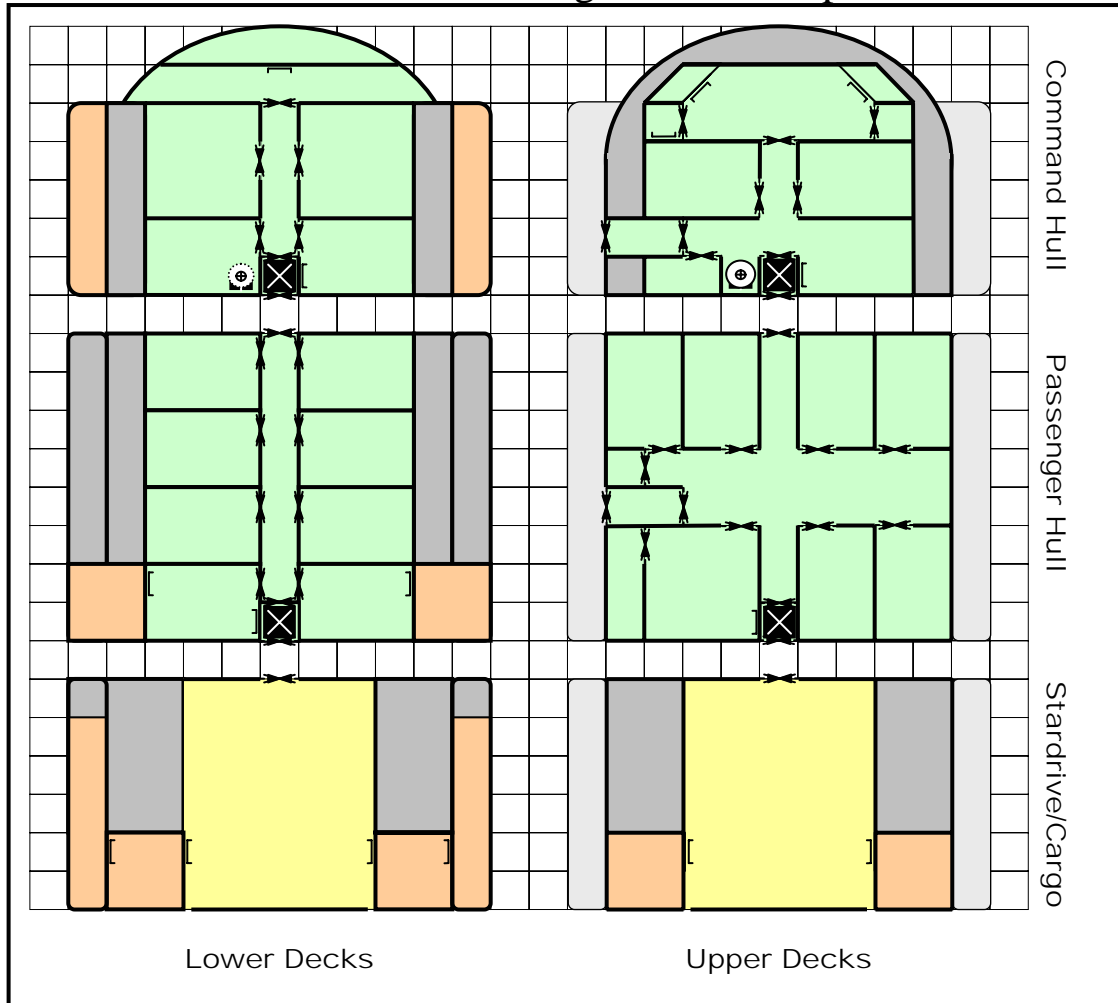


The *Starchaser*: 200 Ton Cargomasters Corps Free Trader

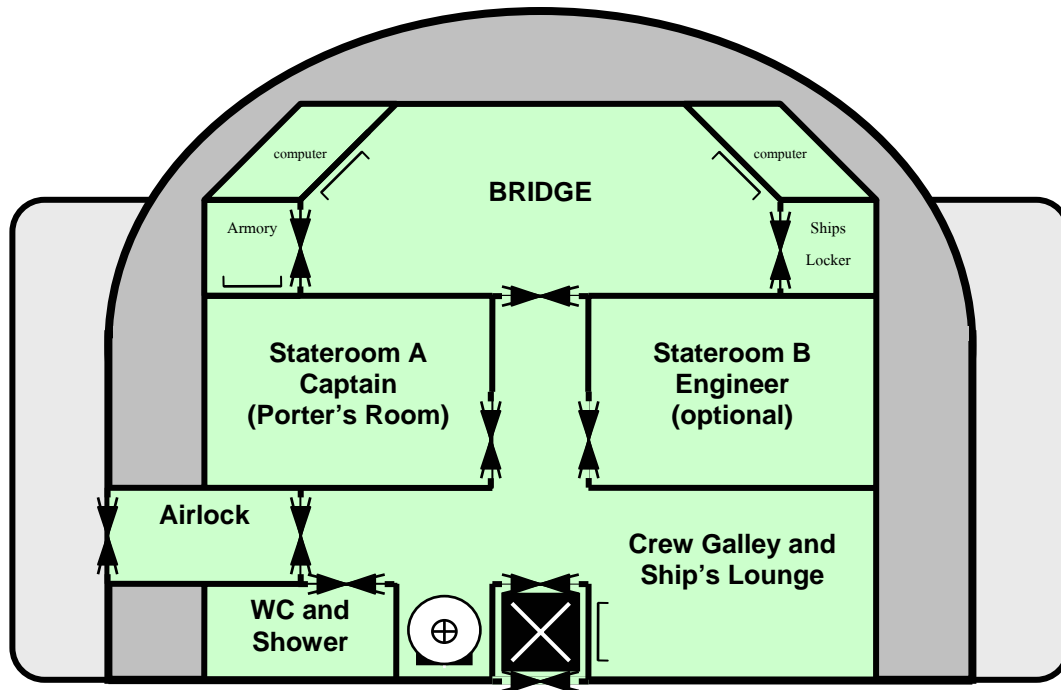


