SIENO Class Close Escort

MEGA TRAVELLER

Outline of SIENO Class Close Escort

SIENO Class close escort is a small fighting ship used for various multi-purpose missions. This class is among the smallest armed interstellar warships. The original model of this class is a 300dt class close escort with drop tanks.

300dt class close escort, represented by GAZELLE class, was used widely in the Third Imperium. The armor and structure of L-Hyd droppable tanks were too thin or weak respectively, however, often performing badly in combat. Consequently, the pressure to adopt a 400dt design for a close escort quickly mounted.

Removing the drop tanks from the design could shortened production time and simplified operations; the dual control system required by a changing hull displacement (including grav plates, maneuver drive, and jump drives) was relatively more complex than that of a single displacement ship.

The paramount factor, however, is the safety problems with drop tanks. The reliability of the drop tank system was also much debated. The Imperial Navy adopted regulations requiring replacement of drop tanks after 50 uses.

In the FFW, the close escort carried out courier, scout, patrol, escort convoy and sundry duties, suffering a great deal of damage. In the battlefield sectors a number of close escorts were destroyed or suffered shattered tanks, including ships from system (colonial) navies.

Since close escort is a key aspect of interstellar security, after the FFW redesign and rebuilding started immediately. SIENO class is one of these redesigns. LSP-affiliated MASA LIC has acknowledged it has accepted numerous orders from the Imperial, sub-sector and system Fleets. They have strongly supported the MASA's design of simplicity, reliability and balance of offensive and defensive systems.

The design concept of this ship is as follows.
1. Removal of L-Hyd droppable tanks
2. Level up of FCS computers
3. Armored hull

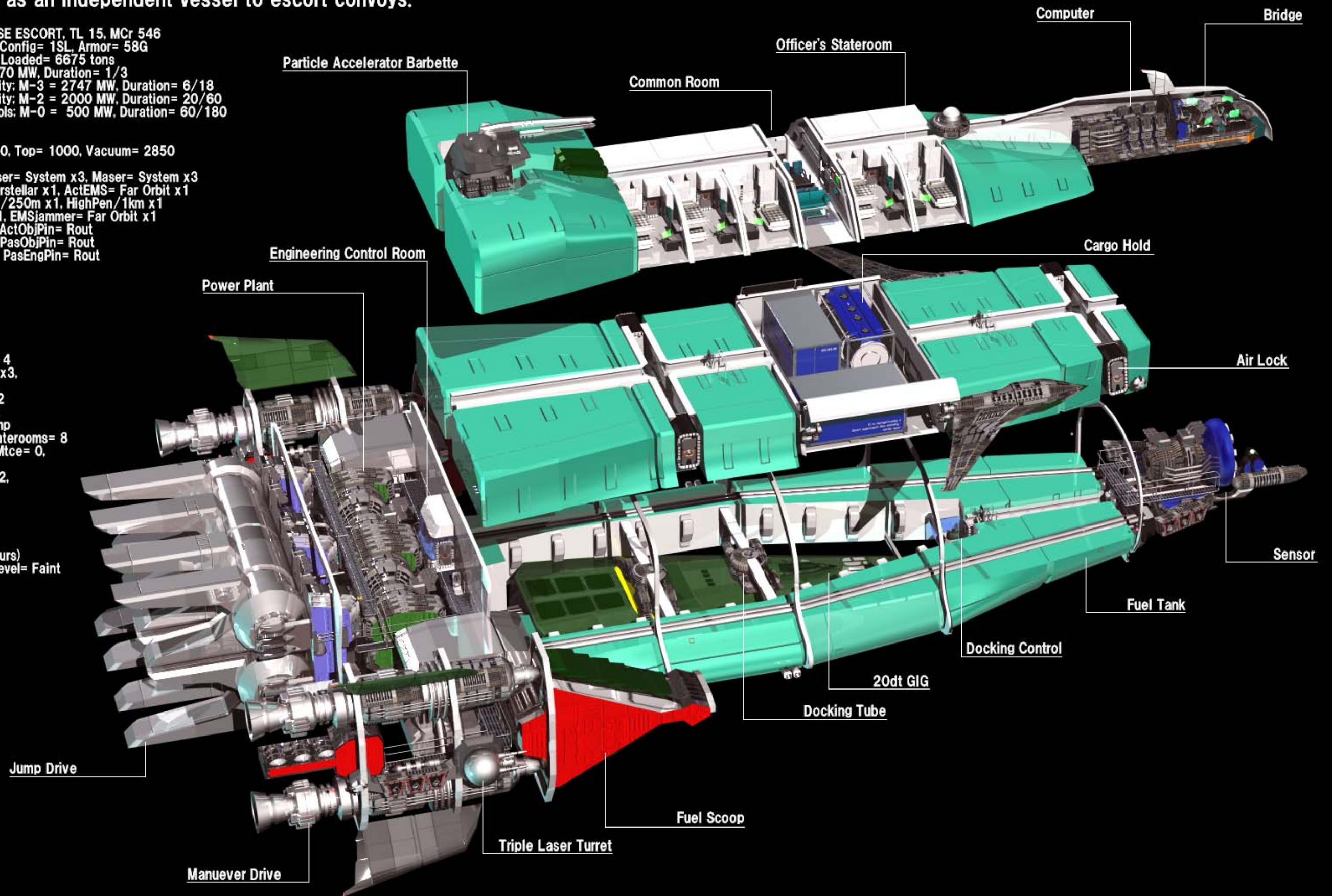650 of this class are in commission throughout the Spinward March Sector.

