NOAA Ship *Thomas Jefferson*

Hull Number	*S222*
Call Sign	WTEA
Home Port	
Norfolk, VA	
Marine Operations Center	
Atlantic (MOC-A)	
Port Office	
None	
Regular Area of Operations	
Atlantic, Caribbean, and Gulf of Mexico	
General Classification	
Hydrographic Survey Vessel	
Mailing Address	
NOAA Ship ***Thomas Jefferson*** Marine Operations Center, Atlantic 439 West York Street Norfolk, VA 23510-1145	

Contact Information

IN PORT	**AT SEA**
Cellular	VoIP
757-647-0187 (Ship)	301-713-7782
301-529-3007 (CO)	Iridium
757-650-8285 (XO)	808-434-2706 (Ship)
757-621-2824 (OOD)	
757-376-1479 (EOW)	
Land Line (Home Port)	
757-451-6322 (VC)	Inmarsat Mini-M:
757-441-6323 (VC)	N/A
757-441-6352 (Fax)	Fax or E-Fax
	757-512-8295
	Inmarsat B
Ship's Email	011-8816-7632-2706 (Voice)
Noaa.Ship.Thomas.Jefferson@noaa.gov	N/A (Data)
	N/A (Telex)
	N/A (HSD)

Design	
Designer:	Halter Marine
Builder:	Halter Marine, Inc., Moss Point, MS
Launched:	February 14, 1991
Delivered to Navy: Transferred to NOAA:	January 10, 1992 March 3, 2003
Commissioned:	July 8, 2003
Length (LOA - ft.):	208
Breadth (moulded - ft.):	45
Draft, Max (ft.):	15
Depth to Main Deck (ft.):	23.7
Hull Description:	Welded steel
Displacement:	2,000 tons

Medical Facilities:
One medical treatment room containing two berths for patients. Emergency and first-aid equipment aboard, administered by designated vessel personnel.

Speed & Endurance	
Emergency Speed (knots):	12
Cruising Speed (knots):	11
Range (nm):	19,200
Endurance (days):	45
Endurance Constraint:	Food

Compliment - Maximum	
Commissioned Officers/Mates	8
Engineers, Licensed	4
Engineer, Unlicensed	3
Deck	9
Survey	6
Stewards	3
Electronic Technicians	1
USPHS Medical Officer	N/A
Total Crew	**34**
Scientists	**4**

Berthing	
Single Staterooms:	8
Double Staterooms:	15
Four-person Staterooms:	
Total Berths:	**38**

Food Service Seating Capacity	
Mess Room:	22

Navigational Equipment (Ship's Use)	**Type (Make / Model / Amount / Location)**
Radars (X and S Band)	Sperry Marine VisionMaster ft. Radar consoles are located on each side of the bridge. Each console is capable of displaying either X-band or S-Band radar. In addition, both consoles can display X-band or S-Band simultaneously
GPS and DGPS	Furuno GPS Navigatior GP-150 with DGPS Beacon receiver, located on bridge
Gyro Compass	Two Teledyne TSS Meridian Standard gyrocompasses are mounted on the deck of the chartroom and are located immediately to the right of the entrance.
Deepwater and Shallow Navigational echosounders	Furuno Navigational Echo Sounder FE-700, Port side bridge console.
ECDIS	Sperry Marine VisionMaster ft.
Voyage Planning and Navigation	Rose Point Coastal Explorer

Navigational Equipment (Access to onboard Scientists)	**Type (Make / Model / Amount / Location)**
GPS and DGPS	
Gyro Compass	
Deepwater and Shallow Navigational echosounders	
ECDIS	
Charting Program with Ship's Position	

Laboratory Spaces and other Scientific Spaces			
Type	**Location**	**ft.^{2}**	**Description: (Available Services and / or Connections, counter space, etc.)**
Hydro Lab	Main Deck	700	Primarily to collect and process electronic data

DATA COLLECTED BY THE SHIP'S SCIENTIFIC COMPUTER SYSTEM (SCS) IN THE STANDARD CONFIGURATION		
Description	**Units**	**Data Source**
ZDA - Time and Date (UTC. d. m, yr, TZ)	Time	GPS, Furuno
GLL - Geographic Position (Lat/Lon)	Deg.	GPS, Furuno
VTG Version 1 (TC, MC, SOG, STW, etc)	Deg. KTS	GPS, Furuno
HDT - Heading (True)	Deg.	Gyro, Teledyne
VWR - Relative wind speed and angle	KTS Deg.	Wind Bird, RM Young
DPT - Depth of Water with transducer offset	KTS Deg.	Calculated via SCS using Wind Bird, GPS, Gyro
MTW - Mean Temp. for Water	ft.	Depth Finder, Furuno