Cargomasters Free Trader - Stock Shipyard Configuration: (TL 10)

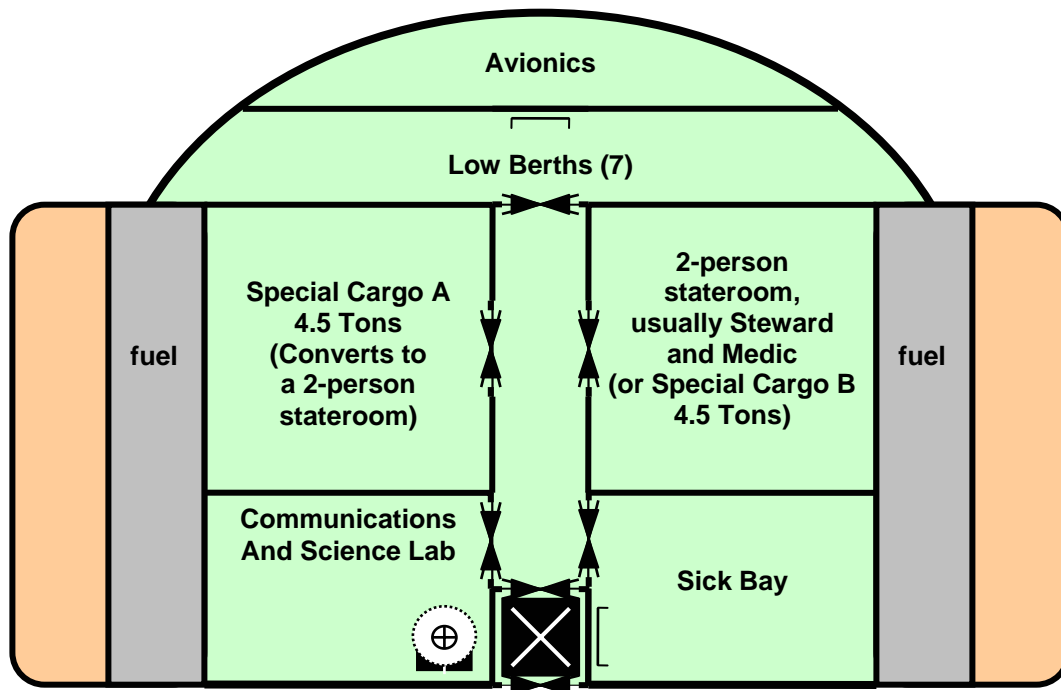
200 ton, 3-part hull (60/80/60 tons actual displacement), streamlined.

