Nuwa Class Multipurpose Frigate

Designed for multiple roles, the Nuwa (女媧, Lianjia name for an ancient goddess) Class Multipurpose Frigate relies on modules to accomplish this. It can function as a medium freighter, an assault ship for Star Army Century and larger sized elements or anything in between. It became available for sale in YE 44.

History

When the president of the Ryu Keiretsu inspected their leased facilities on Port Jiyuu and their new Hibiscus Class Space Stations, he was deeply dismayed that the current line-up of ships his Ryu Heavy Industries did not have a starship small enough to take advantage of the small non-vacuum shipyards. As such he "strongly" encouraged his shipwright to design a smaller vessel that could fulfill a wide range of duties. A number of them were ex-Star Army of Yamatai engineers and technicians that had fond memories of the ships they served in the SAoY. One proposal was to use the Plumeria-class (2E) Medium Gunship as the basis of one such ship.

Project Nuwa received a jumpstart when Takeda Junko was hired by Ryu Heavy Industries. Somehow her portfolio of practice ship designs she made over the years ended up on Ryu-Mizumitsu Masashi's desk. The looks of her designs agreed with his aesthetics so much that he decided to use one of them (Project 917) as the basis of the Nuwa.

Junko's experience and expertise (augmented with memorizing every technical manual) could be seen in how the ship was designed very similarly to SAoY designs. Stretching and modifying the internal layout of the ship turned out to be easier thanks to that. What would have taken 2+ years to develop, the result for prototypes to be built took only several months.

The Tengu Lower Module for Nuwa Assault Ships was also developed in hopes of offering it to the SAoY to use as a basis for developing a new Assault Ship for the Star Army Rikugun. Especially as the Kagai Assault Ships were up for renewal in YE 43.

Description

Below is information on the Nywa's looks and abilities.

Mission Specialization

The Nuwa can fulfill the following depending on what modules are attached:

- Long-term transport and living space for Century sized groups (military and civilian)
- Aerial Fire Support

- Armed Cargo Hauler/Passenger Liner
- Exploration/Surveying

Appearance



Nuwa in the foreground with a Red Mountain for comparison.

The Nuwa has an elongated and semi-blocky (smooth at the top, sharp angles below) aerodynamic-shaped main body that becomes flat at the ends.

Statistics and Performance

General notes about ship stats and performance

General Statistics for the Nuwa Class Assault Ship		
Year Introduced	YE 44	
Class/Nomenclature	RHI-F1-1A	
Designers	Ryu Heavy Industries	
Manufacturer	Ryu Heavy Industries	
Fielded By	Ryu Keiretsu, customers	
Range	Unlimited	
Maintenance Cycle	Refits every 5 years are recommended	
Lifespan	30 years with regular maintenance and refits	
Pricing	600,000 KS	

Crew and Passengers

Position	Number Needed	Rate
Captain	1	Officer
XO	1	Officer
Chief, Engineer	1	Officer
Chief, Medical	1	Officer
Chief, Logistics	1	Officer
Chief of the Ship	1	Senior

Position	Number Needed	Rate
Senior Bridge Crew	9	Senior
Junior Bridge Crew	15	Junior
Engineers	15	Senior
Technicians	30	Junior
Support Staff	30	Junior (25)/Senior (5)

• Crew: 100 crew members and 6 officers (3 shifts).

Maximum Capacity: Depending on how Deck 5 is set up, the Nuwa is capable of carrying 500 individuals in cramp conditions short term.

Dimensions

Length: 194 metersWidth: 96.5 meters

• Height: 30 meters (32 when on landing struts)

• Decks: 6 (4.2 meters per standard deck)

Propulsion and Range

Continuum Distortion Drive: 5,000c
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

7 minute cool down between folds

• Sublight Engines: .25c

Damage Capacity

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

DRv3 Tier: Medium Starship (11)

Inside the Ship

Below is the description of what is inside the Nuwa.

