



CRUISE PLANNING MANUAL R/V F.G. WALTON SMITH

REVISED 2014

UNIVERSITY OF MIAMI

ROSENSTIEL
SCHOOL of MARINE &
ATMOSPHERIC SCIENCE



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SECTION A - INTRODUCTION

1. GENERAL INFORMATION

The R/V F.G. WALTON SMITH is owned and operated by the University of Miami's Rosenstiel School of Marine and Atmospheric Science (RSMAS). The R/V WALTON SMITH is a Coastal/Local Class vessel of the University-National Oceanographic Laboratory System (UNOLS) fleet.

This cruise planning manual has been developed to provide the ship's user with the arrangement and operational capabilities of the R/V WALTON SMITH. The manual delineates the various procedures, policies, regulations, safety, and lifesaving precautions for embarked personnel. All ship users should review this manual with regard to the specific requirements of the proposed project. As well, it is encouraged you review the UNOLS Research Vessel Safety Standards (RVSS) which can be found at http://www.unols.org/publications/manuals/saf_stand/contents.htm. The RVSS provides the safety standards followed aboard the R/V WALTON SMITH.

If there are any items required for a project that are not delineated in this manual or in the RVSS please contact any of the personnel listed in the Directory of Marine Operations Personnel (page 4). Comments and/or corrections which will help clarify any of this manual, or make it more user friendly, are welcome.

It is the sole purpose of the R/V WALTON SMITH's support personnel to provide you with the very best platform and equipment to accomplish the scientific goals of the project. We are here to give you an exceptional cruise experience.

Welcome Aboard

Rear Admiral Richard Behn, NOAA (Ret.)
Director of Marine Operations

2. DIRECTORY OF MARINE OPERATIONS

RSMAS MARINE OPERATIONS

Email: mardep@rsmas.miami.edu 305-421-4174 (fax)

Richard Behn, Director of Marine Operations

Email: r.behn@rsmas.miami.edu 305-421-4832
Ship Time Requests Primary PI Contact
Scheduling Daily Ship Communications

Miguel McKinney, Manager of Marine Operations

Email: mmckinney@rsmas.miami.edu 305-421-4880
Cruise Plans Ship Time Requests
Ships Configuration Form Secondary PI Contact
Foreign Clearances Financing & Billing
Ship's Agent Insurance
Shipping/Receiving & Logistics Cruise Reports & Responses

MARINE TECHNOLOGY GROUP

Rich Findley, Director of Marine Technology Group

Email: rfindley@rsmas.miami.edu 772-242-2372 772-460-7767 (fax)

Aubri Vail, Research Support Coordinator

Email: avail@rsmas.miami.edu 772-242-2582 772-460-7767 (fax)
Scientific Equip & Computers Voice/Data Communications
Marine Technicians Scientific Instrumentation & Data Logging
Acoustic Sounders & Recorders

DIVING SAFETY OFFICE

Rick Riera-Gomez, Diving Safety Officer

Email: rgomez@rsmas.miami.edu 305-421-4107 305-421-4174 (fax)
Diving Technical Assistance Compressor & Air Banks
Diving Equipment Certification & Dive Plan Approval

