

HR-53B ALCATRAZ SAR/RECON SHUTTLE

Aero-Wing SAR / RECON SHUTTLE HR 53-B

(Aerospace Craft Designate H=SAR/Medivac, R=Reconnaissance)

Primary Mission Profile: Search and Rescue

Secondary Mission Profile: Planetary Reconnaissance Operations

Complete Mission Profile: Independent Warp Flight Operations, Defense of Home Vessel, Extended Planetary Landing And Reconnaissance Tasks and Crew Evacuation.

The Aero-Wing Shuttle is configured very much like the Danube-Class Runabout, this version of the Aero-Wing re-introduces those modular interiors that were absent from the previous version. Based on the existing Starfleet Runabout platform, this Aero-Wing shuttle was given a 485 percent increase in atmospheric flight and hover endurance over standard shuttlecraft. This was accomplished through the use of hybrid microfusion and EM driven airflow coil engines.

Although the Aero-Wing shuttle space-frame and basic systems were completed by Stardate 46875.3, final outfitting of mission-specific hardware was delayed until simulations and flight testing with the USS Intrepid could be completed. Later, on Stardate 50397.5 developers began work on the re-fit of this highly capable ship, small but agile in maneuvering but with enough firepower to cover forces in space or provide air support and recovery in a planetary environment. The proposal for the Aero-Wing Shuttle incorporated into the USS Intrepid Class Starship captain's gig, into a more rapidly deployed multi-purpose shuttle was obvious to refit designers. The Marines saw the advantage of having such a craft in their inventory for insertion into places where a larger PARA-Rescue craft could not be used. Or for the delicate mission where a person requires exfiltration and injuries can be expected.

This Aero-Wing version was made to take advantage of shuttle-bays and landing platforms on other STARFLEET vessels. This version has been modified especially for the use of the Marine's 49th Medical SAR Group. The purpose of this vessel is to have a mission specific shuttle for the retrieval and deployment of special rescue and recovery forces.

Facilities have been made available to the Aero-Wing's crews for use aboard the USS Golden Gate NCC-2562 in her aft landing facilities. Exterior landing platforms have been retrofit to accommodate two dropships along with their crews and equipment. The primary task for the HR 53-B would be Search and Rescue (SAR) and a secondary mission of advanced reconnaissance (RECON). Full Marine mission profiles include independent warp flight operations, defense of home vessel, extended planetary landing and reconnaissance tasks and crew evacuation.

The Medical package module has three status chambers for the critical that need the attention of a Starship sickbay. There are two diagnostic beds to treat those who would require immediate attention. And an emergency operating theater with status fields for minor surgery. Two surgical replicators and a sterile field for those who enter the aft section of the shuttle. The aft section which is about 1/3 of the ship, can accommodate one Doctor and two Corpsmen at a time. The jumpseats become areas for rescued personal and medical triage.

The Reconnaissance package module carries two pilots along with a maximum crew of two doctors and two crewmen. This personal will be on standby while recon operations are underway and be ready to

provide medical support for mission operations. Also this configured Aero-Wing Shuttle can carry another 25 Marines with full combat gear or 30 standard STARFLEET Security personal. This configuration is used for boarding operations and the deployment of ground assault forces for Marine operations.

The Aero-Wing shuttle also has a powerful Mark V tractor beam capable of holding and towing up to three standard escape pods for a limited time. The HR 53-B is also equipped with Auto-Modulating Shields, along with a Tritanium Composite Hull for outer-space defense. Also there are new strategic countermeasure packages, decoy chaff and heat drones for atmospheric conditions. And for Stealth, carbon composite skin for the hull to mask radar signatures, and an energy dampening generator to lessen the sound the shuttle creates within atmosphere. There is a large capacity Transporter (for up to four humanoids) which is just aft of the flight deck for emergency extractions. The HR-B boasts a slightly longer hull because of the larger offensive and defensive packages.

The crowning achievement is the HR 53-B is it's weapons package. In its role as SAR there may be some occasions when Marines need support on the ground or a way must be cleared for evacuation. There are two 20mm Rail Cannons for ground cover in atmospheric conditions. There are also Ten, Phantom Air to Surface missiles, five in profile arms compartments under each wing. The Aero-Wing is also equipped with 4 Mark IV Phaser Emitters and 2 Quantum Torpedo Launchers one fore and one aft.

One of the most exciting innovations for the Aero-Wing Shuttle is the new Flash Emergency Evacuation Transporter System (FEETS). The Shuttle does not have any escape pods so in case of a hull breach or enemy attack, STARFLEET RND has developed a new way to keep those aboard safe. In case of emergency all energy is used for an intense Transporter flash that places all humanoid signatures into a black box like pattern buffer for later retrieval. The ejection system has been replaced by an experimental Neutronium pattern buffer equipped with an ATC Transponder. This will store the pattern of the crew, in approximately .38 seconds after catastrophic shield failure or any other condition the systems believe will be a destructive or decompressive event. With a 99.991% minimal degradation for up to 170 standard hours. The unit has an ATC subspace transponder on a STARFLEET Marine frequency so that the pattern buffer can be recovered and the crew and any passengers can be re-materialized by base transporters. The reason for using Neutronium is because of the way it reacts to background radiation, the substance somehow allows background radiation simply slide off its surface. Neutronium it is almost indestructible and could even survive a harsh atmospheric re-entry if necessary.