Deck Layout

Deck	Compartments
1 (4.2m)	Shuttle Bay, Multipurpose Room, Shuttle Bay Control Room, Elevator, Gallery, Aeroponics, Wardroom, Storage Room, Sensor s, Weapons Bay (2)
2 (4.2m)	Shuttle Bay, Cargo Lift, Elevator, Medical Lab, Crew Cabins (6), Crew Support Facilities, Fabrication Chambers (4), Airlock, Al Core, Armory, Bridge, Upper Engineering Space, Captain's Suite, Upper Engineering Space, Engineering Room, Nacelle Access
3 (4.2m)	Crew Cabins, Crew Support Facilities, Elevator, Power Armor Bay, Armory Upper Cargo Hold, Docking Tube, Nacelle Access, Upper Engineering Space, Engineering Room, Storage Compartment (2), Machine Shops, Internal Cargo Transfer (2), Weapon Bays (4), Upper VLS (2), Engines (2), Storage Compartment (2)
4 (4.2m)	Module Deck 1, Machine Shops, Upper Cargo Hold, Internal Cargo Logistics Corridor (2), Engines (2), Storage Compartment (2)
	Upper Vehicle Bay, Cargo Lift, Module Deck 2Storage, Fabrication Chambers (4), Lower Cargo Hold, Weapons Baty (4), Lower VLS (2), Storage Compartment (2), Drone Bay
6 (4.2m)	Module Deck 3, Landing Subsystems, Sensor s, Lower Cargo Hold, Lower Vehicle Bay, Cargo Lift, Weapons Bay (2), Brig, Armory

Crew Related Compartments

Requiring maximum security, all rooms have at least 45cm of bulkhead in place for walls and some can be sealed by Nerimium Blast Shutters. Damage control stations can be located no more than 2 meters away from every door in a corridor and sound-powered phones are located in every room. Key compartments are wired directly to the bridge, while other rooms are wired to the security room and Med Bays (flipping a switch).

CO and XO Suites

Each a tad bigger than the standard cabins seen on the ship $(7m \times 5m \times 3m)$, these suites are dedicated to the senior leadership of the Nuwa Class ships.

Chief of the Boat Suite

Similar in size to the crew cabins, the quarters of the Chief of the Boat (or the Senior Enlisted Advisor in SAoY speak) consist of only a bed for the COB. The remainder of the space is dedicated to entertainment purposes.

For civilian applications, it is typically used as the main communications or security room.

Officer Cabin (2)

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

officers. Along the side of the left and right walls, a 2.5 meters long and 1.5 meters 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 meters x 2 meters private toilet/shower unit located in front of their beds.

Crew Cabin (20)

The same size as Officer Cabins, the Crew Cabins are designed to house the crew of the ship. They lack major entertainment systems besides small personal volumetric displays in each of the 5 bunks present in the cabin.

2 single 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 crew members want privacy, they simply close the blinds 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 to disturb others.

Each far corner of the cabin contains storage dedicated to housing 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.

Crew Support Facilities (2)

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.

Gallery

Located in Deck 1 off the Wardroom, the Galley has a built-in Scullery. This has been necessitated to help with the increased crew complement and the enlarged Wardroom. It is also better stocked with spices and other such options to cater to a wider palette, including any VIPs being transported. It 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.

Wardroom

Connected to the gallery, the wardroom is used as the dining hall for the Nuwa ship. When the gallery is closed, a portion of the wardroom is used as a ship's store to sell snacks and food to the crew.

Multipurpose Room

The multipurpose room is a volumetric room that can be configured to generate a wide assortment of environments for crew morale. It is often used a dojo and gym to maintain the fitness of the crew. It is also used as an auditorium for movie nights.

Non-Crew Related Compartments

There are Yugumo Standard Anthroform Drone Berth spread around the ship for 10 androids.

Bridge

A fairly cramped design, the Nuwa makes use of a Small Ryu Type Bridge, located on Deck 2. Dominated with computer systems, life support, and volumetric displays, the following stations are grouped around the two central seats for the ship CO and XO:

- Piloting
- Navigation
- Weapons (2)
- Sensors/EW/Communications

In the back, a volumetric tank can be found that is used by analysts and displays relevant information to what the ship is currently tasked with.

Security Room (2)

Located on Decks 3, serving as screening rooms for the ship's airlock. The two heavily armored rooms house the security staff (normally only one is used when docked) to form an gauntlet for the ship. Each has a mini armory and arrays of volumetric displays.

A similar system exists for the ship's UNIV-A clamps, though it is monitored by the AI and the security personnel within these rooms.

Brig

Located on deck 6, the ship's brig is intended to house captured criminals and crew members under punishment. There is only one way in and out of the brig, with a security watch point to the side of it. The bulkheads around and within the brig are 1.5 meters thick of Nermium.