CLOSE ESCORT
IMPERIAL NAVY

The close escort is a heavily armed ship used as a fighter aboard
a larger ship or used as an independent vessel to escort convoys.
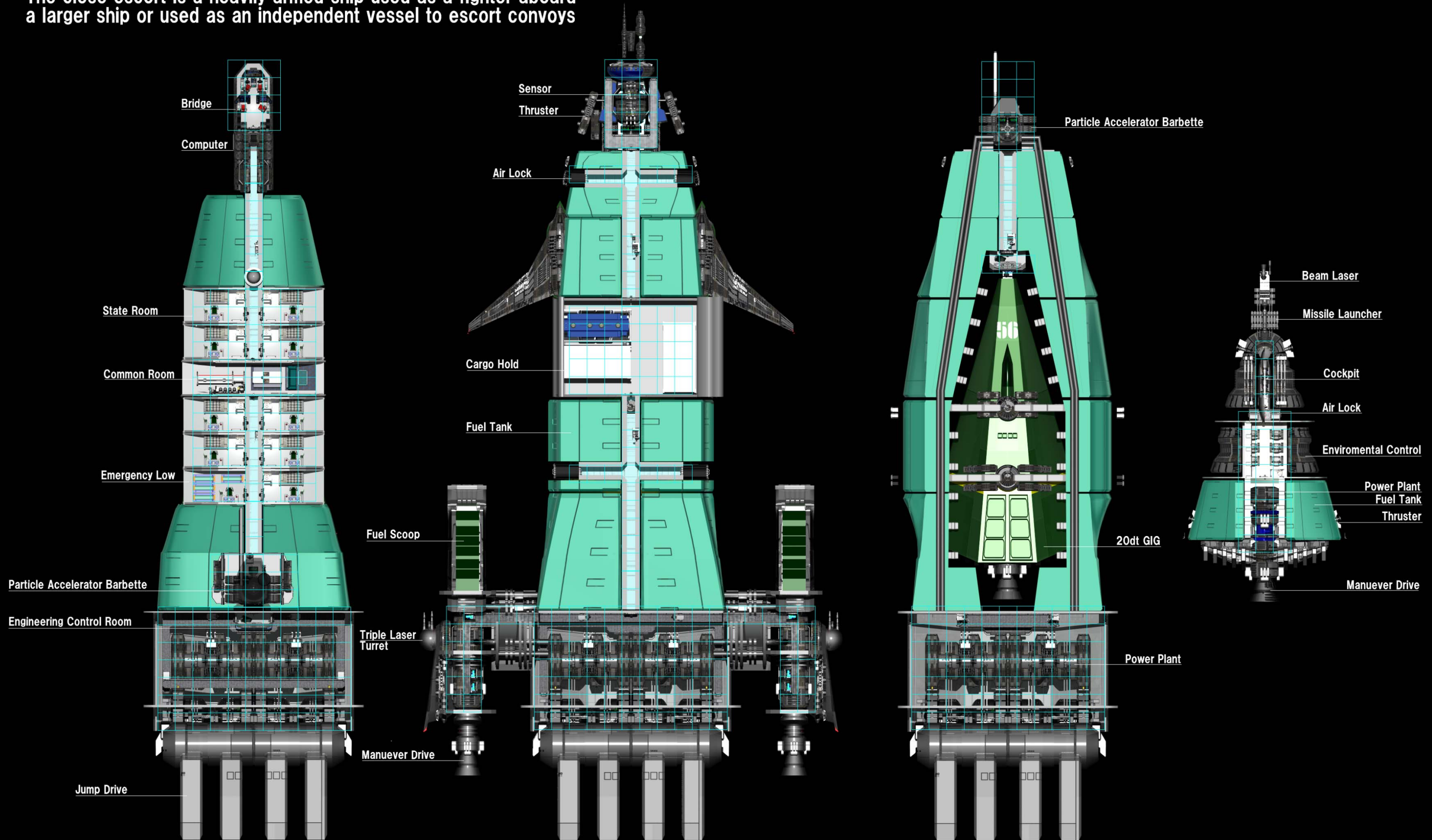
CraftID:CE-4020201, Type CLOSE ESCORT, TL 15, MCr 546
Hull: 360/900, Disp= 400, Config= 1SL, Armor= 58G
          Unloaded= 6282 tons, Loaded= 6675 tons
Power: 57/113, Fusion= 10170 MW, Duration= 1/3
              No Wpns, Scrns, Agility; M-3 = 2747 MW, Duration= 6/18
              No Wpns, Scrns, Agility; M-2 = 2000 MW, Duration= 20/60
              LifeSupport & Controls: M-0 = 500 MW, Duration= 60/180
Loco: 43/86, Maneuver= 3
          27/54, Jump= 4
          NOE= 190, Cruise= 750, Top= 1000, Vacuum= 2850
          Agility= 3
Commo: Radio= System x3, Laser= System x3, Maser= System x3
Sensors: EMMask, PasEMS= Interstellar x1, ActEMS= Far Orbit x1
          Densitometer= LowPen/250m x1, HighPen/1km x1
          Neutrino= min 10kw x1, EMSjammer= Far Orbit x1
              ActObjScan= Rout, ActObjPin= Rout
              PasObjScan= Rout, PasObjPin= Rout
              PasEngScan= Simp, PasEngPin= Rout
Off: PartAcc= xx 2
            Batt   2
            Bear   2
          BLaser= xx4
            Batt   2
            Bear   2
Def: DefDM= +13
          ArmorDM= -6, SizeCd= 4
Control: Computer= Model/9fib x3,
          Panels= HoloLink x25
          Special: HUpHoloDisp x2
          BasEnv, Bas LS, Ext LS,
          Grav plates, Inertial comp
Accom: Crew= 14 (1 x 14), Staterooms= 8
          Bridge= 2, Engrng= 1, Mtce= 0,
          Gunnery= 1, Flight= 3
          Troops= 5, Command= 2,
          EmerLow= 2
SubCraft: Launch x1
Other: Fuel= 2510 kliters,
          Cargo= 217 kliters,
          Fuel scoops,
          PurificationPlant (48hours)
          ObjSize= Average, EMLevel= Faint
Design Notes
          Mcr 437 in quantity

Particle Accelerator Barbette

Common Room

Officer's Stateroom

Computer

Bridge

Engineering Control Room

Cargo Hold

Power Plant

Air Lock

Sensor

Fuel Tank

Docking Control

20dt GIG

Docking Tube

Jump Drive

Triple Laser Turret

Fuel Scoop

Manuever Drive

CLOSE ESCORT IMPERIUL NAVY

The close escort is a heavily armed ship used as a fighter aboard
a larger ship or used as an independent vessel to escort convoys

