

L21 Light Freighter

The L21 Light Freighter is a small, cost-effective class of faster-than-light cargo freighter created in AF 260 ([YE 32](#)).

About the Ship

Designed in AF 260, the L21 Light Freighter was developed for starting merchants in mind.

Key Features

The L21 Light Freighter is the first FTL Cargo Freighter in Abwehran history with the ability to land at planetary starports.

Mission Specialization

The L21 Light Freighter was designed for transporting cargo with the ability to be modified to suit the owners need.

Appearance



History and Background

With the success of the [Fresha-class Small Transport](#), [Abwehran Imperial Yards](#) felt it had satisfied its goals for the small merchant companies and starting businesses. However, the passage of time told a different story as the [Fresha-class Small Transport](#) was used more and more by companies rather than individuals trying to start a business. By the beginning to AF 260 ([YE 31](#)), it seemed that there would be no new merchant lines because of the lack of affordable transport.

Wanting to change that, [Abwehran Imperial Yards](#) designed the L21 Light Freighter in the Second Quarter of AF 260. While the L21 would be smaller than the [Fresha](#) it was also more affordable and had the added ability of actually landing on planetary starports rather than rely upon stations and shuttles.

Statistics and Performance

General

Class: Ay-L2-1a Type: Small FTL Cargo Transport Designers: [Abwehran Imperial Yards](#) Manufacturer: [Abwehran Imperial Yards](#) Production: Mass-Production Fielded by: Independents Suggested Price: 250,000 AC (83,333 KS)

Passengers

Crew:

- 1 Captain
- 1 Operator
- 1 Engineer
- 2 Technicians
- 1 Doctor

Passengers: 4 Maximum Capacity: The L21 has maximum accommodations for 10 individuals and is able to hold a maximum of 200 individuals in emergency.

Dimensions

Length: 40 meters (~131 feet) Width (w/o wings): 15 meters (~49 feet) Width (w/wings): 60 meters (~197 feet) Height: 7.5 meters (~24 feet) Decks: 2 (Deck 1 at 3 meters and Deck 2 at 4.5 meters)

Propulsion and Range

Continuum Distortion Drive: 1000c (2 AU/sec) Hyperspace Fold Drive: 0.2 ly/min; 10 light-year range; 30 minute charge time Sublight Engines (Velocity/Acceleration): 0.18c @ 1585 Gs Atmospheric Flight: Mach 1 Range: 1 Month Lifespan: 10 Years Refit Cycle: Every 2 Abwehrran Years (8 Standard Years)

Damage Capacity

- Hull: 8 Ship SP
- Shields: 6 SP (Threshold 1)

Inside the Ship

Compartment Layouts

Compartments listed from fore to aft

Deck 1

- [Imaging Scanner Access](#), Bridge, Communications Access
- Escape Pod 1, Main Corridor, Escape Pod 2
- Elevator 1, Wardroom, Elevator 2

- Captain's Suite, Main Corridor, VIP Suite
- Passenger Quarters 1, Main Corridor, Crew Quarters 1
- Passenger Quarters 2, Main Corridor, Crew Quarters 2
- Passenger Quarters 3, Main Corridor, Crew Quarters 3
- Ladder 1, Medical Bay, Ladder 2
- Doctor's Suite, Main Corridor, Crew Quarters 4
- [Standard Computer Center](#), Main Corridor, [Environmental Room](#)
- [Subspace Mass Sensor Access](#), Main Corridor, [Environmental Room](#)
- [Radar](#) and [Infrared Spectrometer](#) Access, Main Corridor, [Environmental Room](#)

Deck 2

- Cargo Hold
- [Standard Airlock](#)
- Loading and Unloading Section
- [Standard Airlock](#)
- [Hazard Shield Room](#), [Abwehran Standard Fabrication Room](#), [Hard Bubble Shield Room](#)
- [Solar Battery Room 1](#), [Main Reactor Room](#), [Solar Battery Room 2](#)
- [Standard FDD Room](#), [Secondary Reactor Room](#), [Standard Fold Core Room](#)
- [Standard Engine Room](#)

Compartment Details

Bridge

The control center of the L21, the bridge only has room for three individuals. The Communication and Detection Operator is seated on the starboard side by the Communications Access. The captain/pilot is actually on a raised platform where the only view port on the bridge is located. This view port is normally just for atmospheric flight and has a [Durandium Alloy](#) shield that covers it during space flight¹. The port side position usually for guests.

