



Type R

Subsidized Merchant
Flat-Top Variant

By Kerry Mould and Ian Stead



TRAVELLERS' AID
SOCIETY



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TRAVELLERS' AID
SOCIETY

Type R

Subsidized Merchant Flat-Top Variant

Credits

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DECK PLANS

Kerry Mould

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Ship Book: Type R Subsidized Merchant Flat-Top Variant

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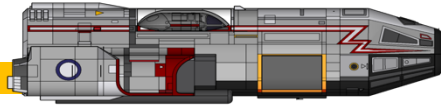
Dedication:

To the crew of the Serenity,

Joss Whedon,

and all those that helped bring
Firefly & Serenity to life,
you have my deepest thanks and admiration.

The light that burns twice as bright, burns half as long,
and Firefly burned very, very brightly indeed.



*Take my love, take my land
Take me where I cannot stand
I don't care, I'm still free
You can't take the sky from me
Take me out to the black
Tell them I ain't comin' back
Burn the land and boil the sea
You can't take the sky from me
There's no place I can be
Since I found Serenity
But you can't take the sky from me...*

*Words & Music by Joss Whedon
Performed by Sonny Rhodes.*

Can't Stop the Signal.

Type R - Flat Top Variant



WHEDON-CLASS TYPE R FLAT TOP VARIANT

The Type R Subsidized Merchant is a well-known and common class throughout the Third Imperium and beyond. The basic data package has been replicated by many shipyards. However, more than a few naval architects and shipyards have taken those specifications and decided to modify them to suit their own preferences. The *Whedon-Class Type R Flat-Top* is just such a variant.

The Flat-Top originated at the Whedon Shipyards on Cobham (Old Expanses 1835). Owner and naval architect, Joss Whedon, decided he didn't like the cylindrical main body and felt the wide wingspan took up too much room in starports. He flattened and squared off hull shape and put the fuel storage between the inner and outer hulls. Those changes were well received. Independent captains also liked that he left space for future turrets and ammunition. Other decisions, like stacking the passenger cabins at the back of cargo bay (blocking the rear ramp), upgrading to manoeuvre-2 (at added cost), and replacing a single 20 dTon launch with two, smaller, and more expensive 10 dTon runabouts (again increasing cost) were quite unpopular. Given the 31% premium over a stock Type R, the design was not a success as a merchant vessel.

Whedon also offered the Flat-Top in a jump-2 version, the Type RJ. This version can easily be modified to fill the role of safari ship, explorer yacht, or research vessel. The buyers of those types of vessels are typically less sensitive to purchase price than shipping lines. The Flat-Top's spacious common areas make for comfortable long-duration cruising and even though it gives up some cargo space for fuel tanks, there is still more than enough room for animal containment pods, modular laboratories, various vehicles, and all the supplies needed for longer trips. As a result, the pricier Type RJ has proven to be more popular and successful than its less expensive sibling.

INSPIRATION

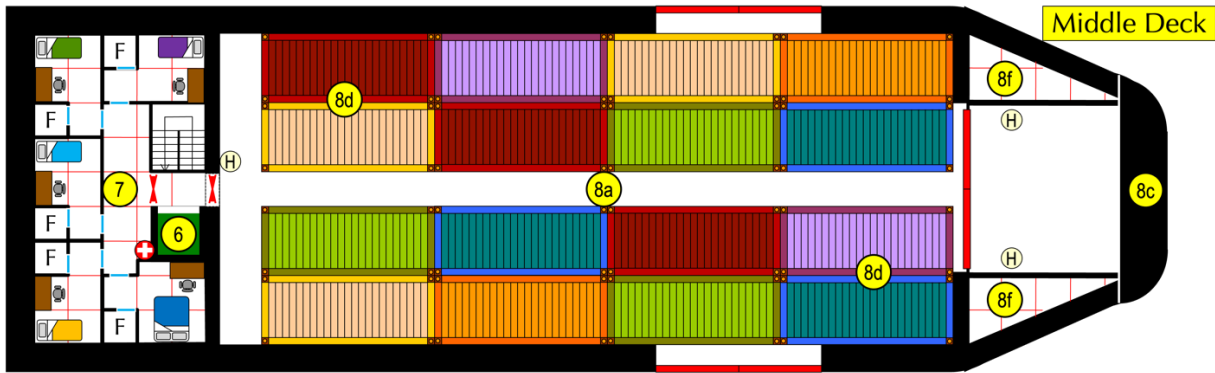
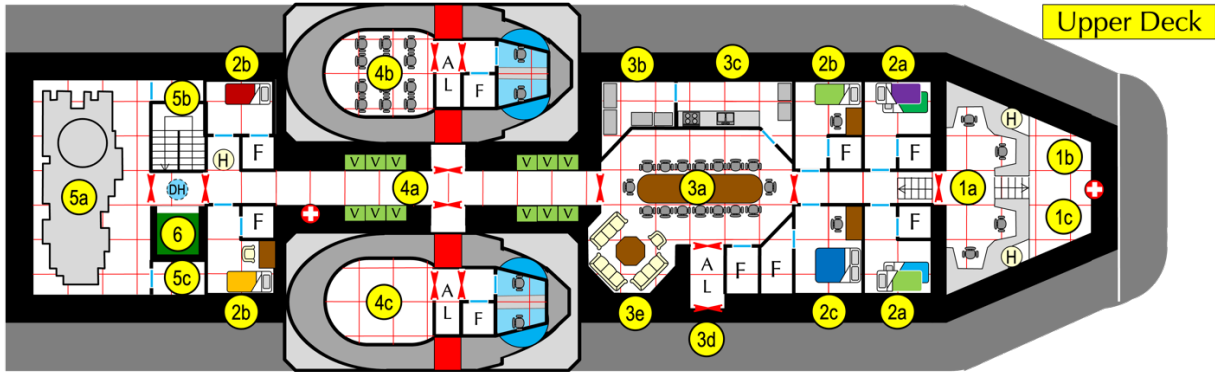
Joss Whedon developed the ship *Serenity*, a Firefly-class vessel, for the Firefly TV series and the movie *Serenity*. Joss has stated in interviews that he played in a Sci-Fi RPG campaign in college. Given the many similarities between the TV show and Traveller, it has been hypothesized that it was a ship-based tramp freighter campaign using the Type R Subsidized Merchant. See the original discussion thread here: <https://scifi.stackexchange.com/questions/13668/is-joss-whedons-firefly-based-on-the-traveller-rpg-he-played>

This article takes inspiration from that idea. It combines the Type R Subsidized Merchant with ideas and concepts from the *Serenity*. The goal is to blend the two into a ship that will be fun to use for some "thrilling heroics."

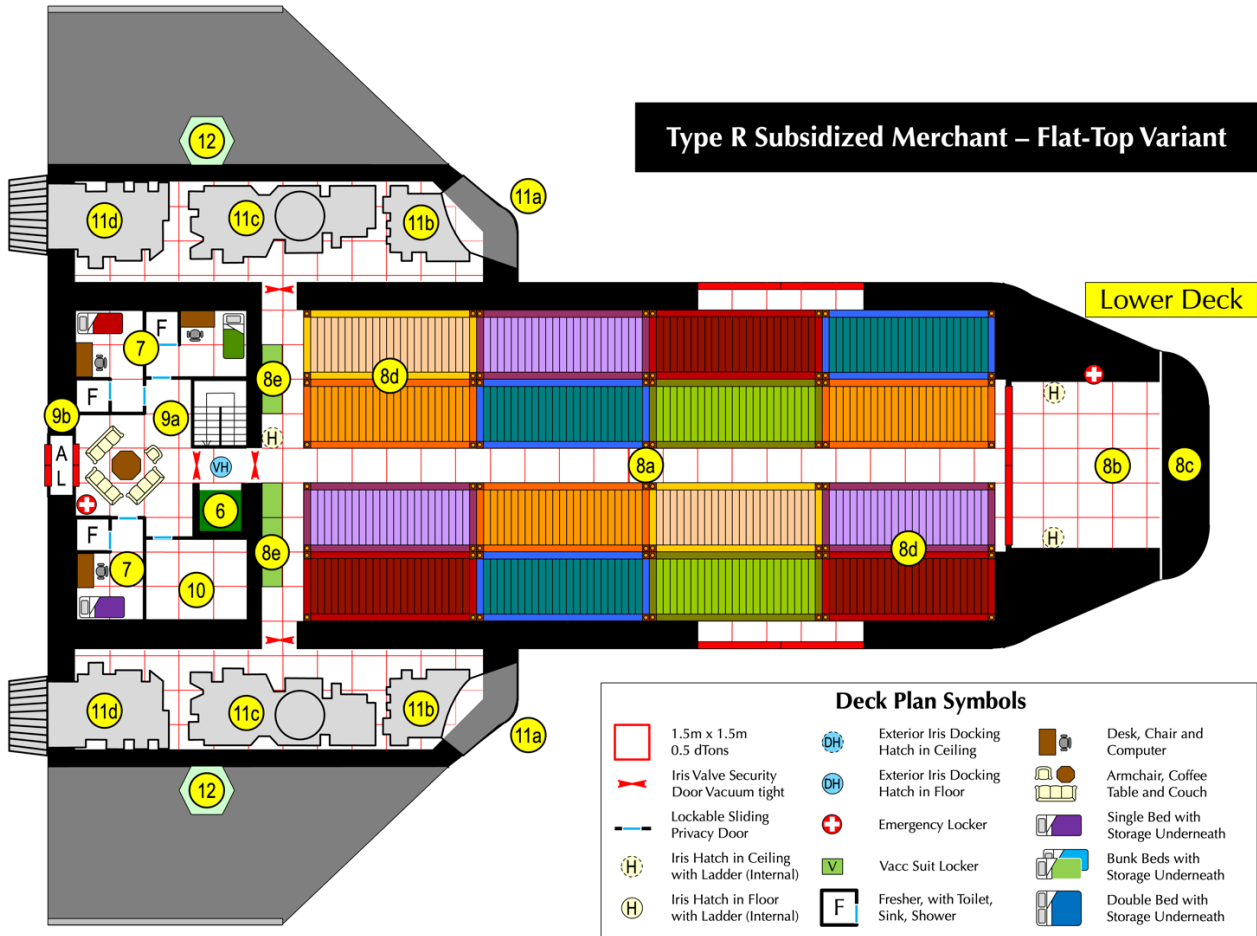
SPECIAL THANKS

I have been a longtime admirer of Ian Stead's starship illustrations. When I decided to develop this project for my own campaign, I reached out to him. He has been amazing to work with and very gracious, accommodating all my "helpful" suggestions without complaint. Thank you, Ian, for all your help.

