Red Mountain Class Multipurpose Corvette

Based on the Red Hills Class Cargo Ship, the Red Mountain is designed to be its replacement. It continues serving in the same role of the Red Hill: colonial re-supply ship and a ship for those with budget considerations. It entered production and sale late YE 44.

Mission Specialization

Red Mountain Class Logistics Ships can be used in the following use cases:

- Light Freighter duty
- Salvaging
- Passenger Transport

Appearance



Red Mountain in the background with a Nuwa Class Multipurpose Frigate for comparison.

Compared to most Nepleslian designs, the Red Mountain has a more sleek and streamlined design. Integrated into the sides of the aerodynamic body are the ship's nacelles. Both the ship's CCD coils and main sub-light drives are located within. A hump and various connection points can be seen on the back of Red Mountain ships that are used to connect modules of various shapes and sizes. Though typically they are sleek, flat containers.

History

Ever since she laid her eyes upon her first Starship as a youngling, Takeda Junko has always wanted to design tangible products. She has hours upon hours of experience practice with engineering software and personal experience working with various systems. Thousands of projects exist on her personal mainframe maintained by her trusted AI, one of them was Project 917.

Curious on how to turn the Red Hills Class of ships to follow more Yamataian standards, Junko focused on keeping the crew together as much as possible. Project 917 ended up looking more like a mix of a Nepleslian warship and the Yamataian Midori Class Scout. When looking for work (not one to sit around), she submitted a number of her ship design blueprints to Ryu Heavy Industries as part of a portfolio. She not only got a job, but they put her in a key position of a new ship type based on Project 917.

While Project 917 would serve as the base for the larger Nuwa Class Multipurpose Frigate, Junko couldn't convince leadership to adopt the original form. Something "overlapping" requirements with the Yugumo Corporation. But another group of people did express an interest in Project 917.

Looking for more modern replacements for their own Red Hill hulls (keeping until they can't be repaired), Nepleslian Research and Manufacturing reached out to RyuK and Junko in hopes of acquiring rights to produce the design. Seeing the benefits of being the ones to influence the Nepleslian Reds not so secret rearmament, RyuK President Ryu-Mizumitsu Masashi decided to grant them the rights with the option for the RyuK to produce them as well in the future.

Statistics and Performance

General Statistics for the Red Mountain Class Multipurpose Corvette		
Year Introduced	YE 44	
Class/Nomenclature	NRM-L1	
Alternative Nomenclature	RHI-L3	
Designers	Takeda Junko	
Manufacturer	Nepleslian Research and Manufacturing, Ryu Keiretsu	
Fielded By	Nepleslian Research and Manufacturing, independents	
Range	3 months of fuel and oxygen	
Maintenance Cycle	Refits every 5 years is recommended	
Lifespan	70 years with regular maintenance and refits	
Pricing	250,000 KS	

General notes about ship stats and performance

Crew and Passengers

Crew: 7 (2 Technicians, 1 Medic, 1 Logistics, 1 pilot) crew members and 2 officers. A skeleton crew of 3 (1 Technician, 1 pilot, and 1 Officer).

Maximum Capacity: There are accommodations for 12 people. About 200 people can fit aboard in an emergency, more if modules are used. But the ship would be extremely uncomfortable.

Dimensions

- Length: 98.7 meters
- Width: 30 meters
- Height: 15.9 meters (at its longest at the back mid section)
- Decks: 2 (4.2 meters per deck)
- Subdecks: 2 (2.1m below deck 1 and 2.5m below deck 2 forward)

Deck Layout

Compartment layout					
Deck	Bow	Amidships	Stern		
1 (4m)	Airlock, Bridge, Docking Tube, Secondary Weapon Space (4)	Bridge, Captain's Suite, Crew Cabin (2),Escape Pods (2), Gallery, Officer Cabin, Sickbay	Armory, Cargo Hold, Engineering, Machine Shop, Pop-up Weapon Space (4), Secondary Weapon Space (8), Shuttle Bay		
Sub1 (2.1m)	Airlock, Docking Tube, Maintenance Corridors	Life Support Systems, Maintenance Corridors			
2 (4m)	Pop-up Weapon Space (2), Secondary Weapon Space (4)	Lower Module Notch	Cargo Hold, Engineering, Pop-up Weapon Space (4), Secondary Weapon Space (8)		
Sub2 (2.8m)	Landing Systems		Cargo Hold, Engineering, Landing Systems		

