the torpedo elevators, and the torpedo storage rooms.
- Three dedicated botany labs contain a vast sample of plant life from Earth and alien worlds.
- The gymnasium and a larger sport/recreation room provide for day-to-day fitness and entertainment for the crew.
- There is a dedicated uniform/suit repair and storage room just starboard of the deflector cutout. Two laundry rooms keep the crew's uniforms in top condition. Material processors on this deck can replicate non-organic materials, which will then be cut or shaped into a variety of new tools, replacement parts, clothing, or other necessities.

OBJECT & LOCATION GUIDE



DECK 5 ENGINE COMPARTMENT





OBJECT & LOCATION GUIDE		
MATTER RECYCLER	FRESH WATER STORAGE TANKS	TORPEDO ELEVATOR
CRYOGENIC STORAGE	M/AM FUEL STORAGE UNIT	LOWER LASER CANNON HATCH
ANTIMATTER PROCESSOR	FORE/AFT TORP LAUNCH SYS	
SYS MONITOR ROOM	FORE/AFT TORP LAUNCH CONTROL	

**NOTES ON DECK 6**

- Deck 6, the lowest deck of the AACHEN, contains storage areas and the 4 torpedo launchers. Stored here is the main supply of fresh water and the fuel pods for the warp reactor. The two torpedo control rooms on the port and starboard each house a forward and an aft launcher, providing full coverage of the ship.
- In the center of the deck the main computer core connects with the main sensor dome below.

**NOTES ON THE DECK 4 LABS**

- There are 18 laboratories located on deck 4. These are broken down to the following specialized functions: General Science Lab, Biology Lab, Computer/Engineering Lab.
- General Science Lab (Purple): These are used for basic scientific research in a wide variety of topics, including but not limited to: The study of new materials, new stellar objects, and mapping through interpretation of sensor data. (8 Total)
- Biology Lab (Green/Orange for microbiology): Used to study new alien life, from ecosystems to microbes. (6 Total)
- Computer/Engineering Lab (Grey): These are for the study of new materials and technologies that the ship may encounter. (4 Total)

II E.S.S. AACHEN XCV-770

HISTORY OF THE AACHEN (2160 - 2218)

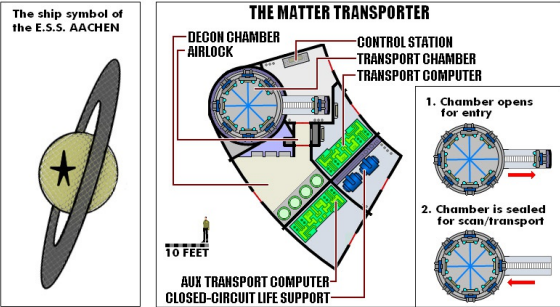
The E.S.S. AACHEN was constructed in the San Francisco Fleet Yards, and was the first of the N12-Class star ships: XCV-770. It was one of the last ships built entirely by the Earth government before Earth joined the United Federation of Planets in 2161. The ship was only 15 months out of dock when the Earth Starfleet was dissolved and restructured into the Federation Starfleet.

Because of this change it's sister ships would be assigned NCC registries, beginning with the U.S.S. THUNDER (NCC-119), which entered service 20 months after the AACHEN. However, the AACHEN was allowed to keep its registry, as were all other hold-over vessels from the old fleet.

The AACHEN was designed to hold 148 crewmen, giving it one of the fleet's largest crew compliments, despite the compact design. The outer hull of the ship was specially designed to reduce drag and fridional heating, which was intended to allow the ship to descend into the atmospheres of gas giants and other planetary bodies.

The lessons learned from previous space explorers were put to good use. Many innovative safety features were added to the AACHEN, which were absent from earlier designs. The ship was given the ability to crash-land safely in the event of an emergency. Though this process would crush the forward parts of deck 6 and the sensor array, in theory the ship could take off again. The nacelles and engine compartment were given much faster and more reliable ejection systems, so the ship's crew could survive an engine breach.