- **Command Hull** – 60 Tons, 13 Tons fuel, P-Plant A, Maneuver A
 - Bridge, Computer Ibis, fire control
 - 2 staterooms for crew (Pilot/Engineer and optional Navigator/Steward)
 - 2 double staterooms (Mid-Passage or usable for 9 Tons Special Cargo)
 - 7 Low Berths
 - Automated sick bay (Medic), Science and Communications Lab, Ships locker, Armory
 - 1 hardpoint for concealed turret, triple missile rack installed.
- **Passenger Hull** – 80 Tons, 12 Tons Fuel, P-Plant A
 - 12 staterooms (High Passage), Suit Locker with 12 Vacc Suits
 - High Passage amenities, including dining room, entertainment, galley and lounge.
 - Auxiliary P-Plant allows independent life-support operation for 4 weeks.
- **Stardrive / Cargo Hull** – 60 Tons, 17 Tons Fuel, Jump Drive A, Maneuver A
 - 1 hardpoint for concealed turret, triple missile rack installed.
 - 30 Tons Cargo space, with movable deck that can split it into two airtight levels.
 - Two 15T decks with 3 Meter Ceiling Height, or
 - One 30T deck with 6 Meter Ceiling Height
 - 2 tons unused engineering space
 - Rear cargo doors: Lower door becomes a loading ramp, while upper opens like an awning. They can operate independently when the cargo bay is divided into two decks.
 - No Power Plant. Must be connected to either Command or Passenger module for power and life support.
 - If connected to the passenger hull, but the command hull is absent, can still function at Jump 1, 1G acceleration, but has no capacity to refuel on its own. The engineering station in the cargo bay serves as an emergency bridge.

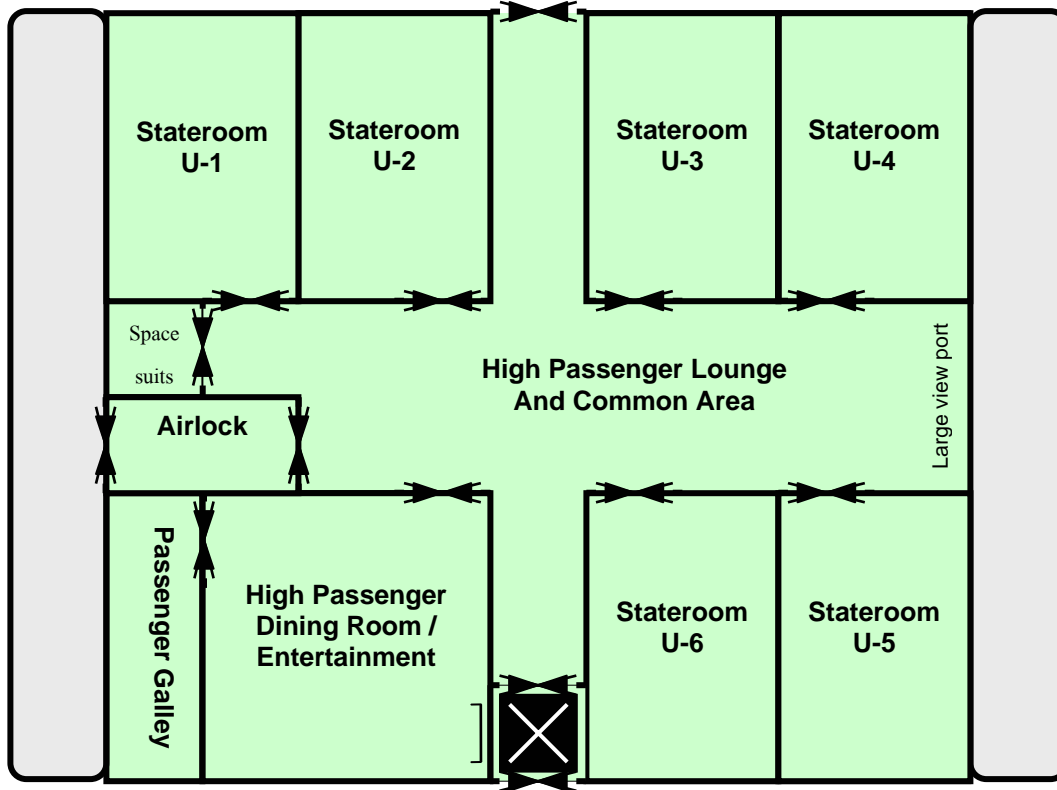
Ship: Porter's Bark – Section: Command – Deck: Upper