Captain's Suite

Unlike many of the rooms on the L21, the Captain's suite is three rooms. The standard bedroom and bathroom are typical for every room, but the Captain's Suite also has an office in between the bedroom and the Main Corridor. The bathroom of the Captain's Suite is located in the aft part of the Suite in between the Office and Bedroom.

Cargo Hold

A large, expansive cavern within the L21 used to store all of the ship's cargo. The Cargo Hold also has

two Hydrogen-tanks on the Port and Starboard sides used to fuel the [Hydrogen-powered Scramjets](#). These tanks are contained in [Durandium Alloy](#) shells to protect them from accidents in the Cargo Hold.

Communications Access

A small Crawlspace used to access Communications Hardware.

Crew Quarters

The standard Crew Quarters of the L21 has a small, furnished bedroom with a dresser and a full-sized bed. A small bathroom with shower, sink, and toilet is located just to the right of the entrance.

Doctor's Suite

The Doctor's Suite is similar to the Captain's Suite, but has an extra access way leading from the Doctor's Office to the Medical Bay.

Loading and Unloading Section

This section is the staging area between the Cargo Hold and the L21's Landing Ramp, where cargo is moved to in preparation for off-loading or storage in the cargo hold.

Main Corridor

The Main Corridor is a wide, spartan passageway that stretches down the center of the L21's top deck.

Medical Bay

The Medical Bay is a large facility made up of three rooms. The Port side room is a Medical Storage Facility where all medicines and equipment are stored. The Starboard side room is an isolation ward with decontamination equipment, which can also double as a clean room for minor surgeries. The central room is responsible for the bulk of medical diagnosis.

Passenger Quarters

A lavish room decorated much like the Crew Quarters, only with a queen-sized bed and a recliner with reading lamp.

VIP Suite

Unlike the usual Passenger Quarters, the VIP lounge is a large bed room with an attached bathroom. The Bedroom is furnished lavishly with a king-sized bed, chest of drawers, and reclining chair with reading lamp. The Bathroom, located just to the right of the entrance. actually has a bathtub with shower head, sink, and toilet.

Wardroom

The Wardroom is a combination of lounge and dining area with a small kitchen on the port side. The kitchen is open and can be viewed from the dining area. It can also be transformed into a bar when needed.

Ship Systems

Armored Hull and Hull Integrated Systems

The L21 Light Freighter is constructed from a [Standard Civilian Hull](#) wrapped around a [Durandium Alloy](#) chassis with [Standard Transport Armor](#) to give it some passive defense against the hazards of the galaxy.

Airlocks

There are three [standard airlocks](#) on the L21 Light Freighter. One is located between the Engineering Section and the Loading and Unloading Area with the second located between that and the Cargo Hold. The third [airlock](#) is located just below the port elevator to allow the L21 to dock with other starships.

Computers and Electronics

The L21 Light Freighter uses a [CU-23](#) computer system.

Communication

- [Starship Laser Communication](#)
- [Starship Radio](#)
- [Civilian Subspace Communication](#)

Detection

- [Imaging Scanner Package](#)
- [Infrared Spectrometer](#)
- [Civilian Subspace Mass Sensor](#)
- [Civilian Radar](#)

Emergency Systems

The L21 Light Freighter has two escape pods in case of emergency. The L21 also has quite a bit of compartmentalization in case of hull rupture.

Life Support Systems

The L21 uses an [Artificial Photosynthetic Life Support System](#) to regulate air and water supplies on board with [Unidirectional Gravity Plating](#) in the [hull](#) for internal dampening and artificial gravity.

Power Generation

To power its systems, the L21 has a single [D-D Main Fusion Reactor](#) backed up by a [D-H3 Secondary Fusion Reactor](#). As an auxiliary power source, the L21 has 4 [solar-charged batteries](#).

Propulsion

Because it is capable of both space and atmospheric travel, the L21 has one [Civilian Fusion Engine](#) and two [Hydrogen-powered Scramjet](#) engines which can rotate for VTOL capability. For FTL capability, the L21 is the first Abwehran vessel to feature the [Fusion Capable Continuum Distortion Drive \(FDD\)](#) while it also has the standard [Civilian Hyperspace Fold Drive](#).

Shield Systems

The L21 has both [Hazard Shield](#) and [Hard Bubble Shield](#) to protect itself from the hazards of space flight.

Weapons Systems

NONE

¹⁾

though some pilots will raised the shield anyway

From:
<https://wiki.stararmy.com/> - **STAR ARMY**

Permanent link:
https://wiki.stararmy.com/doku.php?id=faction:abwehran_star_empire:technology:spacecraft:l21_light_freighter

Last update: **2023/12/21 05:25**