Type R - Flat Top Variant



Type R Subsidized Merchant – Flat-Top Variant



Deck Plan Symbols			
	1.5m x 1.5m 0.5 dTons		Exterior Iris Docking Hatch in Ceiling
	Iris Valve Security Door Vacuum tight		Exterior Iris Docking Hatch in Floor
	Lockable Sliding Privacy Door		Emergency Locker
	Iris Hatch in Ceiling with Ladder (Internal)		Vacc Suit Locker
	Iris Hatch in Floor with Ladder (Internal)		Fresher, with Toilet, Sink, Shower
	Desk, Chair and Computer		Armchair, Coffee Table and Couch
	Single Bed with Storage Underneath		Bunk Beds with Storage Underneath
	Double Bed with Storage Underneath		

Type R - Flat Top Variant

MAP KEY:

1. Bridge: The command consoles (a) are located on an elevated riser to give them better visibility. The ship's two computers and avionics are under the bridge riser and accessed from the front (b). The bridge emergency locker and weapons locker (c) are built into the front wall. There are two access hatches (H) in front of the bridge consoles to allow the crew to climb down to the bow ramp in an emergency.

2. Crew Staterooms: The double cabins (a) have bunks and each house two junior crew members. The private cabins (b) go to the more senior crewmen. The chief engineer and flight engineer get private cabins next to the power plant. The captain's cabin (c) is the largest cabin. Each cabin has a private fresher (F).

3. Common Area: The spacious dining room (a) is shared by the passengers and crew; it is a distinctive feature of the Flat-Top Variant. The ship's pantry (b) includes perishables and a stockpile of preserved foods for emergencies. The galley-style, professional-grade kitchen (c) is exceptionally well equipped; it allows the cook to interact directly with the crew and passengers while cooking. The primary EVA and ship-to-ship air lock and docking port (d) opens into the common area. The lounge area (e) has a 3d projector for entertainment or briefings.

4. Scarab Class Runabouts: The access corridor (a) has storage for the crew's eight vacc suits plus four spares. Flat-Tops carry a pair of 10-dTon runabouts instead of the single 20 dTon launch carried by most Type Rs. The Scarabs land on cradles that extend out from the ship. Once a runabout lands, the cradle is partially retracted into the ship for transport.

One runabout (b) is configured to transport 12 passengers, while the other is the basic cargo variant (c). Scarabs have room for two crewmen, though they can be operated by only one. The vessel's cockpit has excellent visibility top and bottom. The runabouts come standard with a fresher, galley and airlock.

5. Power Plant: This compartment holds the ship's TL-12 fusion power plant (a), a workshop with machinery needed for repairs, and the controls that allow the chief engineer to keep tabs on all aspects of the ship's operations. The tool crib (b) contains all the tools needed for working on the ship. A supply of commonly required spare parts (c) is kept on hand to deal with normal maintenance and emergencies.

6. Stairs & Lift Shaft: This area extends across all three decks and is sealed off with vacuum tight security doors. The lift shaft is used to move heavy parts. The upper deck has a dorsal docking hatch (DH); there is a matching ventral hatch (VH) on the lower deck.

7. Passenger Staterooms: There are five passenger cabins on the Middle Deck and three on the Lower Deck. Each cabin has a desk, entertainment system, bed, and a private fresher. The smaller cabins size is balanced off by the larger common spaces.

8. Cargo Hold: Jump-1 Flat-Tops can carry a total of 177.9 dTons of cargo. The main cargo hold (a) can carry 160 dTons. The bow loading ramp (b) lowers down to allow roll-on/roll-off loading. The ship's nose (c) holds most of the ship's sensors. It opens upwards until it is level with the roof of the cargo hold. This allows access to the full six-meter height of the hold.

The main cargo hold can carry thirty-two 5 dTon cargo containers (d). The starboard and port loading doors are large enough to allow the passage of a small cargo container lengthwise. An additional 17.9 dTons of cargo can be carried on the loading ramp. The lockers (e) that line the back wall of the cargo hold contain cargo related tools, loading equipment and tiedowns for the safe storage of cargo. Basic ship maintenance supplies are also kept here.

Flat-Tops are notorious for what customs officers like to call "those troublesome little nooks," where undeclared items can be smuggled. The space next to the bow ramp (f) is one such place.

9. Passenger Lounge: In addition to the large common dining room, the spacious passenger lounge (a) is another distinctive feature of the Flat-Top. Fitted out with comfortable couches and an entertainment system passengers spend much of their time here during the jump. Most passengers board via the bow loading ramp and cargo hold rather than the extra-large airlock (b) at the back of the room.

10. Medical Bay: The addition of a medical bay (a) capable of tending to three patients helps put the passenger's mind at ease. Ships usually have at least one trained medic aboard.

11. Engine Rooms: The ship's engines are housed in nacelles either side of the main fuselage. The fuel scoops (a) allow it to skim hydrogen from the gas giant atmospheres. The raw fuel skipped from gas giants or water pumped from planets are refined into hydrogen fuel by the purification plant (b). The jump drives (c) power the grid built into the ship's hull, allowing it to "jump" from normal space to jump space. The Flat-Top's manoeuvre drives (d) are twice the speed of the basic Type R.

12. Landing Gear: The ship has four landing pads. They can be lowered to allow the ship to tilt forward or to rest its belly directly on the surface. The ship can hover on its grav field and slowly taxi when it needs to move around at a starport.

Type R - Flat Top Variant

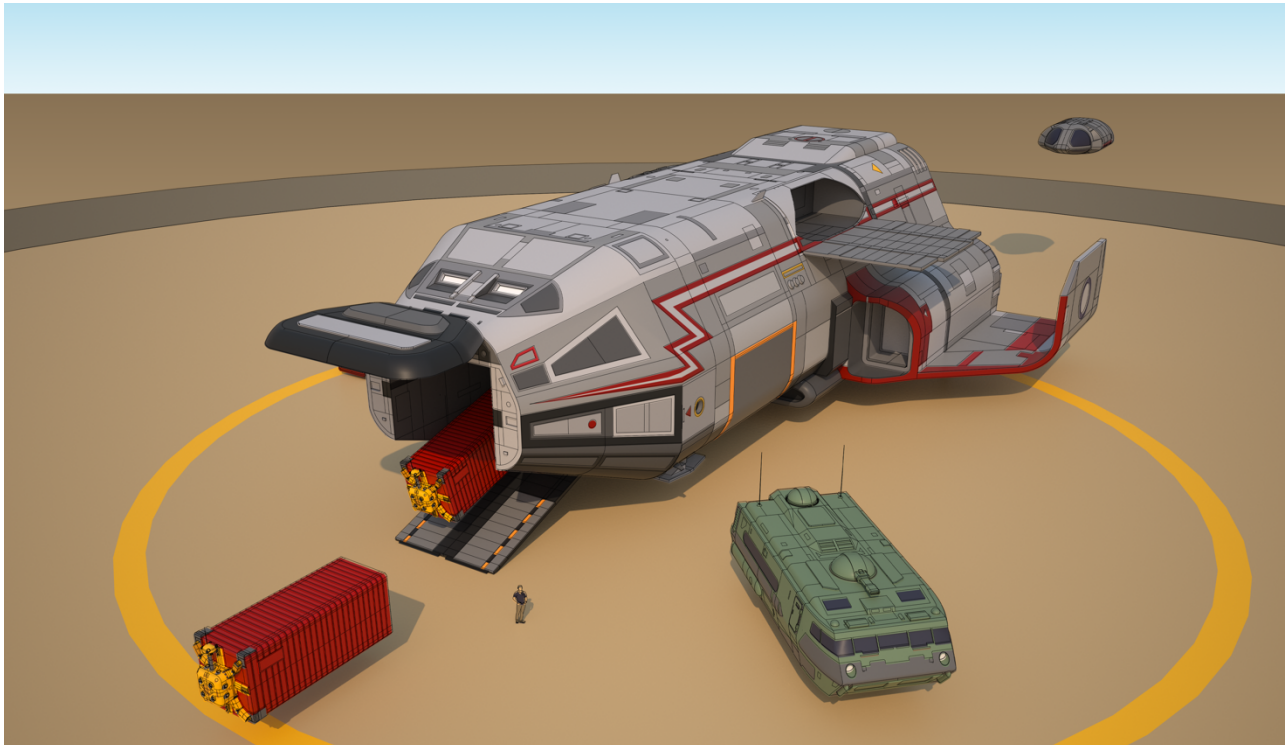
Type R Subsidized Merchant TL12		Tons	Cost (MCr)
Hull	400 tons, streamlined (+20%)	-	24.00
M-Drive	Manoeuvre - 2	8.00	16.00
J-Drive	Jump - 1	15.00	22.50
Power Plant	Fusion, TL-12 Power: 165	11.00	11.00
Fuel Tanks	Jump-1, 5.6 months operation	46.10	-
Bridge		20.00	2.00
Computer	Computer/10 TL-9 Backup Computer/5 TL-7	- -	0.16 0.03
Sensors	Civilian Grade TL-9 Power: 1	1.00	3.00
Weapons	4 hardpoints, space reserved for turrets	8.00	-
Ammunition	Space reserved for ammunition	6.00	-
Craft	Docking Space for 2 x 10 dTon 10 dTon Scarab Runabout (passenger) 10 dTon Scarab Runabout (cargo)	22.00 - -	5.50 3.04 3.01
Systems	Fuel Scoop Fuel processors (40 tons/day) Power: 2 Concealed Compartments Medical Bay	- 2.00 2.00 4.00	1.00 0.10 0.04 2.00
Staterooms	2 x double (crew) 4 x single (crew) 8 x single (passengers)	8.00 16.00 32.00	1.00 2.00 4.00
Common Areas	37.5% of stateroom tonnage	21.00	2.10
Cargo	32@5 dTon cargo containers + 17.9 dTon front ramp	177.90	-
Software	Maneuver Bandwidth 0 Intellect Bandwidth 0 Jump Control/2 Bandwidth 5 Library Bandwidth 0	- - - -	- - 0.20 -
Total		400.00	102.68

Note: Upgraded to type RJ costs -10 dTons cargo and +15 MCr for the increased jump drive, and -35 dTons cargo for additional fuel (power plant duration drops from 5.6 months to 1 month).

Crew	Salary
Bridge: Captain / Pilot	10,000 Cr
Bridge: Astrogator/Copilot	5,000 Cr
Bridge: Sensor Operator	4,000 Cr
Bridge: Flight Engineer	4,000 Cr
Senior Engineer	4,000 Cr
Medic	4,000 Cr
Stewart / Cook	2,000 Cr
Small Craft Mechanic	1,000 Cr
Total Monthly Salaries	34,000 Cr

Item	Power
Basic Ship Systems	80
Maneuver-2 Drive	80
Jump-1 Drive	40
Civilian Sensors	1
Fuel Processor	2
Total	203


Type R - Flat Top Variant



SHIP'S LOCKER

Rather than having one ship's locker, the Flat-Top has a number of emergency lockers scattered throughout the ship. The bridge has a larger locker with additional equipment and a separate weapons locker.