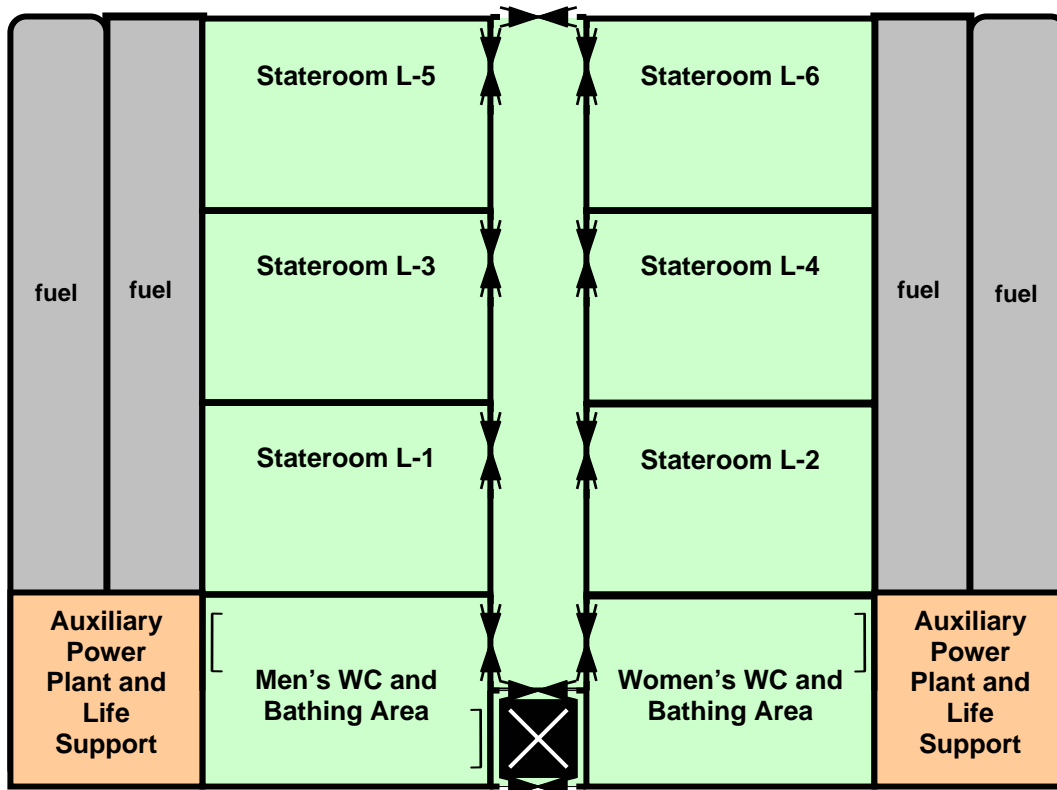
Ship: Porter's Bark – Section: Command – Deck: Lower



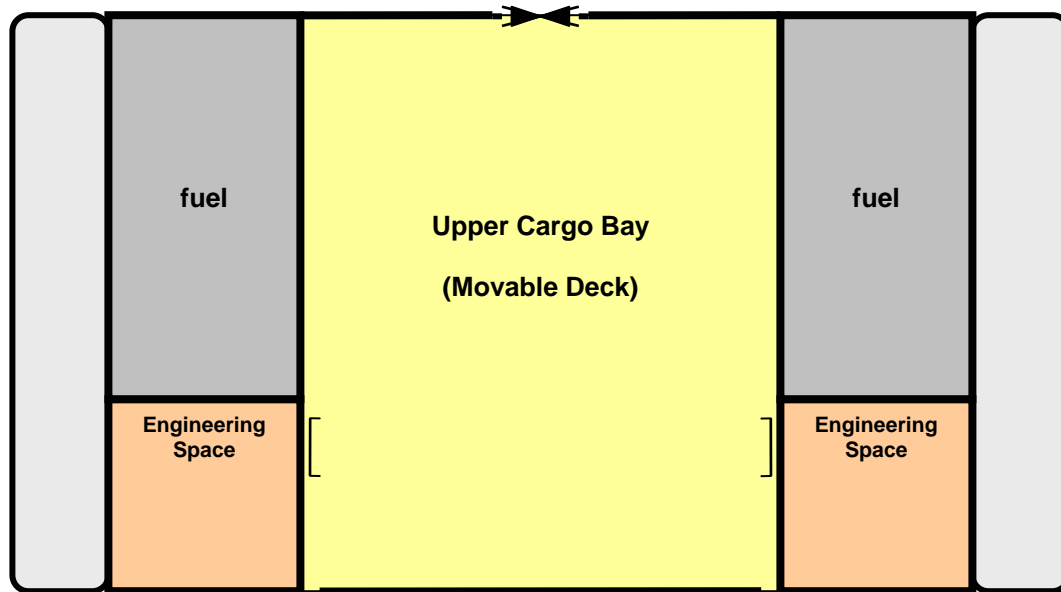
Ship: Porter's Bark – Section: Passenger Mid-Hull – Deck: Upper