Each cell has a bunk bed with a sliding hatch for food trays to be slid into. A very sturdy toilet (a squatting toilet in the armored floor) and basic shower unit (built into the armored ceiling) are also found.

Power Amory Bay

Located on Deck 3, the Nuwa's PA Bay is more of a storage location with access to an armory. There are Yugumo Standard Anthroform Drone Berth on the sides of the walls for 8 power armor of any size. Opposite the armor racks is a storage rack for tools and supplies needed to maintain stored power armor. To get off the ship, they must use an airlock in the nose, the closer shuttle bay, the dorsal UNIV-A Clamp, or the vehicle portion of the lower cargo hold.

Armory

The armories on the Nuwa are heavily armored and static-free locations to store ammunition and weapons for the ship's crew. In emergencies, they can be used as panic shelters due to having their own independent life support systems for those with the proper clearances.

- Deck 2 and 3 (Shuttle Bay and Power Armor)
- Deck 6 (Vehicle Bay)

Medical Laboratory

The main treatment room contains 12 treatment beds as well as the equipment to perform operations and a "nurse's station" in the left corner. The opposite of the station is the configurable room for the medical lab. For safety, the rooms are protected from the laboratory section by a Osmiridium bulkhead.

The Organics Lab is used to generate the proteins needed to generate organic material. Milk proteins are generated from vats of genetically engineered microorganisms, while proteins for meat are generated in synthesis chambers. The proteins are 3D printed or fermented within dedicated fabrication chambers within the ship's galley and fabrication chambers dedicated to it.

The Containment Lab is environmentally independent of the ship and has a separate airlock entrance from the ship. Provided deadly work is not being conducted within it, it can serve as an emergency shelter.

Aeroponics Bay

Located on Deck 1, the aeroponics bay is used to provide fresh food for the crew when on long-term missions. Three levels of bays are located on the starboard and port bulkheads of the bay. The forward section of the bay is the location of packaging equipment of plants that were harvested either by crew or automatically by the ship. The bay also allows individuals to see natural plants if it is not restricted by the ship's captain.

Fabrication Chambers (8)

Taking a cue from past technicians' and logistics specialists' praise for the Plumeria's ability to manufacture its own ammunition, Ryu Heavy Industries made use of their multistruct license, nanomachines, and third-party products. A Zero-Gravity Kiosk Console, Type 39 controls the subsystems.

The Chamber consists of the following items:

- Zero-G Nanomachine Chamber (Used to create fine products like electronics and organic materials (food/medicine) if supplied with the proteins made in the Medical Lab)
- Project Thought Synthesis Reactor Module, Civilian (Used to synthesize anything short of Yamataian prohibited alloys)
- Multistruct Printing Chamber (Creates the finished product with material and components generated from the two subsystems. Also deconstructs and sorts the plasma into storage tanks with the use of a mini fusion torch.)

Machine Shop (2)

Located on Deck 3, the Nuwa's machine shops are designed to pull created resources and items created within the fabrication chambers. The machinist within then finishes the components into a final product with the use of multistruct technology. Other finishing modules for cutting, shaping, drilling, and other processes can be found within the machine shop.

For small components, an internal grav belt system is used to deliver them to where they are needed. Larger components, on the other hand, need to be manually carried to where they are needed. This allows the ship to make (although very slow) power armor, vehicles, and small craft on the fly if needed.

Engineering Room

The heart of the Nuwa Class Multipurpose Frigates on Decks 2 and 3. It is a double-layered compartment consisting of a large open cavity within the ship. At the center of the room, a Class Three Hyperspace Fuel Generator can be found with plumbing for cooling systems and fuel leaving the molecular forge in the midsection of the ship's fuel tanks.

Several small Kaminari Quantum Foam Generatorss are available as backup generators. Damage control stations are located throughout the Engineering Room. Machinery and systems (coolant, capacitors) on Deck 3 can be accessed by the catwalks in the upper portion of the room.

Escape Pods (200)

The majority of the escape pods are designed to launch vertically. But the pods located on deck 4 launch to the side.

- Deck 1
- Deck 2
- Deck 3

- Deck 5
- Deck 6

Cargo Hold (2)

In the rear of the ship and split between the upper (decks 3/4) and lower (5/6), the Nuwa's Cargo Hold is the main location for the transportation of cargo and containers. Built to the Yugumo Standard Cargo Bay standard, it is capable of holding 528 Medium Standard Starship Cargo Containers with power connection and holding points located on the flooring/scaffolding.