Emergency Locker

Placed strategically around the ship (marked with ) , emergency lockers are intended to address the following issues:

Damage Control: one engineering tool kit, five emergency hull seal kits for dealing with micro-meteors or weapon hits, each includes quick patches for punctures, expanding foam for dealing with leaks, fast hardening sealant, quick seal tape, and clamps.

Fire: five fire extinguishers, two fire blankets, five work lights, five self-container breathing apparatus (30-minute duration), and breathable air tank recharging point.

Life Safety: two medikits, a defibrillator, and one oxygen tank.

Survival: five rescue bubbles, one mobile comm, 30 person-days of water and rations, and a portable heater.

Bridge Emergency Locker

Engineering has tools and supplies to respond to most emergencies. The bridge has additional supplies to react if Engineering can't. In addition to the emergency supplies listed above, the bridge locker has:

Extravehicular Activity (EVA): four vacc suits (IISS style soft suits: two large, two medium), EVA cables and attachments, two magnetic grapples, eight survival bubbles, portable airlock seal.

Access: one cutting torch, hydraulic jaws, and a hydraulic jack.

Power: a portable fusion generator.

Weapons Locker

Most captains keep weapons tightly controlled on board ship. An accidental discharge is unlikely to penetrate a hull designed to protect against micro-meteors, so this restriction is mostly to avoid hijacking or mutinies.

Independently owned vessels set their own policies. In cases where the crew is fully trusted, they may be given permission to keep their personal weapons in their private staterooms.

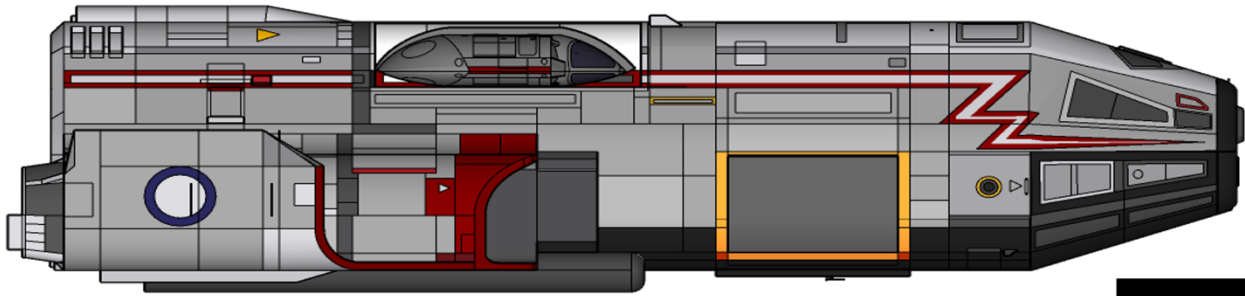
The Flat-Top comes with a hardened weapons locker on the bridge. It is large enough to hold the ship's weapons, the crew's personal weapons, and any weapons brought on by passengers.

Typical ship weapons would include:

- Four stun sticks
- Four cutlasses
- Four snub pistols (for zero G)
- Four stunners (for zero G)
- Four shotguns

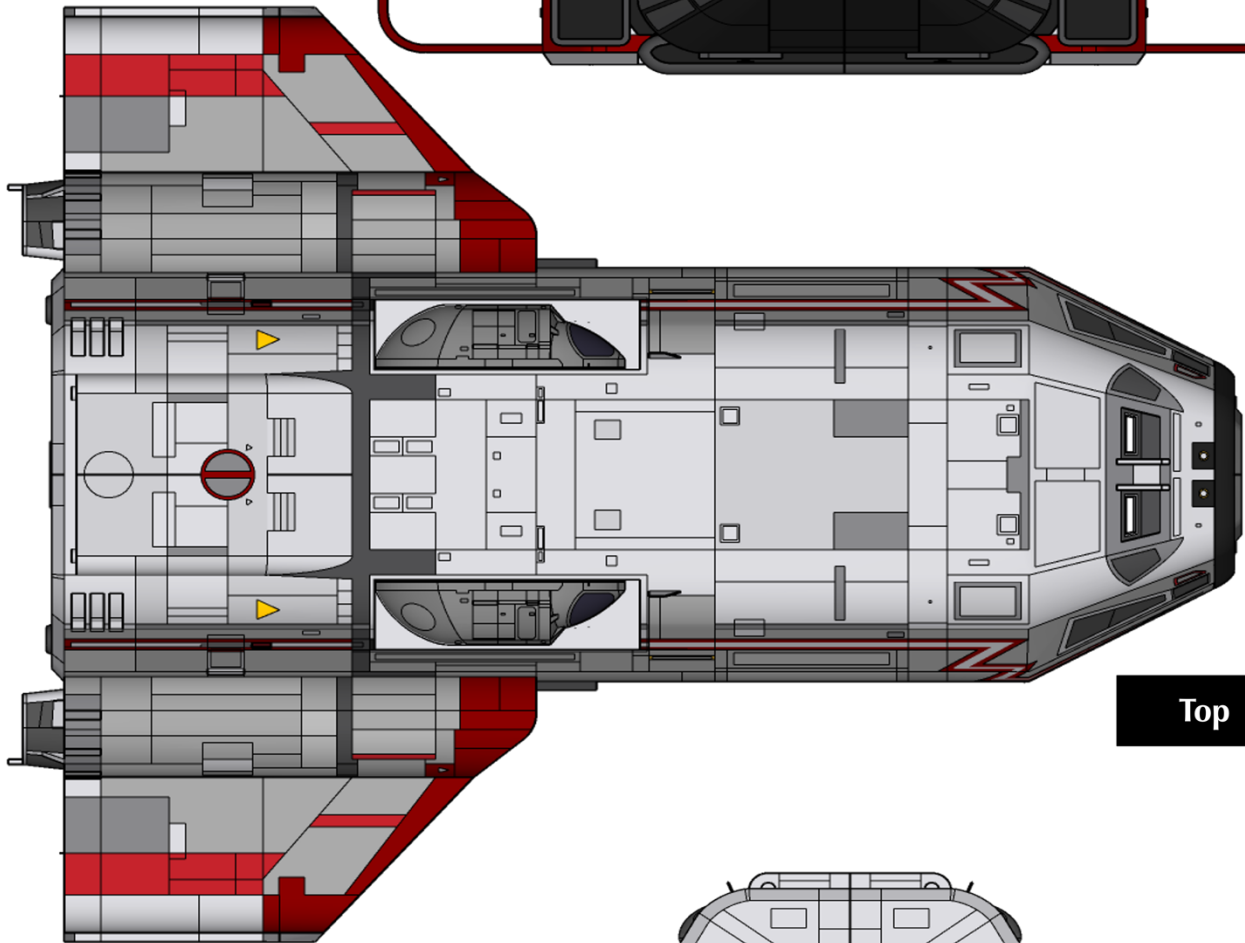
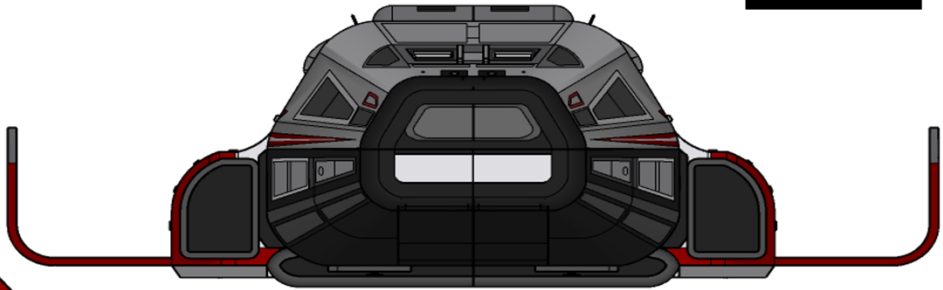
The locker also contains 10 extra magazines per snub pistol or shotgun. The racks for the stun stick and stunners automatically recharge them.

Type R - Flat Top Variant



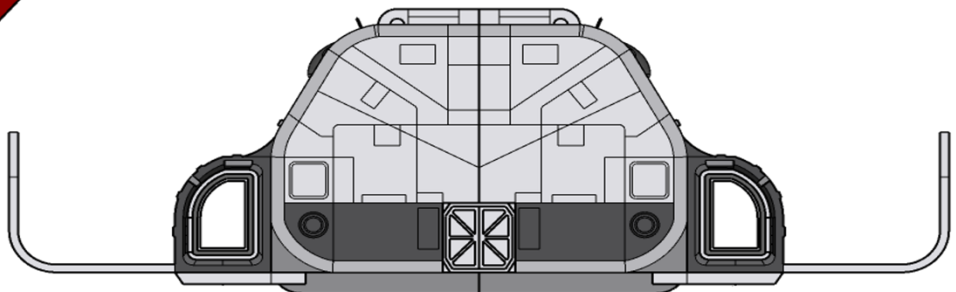
Starboard

Bow



Top

Stern



Type RJ - Havok



HAVOK - TYPE RJ

Whedon Shipyards on Cobham offers a modified longer ranged version of its base Type R Flat-Top with jump-2 instead of jump-1. Known as the Type RJ, it allows the ship the same range as the Hero or Empress Marava Class Far Traders. This can be purchased as stock from the shipyard or as plans for an after-market refit.

Havok is a purpose-built Type RJ with a chequered past. The ship was originally built in 1067 at a shipyard on Cobham (Old Expanses 1835). It spent its first couple of decades working the So Skire Subsector. Eventually, it was sold off. The new owner moved it to Lemos (Old Expanses 2536) in the Bascoj Subsector where it went through a major refit.

The major refit replaced the original 11 dTon TL-12 fusion power plant with a TL-15 unit producing 33% more power. This cost 33 MCr (22.00 MCr x 150%). At the same time, he had new computers, holographic bridge controls, improved sensors, and concealed turrets installed, costing 28.38 MCr (25.80 MCr x 110%). The new owners had less than legal intentions for the refitted vessel.

Once refitted, the ship was used for smuggling, bringing people and goods into the Third Imperium from the Solomani Confederation and vice versa. It worked the run from Hiland to Stad. In 1094, it was stopped by Imperial Customs and smuggled goods were discovered. The ship was impounded. The owners couldn't afford the fine.

