





in Seattle. The vessel was first commissioned in 1967 as a survey ship with NOAA. She is named after the highest mountain east of the Mississippi which is located in North Carolina. This multi-purpose ship worked the waters of the United States including the Virgin Islands as a hydrographic survey and seafloor mapping ship. As an oceanographic ship, its operations extended from the North Atlantic to the Persian Gulf. During its highly diversified career, the Mt. Mitchell helped make our nation's waterways safer by conducting hydrographic surveys along the Atlantic Coast, the Great Lakes, and in the Caribbean Sea. The ship even passed through the Panama Canal and went north to Alaska for survey work. The vessel was decommissioned in 1995.

She was then purchased in 2001 by Mt. Mitchell LLC and was completely refurbished and retro-fitted with the latest in electronics, machinery, and safety equipment. The vessel arrived in Seattle in 2003.

Over the last couple of years, the R/V Mt. Mitchell has been outfitted with the of today's most advanced underwater mapping equipment. The Kongsberg Example of EM and EM 710 High Resolution Multibeam Mapping System were installed in 2008, giving the vessel state of the art capability to perform seabed mapping to full ocean depth with unrvaled resolution, coverage and accuracy. These newsystems make it capable to survey waters down to 11,000 meters. In addition the vessel has been outfitted with stabilization tanks

and anti-roll chocks which have eliminated much of the vessel's natural roll making it an ideal platform for surveying.

The Mt. Mitchell also offers two launches that can be used to meet your mission requirements. For shallow surveying, the R/V Mt. Augustine is a 32' Silver Streak Cuddy Cabin twin diesel vessel that is launched and retrieved through a Vestdavit system for safe and reliable operation. This vessel is outfined with a multibeam side scan mounts as well as adequate lab space to suit your needs. The Mt. Shishaldin is a 25' Landing Craft that can seat 6 people and has a drop down bow for landing anywhere you like. This boat can be used for running crew to shore, the same state of the same state of the same state.

and provide the highest level as service that many clients expect and deserve without sacrificing efficiency and safety. At every step of the charter process, the staff at Global Seas LL <u>G is there to assist</u> we employ skilled crew above in-house engineers who recognize the special needs of the client of the property description of the project step by step from programs in the demolibilization.

We are proud to offer the R/V Mt. Mitchell at an affordable price for a quality sessel; she is clearly one of the elite commercially available ships of her kind.







"A ship in a harbor is safe, but that's not what ships are build for." - William Shedd







## CLIENT ACCOMODATIONS

The accommodations provide for up to 49 survey crew and associated staff, and ships crew for a total berthing compliment of 60 fully occupied. The one person accommodations have private heads and shower. The two person spaces have a sink with a community shower and headspace. Every space has access to the data network, a phone and a hookup for a TV – shipboard network. A VIP stateroom is provided for a client representative and/or project coordinator.

All staterooms have beautiful wood furnishings. Each space, where possible has a desk, and where not possible, there is a wall desk installed. The architect and the owners have worked very hard at reducing the "work ship" atmosphere in that they have designed each living space to have more open space throughout the ship.

## GALLEY and MESS

A new galley and mess has been installed along with new ovens, grills, chiller, and freezer on the Main Deck. These new facilities have been designed to maximize crew comfort during meal hours and provide a location for meeting or impromptu gatherings. Meals will be served 4 times daily at sea and 3 times daily in port.

## LOUNGE and MEETING CENTER

The lounge and meeting center was designed to maximize comfort for the crew while off watch or provide managers a place to discuss operation matters privately. Found here is an entertainment system that offers the crew a place to watch DVD/VCR movies or satellite TV. Also, the meeting center can be used to host executive level meetings, utilizing the entertainment center to playback important sub sea footage or link up to the data communications network to review data.

## SURVEY OPERATION FACILITIES

The Survey Operations Center is the primary location for all data collection functions and has sufficient room for over twelve workstations linked to the network and server of choice. Cabling runs have been established from the collection room to the network and server equipment and control van decks to keep equipment installation and operation a neat and orderly process. Furthermore, there is access to the ships mast and anternalmast for GPS/DGPS or other reciever equipment installations.

The Survey Operations Center also has close proximity to the bridge which enhances survey operations while operating in restricted manuferability situations.

# COMMUNICATIONS

The networks (A&B) can both be tied to the ships navigation or the customer's navigation package. Conversely, both networks can be separated from the ships navigation. The Data Network and CATV Center space will house the ships server that will communicate via a 100 baseT network to all spaces on the ship. This network and the customer's network obtain their powering through a filtered UPS system capable of a twenty-minute battery cycle if necessary.

The CATV center supports modulated RF signals on separate TV channels from a DVD(s) and VHS players, plus video feeds from the on-ship video cameras. The ship TV system will be available at each station where there is an outlet. There will also be an audio override linked to each modulator which will be activated during a ships general announcement or other emergency announcements.

The aft data center has the capability to link directly to the ships mast, through a dedicated RF cable, enabling the customer to install an antenna of their choice, providing a secure (not through the ship network) communications feed or data input from off-ship resources.

The ships phone network switch is installed on the Main Deck, on the Port side forward of the galley. New multi-pair CAT-5 wire has been installed for this system with over eighty-five outlets serving all critical spaces on the ship.