Access between both is either provided by a shared cargo lift with the shuttle bay/vehicle bay or the central accessway that is connected to the ship's UNIV-A Clamp. External access is done via the neighboring vehicle bay which is technically part of the lower cargo hold.

Storage Compartments (2)

Located in the integrated nacelles of the Nuwa, they are connected to the Machine Shop and Cargo Hold via tracks the cargo bay's cranes can make use of. Each compartment is capable of storing 158 Medium Standard Starship Cargo Containers. The compartments are located on decks 3,4, and 5, having a max height of 12.6 meters. They are split in the middle to allow the internal logistic system to have room to pick up cargo containers.

Internal Logistic Corridors

At 4m wide, and 4.2m high, the corridors are designed to accommodate shipping containers and manufactured items up to the size of SSCC-Large containers. Containers are carried by wheeled flatbed drones.

Vehicle Bay

To the rear of the Nuwa on Decks 5 and 6, the Vehicle Bay houses the frames and vehicles used by the crew/passengers of the Nuwa. At a max height of 8.4 meters, it has capable of housing 4 frames (2 on each side) and two Bulldog Tank-sized vehicles in the middle. The ramp for the bay is a clam-shell-like design with deck 5's portion extending out and then inward, while deck 6 portion extends out and onto the ground. This allows the upper vehicle bay to be converted into another cargo hold and maintains a seal from the outside environment.

Shuttle Bay

Located in the rear of decks 1 and 2 of the Nuwa Class, the 17m long x 25.2m wide x 6.6m high shuttle bay opens to the rear of the ship. It uses atmospheric retention force fields to keep the inside

pressurized. While fighters can be stored in the bay, it is primarily designed for shuttles due to the lack of dedicated hanger space. It has direct access to the armory on Deck 2.

Drone Bay

Located on decks 4 and 5 and forward in the Nuwa, an 18.6 meters long, 15.4 meters wide, and 8.2 meters high Drone Bay exists to house whatever drones the ship might use for support and defense. Racks on the rear and forward walls are used to store the ship's drones. Launch and recovery bays are located on the sides of the bay.

Sensor (6)

Located on Decks 1, 3, 4, 5, and 6; the 6 sensor arrays collectively provide 360 degrees of vision for the ship. They are accessible only via the ship's maintenance conduits.

Docking Tube and Airlock

Situated in the nose of the Nuwa on Decks 2 and 3, the docking clamp feeds into the security rooms on Deck 3.

Weapon Bay (6)

Weapon Bays are spaces on Decks 2,3,4, and 6 that are devoted to housing the main offensive platforms for the Nuwa Multipurpose Frigate. The bulkheads are just as thick and armored as the skin of the ship. Equipment to retract turrets can be installed, but normally missiles and torpedo systems are installed in the bays as they benefit the most from the armored doors above them.

- 1, forward section of the ship (side)
- 1, integrated nacelle (top)
- 1, integrated nacelle (bottom)

Ship Systems

Hull and Frame Construct

The Nuwa Class utilizes Osmiridium and a titanium nanocomposite. What few windows and viewports exist on the ship utilize Transparent Durandium. All corridors and rooms are lined with a gel that hardens when exposed to oxygen.

Nuwa-class Hull and Frame Assembly		
Primary SpaceFrame	ADNR (Aggregated Diamond Nanorods) reinforced Osmiridium Major Truss	
Secondary SpaceFrame	Osmiridium Secondary Truss and Rod Assembly	
Outer Plates	Titanium Nanocomposite Laminate Plate	
Lining	Gel	

==== Computers, Electronics, and Sensors ==== The Nuwa Class makes use of a Gate variant Kaimon Al to control them. It can make use of TMM's Tianhe module (installed an external module) to allow the ship to specialize in surveying, charting, and scanning at long range. These sensors help speed up the surveying of astronomical and planetary features.