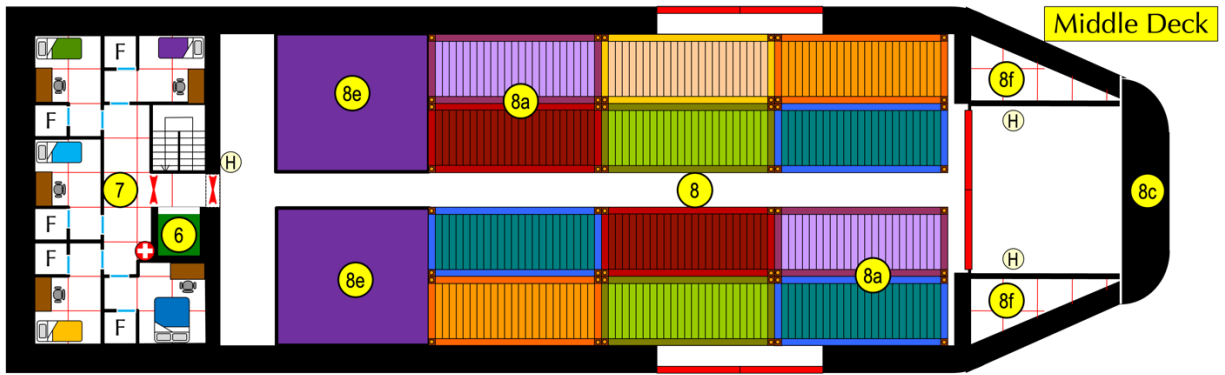
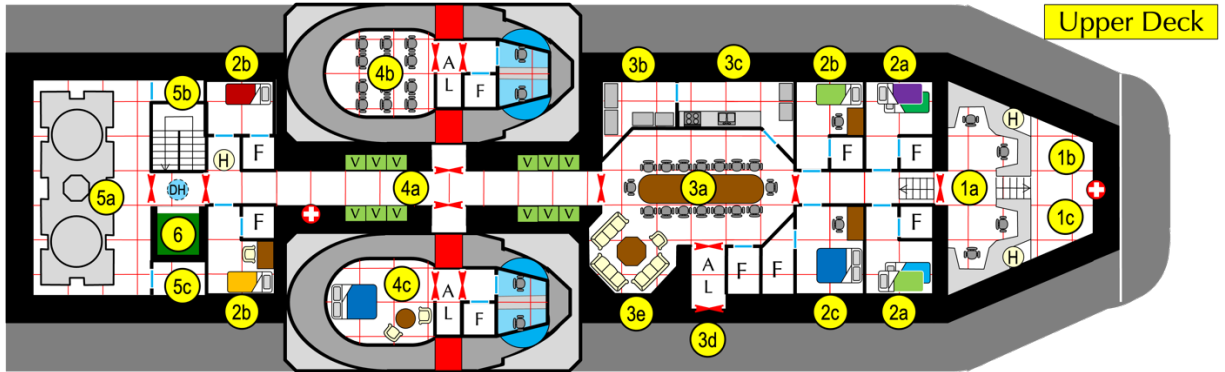
Official, the ship was sold off at auction and taken out of the sector. The truth is more interesting. The ship was purchased by a retired sub-sector assistant director of Imperial Naval Intelligence (INI). It was given a complete overhaul, a new paint job, and authentic, new, Imperial issued registration documents (thanks to its owner's INI contacts). Two portable labs have been installed in the cargo bay and it has set out into the Hinterworlds as a research and exploration vessel.

QUIRKS

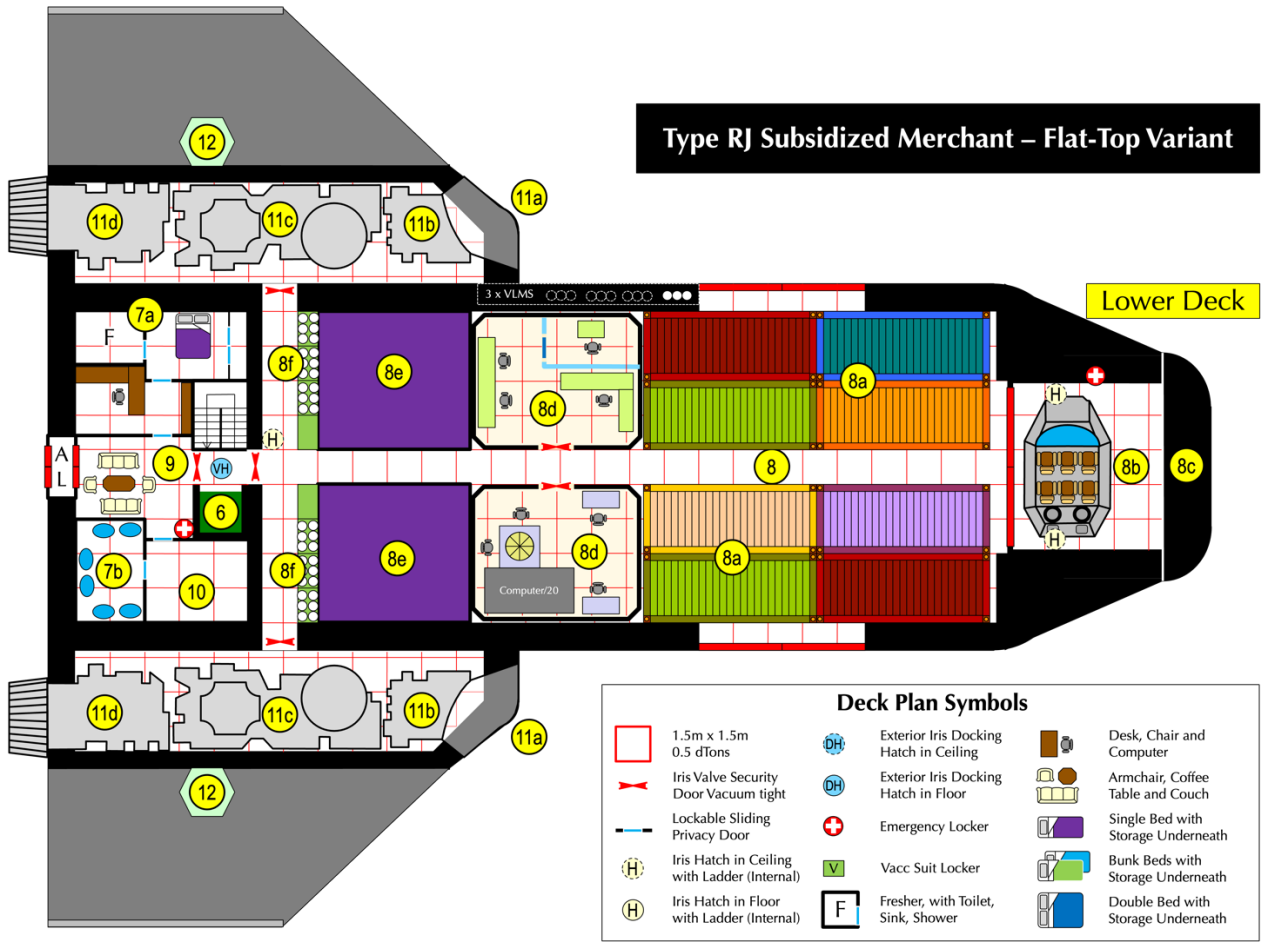
The ship is 49 years old. She has been well loved and maintained, but is definitely showing her age. She feels worn.

1. She was previously a smuggling ship. The ship was seized by Imperial Customs 20 years ago, the crew sent to prison, and the ship actioned off.
2. The ship has an upgraded TL-15 power plant. It is more modern technology than the rest of the ship. This can make it more difficult to find spare parts.
2. The engineering nacelles are quite cramped as a result of bigger jump drives being installed than the ship was originally designed for (DM -1 to engineering checks).
3. Due to higher power consumption, the interior lights flicker when entering jumpspace. This can be disconcerting to passengers not expecting it.
4. It has an excellent galley for cooking (DM +1 to steward checks). Meals are a popular occasion.

Type RJ - Havok



Type RJ Subsidized Merchant – Flat-Top Variant



Deck Plan Symbols			
	1.5m x 1.5m 0.5 dTons		Exterior Iris Docking Hatch in Ceiling
	Iris Valve Security Door Vacuum tight		Exterior Iris Docking Hatch in Floor
	Lockable Sliding Privacy Door		Emergency Locker
	Iris Hatch in Ceiling with Ladder (Internal)		Vacc Suit Locker
	Iris Hatch in Floor with Ladder (Internal)		Fresher, with Toilet, Sink, Shower
	Desk, Chair and Computer		Armchair, Coffee Table and Couch
	Single Bed with Storage Underneath		Bunk Beds with Storage Underneath
	Double Bed with Storage Underneath		

HAVOK MAP KEY:

- 1. Bridge:** The computer systems have been upgraded.
- 2. Crew Staterooms:** No change.
- 3. Common Area:** No change.
- 4. Scarab Class Runabouts:** The cargo bay of one launch has been refitted as a comfortable stateroom.
- 5. Power Plant:** The TL-12 fusion power plant has been replaced with an upgraded TL-15 version of the same displacement.
- 6. Stairs & Freight Elevator:** No change.
- 7. Passenger Staterooms:** Two staterooms have been removed and replaced with a single, luxury stateroom (a) as the suite for the owner-aboard. The suite has a large bedroom, spacious ensuite washroom and private office with a massive desk. The remaining stateroom on the lower deck has had its fresher removed and been modified to hold six low berths (b).
- 8. Cargo Hold:** The hold can carry twenty 5-dTon cargo containers (a). An air raft is carried on the cargo ramp (b). Upgraded sensors have been installed in the ship's nose (c). Two 10-dTon modular labs replace four cargo containers (d). They are strong enough to allow containers to be stacked on top of them. Two large (17.5 dTon) fuel tanks have been permanently installed (e). The lockers (f) containing tools and equipment for loading and safely storing cargo have been moved against the fuel tanks. A total of 36 spare missiles are stored on top of them.
- 9. Passenger Lounge:** It has been reduced in size to accommodate the owner's suite.
- 10. Medical Bay:** No change.
- 11. Engine Rooms:** As a Type RJ, the Havok has had larger jump-2 drives (c) installed into the same sized nacelles as the base model. As a result, there is significantly less space for engineering access to equipment compared to the base model (DM -1).
- 12. Landing Gear:** No change.

New Portable Labs

Havok has two portable labs replacing four 5-dTon cargo containers. The port lab is set up to study psionics. It has an isolation booth, monitoring and analysis systems. The starboard lab is crammed with equipment. It has a full, TL-13 counter-measures suite and a dedicated TL-12 computer/20 with a broad-spectrum EW software package. This specialized research unit is wired in to the ship's upgraded sensors and several antennae. This lab allows the crew to run research separate from the ship's main computer.