OTHER SUPPORT

Edward Pombier, Radiation Safety Officer

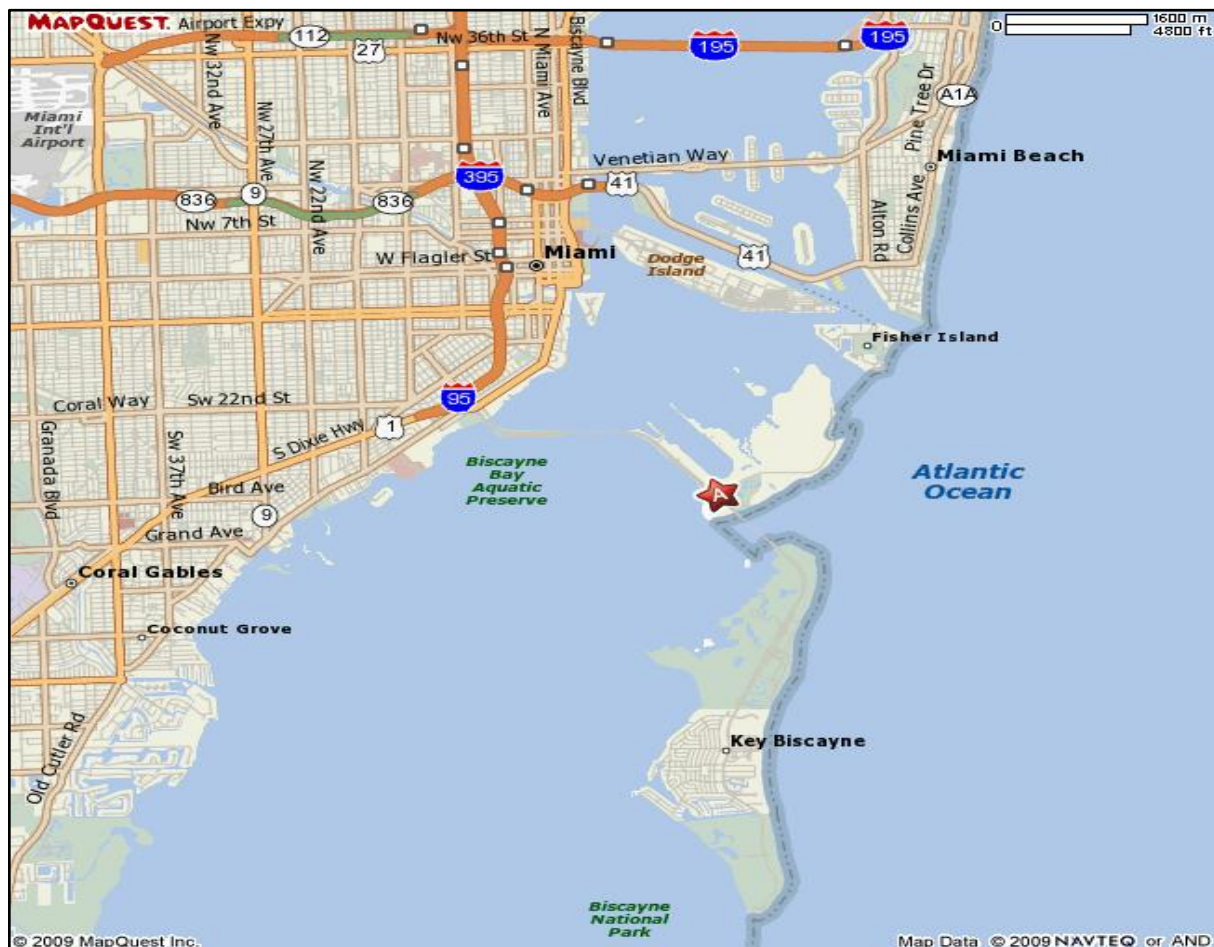
Email: epombier@miami.edu 305-243-6369 305-243-1658 (fax)
Authorization Plan Approvals
Protocol Information and Instructions

Pilar Schuitema, Claims Manager, Risk Management

Email: pschuitema@miami.edu 305-284-2067 305-284-3405 (fax)
Insurance Requirements Participant Authorization

3. LOCATION, MAILING AND SHIPPING INSTRUCTIONS

The map below shows the local Miami area and where the University of Miami's Rosenstiel School of Marine and Atmospheric Science, or RSMAS, is located. RSMAS address is 4600 Rickenbacker Causeway ("A" star on map), Miami, Florida. RSMAS serves as the home port for the R/V WALTON SMITH.



RSMAS Marine Operations has limited storage space on campus so please do not ship equipment too far ahead of time. Freight deliveries are accepted Monday to Friday from 0800 to 1600. Prior arrangements must be made for shipments received outside these hours.

Forklift and crane equipment is available for shipments with individual items weighing no more than 9,000 pounds. Prior arrangements must be made for forklift, crane, and dockage services for individual items weighing over 9,000 pounds. The shipper will be responsible for the additional charges (forklift, crane, and dockage) incurred when loading/offloading heavy loads.

Arrangements must be made with Marine Operations for the receiving, shipping and storage of equipment and/or material prior to shipment to ensure proper handling and storage.

- a. All mail and overnight deliveries should be addressed to:

University of Miami/RSMAS
Marine Operations (hold for "Your Name")
4600 Rickenbacker Causeway
Miami, FL 33149-1031
305-421-4832

- b. All freight delivers should be addressed as follows:

University of Miami/RSMAS
Marine Operations
4600 Rickenbacker Causeway
Miami, FL 33149
305-421-4382
For R/V F.G. WALTON SMITH Cruise # XXXXX
Hold for: _____ [P.I.'s NAME]_____

- c. All shipments must be prepaid. No CODs accepted.