Propulsion and Range

- Continuum Distortion Drive: 2994.03c
- Hyperspace Fold Drive: 0.60 ly/m
 - Max Range Between Charges: 20 ly
 - Charge Cycle:
 - 10 LY or less 2 minutes
 - More than 10 LY up to 20 LY 5 minutes
 - $\circ\,$ 7 minute cool down between folds
- Cruising Sublight Speed: .2c
- Maximum Sublight Speed: .275c
- Anti-grav VTOL Drives

Damage Capacity

See Damage Rating (Version 3) for a guide to damage ratings to include.

• Armor/Hull: Light Ship (10)

• Shield: Light Ship (10)

Inside the Ship

Compartments

The following are common compartments found in all Red Mountain Class ships.

Bridge

Nestled within deck 1, the Red Mountain's bridge is centered around the Captain's seat. To the front of the captain, the ship's pilot and sensor technician (if assigned) share a cramped space . The XO is seated on the left side, while the AI tank is located on the right side of the captain. The XO usually is tasked with gunnery duty in combat situations, while the captain mans navigation.

Captain's Suite

Rather spacious considering the size of the Red Mountain, the 5 x 5 meters room is divided between the CO's quarters and an office. The wall separating the two can be removed to create one giant space for the CO's use or make the office into a hidden compartment.

Crew Quarters (2)

Of Ryu Heavy Industries design, at 5.4 by 5.4 meters, the Crew and Troop Cabins are designed to house both the crew and embarked personnel of the ship. The cabin lacks major entertainment systems besides small personal volumetric displays in each of the 5 bunks present in the cabin.

2 bunks are built into the thick walls to the left and right sides. A fifth single bunk is located on the rear wall, berthing a senior rated crew member (usually the team leader). If a crew member wants privacy, they simply close the sliding door and engage noise canceling to make sure their cabin mates can't hear what they are doing. The bunks are also high enough for two individuals and very sturdy to not shake/make noises to disturb others.

Each far corner of the cabin contains the storage dedicated to house the personal effects (namely clothing). In the near corners to the cabin's entrance, two 2m x 2m wet bathrooms are located for the crew's hygienic needs. The shower unit and toilet occupy the same space.

Officer Suites

Measuring at 5 meter long x 5 meter wide x 3 meter high, the crew cabins are designed to house 2

officers (Chief Engineer and XO). Along the side of left and right walls, a 2.5 meter long and 1.5 meter wide bed is located with overhead storage compartments. The rear wall has an entertainment suite and seating. In addition, each occupant is provided with a 2 meter x 2 meter private toilet/shower unit located in front of their beds.

Gallery

The gallery on the Red Mountain functions as both the dining hall and place of entertainment on the ship. The gallery also includes a multi-layer hydroponics system used to grow spinach, tomatoes, basil, and other herbs and vegetables. This helps the ship maintain a supply of quality ingredients when away from ports.

Sickbay

A small 5 x 5 meter space, the Red Mountain's sickbay is largely designed to treat workplace injuries on the ship. A treatment bed is located on the left and right sides of the sickbay[] while medical supplies and equipment are located in the back. The bay's medical technician has a workstation in the front left of the bay.

Crew Support Facility

A combination of laundry, ship stores, and communal baths. The "front" of the Crew Support Facility (CSF) consists of a store where cleaning supplies and other items the crew would like to have for morale can be found. To the opposite is a laundry facility for those wishing not to bathe or those that had changed clothing after bathing. A door leading to the changing room can be seen in the hallway created by the first two sub-rooms. Beyond the changing room are two small pools used for communal or gender separated (with an addition of a wall) bathing.

