


# NOAA Ship *Henry B. Bigelow*

	<b>Hull Number</b>	<i>R225</i>
	<b>Call Sign</b>	<i>WTDF</i>
	<b>Home Port</b>	<i>Newport, RI</i>
	<b>Marine Operations Center</b>	<i>Atlantic (MOC-A)</i>
	<b>Port Office</b>	<i>Davisville, RI</i>
	<b>Regular Area of Operations</b>	<i>North Atlantic</i>
	<b>General Classification</b>	<i>Fishery Survey Vessel</i>
	<b>Mailing Address</b>	NOAA Bigelow 47 Chandler St Newport, RI 02841

<b>Contact Information</b>			
<b>IN PORT</b>		<b>AT SEA</b>	
Cellular		VoIP	
	(Ship) (774) 487-7585		(541) 867-8929
	(CO) (850)866-0204		Iridium
	(XO) (951) 202-3656		808-684-1194
	(OOD) (401)215-6242		
	(CME) (508) 560-4011		
Land Line (Home Port)			
	(Ship Cell Line) (774) 487-7585		Inmarsat
			Inmarsat Fax

Ship's Email	
ops.henry.bigelow@noaa.gov	

<b>Design</b>		<b>Speed &amp; Endurance</b>	
Designer:	Halter Marine	Emergency Speed (knots):	14
Builder:	Halter Marine, Inc., Moss Point, Mississippi	Cruising Speed (knots):	11
Launched:	8 July 2005	Range (nm):	12000
Delivered:	20 July 2006	Endurance (days):	40
Commissioned:	16 July 2007	Endurance Constraint:	Food
Length (LOA - FT):	208.6		
Breadth (moulded - FT):	49.2	<b>Compliment – Maximum</b>	
Draft, Maximum (FT):	19.4 CB Retracted 29.7 CB Extended	Commissioned Officers/Mates	5
		Engineers, Licensed	5
Hull Description*:	Welded steel/Aluminum	Engineer, Unlicensed	2
Displacement:	2479 tons	Deck	7
		Survey	2
<b>Medical Facilities</b>		Stewards	2
One medical treatment room containing one berth for patients. Emergency and first-aid equipment aboard, administered by designated vessel personnel.		Electronic Technicians	1
		USPHS Medical Officer	0
		<b>Total Crew</b>	<b>24</b>
		<b>Scientists</b>	<b>17</b>

<b>Food Service Seating Capacity</b>	
Mess Room:	25

<b>Navigational Equipment (Ship's Use)</b>	<b>Type (Make/Model/Amount/Location)</b>
Radars (X and S Band)	Furuno FAR - 3000 Series
DGPS	Simrad/MX420/2/Bridge
Gyro Compass	Teledyne TSS Meridian Standard/2/Bridge
Deepwater and Shallow Navigational echosounders	Simrad EK60, Simrad ES60, ME70, Furuno FE 700
ECDIS	TRANSAS ECDIS

<b><u>Navigational Equipment (Access to onboard Scientists)</u></b>	<b>Type (Make/Model/Amount/Location)</b>
GPS and DGPS	Simrad/MX420/2/Acoustic Lab
Gyro Compass	Teledyne TSS Meridian Standard/2/Bridge
Pos MV	Applanix Pos MV V5
Deepwater and Shallow Navigational echosounders	Simrad EK60, Simrad ES60, ME70/Computer lab
ECDIS	Transas
Charting Program with Ship's Position	Coastal Explorer, Open CPN

<b>Laboratory Spaces and other Scientific Spaces</b>				
Type	Location	Ft <sup>2</sup>	Description: (Available Services and/or Connections, counter space, etc.)	
Wet Lab	Main Deck STBD Aft	591	Doors open to Back Deck, Side Station, and Dry Lab. Fish handling conveyors	
Dry Lab	Main Deck STBD Midships	206	Scientific Seawater System	
Electronics/Computer Lab	Main Deck Port Midships	474	Computer Access, Network access, EK60 repeater, ES60 repeater, ME70 repeater, Coastal repeater, SCS, SIS, ADCP	
Scientific Freezer	Wet Lab	402	Racks for storage of scientific samples	
Scientific Refrigerator	Wet Lab	55		
Store Room	Main Deck STBD Midships	65	Preservation Alcove, fume hood, chemical storage, chem. Shower/eye wash	
Climate Controlled Space	Main Deck	61		
Scientific Freezer	Dry Lab	9	So-Low C85-9 minus 80 chest freezer	
Hydro Lab	Main Deck STBD	179	Garage for CTDs. Doors open to Side Station, Dry Lab and Pres. Alcove	
Chem Lab	Main Deck, STBD Midships	270	Fume Hood	