SECTION B - CONFIGURATION AND EQUIPMENT

1. GENERAL

The University of Miami took delivery of the R/V F.G. WALTON SMITH in January 2000 from Eastern Shipbuilding Group at Panama City, Florida. The R/V WALTON SMITH operates under the Code of Federal Regulations, 46 CFR Subchapter "C" (Uninspected Vessels) and carries a USCG letter of designation as an oceanographic research vessel.

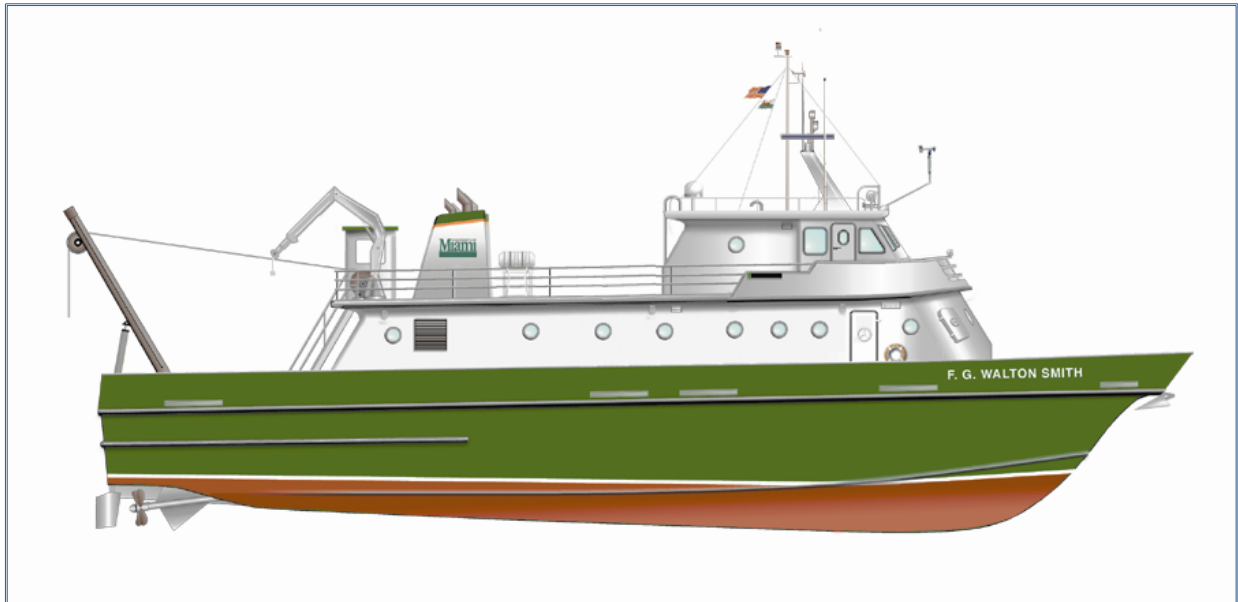
2. F.G. WALTON SMITH CHARACTERISTICS

Design	Aluminum hulled catamaran
Length	96' / 29.26 m
Breadth	40' / 12.19 m
Draft	7' 0" / 2.13 m
Gross Tonnage	97 GRT; 325 GT ITC
Propulsion	Twin Cummins QSK 19 – 760 hp each
Propellers	Servogear variable pitch
Electrical	Twin 80kw generators 208 VAC, 3 phase, 110/120 VAC, single phase UPS in laboratories
Fresh water	3,000 gallons (11,500 L) - Reverse Osmosis water maker
Fuel	10,000 gallons (37,854 L)
Complement	19 berths - 7 crew & 12 science party
Speed	9 knots cruising