Cargo Hold

Located in the aft section of the Red Mountain, the ship's cargo hold consists of two part: the high bay and the low bay.

At 28.1 x 11.5 x 12.9 meters (LWH), the High Bay is used to store the majority of cargo containers stored internally. The Low Bay (Y x 11.5 x 6.7 meters, LWH) is used primarily for loading and unloading. However, there are mounting points on the floor for standard shipping containers as well. Graviton projectors are used to move the cargo containers around, with safety lines mounted on the ceiling to mitigate accidents should the power cut out.

Engineering

Located in the Red Mountain's integrated nacelles, the two engineering sections of the ship consist of power and propulsion, as well as support systems such as life support and fuel tanks. A workstation computer with volumetric projectors is located between the two fusion reactors to allow easy access to the catwalks and maintenance corridors.

Each nacelle also has a small fabrication machine and workbenches to create minor parts and components needed for the maintenance of the ship.

Shuttle Bay

At 18.7 x 14.2 x 5.6m, the Red Mountain's Shuttle Bay is capable of housing a number of shuttle common in the sector. The left side is attached to the bay's armory, while the other side is attached to the ship's machine shop.

Armory

Largely for the shuttle bay, the armory is used to safely store weapons used by docked small craft safely. Secured weapons lockers are located around the ship

Machine Shop

Providing greater production ability than the machines in Engineering, the Fabrication Room is used to generate larger parts needed to maintain the ship and shuttles parked in it. Manual tools and machines are present in the machine shop for more primitive methods of manufacturing.

Ship Systems

Below are common components and systems found within the Red Mountain Class. Many systems are based on recovered salvage (of various states of usefulness) originating from the First Mishhuvurthyar War and Second Mishhuvurthyar War. As such, the components are designed to be swapped out for other components, allowing for customization of the vessel.

Hull and Frame Construct

The hull of the Red Mountain Class makes use of Aggregated Diamond NanoRods and Durandium to form the skeleton of the ship. Aggregated Diamond Nanorod plating is then bolted over it to protect the internals of the ship from the vacuum of space and against damage.

Red Mountain-class Hull and Frame Assembly				
Primary SpaceFrame	ADNR (Aggregated Diamond Nanorods) reinforced Durandium Alloy Major Truss			

Red Mountain-class Hull and Frame Assembly		
Secondary SpaceFrame	Durandium Alloy Secondary Truss and Rod Assembly	
Outer Plates	ADNR (Aggregated Diamond Nanorods) Plate	
Lining	Polymer Gel Lining	

Computers, Electronics, and Sensors

The Red Mountain makes use of a NRM-L1-E4400 "Oracle" Computer system. Reliant of a humanoid operator to function correctly, the operator's tank is located within the bridge of the vessel. Secondary control and tasks can be handled by AIs such as the Savtech JANE when the operator is not present on the bridge.

The sensors of the Red Mountain are based on partially destroyed MIKO Electronics Suite sensor arrays recovered from salvage. Located on the sides of the forward section and the front/rear of the integrated nacelles, the Red Mountain's sensors were specifically designed for salvage and mining operations commonly done by Nepleslian Reds.

Lastly, the Red Mountain makes use of the NRM "Slick" Defensive Electronics Warfare. Design to assist captains in being unseen or successfully withdraw from pirates/hostile forces, the key component to the system is the reverse-engineered Mass Mesher Device (which itself is a based on the Nepleslian Research and Manufacturing). The system allows the vessel to hide itself electronically behind large objects like the asteroid it is mining. Should that fail, then the system is designed with defensive laser systems (blind optics), electromagnetic jammers (directed and general) to disrupt electromagnetic and hyperspace based sensors/communications, and threat detection systems.

Emergency Systems

Based on partially reverse-engineered Na-EP-01a "Scapegoat" Escape Pod that failed to explode, the NRM-L1-X4400 Escape Pod is scaled down version designed for the Red Mountain. Powered by a compact fusion reactor, it provides decent shelter space, life support, and food/water for 4 individuals. ADNR (Aggregated Diamond Nanorods) plating protects the Durandium Alloy frame. A hyperspace communications system rounds out the escape pod.