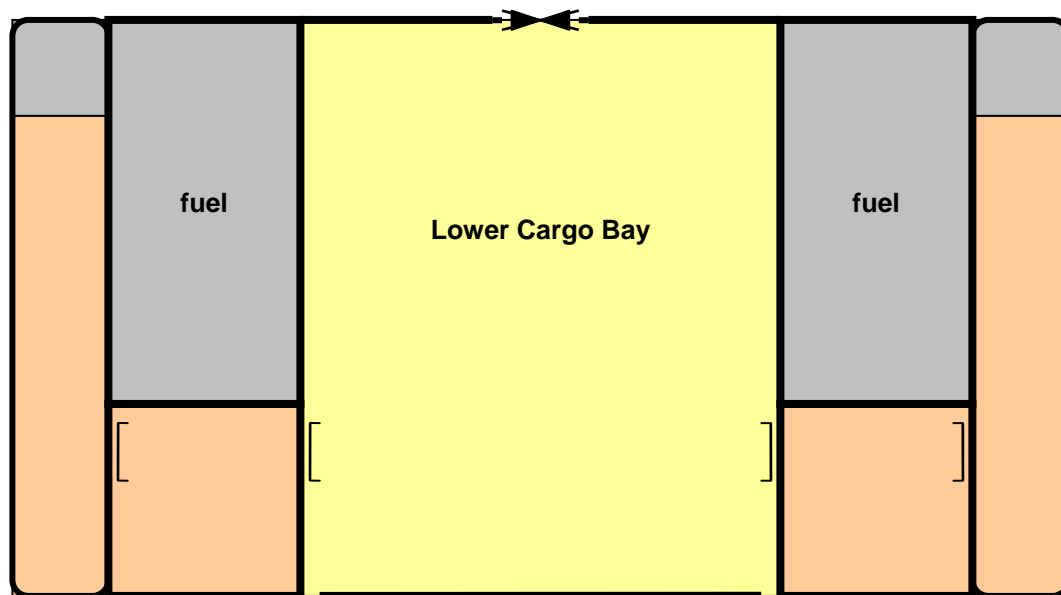
Ship: Porter's Bark – Section: Mid-Hull – Deck: Lower



Ship: Porter's Bark – **Section:** Cargo / Stardrives – **Deck:** Upper



Ship: Porter's Bark – **Section:** Cargo / Stardrives – **Deck:** Lower



Ship Configurations:

- **Cargomasters Free Trader**
All three sections used, 200 Tons Displacement, 42 tons fuel
 - Crew of 4: Pilot, Engineer, Steward, Medic
 - 12 High or Mid Passage, 7 low passage
 - 30 tons cargo, 4 1/2 tons special cargo
 - Capable of Jump 1, 1G acceleration
- **Interplanetary Shuttle**
Command and Cargo sections used, 120 Tons Displacement, 30 tons fuel
 - Crew of 1: Pilot (Plus a Steward if High Passengers taken)
 - 2 High or 3 to 5 Mid Passage, 7 low passage
 - 30 tons cargo, 4 1/2 or 9 tons special cargo if the double staterooms are used that way
 - Capable of Jump 2, 2G acceleration
- **In-System Passenger Shuttle**
Command section only, 140 Tons Displacement, 15 tons fuel
 - Crew of 2: Pilot, Steward
 - 12 High plus 2 to 4 Mid Passage, 7 low passage
 - 4 1/2 or 9 tons special cargo if the double staterooms are used that way
 - Capable of 2G acceleration, 6 weeks operation without refueling
 - No Jump Capability
- **In-System Fast Shuttle / Escape pod**
The command section can separate from any of the above configurations to operate independently.
Command section only, 60 Tons Displacement, 13 tons fuel
 - Crew of 1: Pilot (Plus a Steward if High Passengers taken)
 - 2 High or 3 to 5 Mid Passage, 7 low passage
 - 4 1/2 or 9 tons special cargo if the double staterooms are used that way
 - Capable of 4G acceleration, 5 weeks operation without refueling
 - No Jump Capability

Other Configurations:

- **Small space station, planetary base, or emergency passenger drop.**
The 80 Ton passenger section may operate independently as a space station or surface base, or to evacuate passengers when the ship is in danger, while the command section tries to deal with the situation.
 - Power Plant A and 12 tons fuel.
 - Provides living quarters and life support for up to 12 people for up to 4 weeks.
 - One or more of the six staterooms on the lower level can be converted to hold scientific instrumentation, labs, or other mission-specific payloads
 - Has no maneuver or space drive, but has minor attitude adjustment jets to maintain a stable orbital position for a short duration.
- **Larger space station, planetary base, or emergency passenger and cargo drop.**
The 140 Ton passenger and cargo section combination may operate independently as a space station or surface base, or to evacuate passengers and cargo when the ship is in danger, while the command section tries to deal with the situation.
 - Power Plant A and 19 tons fuel
 - Provides living quarters and life support for up to 12 people for up to 8 weeks.
 - One or more of the six staterooms on the lower level can be converted to hold scientific instrumentation, labs, or other mission-specific payloads, and the cargo bay's 30 tons can be used for payloads that include satellites and other large objects.
 - Has no maneuver drive, but has minor attitude adjustment jets and can use the main drives to maintain a stable orbital position indefinitely.
 - Can execute a pre-programmed Jump 1 if sufficiently far from a planetary mass when dropped off.
 - With the optional maneuver drive, this two unit combination can still function at Jump 1, 1G acceleration, can safely perform a planetary landing, but has no capacity to refuel on its own. The engineering station in the cargo bay can function as an emergency bridge.