### 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.)
Scientific Computer System Equipped	Navigation, Meteorological, and Oceanographic data acquisition system
Conductivity, Temp., Depth (CTD) With Water Samples	SBE-911+ CTD with SBE-43 DO and 12 5L bottle carousel.
Acoustic Current Doppler Profiler (ADCP)	Teledyne RDI Ocean Surveyor, 75kHz, UMDAS acquisition system
Expendable BathyThermographs (XBT) Capable	Sippican MK21 with hand held launcher mounted STBD sampling station
Multibeam Equipped for Biological/Bathymetry Surveys	Simrad ME 70 (casrep)
Conductivity, Temp., Depth (CTD) With Water Samples	SBE 19+ V2 SeaCAT Profiler CTD
Thermosalinograph	SBE45 Micro TSG, SBE 38
Flow through Fluorometer	Turner 10AV Flow through fluorescence
Dive Team Equipped	
Atmospheric CO2 Data Collection	PMEL pCO2 connected to science seawater sys
Mooring Deployment/Recovery Capable	
Plankton Gear Deployment	3000 m capable .322 (9.5mm) conductive cable STBD sampling station
Trawl Fishing Capable	<b>RAPP Hydema Pentagon Autotrawl System</b>
Trawl Sensor Equipped	Kongsberg FS70 third wire netsonde
Trawl Sensor Equipped	Scanmar acoustic net mensuration system
Unmanned Aerial Systems (AUS) Support	
Remote Operated Vehicles (ROVs) Support	

### DATA COLLECTED BY THE SHIP'S SCIENTIFIC COMPUTER SYSTEM (SCS) IN THE STANDARD CONFIGURATION

Description	Units	Data Source
GPS Position, COG, SOG	various	MX420 DGPS
Gyro Heading	Deg T	Sperry Gyro Navigat X Mk1
Heave, Pitch, Roll, Heading	Deg	Applanix PosMV V5
True Wind Speed and Direction	Kts / deg T	RMYoung wind bird Jackstaff
True Wind Speed and Direction	Kts / deg T	Ultrasonics Port and Starboard Main mast
Relative Wind Speed and Direction	Kts /deg Rel	Same sensors as above



Air Temp and Humidity	Deg C / %	RMYoung 41382VC
Barometric Pressure – Height Corrected	millibars	RMYoung / Vaisala digital
Short and Long Wave Radiometer	W/m <sup>2</sup>	Eppley Labs PIR
Thermosalinograph	Deg C / psu	SBE21 and SBE45
In line fluorometer	Raw fluors.	Turner 10AU
Flowmeter for Sci Seawater System	GPM	Signet
Hull mounted Seatemp High Med Low	Deg C	Furuno
Real Time CTD Data	Various	Seabird, Wetlabs
Depth Below Transducer	meters	ES60 50/200kHz
Depth Below Transducer	meters	EK60 18,38,120, 200
Depth Below Transducer	meters	ME70
Depth Below Surface	meters	ES60, EK60 and ME70
Speed Through the Water	Knots	Doppler
Speed Through the Water	knots	EM
Centerboard Position	meters	N/A
Propulsion Shaft RPMs	RPMs	N/A
Port and Starboard Crane load cells	lbs	
Hydrographic winch readouts (1 &2)	meters, tons	Rapp Hydema
Trawl Winch readouts ( P & S)	meters, tons	Rapp Hydema
Trawl Depth, Temperature	meters, deg C	SCANMAR
TPR - Trawl Position Relative Vessel	meters, deg R	SCANMAR