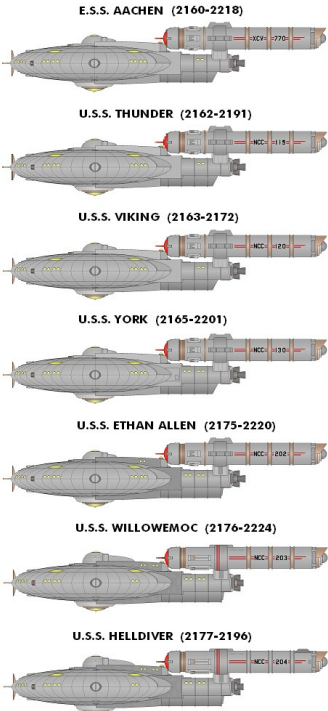
The ship was eventually damaged in a battle with Klingon warships in 2218, and decommissioned. The ship was 58 years old at this point and had exceeded it's original life-span expectancy by 8 years. It's nacelles and engines were destroyed in the battle, but it's primary hull survived into the late 23rd century as part of a cargo vessel, a tribute to the ship's durability.



One of the AACHEN's advanced features is a long-range matter transporter, located on deck 4. The transporter can be used on almost any object, living or inanimate. Sub-atomic scans are taken from every direction and recorded, allowing the system to reassemble the subject.

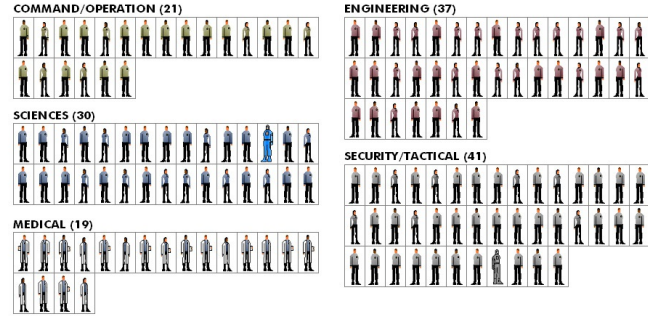
E.S.S. AACHEN  
XCV - 770  
NOTES Pg 11  
AJM 11 JULY 2007  
CREATED by ANDREW J MARSDEN, 2007

FLEET LISTINGS



Over the years, modifications were incorporated into the ship design. The last ship to be built, the U.S.S. HELLDIVER, featured a much larger bridge module, different sub-light engines and more advanced nacelles, among many other less obvious changes.

THE CREW OF THE AACHEN



COMMAND/OPERATION	ENGINEERING	ROOMING BREAK-DOWN:
Captain (1)	Engineering Chief (1)	SINGLES (6 Total)
Helm (3)	Assistant Engineer (3)	-C Deck: (2) Captain, First officer
Navigation (3)	Communications Engineer (3)	-D Deck: (2) Department heads
Pod/Shuttle Pilot (6)	Mechanical Engineer (6)	-E Deck: (2) Guest quarters
Sensor/Scanner operator (6)	Computer Engineer (6)	6-PERSON ROOM (16 Total)
Galley crew (2)	Power Systems Engineer (9)	-C Deck: (6) Officers
	Maintenance Assistant (6)	-D Deck: (10) Jr. Officers/Crewmen
	Recycling/life support (3)	12-PERSON ROOM (4 Total)
SCIENCE	SECURITY	-C Deck: (3) Crewmen
Science Officer (3)	Security Chief (1)	-E Deck: (1) Crewmen
Science Lab Technician (9)	Tactical officer (6)	
Genetics & Biology (3)	Torpedo loader/operator (10)	
Physical sciences (6)	Security force (12)	
Botany (3)	Laser manager (12)	
Stellar/Planetary Cartography (3)		
Catalogue/Library/Catagorize (3)		
MEDICAL	OTHER	
Chief Surgeon & Surgeons (3)	Guest/Diplomat/Admiral/ VIP (2 max)	
Dodcor/Pharmaceutical (3)		
Head Nurse (1)		
Assistant Nurse (3)		
Medic (6)		
Medical Lab Staff (3)		
	TOTAL CREW: 148	
	TOTAL CAPACITY: 150	
	EMERGENCY/SHORT TERM CAPACITY: 200	

The crew listings above list the ALERT-STATUS duties only. The complexity of running a star ship and the limited crew capacity requires that most crewman in security/tactical have double duties. For example, a torpedo room crewman may double as a yeoman or lab assistant. There is rarely an idle shift for anyone on the AACHEN.

UNIFORM KEY:	Command/Operation	Medical (With data tablet)	Security/Tactical
	Sciences	Engineer	Space suit (grey) EV suit (blue)