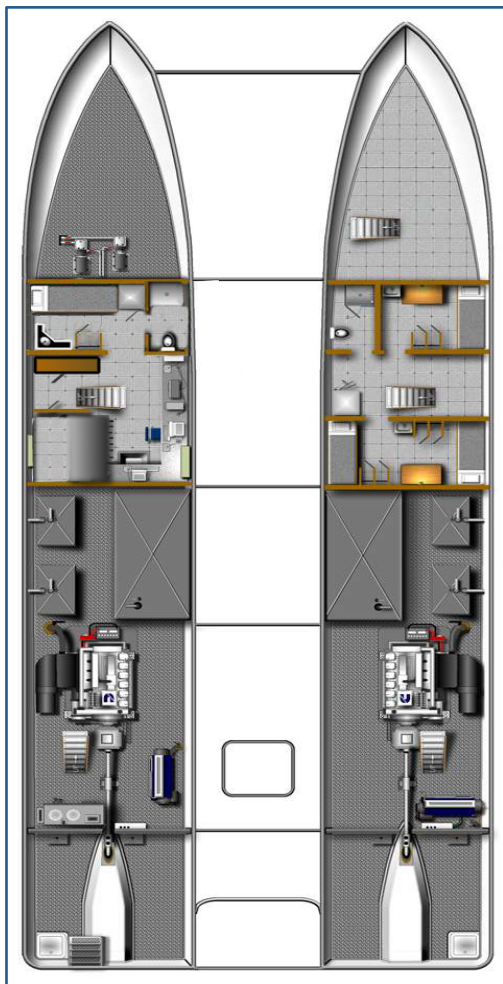
3. OUTBOARD PROFILE



4. DECK PLANS & PHOTOS



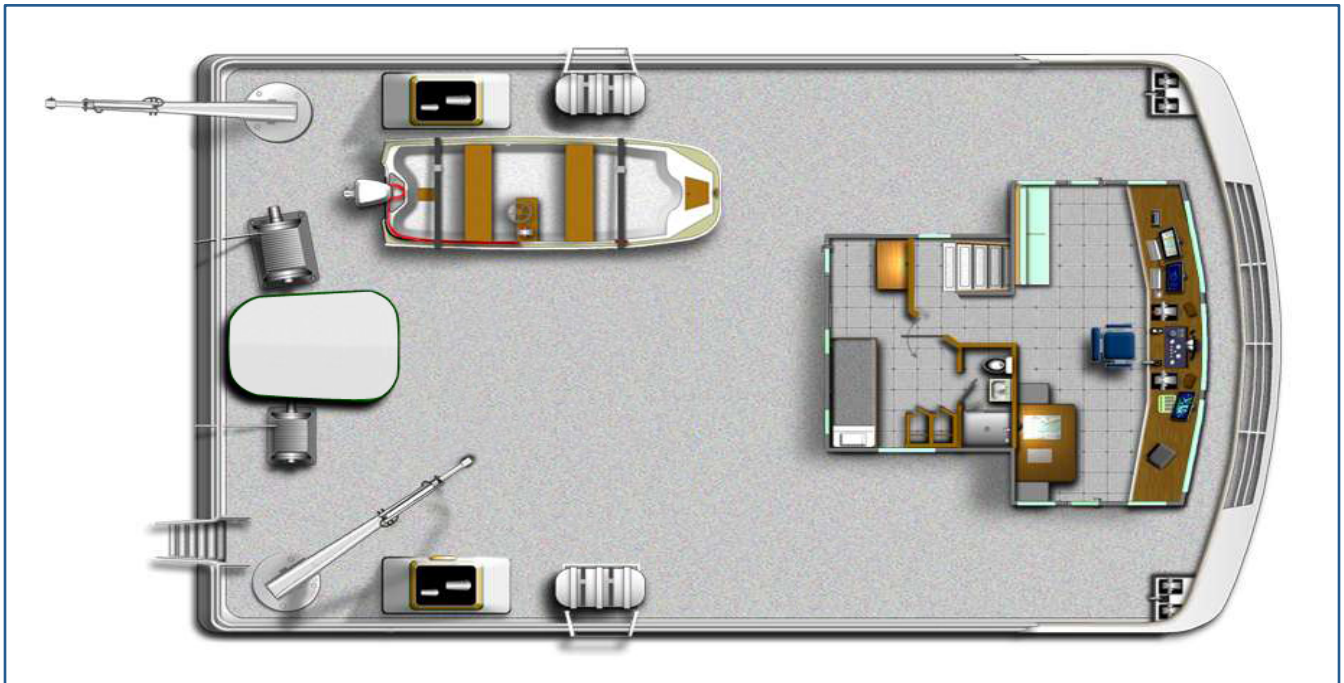
LOWER DECK



MAIN DECK



01 DECK (UPPER DECK)



AFT DECK



MESS DECK



STATEROOM



5. WINCHES AND WIRE

Two Hawboldt winches are installed on the aft 01 deck. A Markey COM-7H fiber optic winch is available by request. (Please provide advance notice for this winch for testing, repair, calibration and loading.) The winches are hydraulically operated by electronic controls from the aft control station (winch cab) or a mobile control box, which allows operation of the winches from the 01 deck, the main deck, the wet lab or dry lab.