The ship's sensors are capable of the following:

- IR Spectrometer (Directional, similar to MIKO Infrared Spectrometer)
- Scalar Field Magnetometers (Directional)
- Neutron Spectrometer (Directional)
- Visual Synthetic Aperture Radar (ViSAR)
- Nuclear Spectrometers (radiation when exposed to exotic rays)
- Neutrino Telescope (similar to MIKO Neutrino Telescope) (Tianhe)
- Gravimetric Sensors (similar to MIKO Electromagnetic and Gravimetric Sensors) (Tianhe)

==== Emergency Systems ==== The Nuwa makes use of the following systems:

- Automatic Fire Suppression Systems
- Gel-like Hull Sealant
- Emergency Lockers (Usually Yu Series)

Ryu Heavy Industries subcontracted the Nuwa's lifeboats to Yugumo Corporation, providing the "Ikigai" Type 43 Escape Pod.

Life Support Systems

The Nuwa Class' life support is subcontracted to the Yugumo Corporation, providing the Yugumo Standard Life Support Systems.

Power, Propulsion, and Shielding

Relying on the Ryu Heavy Industries' preference for hyperspace travel, the Nuwa Class makes use of Yugumo's Yumeoibito - Max Hyperspace Fold Drive, located within engineering. To supplement the hyperdrive for inter-system travel and to provide a (Civilian) Combined Field System, two Mizu II Series Continuum Distortion Drives are located in the engine nacelles of the ship.

For sub-light propulsion, the Nuwa makes use of 2 RHI-F1-P4401 turbo fusion plasma drives and 4 RHI-F1-P4402 secondary drives powered by fusion reactions attached to each drive (2 for each main drive and 1 for each secondary). In addition to providing the plasma needed for the propulsion drives, the fusion

reactors are also responsible for providing the main power to the Nuwa's power systems.

The Nuwa's power distribution systems rely on a bank of batteries and Navitium based capacitors to allow the Nuwa to run as silently as possible. For combat situations when the capacitors would be depleted at a higher rate, a Class Three Hyperspace Fuel Generator is available within the ship's main engineering. The system is also responsible for generating fuel for the ship's fusion reactors.

Finally Plasma Projection System are installed on the Nuwa. Their main purpose is to be used as maneuvering thrusters and station-keeping. The rear verniers can be used as a form of emergency propulsion (0.05c)

Weapons Systems

The Nuwa Class has power distribution and space for the following weapons:

- 6 Tier 11 slots (4 weapon bays in each integrated nacelle (1 top, 1 bottom), 2 forward sides)
- 2 Tier 11 VLS Missile Launchers (1 on top of each integrated nacelle)
- 32 Tier 6 Mini-Missile (located around the ship)
- Plasma Projectors

Modules

With the Red Hill and Warhorse as spiritual ancestors, the Nuwa makes use of a number of modules to expand its capabilities.

"Mercy" Transport Module

The "Mercy" Transport Module is a double or triple decked decked design. The module comes in two variants: upper and lower. The upper module measures at 73.2 meters long, 30.2 meters wide, and 10.4 meters high. The lower module is slightly larger measuring at 79.8 meters long, 25.4 meters wide, and 12.1 meters high.

All of the decks are designed as multipurpose cargo holds that make use of Yugumo Standard Cargo Bay walls and connection points on the floor for temporary walls and bunks form 5 man cabins (more if double stacked). The deck on the upper variant has a carry capacity of 440 individual while it is 405 individuals on the lower variant.

On at least one deck, regardless of the variant, the rear starboard quadrant of the deck contains an impressive medical facility that allows the module to act as a field hospital in a pinch. On the upper variant the carry capacity is reduced to 405 individuals (552 square meters of medical space) and down to 300 on the lower variant (506 square meters of medical space).

When not used, the space can be used for the transportation of cargo (usually colonial goods colonists will use). Deck 3 also has a wide airlock ramp that is segmented away from the internals by bulkheads.

Cabins and emergency bunk beds can be doubled if hot bunking is used. Power for the module's life support and computer systems is provided from the attached vessel. Another external power source needs to be sourced if the module is used by itself.

Max Capacity: 845 (Upper) or 1110 (Lower)

Vehicle Complement

Shuttles

• 4 Ke-T7 "Raccoon" Transport Shuttle or similar sized craft.

Drone Bay

The Nuwa Class' Drone Bay located in the front of the ship has room for 5 drones the size of the Variable Configuration Mission Adaptive Drone - Space

OOC Notes

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Products & Items Database			
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Product Name	Nuwa Class Multipurpose Frigate		
Nomenclature	RHI-F1-1A		
Manufacturer	Ryu Heavy Industries		
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DR v3 max	Tier 11		

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