New Weapons

The basic Type R Flat Top comes with four hardpoints. Turrets can be installed by special order. Havok has been retrofitted with two triple beam laser turrets (top and bottom), a triple sandcaster turret (bottom) and a vertical launch missile system (left side midships). The three turrets are the concealed pop-up type. The missiles are hidden inside the ship; hatches are opened only just as they are about to fire. All four hardpoints are remotely controlled by stations on the bridge manned by the sensor op and flight engineer.

The access hatch for the rear concealed pop-up triple sandcaster turret is in the floor of the passenger common room. Each of the three sandcasters in the turret has enough sand barrels for 20 salvos. There are 60 additional sand barrels (enough for a complete turret reload) in a compartment immediately forward of the turret. The additional sand barrels can be loaded into the turret, but it takes one minute (three seconds per sand barrel). The floor panel must be taken up to refill the sand barrel compartment.

The pop-up beam laser turrets can be accessed by maintenance hatches. One is in the floor of the cargo hold. The other is in the roof of main engineering.

The access point to reload the concealed triple vertical launch missile system (VLMS) is next to the port fuel purification plant. The system can launch up to three missiles at a time. Nine more missiles are ready to move into launch position. After the first twelve missiles have been expended, more must be loaded manually into the system. With a trained crew, at maximum speed, it takes eight minutes to load four three-packs of missiles. Most captains, without the benefit of navy trained crews, prefer to do it more slowly and by the book for safety.

Extra Jump-2

Sometimes, you need to cross a longer gap than your jump drive allows. To overcome this limitation, the Type RJ's cargo hold is fitted with a series of fittings to connect containers to the ship's fuel tanks. The ship was designed to carry addition fuel in special designed shipping containers. A standard 5-dTon shipping container can carry 4.76-dTons of fuel. The Type RJ uses 80-dTons of fuel for a Jump-2 and 1.1-dTons to run its fusion plant for 1 month. Seventeen containers will carry another 80.92-dTons of fuel. This is enough for a Jump-2 and 23 days of power, allowing the Type RJ to make back-to-back Jump-2s and cross a four-parsec gap while still carrying three 5-dTon containers and 17.9 dTons of loose cargo.

Type RJ - Havok

Havok - Retrofitted Type RJ Subsidized Merchant		Tons	Cost (MCr)
Hull	400 tons, streamlined (+20%)	-	24.00
M-Drive	Manoeuvre - 2	8.00	16.00
J-Drive	Jump - 2 (standard with Type RJ)	25.00	37.50
Power Plant	Retrofitted Fusion Power Plant TL-15	11.00	33.00
Fuel Tanks	Jump-2, 1 month operation Retrofit two 17.5 dTon tanks added in cargo bay	81.10	-
Bridge	Retrofit Holographic Controls (retrofit)	20.00	2.55
Computer	Retrofit Computer/20 TL-12 Retrofit Backup Computer/15 TL-11	- -	5.50 2.20
Sensors	Retrofit Improved Military Grade TL-12	4.00	4.73
Weapons	Retrofit 2 triple turrets, pop-up, beam laser Retrofit 1 triple turret, pop-up, sandcaster (20 salvos) Retrofit 1 triple VLS, missile (holds 12 missiles)	4.00 2.00 2.00	7.70 4.68 3.03
Ammunition	60 x sand barrels 36 x standard missiles	3.00 3.00	0.08 0.75
Craft	Docking Space x 10 dTon x 2 10 dTon Scarab Runabout (passenger) 10 dTon Scarab Runabout (stateroom)	22.00 - -	5.50 3.04 3.54
Systems	Fuel Scoop Fuel processors (40 tons/day) Concealed Compartments Medical Bay	- 2.00 2.00 4.00	1.00 0.10 0.04 2.00
Staterooms	2 x double (crew) 4 x single (crew) 5 x single (passengers) Retrofit 1 x luxury stateroom (owner's suite) Retrofit 6 x low berths	8.00 16.00 20.00 10.00 3.00	1.00 2.00 2.50 1.65 0.33
Common Areas	Some passenger common room space taken up by the owner's suite	19.00	1.90
Cargo	2 @ 8 dTon modular labs (EW lab includes counter-measures suite, Comp/20) 20 @ 5 dTon cargo containers+17.9 dTon front ramp 2 x Cargo-Spider Robots	16.00 (inside lab) 117.90 -	4.00 9.00 - 0.20
Software	Broad Spectrum EW Bandwidth 12 Intellect Bandwidth 0 Jump Control/2 Bandwidth 10 Library Bandwidth 0 Maneuver Bandwidth 0	- - - - -	14.00 - 0.20 - -
Sub-Total		-	193.72
30-year depreciation on retrofit		-	-20%
Total		400.00	154.976

Crew	Salary
Bridge: Captain / Pilot	10,000 Cr
Bridge: Astrogator / Copilot	5,000 Cr
Bridge: Sensor Operator / Gunner	4,000 Cr
Bridge: Flight Engineer / Gunner	4,000 Cr
Senior Engineer	4,000 Cr
Medic	4,000 Cr
Stewart / Cook	2,000 Cr
Small Craft Mechanic / Deckhand	1,000 Cr
Total Monthly Salaries	34,000 Cr

Item	Power
Basic Ship Systems	80
Maneuver-2 Drive	80
Jump-2 Drive	80
Improved Sensors	4
Counter-measures suite	1
4 Turrets	4
6 Beam Lasers	24
Fuel Processor	2
Low Berths	6
Total demand	281
11 dTon TL-15 x 20 power	220

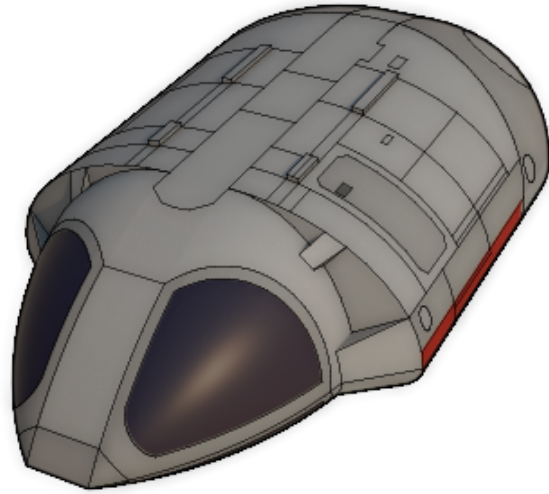
Scarab-Class Runabout

SCARAB-CLASS RUNABOUT

The Scarab is a small, 10 dTon vessel. It is also a product of the Whedon Shipyards on Cobham. It is designed to be compact and light, with excellent pilot visibility. It is capable of manoeuvre-3 and has an incredible 30-month supply of fuel. This gives it the ability to do extensive exploring on a planet, or to reach a very wide orbit.

The ship has basic computer and sensors, enough for routine activities. It is fitted for a single missile rack with four missiles providing limited attack and defence capabilities. The rack must be reloaded manually. Additional missiles can be carried internally as cargo.

The base model is the cargo variant. It can carry 4.37 dTons. In atmosphere a large cargo door can be opened to avoid having to bring bulkier items through the airlock. The passenger model adds three four-person acceleration benches. It can still carry 1.37 dTons of luggage. The stateroom refit is a purely unofficial refit. It converts the launch's cargo bay into a comfortable private stateroom. This allows long-term passengers to bring their stateroom with them when visiting a planet. This is usually only seen on privately owned Flat-Tops.



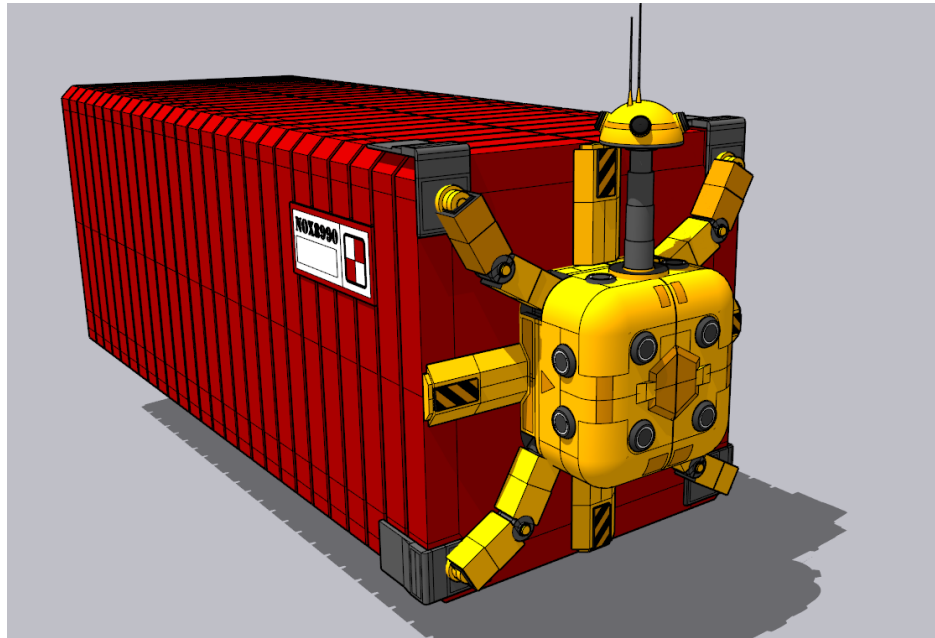
All versions have a cockpit with two acceleration seats, though the ship only requires a single pilot. The cockpit has large windshields, both top and bottom, for direct vision. This is particularly useful during landings or when operating close to obstacles. They also have a full-size fresher (with shower) and kitchenette, which is popular on long trips. The single airlock has doors on both sides and top and bottom for maximum flexibility.

Scarab 10-dTon Ultra-Light Launch TL12 (Base Cargo Model)			Tons	Cost (MCr)
Hull	10 dTon, standard hull, streamlined (+20%)		-	0.60
M-Drive	Manoeuvre-3, TL-10		0.30	0.60
J-Drive	None		-	-
Power Plant	Fusion, TL-12, Power: 5.0		0.33	0.33
	Basic Ship functions	Power: 2.0		
	Manoeuvre-3	Power: 3.0		
Fuel Tanks	30 months operation		1.00	-
Bridge			3.00	0.50
Computer	Computer/5		-	0.03
Sensors	Basic		-	-
Weapons	Firmpoint, fixed mount		-	0.10
	1 x missile rack	Power: 0	-	0.75
Ammunition	None		-	-
Craft	None		-	-
Systems	None		-	-
Staterooms	None		-	-
Common Areas	Fresher and kitchenette		1.00	0.10
Cargo			4.37	-
Software	Maneuver	Bandwidth 0	-	-
	Intellect	Bandwidth 0	-	-
	Library	Bandwidth 0	-	-
Total			10.00	3.01

Passenger Variant: Adds 3 four-person acceleration benches (3 tons). Costs an addition 0.03 MCr

Stateroom Variant: Adds a stateroom (4 tons). Costs an addition 0.50 MCr

Cargo-Spider Robot



Name: CARGO-SPIDER ROBOT

Description: This robot is designed to load and unload starships. Its 'feet' are the equivalent of forklift forks. Both 'hands' and 'feet' are designed to securely attach to the container with physical locking lugs, powerful electro-magnets, or both. It can lift cargo containers up to 5 dTons (or a mass of 32 metric tons in 1G). The chassis is hardened to allow it work in a vacuum environment. The basic robotic drone controller allows one robot to take control of a second. Working together, they can lift double the mass or volume.