WINCH SPECIFICATIONS & PERFORMANCE

Hawboldt Industries		Model: SPR-2640/S
LAYER	PULL* (lbs)	SPEED (m/min)
1 st (Bottom) Layer	7000	54
4 th Layer	6310	60
Mid Layer	4870	77
Top Layer	3660	103

Markey Machinery		Model: COM-7H
LAYER	PULL* (lbs)	SPEED (m/min)
1 st (Bottom) Layer	4900	27
4 th Layer	4350	31
Mid Layer	3070	38
Top Layer	2724	49

*Maximum Permissible Tension is limited by the breaking strength of the tension member at a Factor of Safety = 2.0.

TENSION MEMBER SPECIFICATIONS

Location	Type	MPT	Length**
Port Winch	Wire rope 3/8", 3X19	7,400 lbs.	4,800m
Starboard Winch	Cable .322" EM	5,000 lbs.	4,500m
Markey Compact (storage)	.322" – (3) SM fiber w/ ST termination	2,000 lbs.	1,000m

**Current length will lessen with routine testing, cutbacks and for other various reasons.

Please contact us for additional information or if different wire/cable is required.

6. SHIPBOARD CRANES

The two shipboard cranes are mounted on the aft 01 deck on the port and starboard sides. The cranes are positioned to service operations on the aft main deck and 01 deck. The cranes have a maximum capability of 4,500 lbs. at a 5' radius. At full extension, or 20.5' the maximum capability is 3,300 lbs. The maximum capabilities of all components of this and other vessel systems have been carefully reviewed and are available to any Marine Operations member. For the shipboard cranes, this includes the base or pedestal, crane arm, crane winch, crane wire and ball end.



7. STERN "A" FRAME

The hydraulic A-frame on the stern (main deck) is designed for a maximum capability of 10,000 lbs. in the deployed position. The maximum capability is 5,000 lbs. while luffing, or when not in the fully deployed stops. There is a hydraulic hoist on the A-frame to assist in handling instruments, moorings, small boats, etc. over the stern. It has a maximum capability of 4,256 lbs. Limitations are by the maximum capability of the cable. Vertical and horizontal clearance is 20 feet.



8. UNIQUE VESSEL FEATURES

The aft main deck has a unique “notched stern” design. During routine operations, this section is covered. With the notched stern cover is removed it facilitates equipment deployment for larger instruments requiring use of the stern A-frame.



The ship is also equipped with a “moon-pool”. This is located between hulls (picture left) and can be opened for transducers or other equipment needs. Both features of the R/V WALTON SMITH must be addressed during pre-cruise planning.

Vessel control stations are located on the bridge, on the bridge wings, and at the aft winch control station on the 01 deck. These stations are utilized during underway operations. This improves communications with deck crew and science participants during deployments.

9. OTHER EQUIPMENT

Dynamic Positioning and POSMV

The R/V WALTON SMITH is outfitted with a Dynamic Positioning (DP) system. Manufactured by Kongsberg Simrad, the DP system works in conjunction with an Applanix Corporation Position and Orientation System for Marine Vessels, or POSMV. The POSMV precisely measures position, attitude, heading, heave and velocity, while the DP system utilizes the ship's bow thrusters, controllable pitch propellers and independent rudders to maintain position for station keeping.

ADCPs and Science Echo Sounders

The vessel also boasts an impressive suite of oceanographic transducers. Dual Acoustic Doppler Current Profilers, or ADCPs, provide sophisticated ocean current measurements. The Teledyne RD Instruments transducers are the 600 kHz Workhorse Mariner and the 75 kHz Ocean Surveyor. The ADCPs measure high precision currents in varying ocean depths, up to 800 m.

A Knudsen Engineering 7 X 3.5 kHz transducer array is available for sub-bottom profiling. Two (2) Knudsen MiniSounders, 28 kHz and 200 kHz, are available for scientific observations. A 1200 kHz Workhorse Mariner is also available for the swivel pole mount system. Please provide ample notice if any pole mounting is desired for shared use equipment, or science supplied systems. These science Echo Sounders are also available to the bridge for additional navigation purposes.