The off-ship communications via satellite can be programmed for access per phone number, eliminating unwanted charges during a project. Access will also be timed, or programmed for certain hours each tay, or programmed to accept incoming ship communications 24 hours a day.

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MT. MITCHELL







### MULTIBEAM EQUIPMENT

The Mt. Mitchell is configured with a sophisticated state of the art bottom mapping sonar's, the Kongsberg EM 120 and EM 710.

EM 120: A  $2 \times 2$  degree multibeam echosounder with a 12 kHz operating frequency to the depth range of 11,000 meters. The EM 120 is the premium choice to achieve efficient mapping of larger oceans. The coverage area of a single swath can be up to 25km and the system is designed to produce a regular pattern of soundings on the bottom to obtain quality mapping.

EM 710:  $2 \times 2$  degree full version multibeam echosounder is a high to very high resolution seabed mapping system. The survey depth can be a minimum of less than 3 meters to approximately 2000 meters. The swath width is up to 5.5 times the water depth, to a maximum survey depth of more than 2000 meters.

### A-FRAME

10 Ton Capacity A-Frame with a minimum of 20ft deck clearance height.

#### AVAILABLE LAUNCHES

DECK SPACE

The Mt. Mitchell

R/V Mt. Augustine: The Mt. Augustine is a 32' Silver Streak Cuddy Cabin with an overall breadth of 10 feet, 8 inches. 14,000-pound displacement and twin 315 horse power Yanmar engines with Conrad 520 out drives. This mono hull cuddy design is of sturdy, heavy aluminum which gives it an excellent sea keeping ability. This vessel is outfitted with a multibeam and side scan mounts as well at adequate lab space to meet all your shallow water survey needs.

R/V Mt. Shishaldin: The Mt. Shishaldin is a 25 Muminum Landing Craft with a 315 HP Yanmar diesel engine. This boat seats 6 and has a cruising speed of 30 knots. It has a drop down bow which is perfect for hauling equipment, crew, or ATV's to shore.

feet of combined

Reck space for all of your survey

MT. MITCHELI



General	
Hailing Port:	Ketchikan, Alaska
Flag State:	USA (Official Number 1081092), USCG Certificate of Inspection, Subchapter U, SOLAS Compliant
Classification:	ABS Maltese Cross AT AMS, ACC
Call Sign:	WDA 9674
Designer:	MARAD
Builder:	Aeroject General in Jacksonville, FL. Completed in 1967. Refit/Upgraded in 2002 in Port Arthur,TX

CAPACITIES	
Fuel Oil:	105,000 USG
Lube Oil:	1,626 USG
Hydraulic Oil:	534 USG
Potable Water:	16,000 USG
Black & Grey Water:	2,000 USG
Water Maker:	(1) 2,650 USG/day Aquamar, Model - 10/2



DIMENSIONS		
Length Over All:	231 ft: (70m)	
Breadth:	42 ft. (12.7m)	
Draft, Mean:	I 3 ft. (3.9)	
Draft, Max:	15 ft. (4.5m)	

Performance	
Cruising Speed:	12.5 knots
Flanking Speed:	14.0 knots
Range:	10,925 nautical miles at cruising speeds
Fuel Consumption:	Approx. 2,000 USG/day @ 12.5 knots
Endurance:	45 days at crusing speed, 60 days at survey speed of 7 knots
Gross Tonnage:	1,453 ITC, 1591 Regulatory
Net Tonnage:	436 ITC, 578 Regulatory
Light Ship Displacement:	1,289 tons





Deck Machinery	
Cranes:	<ol> <li>(1) 5 Ton 35 ft. Knuckle Crane on forward deck</li> <li>(1) 43 ft. Telescoping Boom Crane on Aft deck 9 Metric Ton at Full Extension / 15 Metric Tons at 33 ft.</li> </ol>
Capstan:	(1) 21'' dia. Capstan on after deck 13,500 lbs pull @ 35 fpm Line Speed / 4,000 lbs pull at 130 fpm
Davits:	<ol> <li>(1) Vestdavit, PLR-3600 3.6m Ton. Capacity for 24' Fast Rescue Boat</li> <li>(1) Vestdavit HN-9000 9 Ton capacity for 32' survey launch Mt. Augustine</li> </ol>
A-Frame:	(1) 20,000 lbs stern A-frame 20 feet deck clearance with five padeye

	SURVEY ELECTRONICS
Multibeam Sonar:	Kongsberg EM120 2x2 degree 12kHz depth range to 11,000 meters
	Kongsberg EM710 2x2 degree full performance with FM chirp, depth range to 1000 meters
	Seachest valve, 500mm hull mountd for installation of Kongsberg HiPAP
Positioning:	Applanix POS MV 320

Propulsion		
Main Engines:	(2) EMD/567C 1200 H.P. Each Gneral Motors Diesels	
Propellers:	(2) Bird-Johnson Controllable Pitch, (3) Blade, 8.5 ft dia.	
Bow Thruster:	(1) Detroit Diesel 8V71, 350 H.P., 5,000 Ib.Thrust, Controllable Pitch Propeller, Philadelphis Gear Drive Train	
Steering:	Autonav 2000 Independent rudder system, Dynamic Positioning compatible	
ACC Console:	Allen Bradley / Rockwell Automation Systems w/ CRT Touch Screens Located: (1) Wheelhouse, (2) Engine Control Room *Classed for partially unmanned engine room	













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