

NOAA Ship *Bell M. Shimada*



Hull Number	R227
Call Sign	WTED
Home Port	Newport, OR
Marine Operations Center	Pacific (MOC-P)
Port Office	None
Regular Area of Operations	Pacific
General Classification	Fishery Survey Vessel
Mailing Address	NOAA Ship Bell M Shimada Marine Operations Center, Pacific, 2002 SE Marine Science Drive Newport, OR 97365

Contact Information

IN PORT	AT SEA
Cellular	VoIP
(Ship)	301-713-7788
541-351-1105 (CO)	Iridium
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(EOW)	
Land Line (Home Port)	
541-867-8775 (VC)	Inmarsat
541-867-8776 (VC)	011-870-764-914-591
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Ship's Email	
Noaa.Ship.bell.shimada@noaa.gov	

Design		Speed & Endurance	
Designer:	Halter Marine	Emergency Speed (knots):	14
Builder:	Halter Marine, Inc., Moss Point, Mississippi	Cruising Speed (knots):	11
Launched:	Sep 26, 2008	Range (nm):	12000
Delivered:	Jan 21, 2010	Endurance (days):	40
Commissioned:	Aug 25, 2010	Endurance Constraint:	Food
Length (LOA - FT):	208.6		
Breadth (moulded - FT):	49.2	Compliment – Maximum	
Draft, Maximum (FT):	19.4 CB Retracted 29.7 CB Extended	Commissioned Officers/Mates	5
Depth to Main Deck (FT):		Engineers, Licensed	5
Hull Description*:	Welded steel/Aluminum	Engineer, Unlicensed	2
Displacement:	2479 tons	Deck	7
Medical Facilities		Survey	2
One medical treatment room containing one berth for patients. Emergency and first-aid equipment aboard, administered by designated vessel personnel.		Stewards	2
		Electronic Technicians	1
		USPHS Medical Officer	0
		Total Crew	24
		Scientists	17

Food Service Seating Capacity	
Mess Room:	25

Navigational Equipment (Ship's Use)	Type (Make/Model/Amount/Location)
Radars (X and S Band)	Sperry Bridgemaster/Bridge
DGPS	Simrad/MX512/2/Bridge
Gyro Compass	Sperry/ NAVIGAT XMK1/2/Bridge
Deepwater and Shallow Navigational echosounders	Simrad EK60, Simrad ES60, ME70, Furuno FE 700
ECDIS	Sperry/Navisaliar/1/Bridge

<u>Navigational Equipment (Access to onboard Scientists)</u>	Type (Make/Model/Amount/Location)
GPS and DGPS	Simrad/MX512/2/Acoustic Lab
Gyro Compass	Sperry/ NAVIGAT XMK1/2/Bridge
Pos MV	Applanix Pos MV V4
Deepwater and Shallow Navigational echosounders	Simrad EK60, Simrad ES60, ME70/Computer lab
ECDIS	Sperry
Charting Program with Ship's Position	Nobletech

Laboratory Spaces and other Scientific Spaces			
Type	Location	Ft²	Description: (Available Services and/or Connections, counter space, etc.)
Wet Lab	Main Deck STBD Aft	591	Doors open to Back Deck, Side Station, and Chem Lab. Fish handling conveyors. CUFES Pump
Dry Lab	Main Deck STBD Midships	206	
Electronics/Computer Lab	Main Deck Port Midships	474	Computer Access, Network access, EK60 repeater, ES60 repeater, ME70 repeater, Nobletech repeater,
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 Sea Water System,

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-9+ with Dual T&C, SBE-43 and Wetlabs FLNTU fluorometer and 12 10L 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+ carried as spare
Thermosalinograph	SBE21 and SBE45
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 .375 (9.5mm) conductive cable STBD sampling station
Trawl Fishing Capable	
Trawl Sensor Equipped	Kongsberg FS70 third wire netsonde
Trawl Sensor Equipped	Simrad ITI acoustic net mensuration system
Long Line Fishing Gear Equipped	System warehoused
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 V4
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 ²	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 18,38,70,120, 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	Simrad ITI
TPR - Trawl Position Relative Vessel	meters, deg R	Simrad ITI

DECK EQUIPMENT:			
Hydro Winches		Oceanographic Winch	
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 A216375 CBL CABLE	Type of Cable Installed:	16mm
Length of Cable on the drum (m)	3367m #1 3437m #2	Length of Cable on the drum (m)	3700
Location:	01 Deck, Starboard, Amidships.	Location:	2 Deck, Aft, Amidships.

Trawl Winches		3rd Wire Winch	
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:	O2 Deck Aft Amidships

Crane, Knuckle Boom		Crane, Telescoping Boom	
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.

Crane, FWD Stores Crane	
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)	22,000	Safe Working Load (lbs)	2979
Location:	Main Deck, AFT	Location:	O1 Deck, Starboard, Amidships

Boat Davit FRB Davit		Anchor – Bow	
Quantity:	1	Quantity:	2
Manufacturer:	Schat Harding	Type:	Stockless
Model:		Weight (lbs.):	5000
Hoisting Capacity		Port Anchor Chain Length (fathoms)	150
Location	O1 Aft Port	Starboard Anchor Chain Length (fathoms)	180
Boat type used	Nor Safe		

BOATS (Normally Equipped)				
	Type	Horsepower	Length Over All (Ft)	Max. Persons
1	Rescue Boat (SOLAS Approved)	144	20' 6"	6

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,