Ship Construction Notes:

Requires, at a minimum, a Tech Level 10, class "A" starport to manufacture this ship. (Requires TL 10 for the Gravitic Maneuver Drives (10G Accel), TL 17 for Portal Drives). Porter has upgraded several systems from these standard plans, using TL 17 Bernid technology).

Upgrades and Capabilities of ship:

Low Maneuver drives: Porter's ship actually uses a TL 17 gravitic system for low end maneuvering and in-system work. It uses gravity waves to move the ship, and can produce up to a 10G acceleration or deceleration. Inertial compensators protect the cargo and passengers from the acceleration stresses. They can get from a safe jump point to a planet, do what is needed on planet, and get back to a safe jump distance in about 3 days total.

High Maneuver drives: These are portal based, but do not require Porter's personal talents to operate them. This system moves portals over the ship, changing the vector and velocity almost instantaneously.

Interstellar Jump drives: The ship's FTL Drives can do a Hyperspace 'jump' of 1 to 2 parsecs, which takes one week of 'real time', but is instantaneous for those on the ship. (One parsec = 3.27 Light Years) Carries enough fuel to make two one-parsec jumps or one two-parsec jump, plus effectively unlimited maneuvering fuel for in-system travel. Can refuel using fuels scoops (preferably by skimming a gas giant, but can also crack water for fuel). Time between jumps is minimum of one hour (very unsafe), typically 16 hours (allows for maintenance, plotting a safe course, and refueling by skimming hydrogen or cracking water).

Bernid Jump: Porter can use his own psionic abilities (and personal power levels) to power an interstellar jump, if he uses the Heart of Light, which is a crystalline Psionic Amplifier. In this manner he can cause a portal to open that will allow an *instantaneous* jump of up to 12 light years (Perhaps farther. He's never tried to test his limits while using the Heart of Light). Expect him to be exhausted and extremely hungry if he really pushes his limits making the ship jump on his own, without using a psionic amplifier. A 'Bernid Jump' is not limited for proximity to planetary or stellar masses, or for recharge time between jumps. (But does drain his abilities rapidly). Note that Porter can, if necessary, tap external power sources such as a ship's power plant, and use that to recharge his own power levels. Restoring the personal power needed for a one parsec jump, by tapping his ship's power generator, would consume about 0.25 jumps worth of fuel, and take Porter about two hours.

Sensors

Long-range scanners can pick up big things like stars and planets at a range of 6 parsecs (roughly 20 light years).

Short range scanners can pick up something the size of his shuttle at a range of one parsec.

Proximity sensors can pick up objects about half the size of a man at 0.5 light years, and down to the size of a wrench at 0.25 light years.

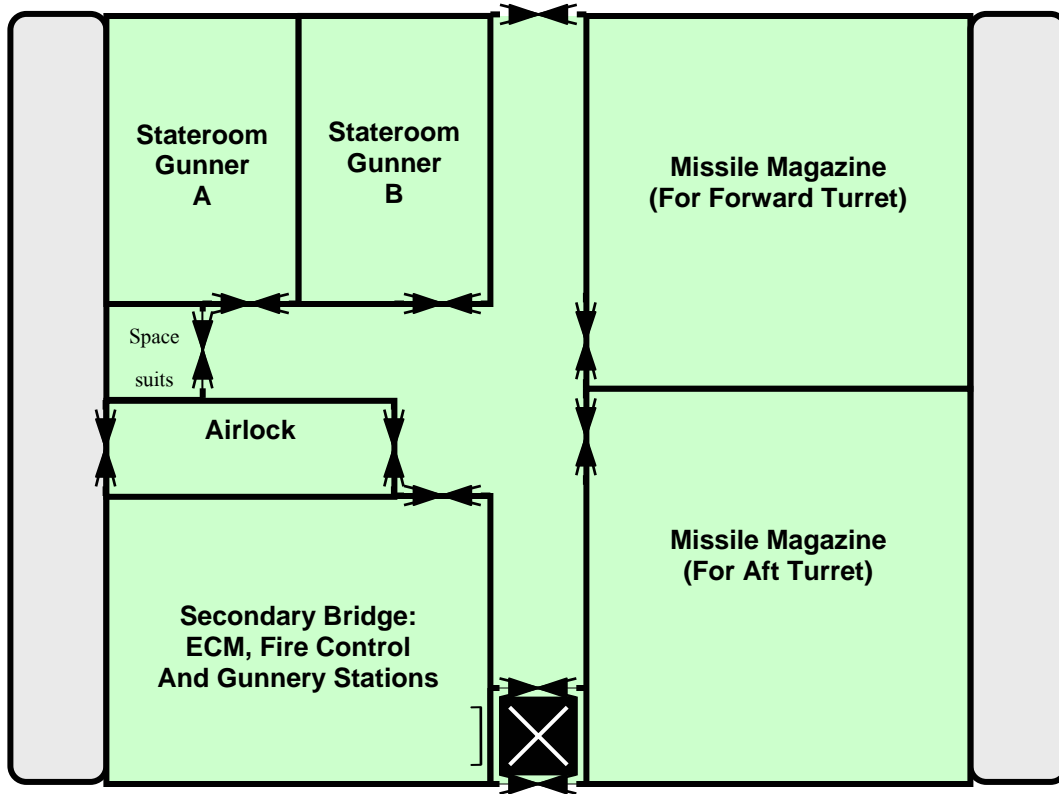
Sensor range / Scanning time required:

- * Anything within 0.5 light years is on the proximity sensors in real-time.
- * It takes 30 seconds to do a full short-range sensor sweep of a parsec.
- * It takes one hour to do a full long-range sensor sweep, to 20 parsecs out.

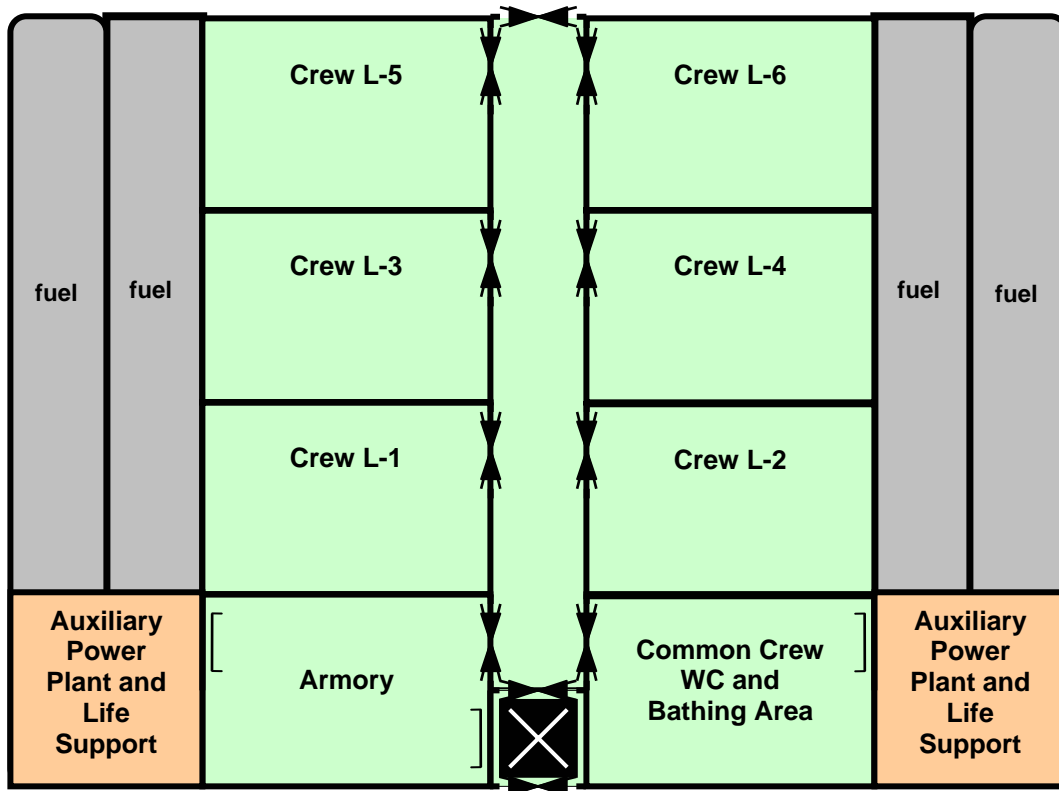
Armament

Normally the ship is unarmed. It has two hardpoints for pop-up missile turrets, but they are only equipped for combat missions. If the turrets are installed, the ship has two turrets with three missiles each ready to fire. Without the optional Far Trader mid-hull, the missiles have to be manually loaded via portals from the cargo bay. With the optional Far Trader mid-hull in place between the command and drive modules, the turrets are combat ready, with automatic loaders, missile selection capability, and separate fire control stations. The Far Trader hull has a magazine capacity in each bay of 4 racks of 18 missiles each, selectable from the 4 racks. (72 total per magazine). Thus, with the turrets and magazines at full capacity, it carries 150 missiles. Typically, half these are conventional explosive anti-ship warheads, one quarter are defensive ECM and Sand/chaff payloads, and one quarter are long range sensor probes, scientific payloads, or other special-purpose missiles.

