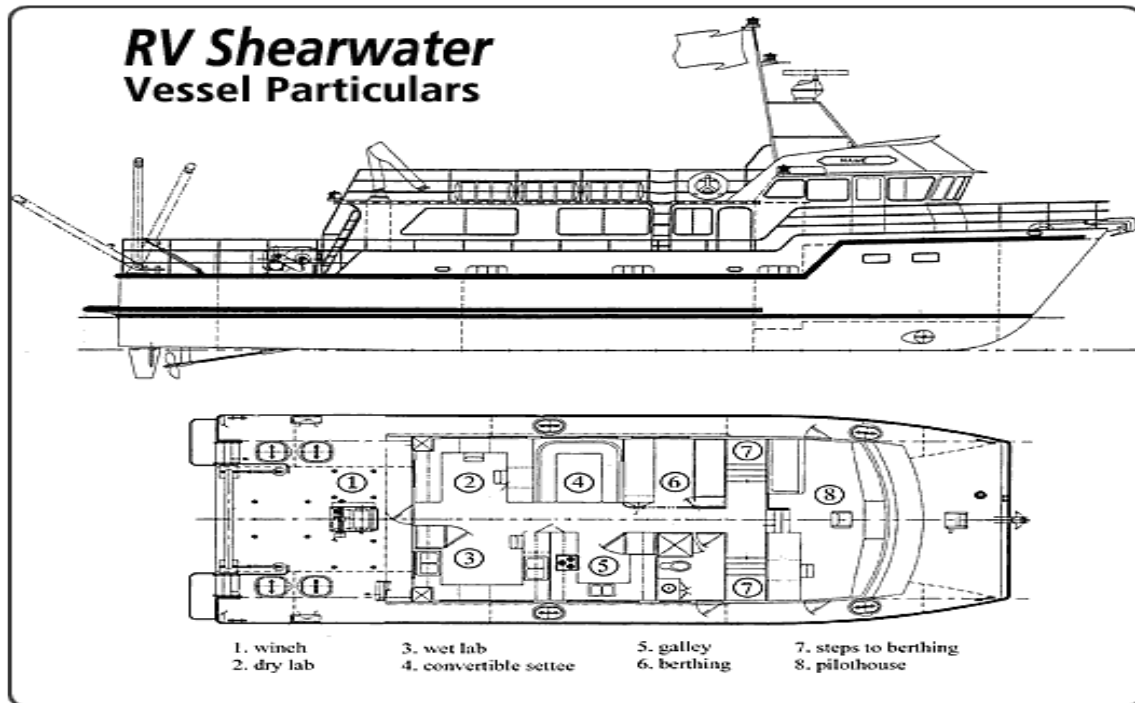


SECTION 2. SMALL BOAT CHARACTERISTICS



Leading Particulars for the NOAA Research Vessel Shearwater

Home Port: Santa Barbara, CA

Builder: All American Marine

Year built: 2002

Vessel type: Research, public education and outreach platform

Hull type: Aluminum Teknicraft hydrofoil-supported catamaran

Call Sign: WDB2424

LOA: 61' 7" **Beam:** 24' **Max. draft:** 6' **Height above water:** 35'

Hull depth (keel to main deck at mid-length): ~10'

Net tonnage: 41.3 tons

Gross tonnage: 76 tons

Displacement fully loaded: 41.3 metric tonnes

Engines: (2) Detroit Series 60 (600Hp each), Twin Disc gears and DDEC controls, shafted to 5 blade propellers

Total Horsepower: 1200Hp at 1200rpm

Fuel storage: 1200 gallons (diesel)

Cruising range: 450NM

Cruising speed: 19 knots

Endurance: 5 days, 4 consecutive nights

Capacity: 32 POB (Day trips - 28 passengers, 4 crew/CINMS staff), 9 POB (Overnight trips -6 passengers, 3 crew), 5, 290lbs (MAX load: people and gear)

Identification

NOAA Hull # R6201

Hull ID # TD62-10AA

Visual identification: Grey, aluminum-hulled catamaran with blue longitudinal stripes, NOAA logo, "Shearwater" decal across transom

Operator

Channel Island National Marine Sanctuary (CINMS), U.S. Department of Commerce/National

Oceanic and Atmospheric Administration (NOAA).

Sea Keeping

Operations: Sea state up to Beaufort 5, depending on the type of operations and swell period

Transits: Sea state up to Beaufort 6, depending on heading and swell period

Area of Operations

Channel Islands National Marine Sanctuary - Point Purisima, CA to San Diego, CA out to 60NM, including Santa Barbara Island.

Typical Types of Missions

Oceanographic research including CTD deployments, plankton tows, mooring deployment and recovery, ROV and camera sled operations, dive operations, marine mammal observations, outreach and education, emergency response

Amenities

Berthing: Bunks for 6 scientists and 3 crew (9 total)

Galley: Range with small oven, fridge/freezer, microwave, coffee maker, toaster, panini press, BBQ grill on upper deck

Dedicated scientific mini fridge/freezer (in the works)

250 gallons fresh water storage

125 gallons optional fresh water storage on top deck

Head with shower

400 gallon capacity MSD holding tank (Type III), gravity-driven pump

Unique Features

Bridge, Flying Bridge and aft steering control stations (Large flying bridge, well suited for marine mammal observations)

Segregated dry lab space for computers and equipment, wet lab space with saltwater sink

Large swim step and dive ladder

Flying bridge and back deck tie-down points

Superior slow speed maneuvering capability

NOAA Scientific Computer System (SCS) to collect numerous data parameters autonomously

Deck equipment:

Markey COM 7H science winch with ~800 meters of .322" Electro-mechanical cable, 850lbs SWL and 780 meters of Spectra line available to spool on top of the cable.

1300lbs SWL A-Frame

Morgan Model 300.3 knuckle boom crane, 1320lbs SWL at full extension

50kg Bruce Anchor with 140' 3/8" hot dipped stainless steel chain; 300' wire-wrapped on foredeck

Kolstrand hydraulic winch drum

Launches Carried Aboard

13'9" Zodiac MKII GR, 15hp outboard, 6 person capacity

Communications and Navigation Equipment

Simrad ES80 Sounder

(2) Furuno X-Band Radars

Furuno FA150 AIS

Furuno SC30 satellite compass/heading sensor

Furuno GPS

ComNav 2001 Autopilot

Time Zero Primary navigation software

VHF/DSC Radio; National Park Service Radio

Iridium Satellite Phone (2)

External camera system for operations monitoring
Wireless Broadband amplifier when operating in wireless range

Electrical Systems

12 and 24VDC primary power,
Kohler 20kW (20EOZ), single phase, 60Hz, 120/240 VAC Generator,
Northern Lights 8kW (M753K), single phase, 60Hz 120/240 VAC Generator
Best Power UPS, clean power supply
220/110V 30/40Amp shore power

Power Available for Scientific Equipment

220V 50 Amp, single phase
220V 30 Amp, single phase
110V 50 Amp, single phase
110V 30 Amp, single phase
110V 15 Amp, clean three phase

SCUBA Air Compressor

8.4CFM Electric Bauer Mariner II
Gas powered Bauer Mariner II as backup

Safety

Fixed engine room fire system, portable extinguishers, central fire detection system, SOLAS B coastal life rafts, SART, EPIRB, portable O₂, AED, first-aid kits, backboard

Principal contact

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