<b>DECK EQUIPMENT:</b>			
<b>Hydro Winches</b>		<b>Oceanographic Winch</b>	
Quantity:	2	Quantity:	1
Manufacturer:	Rapp-Hydema	Manufacturer:	Rapp Hydema
Model	HW 500	Model	WDU-4002
Drive:	Self-contained elect/hydrolic	Drive:	3 motor heavy duty drive unit
Max. Pull (lbs):	2600	Max. Pull (lbs):	6800
Max. Depth (m)	3000	Max. Depth (m)	
Drum Capacity:	3600 m of 9.5 mm wire at OD=822 mm	Drum Capacity:	5100m 16 mm dia wire at OD=1690mm
Type of Cable Installed:	9.5MM ROCHESTER A301592 CBL CABLE	Type of Cable Installed:	.681 Rochester part #A302351 3 fiber, 3 copper
Length of Cable on the drum (m)	3367m #1 3437m #2	Length of Cable on the drum (m)	4000
Location:	01 Deck, Starboard, Amidships.	Location:	2 Deck, Aft, Amidships.

<b>Trawl Winches</b>		<b>3<sup>rd</sup> Wire Winch</b>	
Quantity:	2	Quantity:	1
Manufacturer:	Rapp-Hydema	Manufacturer:	Rapp Hydema
Model:	TWS-1004	Model:	SOW-500
Drive:	4 motor heavy duty drive unit.	Drive:	Hydraulic motor
Max. Pull (lbs):	7200	Max. Pull (lbs):	
Max. Depth (m)		Max. Depth (m)	
Drum Capacity:	4300m 28.6 mm dia. wire at OD=1665mm	Drum Capacity:	4700m 11mm dia. wire at OD=824 mm
Type of Cable Installed:	28.6mm 6X37 GEIPS WIRE ROPE	Type of Cable Installed:	11.4 Torque balanced double armored electromechanical cable
Length of Cable on the drum (m)	4000	Length of Cable on the drum (m)	3950
Location:	2 Deck, Starboard/Port, Amidships.	Location:	02 Deck Aft Amidships

<b>Crane, Knuckle Boom</b>		<b>Crane, Telescoping Boom</b>	
Quantity:	1	Quantity:	1
Manufacturer:	Appleton	Manufacturer:	Appleton
Model:	KB120-67	Model:	EB-70-60-25S
Boom Length (ft):	67	Boom Length (ft):	25-60
Lifting Cap. (lbs):	10333	Lifting Cap. (lbs):	8100
Location:	Main Deck, Starboard, Aft.	Location:	01 Deck, Port, Aft.

<b>Crane, FWD Stores Crane</b>	
Quantity:	1
Manufacturer:	Appleton
Model:	
Boom Length (ft):	
Lifting Cap. (lbs):	3020
Location:	02 Deck, Starboard, FWD.

Aft A Frame		Side Sampling Station A Frame	
Quantity:	1	Quantity:	1
Type:	Movable	Type:	Movable
Clearance over the side (ft):	9	Clearance over the side (ft):	17
Horizontal Clearance (ft):	20	Horizontal Clearance (ft):	9.3
Safe Working Load (lbs)	30,000	Safe Working Load (lbs)	3,100
Location:	Main Deck, AFT	Location:	O1 Deck, Starboard, Amidships

Boat Davit		Anchor – Bow	
Quantity:	2	Quantity:	2
Manufacturer:		Type:	Stockless
Model:	Single Point	Weight (lbs.):	5000
Hoisting Capacity		Port Anchor Chain Length (fathoms)	150
Location	Boat Deck	Starboard Anchor Chain Length (fathoms)	180
Boat type used	RHIB		

BOATS (Normally Equipped)				
	Type	Horsepower	Length Over All (Ft)	Max. Persons
1	Rescue Boat	280	22' 5"	8
1	Work Boat	230	23' 9"	10

Additional Capabilities (not previously stated)	
Type	Description
Dynamic Positioning Capable	
Access to Clean Electrical Power	Clean power for scientific systems
Access to UPS Electrical Power	UPS power for scientific computers and systems 20 kVA for ~ 40 min
Double net drum	Rapp Hydema NDD-4000B, 2 x Dia. 419mm/dia 2750 mm x 1760 mm, Storage capacity: 2x10 2 m3
Choose an item.	
Double net drum	Rapp Hydema NDD-4000B, 2 x Dia 419mm / dia 2750mm x 1760 mm, Storage capacity: 2x10 2 m3,