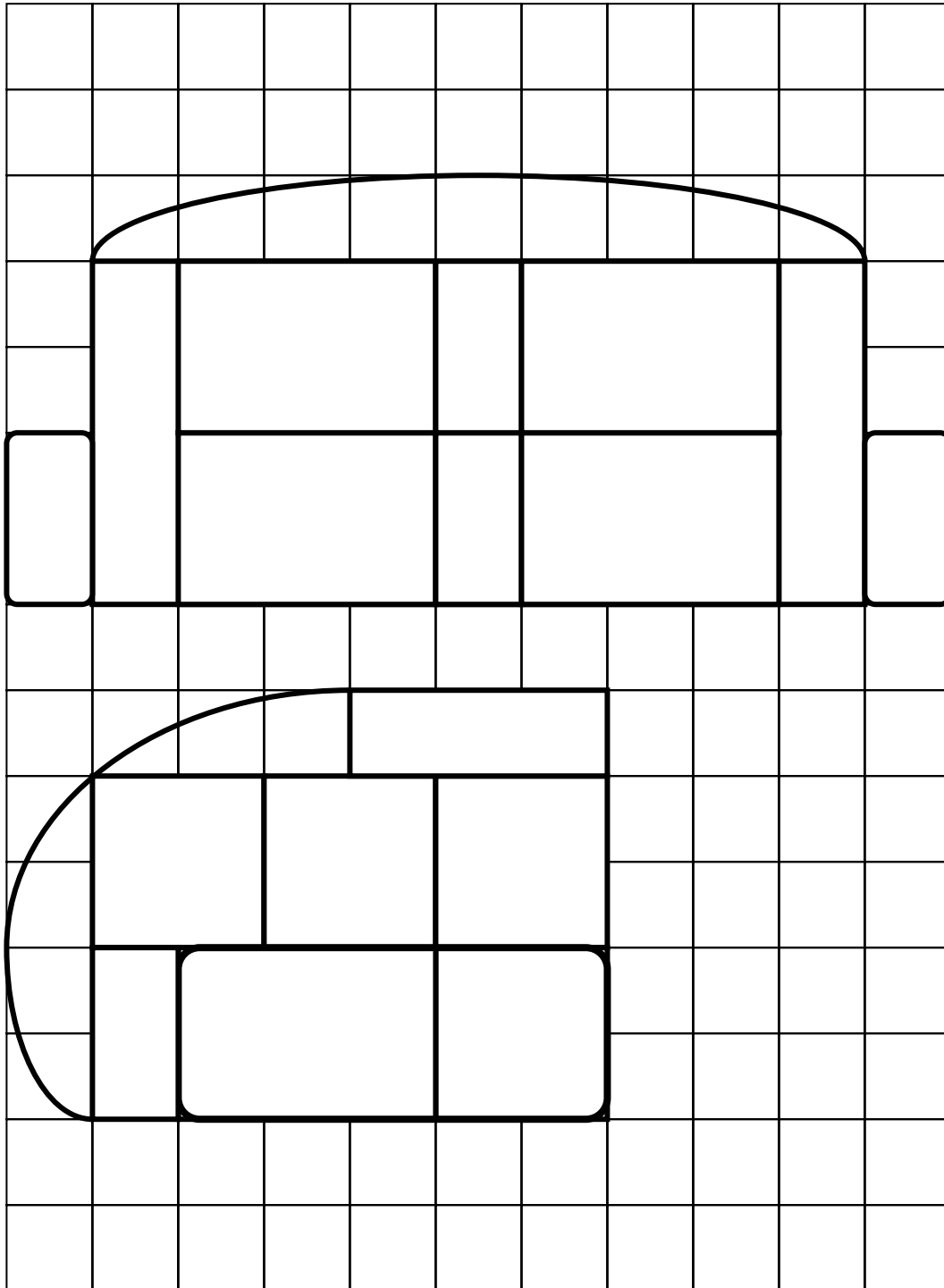
Ship: Porter's Bark – **Section:** Optional Far Trader Mid-Hull – **Deck:** Upper
 Allows use of two triple-mount missile racks with automated loading, and to be crewed for combat.



Ship: Porter's Bark – **Section:** Optional Far Trader Mid-Hull – **Deck:** Lower



Front cross-section and side cross-section of command module



Deck Plan Symbols for Traveler Ship Design Plans

2/10" grid = 1.5 Meters

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