Bridge

Computer

State Room

Common Room

Emergency Low

Particle Accelerator Barbette

Engineering Control Room

Fuel Scoop

Triple Laser Turret

Manuever Drive

Jump Drive

Sensor

Thruster

Air Lock

Cargo Hold

Fuel Tank

Particle Accelerator Barbette

20dt GIG

Power Plant

Beam Laser

Missile Launcher

Cockpit

Air Lock

Enviromental Control

Power Plant
Fuel Tank

Thruster

Manuever Drive

MASA/MASA04's CE-400-class Mk-1120 from MASA.Ship's

```
CraftID:  CE-4020201, Type CLOSE ESCORT, TL 15, MCr 546
Hull:     360/900, Disp= 400, Config= 1SL, Armor= 58G
          Unloaded= 6282 tons, Loaded= 6675 tons
Power:    57/113, Fusion= 10170 MW, Duration= 1/3
             No Wpns, Scrns, Agility; M-3 = 2747 MW, Duration= 6/18
             No Wpns, Scrns, Agility; M-2 = 2000 MW, Duration= 20/60
             LifeSupport & Controls; M-0 =  500 MW, Duration= 60/180
Loco:     43/86, Maneuver= 3
          27/54, Jump= 4
          NOE= 190, Cruise= 750, Top= 1000, Vacuum= 2850
          Agility= 3
Commo: Radio= System x3, Laser= System x3, Maser= System x3
Sensors: EMMask, PasEMS= Interstellar x1, ActEMS= Far Orbit x1
          Densitometer= LowPen/250m x1, HighPen/1km x1
          Neutrino= min 10kw x1, EMSjammer= Far Orbit x1
            ActObjScan= Rout,  ActObjPin= Rout
            PasObjScan= Rout,  PasObjPin= Rout
            PasEngScan= Simp,  PasEngPin= Rout
Off:      PartAcc= xx 2
            Batt        2
            Bear        2
          BLaser= xx4
            Batt        2
            Bear        2
Def:      DefDM= +13
          ArmorDM= -6, SizeCd= 4
Control: Computer= Model/9fib x3, Panels= HoloLink x25
          Special: HUpHoloDisp x2
          BasEnv, Bas LS, Ext LS, Grav plates, Inertial comp
Accom:  Crew= 14 (1 x 14), Staterooms= 8
          Bridge= 2, Engrng= 1, Mtce= 0, Gunnery= 1, Flight= 3
          Troops= 5, Command= 2, Stewards= 0, Frozen= 0, Medical= 0
          HiPass= 0, MidPass= 0, LowPass= 0, LowBerth= 0, EmerLow= 2
SubCraft:20dt Gig x1
Other:    Fuel= 2510 kliters,  Cargo= 217 kliters
          Fuel scoops, PurificationPlant (48hours)
          ObjSize= Average, EMLevel= Faint
Design Notes
          Mcr 437 in quantit
```
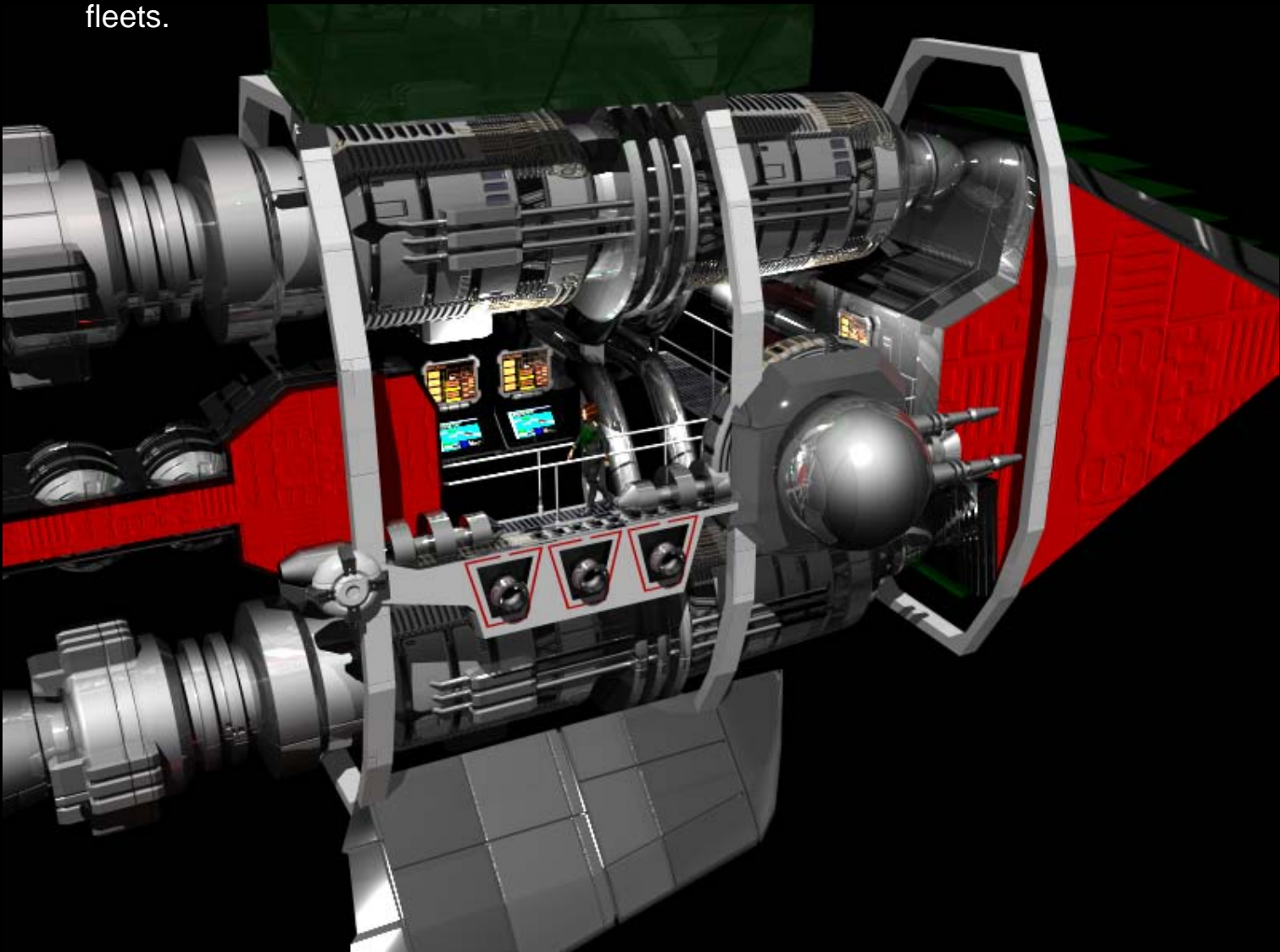
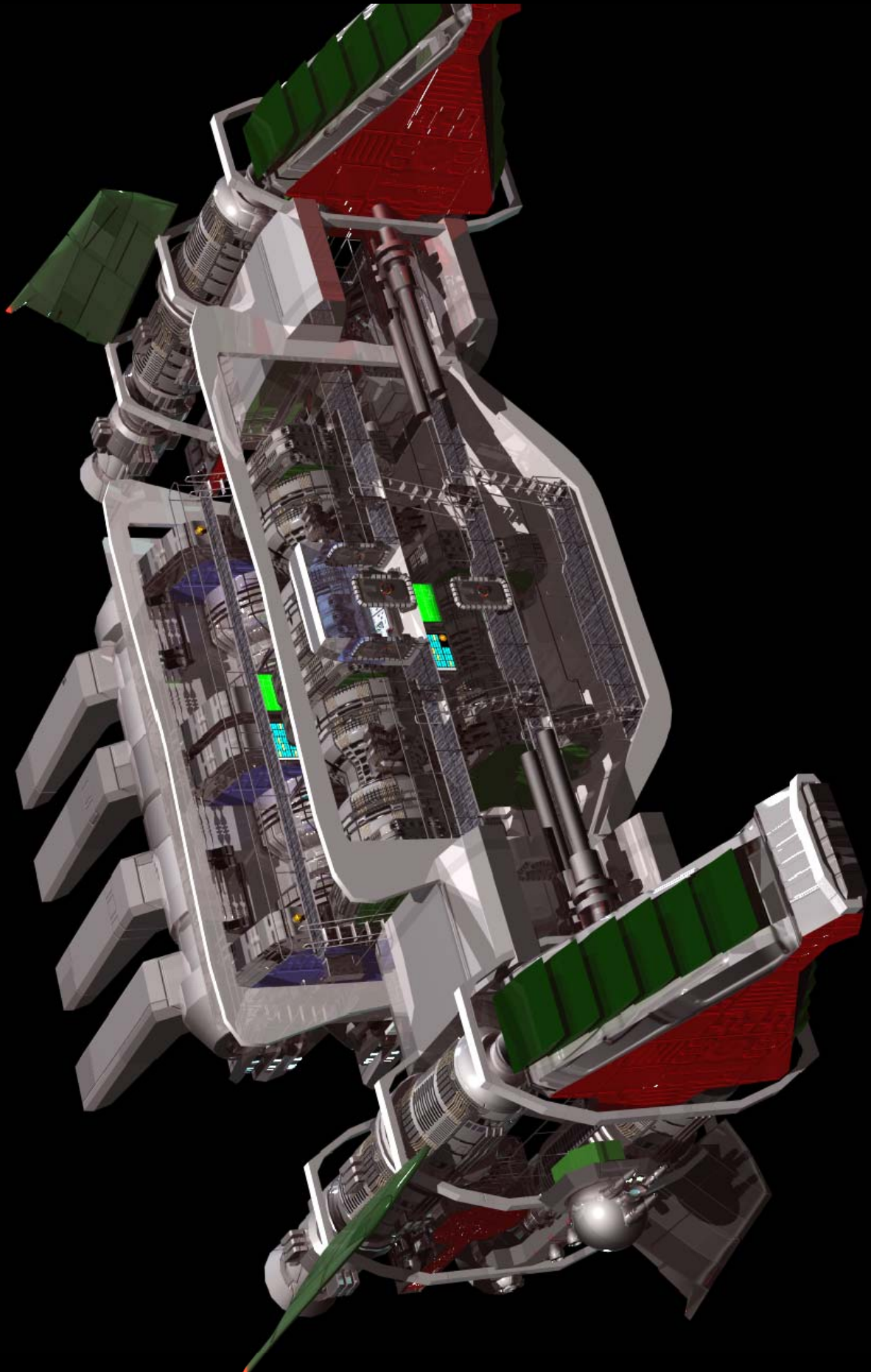# Detail of SIENO Class Close Escort