Scientific Data Collection Systems and Supportable Operations	
Type	**Brief Description (where equipment is involved, please state what type (i.e. ME70, EK60, ES60, Seabird, etc.)**
Multibeam Equipped for Hydrographic Surveys	SIMRAD EM1002 digital recording Multibeam echosounder. (25-1000 m)
Multibeam Equipped for Hydrographic Surveys	The RESON SeaBat 7125-ROV system is a single-frequency, digital recording Multibeam echosounder. It is hull mounted in starboard transducer pod (4 – 100 m)
Multibeam Equipped for Hydrographic Surveys	The RESON SeaBat 7125-SV2 system is a dual-frequency, digital recording Multibeam echosounder. It is hull mounted in Port transducer pod. (4 – 100 m)
Single Side Scan Equipped	The Klein High Speed, High Resolution Side Scan (SSS) Sonar system is a beam-forming acoustic imagery device. The integrated system includes a KLEIN 5500 towfish, a Transceiver/Processing Unit (TPU), and a computer for user interface. Stern-towed units also include a tow cable telemetry assembly.
Conductivity, Temp., Depth (CTD) Without Water Samples	The Thomas Jefferson S-222, HSL 3101, and HSL 3102 all use Sea-Bird Electronics SeaCat SBE19+ Conductivity, Temperature, and Depth (CTD) Profilers to collect vertical sound speed profiles.
Moving Vessel Profiler	Brooke Ocean Technology Moving Vessel Profiler 100 The Thomas Jefferson S-222 uses a Brooke Ocean Moving Vessel Profiler (MVP) to collect vertical sound speed profiles.
Single Beam Echosounder	The Odom Echotrac CV-200 is a dual frequency digital recording echosounder (24 kHz /200 kHz). Identical systems are hull mounted on HSLs 3101 and 3102.
Positioning and Attitude Equipment	The Applanix POS M/V is a GPS-aided inertial positioning system that provides position and orientation data to external equipment.
Differential GPS	The Trimble SPS351 receiver uses RTCM DGPS corrections either broadcast free by IALA Beacon stations, from SBAS (Satellite Based Augmentation Systems) or via an external radio or Internet connection from a DGPS reference station.
Bottom Sampling Equipment	The Ponar Wildco is a winch-deployed bottom sampler used aboard S222. The Kahlsico Mud Snapper is a hand held bottom sampler that is used aboard HSL 3101 and 3102.
Scientific Computer System Equipped	

DECK EQUIPMENT:

Winch – (Oceanographic)	
Quantity:	1
Manufacturer:	DT Marine
Model	N/A
Drive:	Electrohydraulic
Max. Pull (lbs.):	500
Max. Depth (m)	1000
Drum Capacity:	1500
Type of Cable Installed:	¼" galvanized steel cable
Length of Cable on the drum (m)	1400
Location:	Main Deck Port side Amidships

Winch – Side Scan Sonar (C-Frame)	
Quantity:	1
Manufacturer:	SEAMAC
Model	N/A
Drive:	Electrohydraulic
Max. Pull (lbs.):	800
Max. Depth (m)	250
Drum Capacity:	300
Type of Cable Installed:	0.54" conductor cable
Length of Cable on the drum (m)	270
Location:	Main Deck, Starboard side aft

Crane, Telescopic Boom	
Quantity:	2
Manufacturer:	Utility Steel Fabrication, Inc.
Model:	N/A
Boom Length (ft.):	30 – 50 fully extended
Lifting Cap. (lbs.):	6,000 (3,800 boom extended)
Location:	01 Deck, Amidships, Aft boat deck, and 01 Deck, Port, foredeck

J Frame (C Frame)	
Quantity:	1
Type:	Movable
Clearance over the side (ft.):	4-5
Horizontal Clearance (ft.):	4-5
Safe Working Load (lbs.)	7,500
Location:	Fantail starboard side

Anchor - Bow	
Quantity	2
Type	Stockless
Weight (lbs.)	3500
Port Anchor Chain Length (fathoms)	105
Starboard Anchor Chain Length (fathoms)	120

Boat Davit (Schat Harding / N/A)	
Quantity:	2
Manufacturer:	Schat Harding
Model:	N/A
Hoisting Capacity	18,000
Location	Main Deck Port and Starboard side
Boat type used	Survey Launch

Boat Davit (Schat Harding / N/A)	
Quantity:	1
Manufacturer:	Schat Harding
Model:	N/A
Hoisting Capacity	7,700
Location	Main Deck Starboard side aft of the survey launch davit
Boat type used	RHIB/FRB

BOATS (Normally Equipped)

	Type	Horsepower	Length Over All (ft.)	Max. Persons
1	Survey Launch	255 HP	31	
		HSL 3101 is equipped to collect bathymetric data, hull mounted side scan imagery and water column profiles; Reson 7125- SV2, Klien 5500, Odom Echotrac CV-200, Applanix POS-MV. Power insulation protection for scientific equipment.		
2	Survey Launch	255 HP	31	
		HSL 3101 is equipped to collect bathymetric data, hull mounted side scan imagery and water column profiles; Reson 7125- SV2, Klien 5500, Odom Echotrac CV-200, Applanix POS-MV. Power insulation protection for scientific equipment.		
3	Rescue Boat (SOLAS Approved)	220 HP	22	9
		Jet drive diesel FRB		

Additional Capabilities (not previously stated)

Type	Description
None Listed	