Sea Surface Flow-Through System

A sea surface flow-through system is available in the wet lab. (Laboratory spaces are described in the next section.) This PVC-based system collects sea water from intakes at the bow. Several sensors are installed in the bow suite for underway data collection. Two connections are available for science supplied instrumentation in the manifold in the wet lab.

The following instruments are installed in the bow flow-through system:

- Sea-Bird Electronics MicroThermoSalinoGraph (SBE 45 MicroTSG)
- Sea-Bird Electronics Digital Oceanographic Thermometer (SBE 38)
- Seapoint Fluorometers – chlorophyll (SCF) & CDOM (SUVF)
- Turner Designs C6 multi-sensor platform with chlorophyll, CDOM, crude oil, phycoerythrin and phycocyanin. and optical brighteners

Meteorological Suite

The meteorological profile includes wind speed and direction, air temperature, relative humidity, barometric pressure, and solar radiation. The weather stations are manufactured by R.M. Young Company. Radiometers are manufactured by Eppley Laboratories. A Li-Cor PAR is available upon request and may require pre-cruise calibration.

Over-the-side systems

- Sea Bird 911*plus* CTD system
 - auxiliary sensors include fluorometer, transmissometer and dissolved oxygen
 - Twelve 10L Niskin bottles on a Sea-Bird Carousel for water sampling
- 1m MOCNESS (Multiple Opening Closing Net Environmental Sampling System)
 - compliment of up to 9 nets with two mesh sizes, 153 μ and 335 μ
- Coring
 - Benthos Gravity corer
 - Piston corer
 - Bottom sediment grab

10. LABORATORIES

DRY LAB – The dry lab consists of 480 sq. ft. of air conditioned space. Bulkheads are fitted with Unistrut in some areas to allow for repositioning of lab equipment. Bench tops around the perimeter of the lab were replaced with stainless steel in a minor reconfiguration in 2013. Central work space is standard Formica/laminate. Electric services include 110 VAC and UPS 110 VAC. Other services include hot and cold fresh water, PVC uncontaminated sea water, and an ice machine that can produce flake ice. The centrally located dry lab offers direct access to the galley (forward), staterooms (port & starboard), and wet lab (aft).



WET LAB – The wet lab consists of 200 sq. ft. of air-conditioned space located just aft of the dry lab. There is direct access to the aft main deck. Bulkheads fitted with Unistrut in some areas allow for repositioning of lab equipment. Electric services include 110 VAC and UPS 110 VAC. Other services include hot and cold fresh water, uncontaminated seawater (PVC), and scientific grade, ultra-pure, de-ionized water

(greater than 18 megΩ). Port holes allow visual access to the aft main deck for safety purposes and observation. Freezer and refrigerator space is available in the wet lab. Additional or non-standard freezer or refrigerator requirements should be included in the Cruise Configuration Form. Non-standard requirements should be addressed as early as possible during pre-cruise planning.

11. NAVIGATION SYSTEMS

✓ Positioning Systems

- Bridge:
 - Raytheon RayPlot 320 WAAS GPS receiver
 - Furuno GP90 GPS associated with Furuno FA-100 AIS
 - Applanix POS/MV 320

✓ Position Plotting System

- Kongsberg Simrad Planning Station – CMAP display software.

✓ Echo Sounders

- (2) Furuno FCV-620 50/200 kHz located on the bridge
- Scientific Echo Sounders also available to bridge (Section B.9)

✓ Radars

- Furuno model FR-2115 “Black Box” ARPA Radar – X Band up to 96 miles with 18 inch flat screen color display; Azimuth stabilized with GPS input
- Furuno model FR-7112 ARPA Radar – X Band up to 72 miles with monochrome display; Azimuth stabilized with GPS input
- Furuno model FR-1833C – Radar repeater located in winch cab

✓ Gyro Compass

- S.G. Brown model Meridian system consists of a transmission unit, master compass, power adapter and static converter.

✓ Autopilot

- Kongsberg Simrad 2xOT, Planning Station, C-MAP display.

✓ Wind Speed And Direction

- RM Young Windbird

12. COMMUNICATIONS

All shipboard communication equipment supports scientific projects and the safe operation of the ship. The Master is responsible for all ship transmitted communications.