Four are located on the Red Mountain.

Life Support Systems

The NRM-L1-V4400 "Eden" Series of Life Support is based on studies on salvaged Motoyoshi Fleet Yards Life Support Systems and Second Mishhuvurthyar War era Star Army Standard Life Support Systems. Refits are in the works to replace many of the filtering components with nanomachines.

Water

With the use of its graviton beam projectors, the Red Mountain is capable of extracting water from celestial sources such as ice comets or oceans. The water is then filtered via The filtered reverse osmosis to remove impurities before being stored on the ship.

Waste water is filtered until nothing by a biosludge is left in a treatment compartment. It is then dried to extract the last remaining bits of water and the water is boiled and cooled to kill off any harmful microorganisms. The dried matter is usually thrown into the ship's fabricator to be deconstructed to its base elements.

Atmosphere

Lacking access to hemosynth material, NRM resorted to using old fashioned static filters positioned regularly within air ducts to remove unwanted particles. Carbon scrubbers further supplement this system to remove excess carbon dioxide to be converted into oxygen (storing the carbon) when needed. The air is further treated with dehumidifiers to maintain a static humidity level.

Oxygen is created by separating water gathered from extracted ice.

Gravity

Gravity is produced via grav plates installed within the floor frame of each deck. They can generate gravity up to 2Gs. Compensators are located within the hull of the ship to dampen the effects of external gravity sources.

Power and Propulsion Systems

The Red Mountain Class of ships make use of older design elements to power and propel it. Located within each of the integrated nacelles are two (for a total of 4) NRM-L1-P4400 Fusion Plasma Drives that make use of gravity systems to focus and direct exhaust in a vectored manner. Each drive is connected to a NRM-L1-G4400 Fusion Reactor that both supplies the plasma needed for the drives and main power for the ship. RHI capacitors are used on the ship.



Perhaps taking a design queue from the Ryu Keiretsu, the two coil assemblies of the NRM-L1-P4401 CDD are so slow that they are only effective as intrasystem travel. The main means of Faster-Than-Light travel is the NRM-L1-P4402 Hyperspace Drive usable once the ship is outside of the gravity well of the system's star.

Rounding out the ship's propulsion systems is the NRM-L1-R4400 Anti-Gravity Lift System. The system is designed to counter up to 10Gs, allowing the Red Mountain to not only land and take off from planets, but also to escape and survive the upper atmospheric levels of Gas Giants.

Shield and Defensive Systems

The Red Mountain makes use of the Nepleslian classic Electrostatic and Gravimetric Combined Shield System. Emitters are located throughout the ship with the main generators located within the integrated nacelles. The NRM-L1-S4401 Protector Series Combined Shield System (CSS) also makes use of the NRM-L1-R4400 Anti-Gravity Lift System to generate the required gravitons for the gravimetric shields.

Weapon Systems

The Red Mountain has 14 pop-up turret hardpoints where various weapon systems can be attached. 8 turret spaces are located on the top and bottom of the integrated nacelles, plus 2 more on each side of the nacelles and one is located on each side of the forward section.

- NRM-W4409 Goalkeeper Point Defense weapons with their own integrated sensor and tracking systems.
 - Tier: 8 (Medium Anti-Mecha)
- NRM-W4421 Interceptor Missile Bays x24
 - Tier: 6 (Heavy Anti-Power Armor)

Misc Systems

UNIV(ERSAL) Clamps

Making use of the same universal docking system employed by the Nepleslians, this system comprises a pair of magnetic clamps on the outside, an umbilical tube and 4 general utility pipes. When attached to another UNIV-A equipped ship, both ships can transfer power, data, personnel, small cargo, air and water simultaneously, and may be used by smaller craft for a piggyback ride. The clamps are located on the port and starboard side and two more under the ship, clamped on the main gun by default. Each comes with a small Gravitron Projector to draw things towards it.