Hull

The hull shape and structure has not changed except for the combining the internal fuel tanks with that tankage previously in the drop tanks. The hull is a streamlined needle/wedge configuration with 2 maneuver drive pods. Hull armor has been strengthened greatly, in light of the lessons of FFW combat. If navies commit this ship into large scale fleet actions, it is able to play a role in the fleet fighter squadrons. The streamlined configuration allows refueling by skimming gas giants.

Power& Locomotion

This ship uses 4 2,400Mw and 1 570Mw fusion power plants; 4 Mk-100 double impulse maneuver drives, and 4 Mk-200 jump drives, generally. Individual yards may substitute equivalent models of the equipment, however, depending on contract specifications; models headed to sub-sector or system navies may use converted commercial base drives, while Imperial Navy ships will tend to use the exact type of drives based on more stringent contracting standards. Acceleration 3G and FTL jump 4 is sufficient for the missions of this ship, making it possible to operate with all of the main Imperial numbered fleets.

This ship does not have sufficient fuel for longer tanks, so is not ideal for long-term interstellar missions without refueling. This is a common issue of small escorts, however, and is not really seen as a problem. This ship is able to jettison either port or starboard drive pods in an emergency.
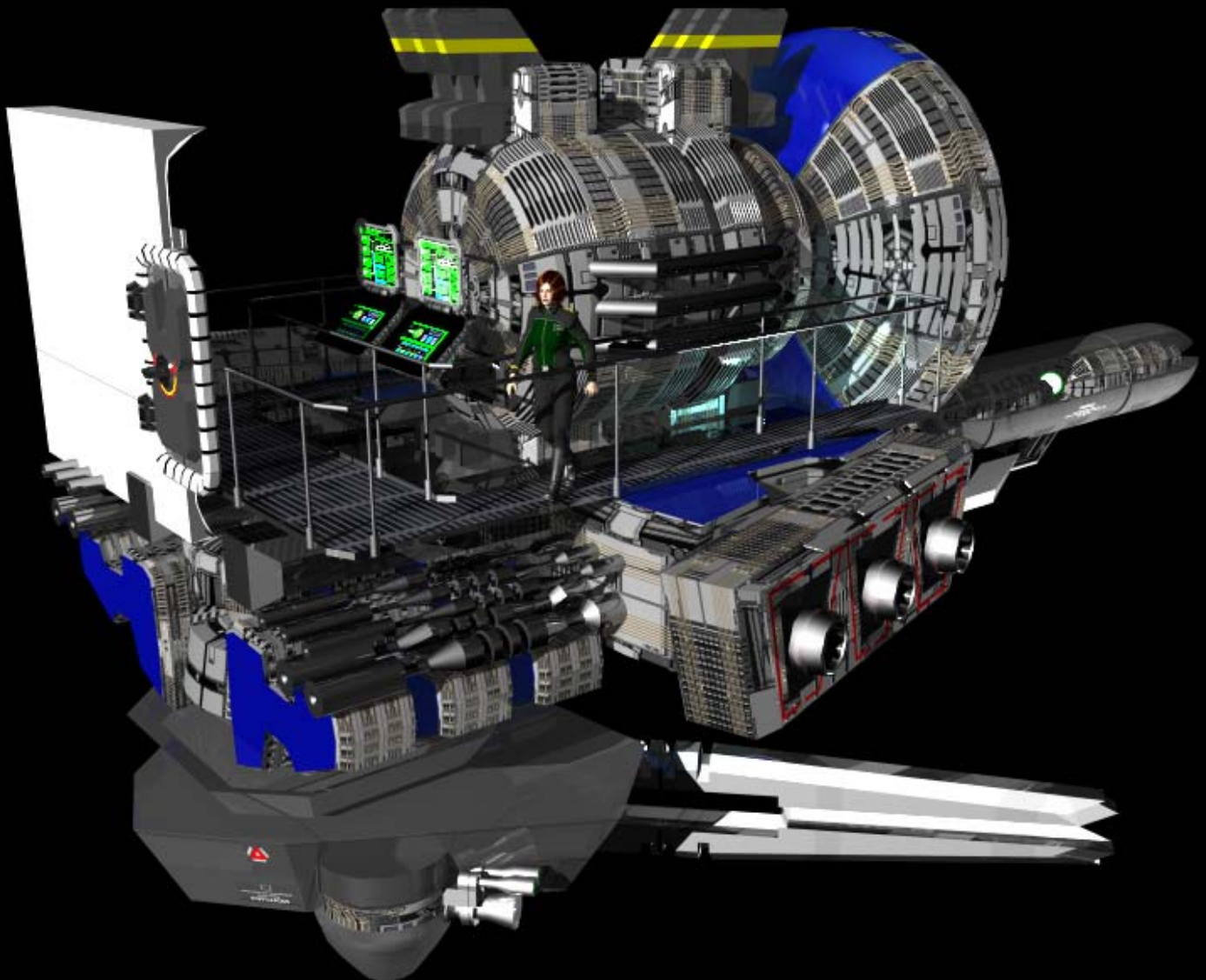
Communication