Havok has two Cargo-Spiders. They are quite large (size 7) and take up 1 dTon of cargo space when not in use. They have dedicated charging and storage niches high on the walls on either side of the bow loading ramp. They go into standby mode when not working. If external ship maintenance needs to be done, they can each pick up an empty pallet and convert into intelligent floating work platforms. Their magnetic grippers can lock onto the side of the ship to provide even more solid footing. Many people mistake them for remote controlled equipment and ignore them, making them useful sentries. Some owners add a weapons mount and gun combat software and use them for ship security.

Robot	Hits	Locomotion	Speed	TL	Cost
Cont. Loader	50	Grav	6m	12	100,000
Skills	Intelligent Interface, Expert (Cargo Handling)/1, Security/1, Electronic (Remote Op) 1, Mechanic 0, available bandwidth 3				
Attacks	none				
Manipulators	2 x (STR 13, DEX 7)				
Endurance	18 hours				
Traits	Armour (+4)				
Programming	Advanced (Bandwidth +4)				
Options	Auditory Sensor, Basic Robotic Drone Controller, Drone Interface, Forklift (Large), Olfactory Sensor, Magnetic Grippers, Transceiver 5km (improved), Vacuum Environmental Protection, Visual Spectrum Sensor, Voder Speaker, Wireless Data Link (50m), plus 2 unassigned slots				

Ship's Crew

Name: Makoto Sinclair		Position: Owner-Aboard / Medic			Age: 50	
Service: Scholar (Field Researcher, 3 terms), Agent (Intelligence, 5 terms)						
STR: 7	DEX: 6	END: 7	INT: 15	EDU: 10	SOC: 6	
DM: 0	DM: 0	DM: 0	DM: +3	DM: +1	DM: 0	
Skills: Astrogation 1, Broker 1, Deception 4, Diplomat 2, Electronics (Comms 3, Computers 1, Remote Ops 1, Sensors 1), Explosives 1, Flyer 0, Gun Combat (Slug 1), Investigate 3, Medic 2, Navigation 1, Persuade 2, Recon 1, Science (Robotics 2, Archaeology 1, Psionics 2), Stealth 2, Streetwise 0, Vacc Suit 1						
Possessions: Cloth Armour, Computer/5 (Security/2, Intrusion/1, Intelligent Interface), Electronics Toolkit, Radio Transceiver (330 km), Science Toolkit (Robotics, Psionics), Gauss Pistol						
Valuables: 25,000 Cr, 41.14% share in Havok			Pension: 10,000 Cr/yr			
Description: Born and raised in the megacity slums of Patrent (Alpha Crucis 1101), Makoto specialized in robotics and Ancients as a field researcher for Naasirka. He was very successful, earning a 50% stake in a lab ship during his time with them. His specialized knowledge brought him to the attention of INI who recruited him to lead several special 'black ops' projects. Details of his time with them are mostly classified, though it is rumoured he was involved in research using psionics and robotics to exploit recovered Ancient technology. He was involved with or led several dangerous missions to recover stolen artifacts from the black market. He rose to the rank of assistant director before retiring. Pooling his funds with several other crew/investors, he purchased a Type RJ research vessel named Havok. Makoto's intent is visit a number of Ancient sites in the Hinterworld sector and the Hiver Federation.						



Name: Marie Flynn		Position: Captain / Astrogator			Age: 42	
Service: Academy (1 term), Navy (5 terms)						
STR: 5	DEX: 8	END: 7	INT: 10	EDU: 11	SOC: 10	
DM: -1	DM: 0	DM: 0	DM: 0	DM: +1	DM: +1	
Skills: Astrogation 3, Athletics 0, Electronics 0, Engineer (Power Plant 1), Flyer (Grav 1), Gunner 0, Gun Combat (Slug 1), Leadership 3, Mechanic 1, Melee (Unarmed 2), Persuade 1, Pilot (Small Craft 1, Spacecraft 2), Science: History 0, Tactics (Naval 2), Vacc Suit 1						
Possessions: Weapon, TAS Membership						
Valuables: 22,000 Cr, 2.01% share in Havok			Pension: 10,000 Cr/yr			
Description: Marie is from Syrim (Old Expanses 2835), a high population world. She was accepted into the naval academy and graduated middle of her class. While she was there, she became close friends with Netta Valkroft. Both entered the Third Imperium navy; Marie loved the life, Netta didn't. They kept in close contact even after Netta left the navy. Marie has had a number of posts, working her way up from gunboats, to corvettes and destroyers. When she was 26, she met and married Felix, a naval staff officer. They had two children, a son and daughter. Since Felix had a headquarters position, it seemed logical for the children to stay with him when she did her border patrol tours. Over the years, her and Felix became estranged. They got divorced four years ago. Since she had just been promoted Captain and given command of a light cruiser, she didn't fight him for custody of their children. The children live on Syrim. Marie recently took her retirement. Although she loved the navy life and had been quite successful, she was growing bored of endless patrols along the Solomani Confederation border and frustrated that her future was being decided by others. She travelled home to visit her children and extended family. She found them very happy with Felix and his new wife. Within a month, she was becoming restless. When Netta contacted her about a ship heading into the Hinterworlds that was looking for a captain, she jumped at the offer to work with her old friend.						



Name: Dagmar Collier		Position: First Officer / Steward		Age: 42	
Service: Merchant (6 terms)					
STR: 7	DEX: 9	END: 9	INT: 12	EDU: 11	SOC: 8
DM: 0	DM: +1	DM: +1	DM: +2	DM: +1	DM: 0
Skills: Admin 2, Broker 2, Carouse 0, Deception 1, Diplomat 1, Drive 0, Electronics (Computers 2, Sensors 1), Engineer (Jump Drive 1), Gunner (Turret 1), Gun Combat (Slug 1), Investigate 1, Medic 1, Melee (Blade 1), Persuade 1, Pilot (Small Craft 2), Profession: Crewmember 3, Steward 3, Streetwise 0, Vacc Suit 2					
Possessions: Cloth armour overalls (+8, TL-10), Gauss Pistol (range 20, 3D, AP 3 Auto 2, TL-13), Gauss Rifle (range 600, 4D, AP 5, Auto 3, scope, TL-12), Personal HUD (DM +1, TL-11), Monoblade (Melee, 3D, AP 10, TL-10), Advanced Mobile Comm (TL-10), Portable Computer/5 tablet (TL-15)					
Valuables: 29,500 Cr, 7.747% share in the ship				Pension: 12,000 Cr/yr	
<p>Description: Both his parents were in the merchant marine and he grew up on a large freighter. When he turned 18, Dagmar joined the crew of a Free Trader. Business thrived, but he ended up embroiled in a dispute over a shipment of weapons. Dagmar did some investigating and proved he had been set up as the patsy, clearing his name and avoiding prison. He moved on to the merchant marine. He did well and was promoted to 3rd officer, and then 2nd officer after helping fight off a pirate attack.</p> <p>In his third term, the free trader he worked on was contracted to deliver supplies to a mining outpost on the moon of a gas giant. They were delayed by a maintenance issue. When they arrived, everyone was dead. The miners had all clawed their eyes out. The sheriff and doctor had barricaded themselves in the clinic. They killed several miners, but were overrun and hacked to death. Forensics determined the mining company had given the miners psychotropic drugs to make them work harder. It drove them insane.</p> <p>After it was revealed that the company had tried to sell the navy the same drugs, the incident was investigated by Dr Sinclair from Imperial Naval Intelligence. Dagmar's detailed testimony was vital in securing a conviction against the company. Years later, Dr Sinclair offered Dagmar a first officer position when he was crewing his own ship, Havok.</p>					

Name: Hemming Fargothwill		Position: Pilot		Age: 42	
Service: Academy (1 term), Army (5 terms)					
STR: 13	DEX: 7	END: 8	INT: 8	EDU: 8	SOC: 13
DM: +2	DM: 0	DM: 0	DM: 0	DM: 0	DM: +2
Skills: Astrogation 0, Athletics (Strength 2), Carouse 2, Drive 0, Gun Combat (Slug 3), Heavy Weapons 2, Language (Vilani 2), Leadership 3, Melee (Unarmed 2), Navigation 1, Pilot (Spacecraft 4), Seafarer 0, Tactics (Military 1, Naval 2), Vacc Suit 1					
Possessions: Cloth Armour, Gauss Rifle, Neural Augment, Environment Suit, Climbing Kit, Breather Mask, Light Intensifier Goggles.					
Valuables: 16,000 Cr				Pension: 12,000 Cr/yr	
<p>Description: 'Fargo' went to military academy and then entered the army as an officer as expected of the son of a wealthy noble and retired general. He saw constant promotion due to his father's connections, however he found little joy in his career. What he really wanted to do was pilot starships. After serving long enough to satisfy his father's expectations, he retired. Before moving home to take of his noble responsibilities, he told his parents he was taking some time to travel. He answered an ad for a pilot for a research vessel heading out into the Hinterworlds sector. Fargo is very down to earth and downplays his noble rank. He enjoys weight lifting in his spare time.</p>					

Ship's Crew

Name: Rocco Berringer		Position: Chief Engineer			Age: 55	
Service: Citizen (Worker, 2 terms), University (1 term), Entertainer (Journalist, 6 terms)						
STR: 7	DEX: 6	END: 7	INT: 15	EDU: 10	SOC: 6	
DM: 0	DM: 0	DM: 0	DM: +3	DM: +1	DM: 0	
Skills: Animals (Handling 1), Art (Writing 4), Deception 1, Diplomat 1, Driving (Hovercraft 1), Electronics (Comms 2, Computer 1, Remote Ops 1), Engineer (Life Support 3, Power Plant 3), Gun Combat (Energy 1), Investigate 2, Jack-of-all-Trades 3, Language 1, Mechanic 1, Persuade 1, Profession (Construction 1), Recon 1, Science (Physics 2), Streetwise 2, Vacc Suit 0						
Possessions: Cloth Armour, Laser Pistol, Neural Comm, Wafer Jack, Radio Transceiver, 10 x Bugs, Breather Mask, Engineer Tool Kit, Computer (Intrusion, Translator)						
Valuables: 53,800 Cr, 1.34% share in Havok			Pension: 16,000 Cr/yr			
Description: Rocco started off as a life support engineer. His wife was very politically active and was killed for it. As part of his mourning process, Rocco went to university to become an investigative journalist. His first task to uncover the corporate executives responsible for killing his wife. He has worked many undercover jobs since then, becoming a bit of a jack-of-all-trades. Rocco was looking for a subject to write a major book on. When he heard the Havok was heading into the Hinterworlds, he signed on as the ship's engineer to document the voyage.						