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PHYSICAL DIMENSIONS:

- Length Overall: 30.2 Meters
- Beam Overall: 30.8 Meters
- Draft Overall: 5.6 Meters

DISPLACEMENT

- Standard Metric Tons: 307.3

PROPULSION:

- Integrated Impulse and Warp Reactors
- Wing-Tip Lift and Integrated Impulse Engines
 - Quantity: 2 Impulse Engines: Compact Subatomic UE Impulse Units (Combat Specs)
- In-Wing Imbedded Warp Nacelles
 - Quantity: 2 Warp Engines: Advanced Compact Linear Warp Drive Units (Combat Specs)

VELOCITY:

- Cruising [Warp Factor]: Warp Factor 3.5
- Maximum [Warp Factor]: Warp Factor 6 (for up to 3 hours)

ACCELERATION [In Seconds of Time]

- Rest - Onset Critical Momentum: 9.38 sec
- Onset Critical Momentum: .48 sec
- Warp 1 - Warp 3: 3.65 sec
- Warp 3 - Warp 6: 5.32

CREW COMPLEMENT:

- Minimum: 2
- Maximum: 40
 - Two Pilots
 - Two Doctors
 - Two Corpsmen
 - Troops (25 Combat Ready Marines) (30 Standard Security) or (35 Civilian Personnel)

NAVIGATION:

- System Type: Mod IV Warp Celestial Guidance System

ARMAMENT:

- Space Offence:
 - Type IV Phaser Emitters 250' Degree Firing Arc (4)
 - Quantum Torpedo Launchers (2)
 - Sensor Array (2)
 - Deflector Dish (1)
- Atmospheric Offence:
 - 20mm EMPW Rail Cannons (4)
 - Phantom ATS Missiles (10)
- Space Defenses:
 - Auto-Modulating Shields
 - Tritanium Composite Hull
 - Tractor Beam Mark IV
 - FEETS Transporter System
- Atmospheric Defenses:

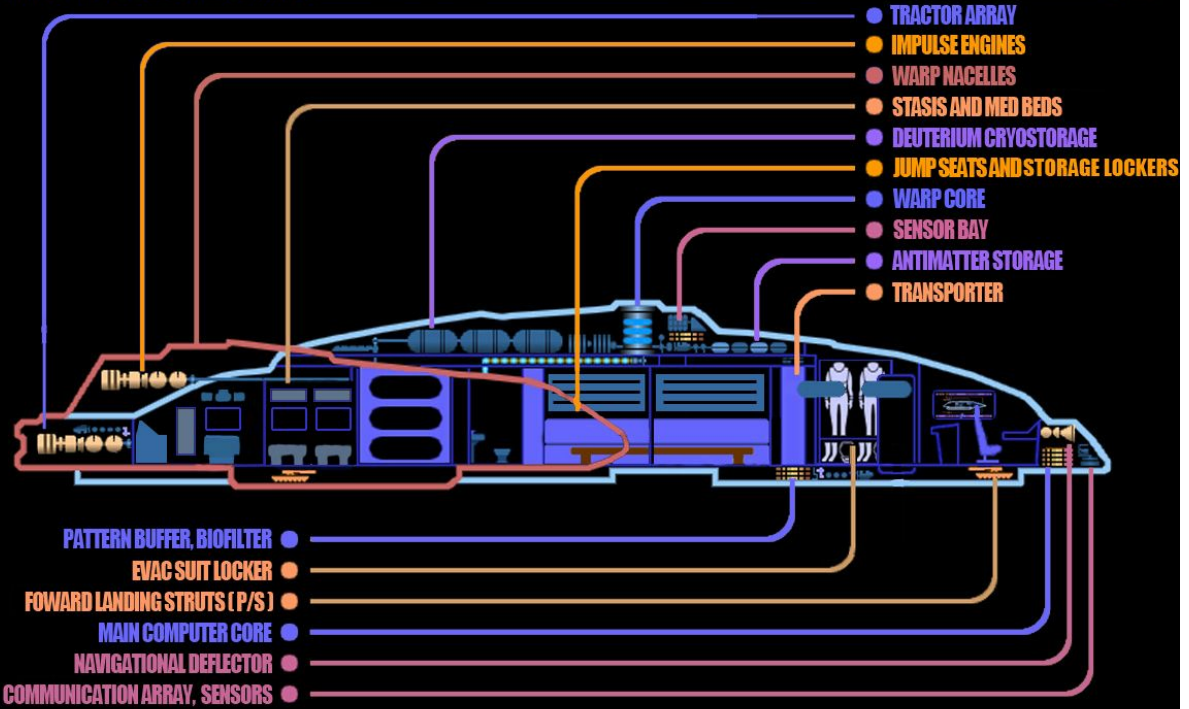
- Decoy Chaff (25 packs)
- Heat Drones (10)
- Carbon Composite Skin
- Energy Dampening Generator

SPECIAL SHUTTLE PACKETS

- Medivac Package:
 - Stasis Chambers: 3
 - Medical Beds: 2
 - Medical Replicator: 2
 - Medical Operating Theater: 1
 - Rescue Operations Equipment Locker
 - Side and aft entry hatches
- Recon Package:
 - Weapons Locker equipment for 35 Marines
 - Boarding Armor (Heavy Duty): 30
 - Light-weight Pressure Suits: 40
 - Explosive Locker for Hull Breaching & Boarding
 - Ready Benches for Marine Deployment
- Comfort Stations:
 - Restrooms: 2
 - Standard Replicators: 2

AERO-WING SHUTTLE CLASS B

HR 53-B ALCATRAZ (SAR VEHICLE) ASSIGNED USS GOLDEN GATE NCC-2562/01



LENGTH: 30 M

BEAM: 30 M

HEIGHT: 5.5 M

MASS: 307 M.T.

WEAPONS SYSTEMS: TYPE IX PHASERS (4) QUANTUM TORPEDOS (2) / RAIL CANNONS (2) PHANTOM ATS MISSILES (10) CREW: 6 CAPACITY: 40