This ship is equipped with 3 RS-15A radio communication systems, 3 LS-15A laser communication systems, and 3 MRS-15A maser communication systems; it is therefore able to manage communications and information under diverse tactical conditions.

Sensor

This ship mounts EMMask, a PEMSF-IS/8 passive EMS (Interstellar), an AEMSF-FO/7 active EMS (Far Orbit), a DSF-Lw25 densitometer (250m), a DSF-Hi1000 densitometer (1000m), an NSF-10 neutrionmeter (10km), and an EMSJF-FO/4 EMS jammer (far orbit). These systems are the newest and most capable models manufactured by of the LSP-affiliated ANSON, which are also capable of operating under the I/O code F6980 of Imperial Navy tactical data link system. Many military ships have already been equipped with these communication systems.

Weapon

This ship equips 2 of particle accelerator barbettes and 2 high power triple laser turrets on 4 weapon hard points. However, there is a variant model of replacing particle accelerator barbettes with triple missile turrets. These weapons are overkill against common enforcement threats, such as traders, smugglers and corsair ships.

Particle accelerator barbettes also prove problematic in guunery exercises. Particle accelerator barbettes are mounted ventrally forward and dorsally a bit farther aft, while the triple laser turrets are mounted on port and starboard drive pods.

These weapons are operated form the bridge and oriented to concentrate firepower forward arc. Since a small gunboat like this ship has no capacity to power defensive screens such as nuclear dampers, it is particularly vulnerable against nuclear weapons.

Control

The control functions for the whole ship are concentrated in the bridge, which has 4 seats for a pilot on left front row, a gunner on right front row, a skipper on left back row, and an engineer on right back row. In addition there are 2 reserve seats on the bridge. This ship uses 3 Model 9/fib computers with 25 HoloLink and 2 HUpHoloDisp also installed the newest FCS. These systems are the newest and capable models of LSP-affiliated ANSON, and mounted on all of imperial fleet these days, but some "monkey models" sold to provincials only mount a Model 6/fib.

A life support throughout the ship is provided by a basic environment system (heat, lights), a basic life-support (sealed environment, atmos, water), a extended life support (food, waste recycle), an artificial grav Plates and inertial compensators.

Accommodation

The officers use individual staterooms and enlisted use dual occupancy staterooms. Each stateroom has bed, fresher, storage and multi mode monitor.

The bed is the standard size bunk, which folds into the cabin wall. Grav plates can be adjusted to provide a range from 0.0 to 1.5 G for personal comfort.

The fresher includes a multi-function shower, toilet and sink. All components fold unobtrusively out of the way when not in use.

Multi mode monitor relieves the boredom of the long patrol operations by providing entertainment, research facilities, and computer access. The wide range of entertainment activities includes holographic theatrical productions, video shows, interactive drama, and audio programming.

The computer terminal also allows access (on a restricted basis) to the main computer for data processing.