Voice Communications

✓ VHF Radio

- Two ICOM ICM-127 25 Watt transceivers on bridge
- One Standard Horizon 25 Watt transceiver in winch cab
- Two 5 Watt handheld transceivers are available
- All VHF channels are available, Channel 16 monitored at all times
- User-provided boats must supply their own VHF transceivers

✓ Cellular Service

- The scientific party is encouraged to bring their own cellular equipment. The ship's cell phone is available for use by the scientific party when cellular service is available. The Master's approval is required, however the service is available for ship and scientific operations only.

✓ ***Fleet Broadband Satellite System***

- Voice and data can be transmitted via this backup system. Limited to use for ship's business and scientific projects requirements. Excessive use may be billed to the project.

✓ ***Iridium Satellite Phone***

- Iridium EuroCom satellite phone service is available for voice, fax, and data communication. Service is available from coastal waters to 200 miles offshore and throughout the Bahamas and the Caribbean. Limited to use for ship's business and scientific projects requirements.

Data Communications

✓ ***HighSeasNet Satellite System***

- A continuous shore side data link is provided. Access to the system is through a wireless access point located in the Dry Lab. Bandwidth is limited so multiple, simultaneous users slow the connection speed.
- Web based email accounts are accessible via this system.
- Costs for this service are included in the vessel daily rate.

✓ ***Fleet Broadband Satellite System***

- Data access to this system is provided through a hardwire connection in the Chief Scientist's cabin. This system serves as a backup to the HighSeasNet System. Costs for this system are based on the amount of data transferred.

✓ ***AT&T Wi-Fi Connection***

- A Wi-Fi router is also available for all users, but is limited to cellular range. If the ship is docked or near shore, the connection is much faster, reliable and can accommodate multiple users with ease.

13. WORKBOATS

The workboat aboard the R/V WALTON SMITH is a 16 ft. foam collar (center console) aluminum RHIB with a 90 HP Yamaha outboard. Additional boats may be provided depending upon the availability at the time of the request.



Additional boats may be stored on the aft main deck or on the 01 deck.

Other workboats available are:
15' foam collar (center console)
H-RIB w/90 HP Yamaha outboard
or
15' Boston Whaler (center console) w/ 40 HP Yamaha outboard

14. USER-PROVIDED BOATS

All boats not provided by RSMAS Marine Operations must be outfitted to the following standards and in accordance with the Code of Federal Regulations statute, 33 CFR 174,175:

- Vessel must possess a current state registration
- There shall be a type I or II personal flotation device (PFD) for each person aboard
- All user-provided boats 16 ft. and over are required to carry one (1) type I or II PFD for each person on board plus one additional type IV PFD

In addition, the following items must be aboard user-provided boats:

- working VHF transceiver
- adequate paddle/oar
- adequate anchor with at least 100 feet of line attached
- sound signaling device (either horn or whistle)
- flares
- distress flag
- working navigation lights

The R/V WALTON SMITH PFDs cannot be used on user-provided boats. RSMAS Marine Operation's outboard motors cannot be used on any user-provided boat.

SECTION C - TECHNICAL SUPPORT

1. EQUIPMENT USAGE

Oceanographic Instrumentation is often procured via a National Science Foundation award. It is considered “Shared-Use” for all R/V WALTON SMITH participants as well as other UNOLS member institutions, the academic fleet and may be available to projects supported by other funding agencies. It is to be operated safely first, then with consideration of other future science endeavors, then with consideration of collecting precise, high quality oceanographic data collection. Consult the RVWS Configuration and Cruise Plan for available equipment and more information.

2. MARINE TECHNICIANS

While aboard the R/V Walton Smith a Marine Technician will be available to you up to twelve (12) hours per day. A portion of the vessel’s daily rate includes the cost of one Marine Technician. These rates are negotiated annually via the NSF Shipboard Technician Support Grant, and remain the same for all vessel users, regardless of funding agency. Additional Tech support beyond the normal 12 hours per day requires written approval from the Chief Scientist. Costs may be billed separately to the PI’s project.