Nepleslian Research and Manufacturing developed additional variants for strictly attaching to modules and ships piggybacking. UNIV-B clamps are the same size as the UNIV-A (but lack physical access to the module from the ship), while UNIV-C clamps are much smaller and designed to ensure strong connections between modules (in addition to connecting power and data)

A single UNIV-A clamp is located on the mid-dorsal area of the Red Mountain. In addition to the docking adapter located in the nose of the ship, the dorsal clamp can be used to dock with ships with the same UNIV-A mount. Within the rear of the lower module notch, two more UNIV-A clamps provide access to modules.

Graviton Arrays

Graviton Beam Projector Arrays are located to the forward, rear, and side corners (top and bottom) sections of the Red Mountain. This allows the ship to tow spacecraft the same size or smaller, attach to surfaces, maneuver modules to be attached, capture asteroids for mining, etc.

Modules

On the top and "belly" of the Red Mountain, two modules can be attached to the Red Mountain to extend its capabilities. Each module is connected to a UNIV-A Clamp that allows access to the internal section of the module and share power/data between ship and module. All modules that are designed to be dropped off have point defenses that pop up on the top and bottom corners of the module. All also have thickness that match the carrying vessel (T10).

The following modules are available to the Red Mountain (and other ships with UNIV-A Clamps)

- Upper Modules Dimensions: 39.1 x 20.08 meters
- Lower Modules Dimensions: 40.05 x 17.4 x 7.36 meters

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Mining Module (Lower)

The Mining Module consists of an Ore/Plasma Hold, a Drone Bay (in the rear), and a coordinating Al core (in the center rear). Each module has 3456.77 cubic meters of space for extracted material. Two recessed spaces on the sides cab be seen to support the docking and transport of larger mining drones.

The module is designed to be dropped off at claim sites to be picked up later.

"Kangaroo" Transport Module (Lower)

Split between 2 decks, the Transport Module is designed to be used for the transportation of personnel and their equipment. The top deck is dedicated to just passengers with seats and/or sleeper cabins, passenger facilities, and escape pods. The exact configuration is up to the user but the following options are available:

- 1 x 1 meter seats
- 5 x 5 meters 6 man cabins with 2 wet bathrooms
- 5 x 5 meters 2 man cabins with 2 wet bathrooms

The lower deck is designed to be a cargo hold with a height of 4 meters with escape pods continuing from the upper deck. Ramps are located on both sides of the module to allow easy on/off loading of equipment. If only passengers are to be carried, 8 seat pallets are added

The Transport Module contains its own separate life support system with anti-gravity generators and compensators.

Survey Module (Upper)

Designed to allow the Red Mountain to function as a scout/prospector, the Survey Module is a 6 meter tall box full of advanced sensors, a laboratory, and living facilities for the survey team. The module is designed to be dropped off within a dense asteroid belt and other areas where the sensors need to be away from the Red Mountain for maximum usage.

Cargo Module (Lower/Upper)

Two versions of the Cargo Module exist: exposed and covered. Exposed is designed for Standard Shipping Containers that do not need to be protected from the vacuum of space (protected by combined shields). The covered option is required for containers that need to within an exotic or Yamatai atmosphere.



Carrier Module (Lower)

The Carrier Module is designed to turn Red Mountains into Very Light Carriers in a pinch. Two angled rapid launch bays accommodate 2 craft with a max length of 15 meters, max width of 7 meters, and max height of 5 meters. In between both consists of an armory to store weapons and ammunition for both craft. Support Personnel and pilots have the be supported by the ship.

OOC Notes

Demibear created this article on 2022/08/08 01:04.

This was approved by Andrew on $2023/2/16^{2}$.

Products & Items Database		
Product Categories	starships	
Product Name	Red Mountain Class Multipurpose Corvette	
Nomenclature	NRM-L1-1A	
Manufacturer	Nepleslian Research and Manufacturing, Ryu Keiretsu	
Year Released	YE 44	
Price (KS)	250 ,000.00 KS	
DR v3 max	Tier 10	

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