R/V HUGH R. SHARP
University of Delaware
2009

GENERAL DESCRIPTION:

The R/V *HUGH R. SHARP* is an acoustically quiet, state of the art, general-purpose coastal research vessel operated by the University of Delaware as part of the University-National Oceanographic Laboratory System (UNOLS) fleet. The ship's normal operating area is the Delaware and Chesapeake Bays and adjacent coastal waters out to 200 nautical miles. However, work is periodically conducted as far north as the Gulf of Maine, as far south as Florida, and as far offshore as Bermuda. The vessel is outfitted with a full range of oceanographic equipment and instrumentation as listed below, all of which are available for use when the vessel is chartered. The Sharp is designed to meet ICES 209 sound emission standards and has an acoustically quiet mode as well as Sound Guards self monitoring hydrophones.

COMMUNICATIONS:

Voice, FAX, and Internet/e-mail via: INMARSAT Fleet-55 and cellular, Fleet Broadband, Marine VHF and GMDSS compliant

MANEUVERING AND POSITIONING

Kongsberg Green DP System, Twin Shottel Z-Drives, Tunnel Bow Thruster

ELECTRICAL POWER:

480 Vac (3Φ), 208 Vac (1Φ and 3Φ)

SCIENCE HANDLING EQUIPMENT:

Starboard Trawl Winch: DYNACON, 3000m of ½", torque balanced wire rope.
Auto-render, 20,000 LBS Line Pull.
Port Trawl Winch: DYNACON, 2500m .681 fiber optic wire, auto-render.
CTD Handling System: Caley Ocean Systems 6000m 0.322 cable, SWL 6700 LBS
Main Crane: Palfinger 48000 (SWL 15,400 LBS @ 18 ft; 3090 LBS @ 67 ft)
Stern A-Frame: SWL 20,000 LBS @ center overboarding sheave
Clear Height: 20.4 ft Clear Width: 11.8 ft
SWL 12,800 LBS P/S upper "T" extensions
SWL 8000 LBS lower "T" extensions
SWL 4000 LBS on inboard auxiliary padeyes
Crane "crutch" on starboard quarter for towing
Forward Deployment Boom (SWL 1000 LBS)

DYNACON 10010 Portable Deck Winch, 700m of 0.498", 10 conductor cable.
DEME Portable Deck Winch, 1000m of ¼", torque balanced wire.
DEME Portable "Clean" Winch, 1000m of ¼" Kevlar.
JENMAR Portable "Mooring" Deck Winch

LAB AND DECK SPACE:

Main Deck Aft: 1500 sqft
Clear Rail Length (Starboard): 53 ft
Dry Lab: 340 sqft
Wet Lab: 260 sqft
Vans: Two (2) 20-foot van locations P/S on main deck aft.
Isotope Van with Hewlett-Packard LSC
General-Purpose Van
Cold and "Clean" vans available upon request

RETRACTABLE KEEL:
Three (3) 24" x 24" transducer bays for ship and science use. Changeable alongside.

Flush with keel:	2.9 m below mean water line
1.0 m down:	3.9 m below mean water line
2.0 m down:	4.9 m below mean water line

SHIP'S STANDARD INSTUMENTATION:
Sound Guard real time noise monitoring and recording program with hull mounted transducers.

Acoustic Doppler Current Profiler (ADCP): RDI "Workhorse" 600 kHz with a nominal range of 60 meters.

Surface Mapping System (SMS): The SMS records navigation, meteorological and sea surface data every 10 seconds.

CTD System: SeaBird Electronics 911 plus CTD, Rosette is a 12-bottle General Oceanic Model 1015, outfitted with an array of 10 liter bottles.

GMI MKII "Scanfish" Undulating Towed CTD with SeaBird Electronics 911 plus CTD installed

Knudsen 320 B/R Deep Water Echo Sounder (12 and 200 kHz). 3.5kH towed body available.
RESON 8101, shallow water Multibeam Survey System

Profiling Light Meter (Biospherical)	Lab-Grade Water Purifier
Ocean Instruments Box Corer (16" x 16")	Gravity Corer (10 Foot)
Smith MacIntyre Bottom Grab	Deck Incubation Tables
Liquid Scintillation Counter (in 20-foot van)	XBT System
Multicorer	

"Clean" Sea Water Supply Available in Labs and Vans from dedicated science sea chest.

17-Foot Semi-Rigid Work Boat (SafeBoats)
Modular Scientific Refrigerators and Freezers
Scientific Bow Tower and Scientific Antenna Mounts on Main Mast

SCHEDULING:
The R/V *HUGH R. SHARP* is scheduled through the UNOLS process. Preliminary schedules for the next calendar year are normally drawn up in July. As the funding decisions for the various proposed projects become known the schedule is finalized. All investigators, regardless of which agency or institution is providing the funding, should submit a Ship Time Request through UNOLS as early as possible (www.unols.org). We are happy to accommodate additional cruises in the current year as the ship's schedule permits. We encourage all investigators to contact Marine Operations early in the planning stages of the project.

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