This ship has 2 emergency low berths, each can hold up to 4 persons, all of whom share the revival roll. An emergency low berth can hold one conscious person for several hours at a time.
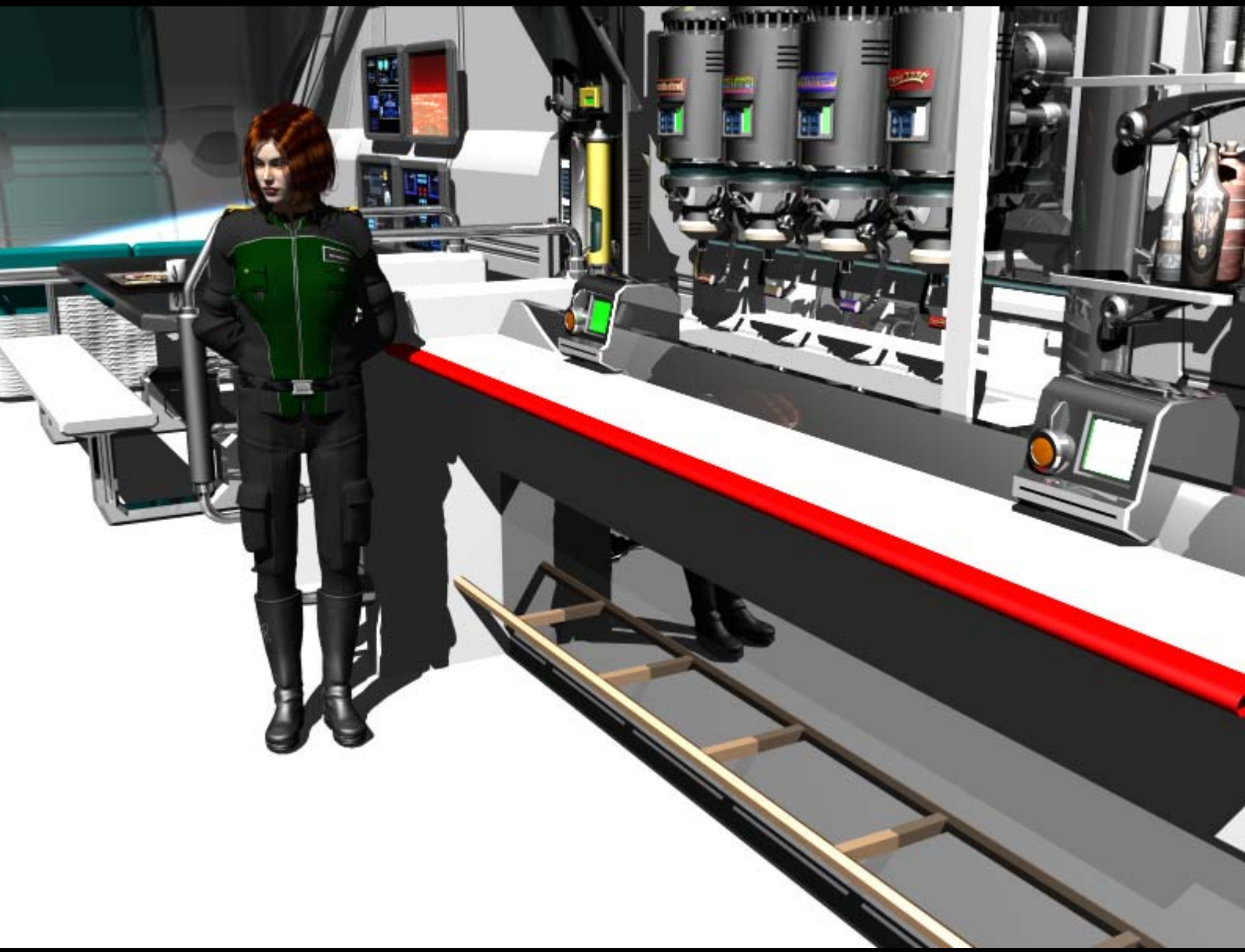
The common area is able to be variously outfitted for dining, conferences, training, and entertainment. Large 3D monitors are installed on walls and ceiling of the room, which give crews a choice of landscape views. The common area also has a small galley for preparing crew meals, with automated pantry storage in the overhead.

The crew of this ship consists of 2 command personnel, 2 bridge staff, 1 engineer, 1 gunner, 3 gig crew, and 5 troops (in most cases). However most navies do not normally want to dedicate 3 crewmembers to the gig crew, and the ship is often operated by as few as 6 crews, with a lieutenant or a sub-lieutenant as a skipper.

For example, CE-0403 Edomount has a lieutenant skipper, an ensign pilot (doubling as the gig pilot), a petty officer first class engineer, a petty officer third class gunner and 2 spacehand apprentices.

Watch crews are therefore not sufficient for round-the-clock coverage, so ship's troops help with the ship operation normally, with crews really only able to get sufficient rest in the jump space. The junior skipper of this small warship bears heavy work load, but also has great latitude to make discretionary decisions. These small naval crews work and exist in very close quarters through stressful times, often becoming almost like family.

Sub Craft:

This ship carries a 20dt gig, used for light courier, transport and patrol missions. It is capable of 6G acceleration, and is armed with a single laser and 2 missile racks in battery. The gig carries 1 emergency low berth, (with a total capacity for 4) which allows the gig to be used as a lifeboat when necessary. There is docking equipment mounted ventrally.
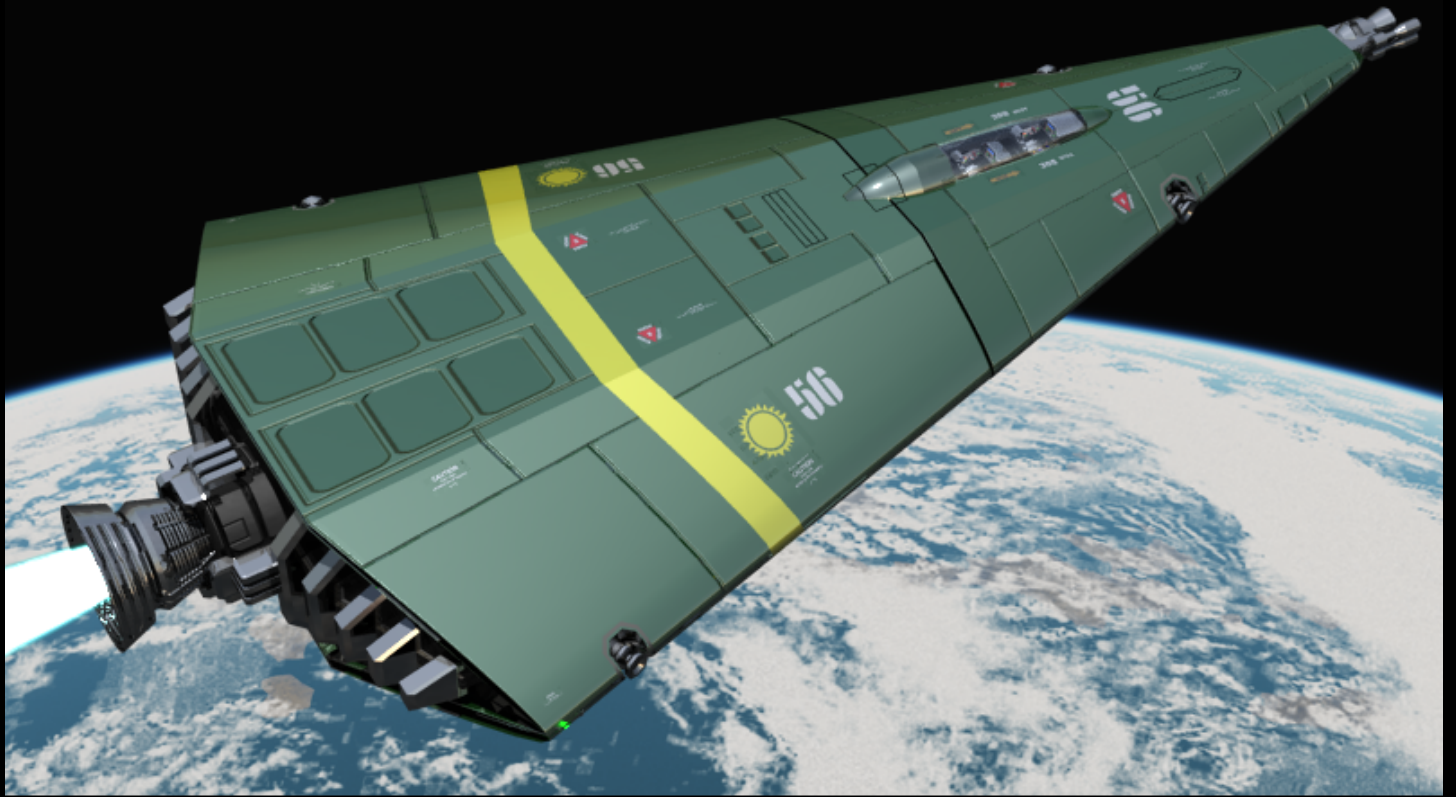
Others:

In mind of fuel supply situation during an operation on the frontier, this ship also has fuel scoops and a purification plant. This ship has 16dt of cargo hold.
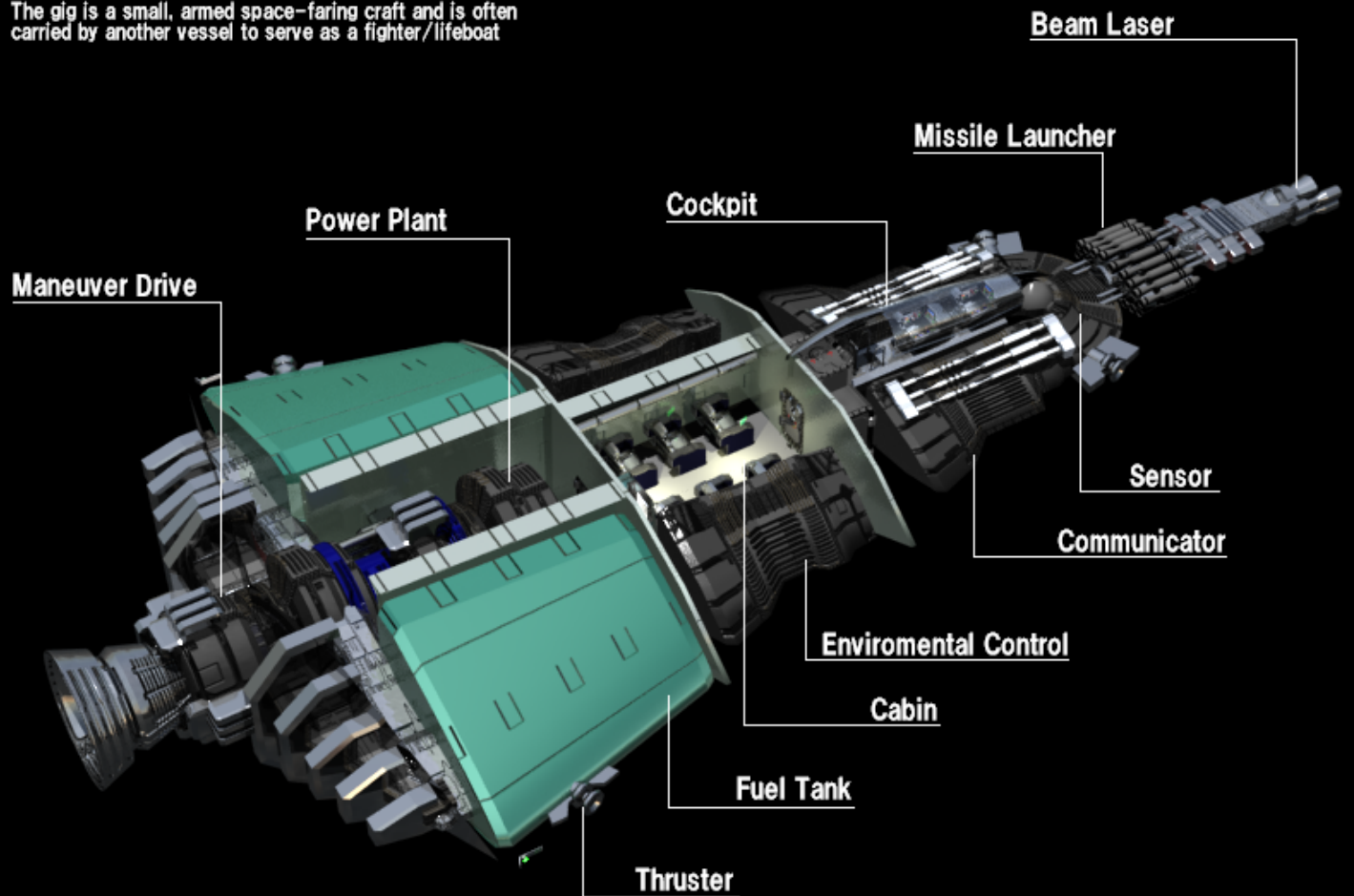
20dt GIG IMPERIAL NAVY

The gig is a small, armed space-faring craft and is often carried by another vessel to serve as a fighter/lifeboat

Beam Laser

Missile Launcher

Cockpit

Power Plant

Maneuver Drive

Sensor

Communicator

Enviromental Control

Cabin

Fuel Tank

Thruster

CraftID: G50, Type GF, TL 15, MCr 30
Hull: 18/45, Disp= 20, Config= 1SL, Armor= 40G
                Unloaded= 296 tons, Loaded= 309 tons
Power: 3/6, Fusion= 846 MW, Duration= 4/12
Loco: 3/6, Maneuver= 6
              0/0, Jump= 0
              NOE= 190, Cruise= 750, Top= 1000, Vacuum= 4200
              Agility= 6
Commo: Radio= System x1, Laser= System x1, Maser= System x1
Sensors: PasEMS= Interstellar x1, ActEMS= FarOrbit x1
              EMSjammer= FarOrbit x1
              ActObjScan= Rout, ActObjPin= Rout
              PasEngScan= Rout
Off: Missiles= xx 2
                  Batt   2
                  Bear   2
              BLaser= xx2
                  Batt   1
                  Bear   1
Def: DefDM= +11
              ArmorDM= 0, SizeCd= 0
Control: Computer= Model/3 x3, Panels= HoloLink x2
              Special: HeadsUpDisplay x2
              BasEnv, Bas LS, Ext LS, Grav plates, Inertial comp
Accom: Crew= 0 (1 x 0), Seats=Roomy 8
              Bridge= 1, Engrng= 0, Mtce= 0, Gunnery= 1, Flight= 0
              Troops= 0, Command= 0, Stewards= 0, Frozen= 0, Medical= 0
              HiPass= 0, MidPass= 0, LowPass= 0, LowBerth= 0, EmerLow= 2
SubCraft:
Other: Fuel= 41 kliters, Cargo= 10 kliters
              ObjSize= Average, EMLevel= Faint
Design Notes
              Mcr 24 in quantity

Variants:

Imperial Navy

Fleet Courier Model: In order to cover the shortage of fleet courier, at least 24 close escort are remodeled and assigned to the courier mission. This model replaces particle accelerator barbettes with triple missile turrets. This model has a smaller power plant, fuel tank and 60 cargo hold.