Name: Harvey LaPlante		Position: Flight Engineer / Gunner			Age: 46	
Service: University (1 term), Merchant (Free Trader, 3 terms), Rogue (Pirate, 3 terms)						
STR: 5	DEX: 12	END: 9	INT: 10	EDU: 11	SOC: 8	
DM: -1	DM: +2	DM: +1	DM: +1	DM: +1	DM: 0	
Skills: Admin 1, Athletics 0, Astrogation 1, Broker 1, Carouse 1, Drive (Wheel 1), Electronics 0, Engineer (Jump 2, Manoeuvre 2), Gambler 1, Gunner (Turret 3), Gun Combat (Energy 1, Slug 1), Jack-of-all-Trades 1, Language 1, Melee (Blade 2), Persuade 1, Profession: Scavenger 2, Recon 1, Stealth 0, Steward 0, Streetwise 2, Survival 0, Vacc Suit 0						
Possessions: Gun, Blade, Cyber-implant						
Valuables: 10.045% share in Havok			Pension: 16,000 Cr/yr			
Description: Harvey grew up in a free trader family. He went to university at 18 and then returned to work on free traders. Disillusioned by the slow grind and lack of money, he slipped over to the criminal side and joined the crew of a corsair. The ships he belonged to mostly raided across the border into the Solomani Confederation. The corsair's biggest score was not actually a pirate job, but rather the salvage of a 100+ year old derelict Solomani cruiser left over from the Solomani Rim War. They found the ship largely intact and adrift way outside normal shipping lanes. It took them months to strip it bare. Harvey's share was enough to go straight again. He bought a 10% share in the Havok when he joined the crew.						

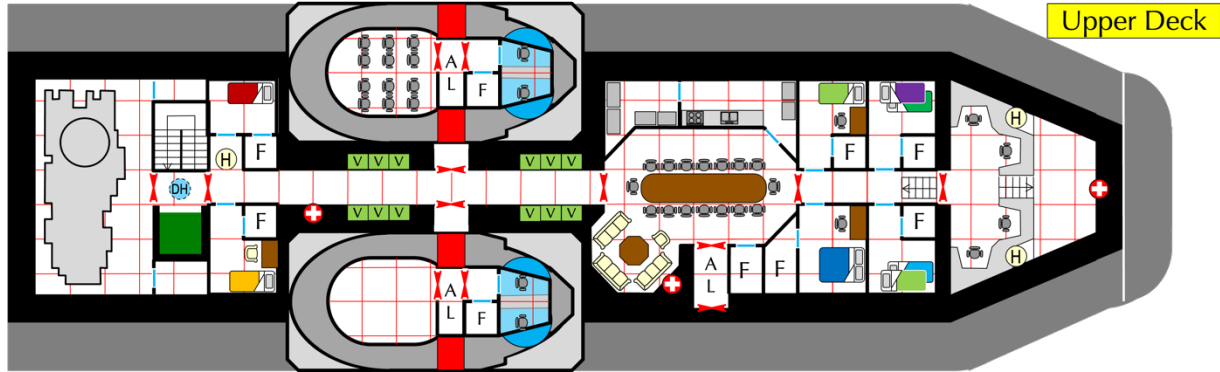
Name: Gregor Brahe		Position: Sensor Op / Gunner			Age: 38	
Service: Barbarian (4 terms), Rogue (Pirate, 1 term)						
STR: 8	DEX: 9	END: 10	INT: 6	EDU: 7	SOC: 5	
DM: 0	DM: +1	DM: +1	DM: 0	DM: 0	DM: -1	
Skills: Athletics 1, Deception 0, Drive (Wheeled 2), Electronics (Sensor 2), Gambler 0, Gunner (Turret 2), Gun Combat (Slug 3), Leadership 1, Mechanics 1, Melee (Blade 2, Unarmed 3), Persuade 0, Pilot 0, Recon 1, Science 0, Stealth 0, Streetwise 3, Survival 3, Vacc Suit 0						
Possessions: Cloth Armour, Sword, Gauss Pistol, Gauss Rifle, Shotgun						
Valuables: 45,000 Cr			Pension: 0 Cr/yr			
Description: Gregor grew up on a Yellow Zone, Dobson Parish (Spica 1901). The post-apocalyptic world is a desolate wasteland. He grew up learning to be a driver, mechanic and fighter. There was an off-world controlled mine with a spaceport. Tired of the constant fighting, he wrangled his way onto an outbound ship. He had numerous jobs, including joining a pirate crew for a time, and then a series of free traders. He worked his way Spinward to the Third Imperium. Now, he is ready to head back towards the Spica sector. The Havok is heading in the right direction. He was hired for his fighting ability not as a diplomat.						

Name: Arionette Valkroft		Position: Small Craft Mechanic				Age: 42
Service: Naval Academy (1 term), Navy (1 term), Noble (4 terms)						
STR: 7	DEX: 10	END: 8	INT: 11	EDU: 10	SOC: 12	
DM: 0	DM: +1	DM: +1	DM: +1	DM: +1	DM: +2	
Skills: Athletics 1, Carouse 1, Deception 2, Diplomat 1, Flyer (Grav 2), Gambler 4, Gun Combat (Energy 1), Leadership 1, Mechanic 2, Melee (Blade 3), Persuade 1, Pilot (Small Craft 1, Spacecraft 1), Recon 0, Stealth 1, Streetwise 1, Vacc Suit 0						
Possessions: Cloth Armour (Smart Fabric), Cutlass, Laser Pistol, Laser Carbine						
Valuables: 200,000 Cr, 14.015% share in Havok			Pension: 0 Cr/yr			
Description: Netta went to the academy before joining the Navy to prove herself. She found academy life suffocating, but she made some great friends, including Marie Flynn. She also discovered she was quite good at gambling. After one term with the navy, she resigned and returned to the life of a wealthy socialite. Netta met Makoto Sinclair, an eccentric scientist, who was planning to visit the Hinterworlds. Intrigued, she decided to buy in to the vessel and join the mission. Makoto was also looking for a captain for the Havok. Netta recommended her friend Marie for the job.						

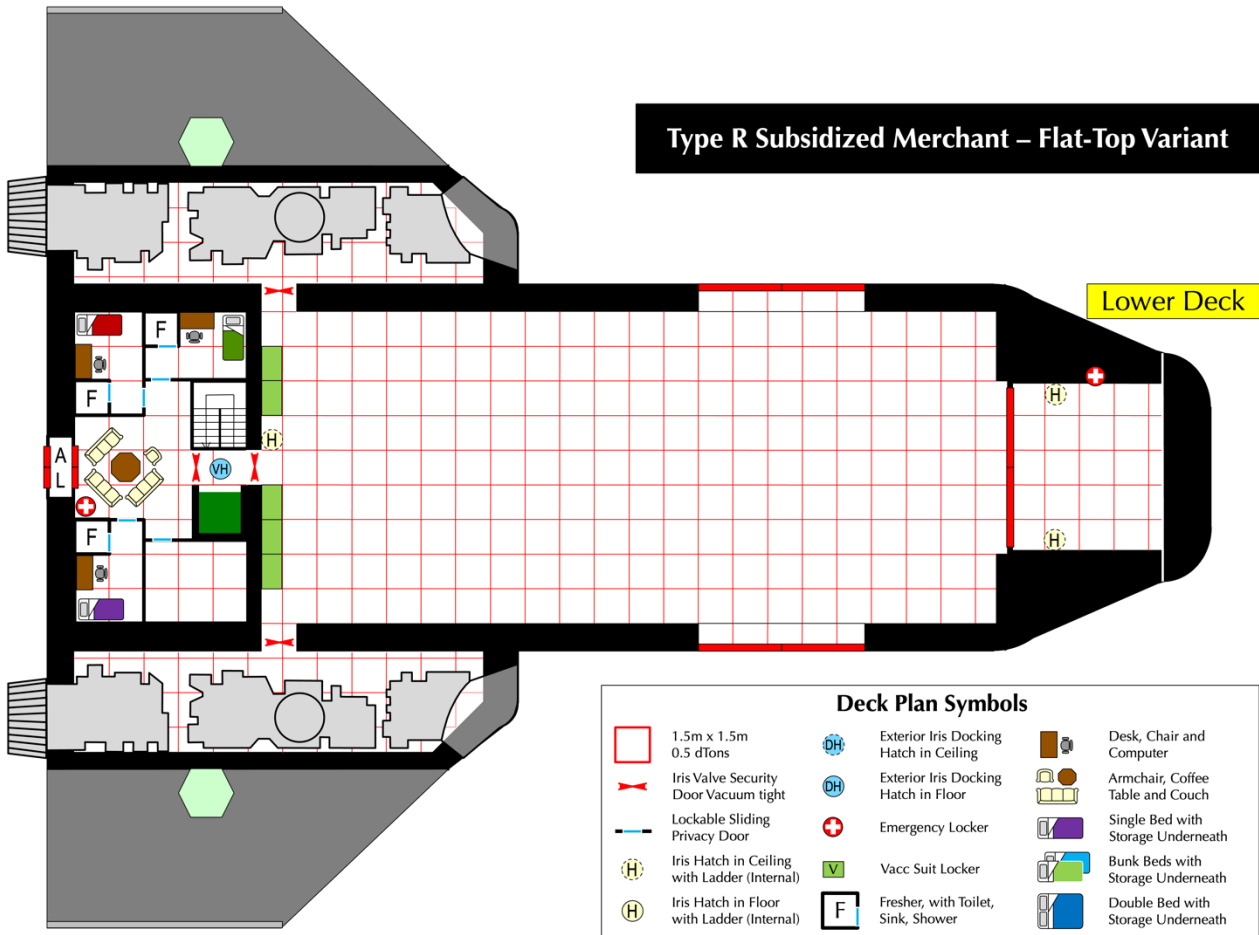
Name: Johanna Esperquill		Position: Passenger			Age: 38	
Service: Rogue (Thief, 5 terms)						
STR: 6	DEX: 12	END: 11	INT: 11	EDU: 9	SOC: 9	
DM: 0	DM: +2	DM: +1	DM: +1	DM: +1	DM: +1	
Skills: Athletics (Dexterity 3), Art (Visual 2), Broker 1, Deception 3, Electronics (Computers 2, Sensors 2), Gun Combat (Slug 1), Mechanic 2, Recon 2, Stealth 3, Streetwise 3, Survival 0, Vacc Suit 0						
Possessions: Revolver, Blade						
Valuables: 20,750 Cr			Pension: 0 Cr/yr			
Description: 'Jo' is quite attractive. She lives relatively well, though how she supports herself is not obvious. She has previously taken jobs as a sensor operator and a mechanic. In reality, she is a successful thief. Jo moves from planet to planet, identifying valuable art objects, stealing them, pawning them and then moving on to the next victim. One of the items she 'acquired' was an Ancient artifact, which brought attention INI. Makoto Sinclair's team retrieved the item. However, rather than arrest her, he enlisted her as a freelance 'retrieval expert.' He has since brought her into his personal expedition.						

Name: Klaus Von Klausewics		Position: Passenger				Age: 34	
Service: Drifter (Wanderer, 3 terms), Entertainer (Performer, 1 term)							
STR: 5	DEX: 6	END: 6	INT: 6	EDU: 10	SOC: 12	PSI: 9	
DM: -1	DM: 0	DM: 0	DM: 0	DM: +1	DM: +1	DM: +1	
Skills: Art (Perform 3, Music 3), Athletics 0, Carouse 3, Deception 1, Electronics (Computer 1), Flyer (Grav 1), Gun Combat (Slug 1), Persuade 2, Science (Theosophy 1), Stealth 1. Streetwise 2, Vacc Suit 0							
PSI Skills (Conscious Control): Awareness (Inspiration 1), Telepathy (Life Detection 1, Shield 1)							
PSI Skills (Unconscious, uncontrolled): Telepathy (Telempathy 1, Send Thoughts 1)							
Possessions: Holographic Music AI, Cloth Armour, Gauss Pistol							
Valuables: Creativity, personal demons			Pension: 10,000 Cr/yr				
Description: Klaus was born on Anaxias to courtiers in the Duchess' court. He drifted extensively as an adult supported by a large allowance. While exploring some ruins, he came in contact with an Ancient artifact that activated his dormant psionic powers. This led to extensive mental problems. He eventually visited Earth, where after more than a year living at a Tibetan monastery, he learned to control them. His adventures also inspired a music career and a single huge hit. At his last concert, on Vleeman (Old Expanses 2538) he had an unexplained psionic incident which gave the entire audience a mass telepathic event. Just one step ahead of the authorities, he was approached by Makoto Sinclair and offered a spot on his ship in return for participating in his psionic research program.							

Type R - Flat Top Variant

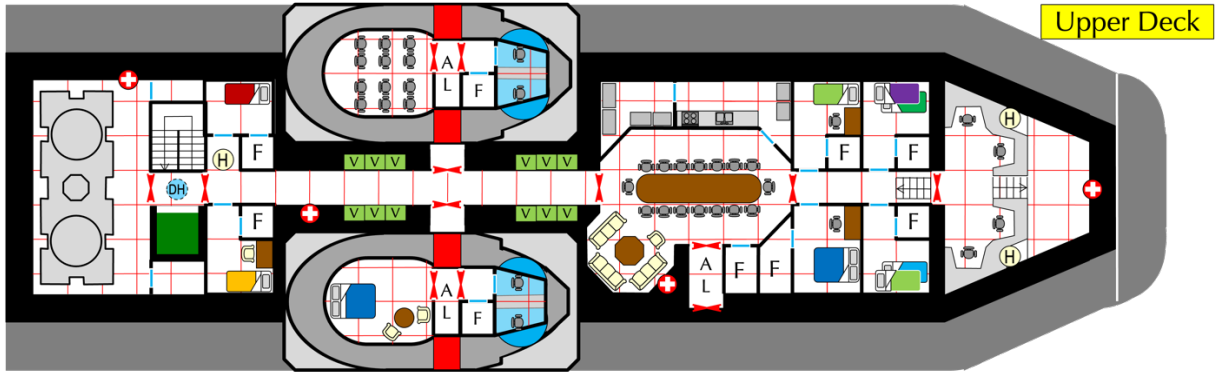


Type R Subsidized Merchant – Flat-Top Variant

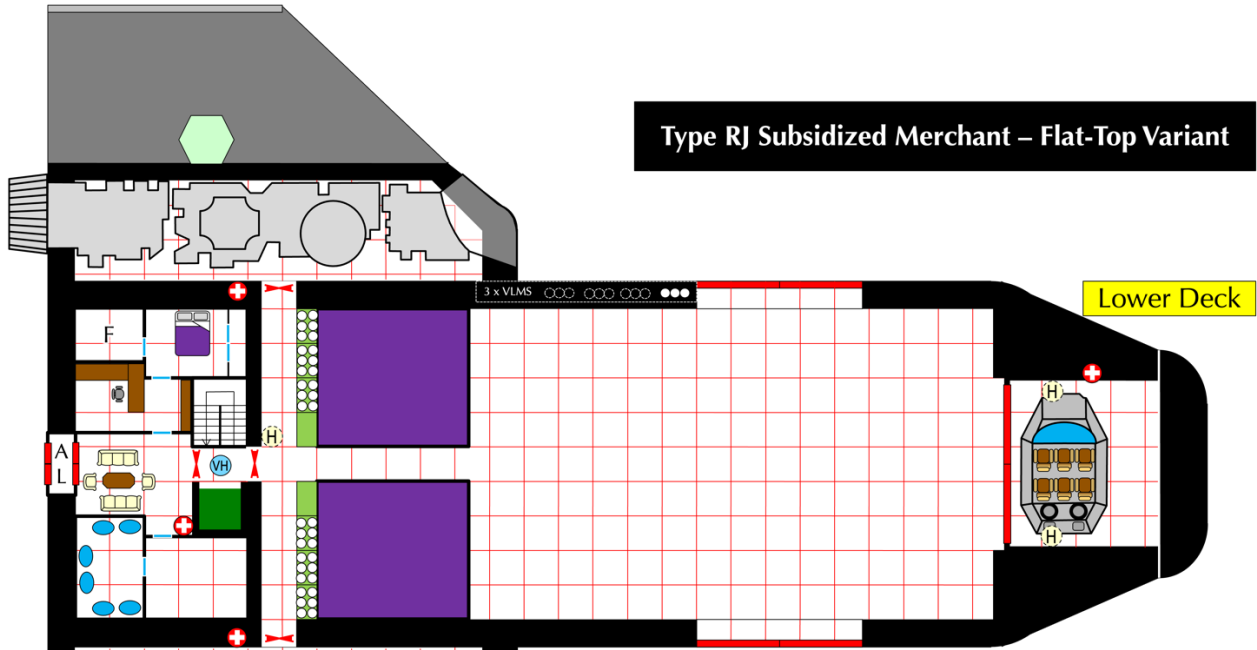


Deck Plan Symbols			
	1.5m x 1.5m 0.5 dTons		Exterior Iris Docking Hatch in Ceiling
	Iris Valve Security Door Vacuum tight		Exterior Iris Docking Hatch in Floor
	Lockable Sliding Privacy Door		Emergency Locker
	Iris Hatch in Ceiling with Ladder (Internal)		Vacc Suit Locker
	Iris Hatch in Floor with Ladder (Internal)		Fresher, with Toilet, Sink, Shower
	Desk, Chair and Computer		Armchair, Coffee Table and Couch
	Single Bed with Storage Underneath		Bunk Beds with Storage Underneath
	Double Bed with Storage Underneath		

Type RJ - Havok

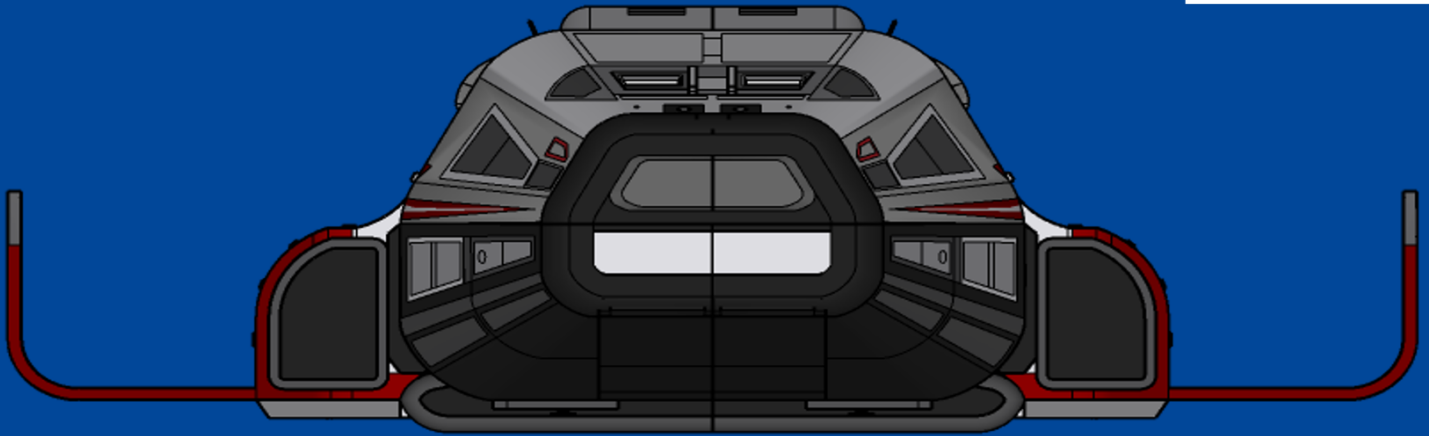


Type RJ Subsidized Merchant – Flat-Top Variant



Deck Plan Symbols			
	1.5m x 1.5m 0.5 dTons		Exterior Iris Docking Hatch in Ceiling
	Iris Valve Security Door Vacuum tight		Exterior Iris Docking Hatch in Floor
	Lockable Sliding Privacy Door		Emergency Locker
	Iris Hatch in Ceiling with Ladder (Internal)		Vacc Suit Locker
	Iris Hatch in Floor with Ladder (Internal)		Fresher, with Toilet, Sink, Shower
	Desk, Chair and Computer		Armchair, Coffee Table and Couch
	Single Bed with Storage Underneath		Bunk Beds with Storage Underneath
	Double Bed with Storage Underneath		

Inside Back Cover
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The Type R Subsidized Merchant is a well-known and common class throughout the Third Imperium and beyond. The basic data package has been replicated by many shipyards. However, more than a few naval architects and shipyards have taken those specifications and decided to modify them to suit their own preferences.

Screenwriter, director and producer Joss Whedon once told an interviewer he played in a sci-fi RPG while in college. Some have hypothesized that the RPG was Traveller and the Type R was the inspiration for Serenity, a Firefly-class vessel. The Flat-Top is based on that idea.

Hang on Travellers, its time for some thrillin' heroics.



TRAVELLERS' AID SOCIETY