Mine-laying Model: Space mine is a type of missile with simplified guidance that waits passively until a target approaches, used to destroy trade and logistics traffic in a system. Mine-laying model can hold and dispense 3000 mines; it mounts missile turrets instead of laser turrets, and the cargo has been refitted as a missile magazine. This model can likewise be used for a missile artillery platform.
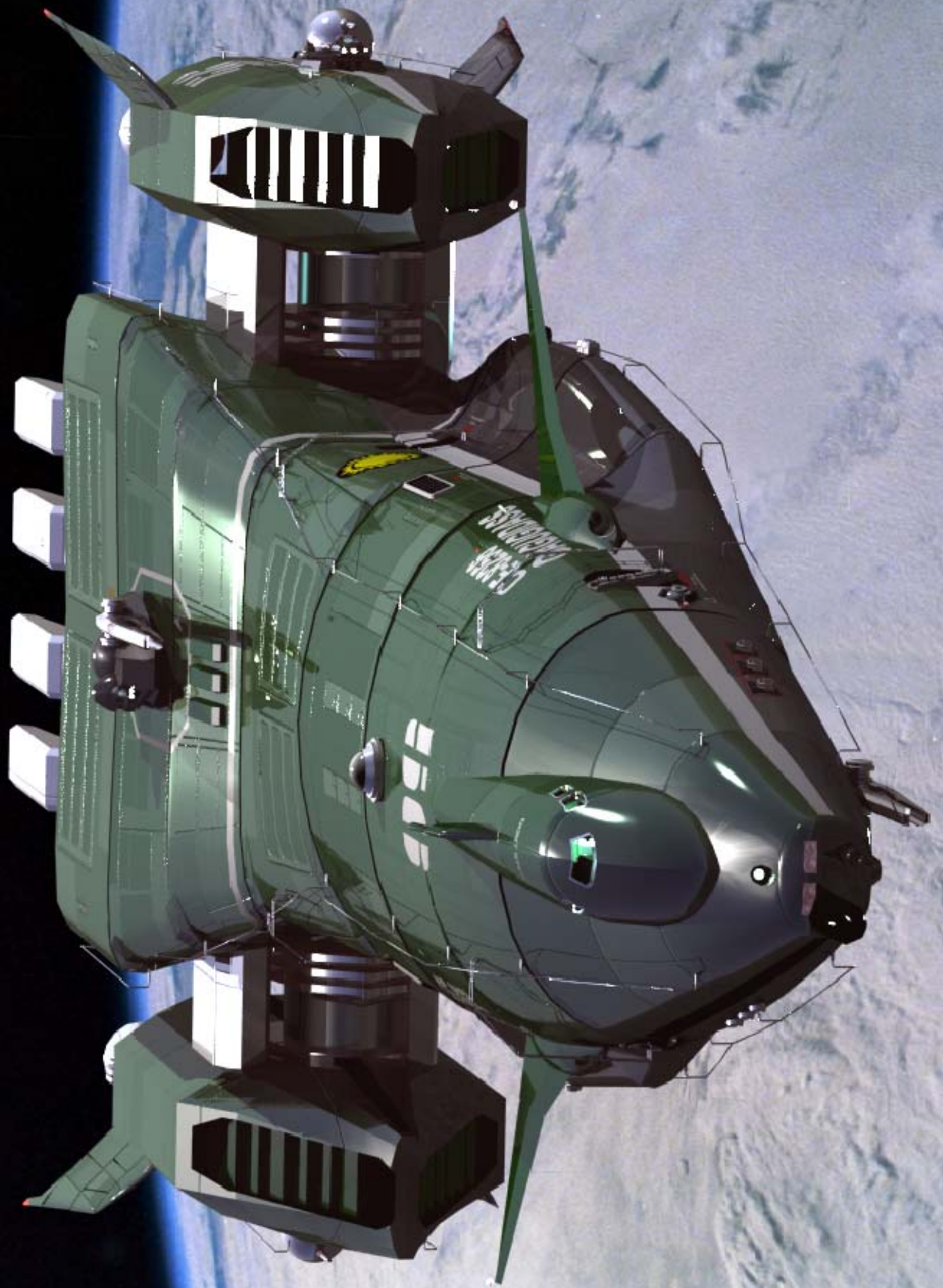
Special Force Model: Imperial marine reconnaissance units use this model. It can transport 2 squads with their full equipment, and can control the mission using dedicated communication systems. The 20dt gig is also remodeled for this mission, removing the emergency low berths. Laser turrets be replaced with missile turrets based on mission requirements, to allow the use of specialized munitions.

Imperial interstellar Scout Service

Scout: Since IISS has original systematic classification of ships, few naval type ships are in commission as IISS ships. In the background, there are the traditional inter-service rivalries between the Imperial Navy and IISS. However, the Imperial Navy has relegated 17 close escorts to IISS for the scout loss replacement requisitioned by imperial navy during FFW. IISS uses this model for heavy scout in frontier sub-sectors. Plans have been made to replace weaponry will missiles and sand casters, and downgrade the power plants to allow longer endurance for some ships.

System Navy Model

Patrol: This model uses as a patrol ship. This model replaces particle accelerator barbettes with triple missile turrets, and other equipment is also downgraded; it has FTL jump 3 drive, 0 agility and Model 3/fib computers. On the other hand, boarding bridge and high penetration sensors are added to aid in customs inspections.

Credits

Staff

Ship Design: MAG
CG Models: MAG
Supervising Editor: Sam Swindell and Craig A. Glesner
Web Master 化夢宇留仁

Generators

Ship Design: Cray Bush's Worksheet for Lotus 123

3D Modeling

Ships: Shade 8.5
Figures: Poser6J
Rendering: Shade 8.5， Vue9