The Marine Technician’s primary responsibilities include maintenance and repairs to shared-use equipment (per NSF guidelines), vessel mounted instrumentation and deployed instrumentation. Marine Technicians often act as liaison between the vessel crew and the scientific party, with particular attention to over-the-side operations. Assistance is provided to the scientific party, as needed, with support of the ship installed scientific data collection system, communications, and shipboard computers and/or network. Marine Technicians do not support routine watch standing, routine operation of winches or underway sample collection. However, it is their responsibility to train inexperienced science participants in the proper, safe handling and usage of the equipment.

Marine Operations will determine the minimum number of technicians assigned to any particular cruise, based on equipment requests outlined on the RVWS Configuration Form and Cruise Plan. Typically, one Marine Technician is assigned to a cruise about the R/V WALTON SMITH.

SECTION D - DIVE OPERATIONS

1. RESEARCH DIVING

Scientists and/or researchers conducting diving operations from the R/V WALTON SMITH must operate first and foremost under the rules as set forth in the UNOLS Research Vessel Safety Standards (RVSS)

http://www.unols.org/publications/manuals/saf_stand/contents.htm, Chapter 11, Diving Operations. Scientists and/or researchers must also operate under the auspices of a formal research diving program that is recognized by the UM/RSMAS Diving Control Board as meeting the minimum standards of the American Academy of Underwater Sciences (AAUS) policies and procedures manual. If a non-UM scientist or researcher intends to conduct scientific diving during their expedition, and their home institution does not operate a formal diving program, participants must comply with the University of Miami's diving policies and procedures. A copy of these policies and procedures are available from the UM Dive Office and online at the UM Dive Office website at <http://www.rsmas.miami.edu/resources/dive-office/>.

All personnel intending to dive must read and accept the University of Miami's Diving Safety Manual. A Dive Plan must be submitted to the UM Dive Safety Officer at least 30 days prior to cruise departure. The Diving Safety Manual and Dive Plan form is available online at <http://www.rsmas.miami.edu/resources/dive-office/>.

Visiting scientists from institutions whose diving program is an organizational member of the AAUS will be allowed to dive with a UM program or from a UM ship upon submitting a letter from their respective institution's Dive Officer stating each participant:

- is currently authorized with their institution's program;
- holds a current dive physical;
- holds a current CPR & First Aid and Oxygen Provider certification;
- has been diving within the past six months;
- has proof of insurance for hyperbaric oxygen therapy;
- has a letter of self-insurance stating the diver is covered by the home institution's workman's compensation program; and
- is approved to dive by the institution's Diving Safety Officer

NOTE: The UM/RSMAS Diving Safety Officer reserves the right to request additional information or requirements.

Visiting scientists from institutions that lack a formal diving program or are not organizational members of the AAUS must complete the Basic Diver Checkout Procedure, Section 4.41 in the UM/RSMAS Diving Safety Manual.

All policies, procedures and forms are available from the UM Dive Office and online at the UM Dive Office website at <http://www.rsmas.miami.edu/resources/dive-office/>.

SECTION E - HAZARDOUS MATERIALS

1. RADIOISOTOPES

All Radioisotope experiments must be conducted in a controlled Radioisotope Van (Rad Van). The van must be loaded on the 01 deck of the RV WALTON SMITH. Careful adherence to all radioisotope procedures is imperative. Monitoring must be completed routinely during the cruise. The Rad Van must NEVER BE USED for storage purposes. UNOLS' has recently coined the 'Radioisotope Awareness Program' for all scientific personnel. Posters have been sent out to UNOLS' members for display in vans or laboratories. For more details on the program please visit <http://www.unols.org/info/radawareness.html>.

Authorization: A statement is required from the Principal Investigator's home institution health physicist, or authorized representative, for radioisotope use stating the investigator is certified to possess and use the isotopes involved in the proposed project. Only approved investigators may work with radioisotopes.

Experimental protocol: A detailed protocol of the proposed experiment must be provided. Specify such details as manipulation procedures, planned location for work, arrangements for isolation and contamination monitoring procedures of the nuclides to be used and their amounts, forms and concentrations. Explanatory figures and diagrams should be included.

Statement of Use: Following the cruise, a statement of use must be sent to University of Miami's (UM) Radiation Control Center (contact information below). This statement must show amounts of nuclides: 1) taken aboard the ship, 2) disposed of upon returning to port, and 3) unused and removed from the ship by the investigator.

Waste disposal: Investigators will provide a statement of the procedure to be followed for collecting, storing and disposing of all radioactive waste generated during the experiments. The UM is specifically prohibited from disposing of ANY radioactive waste at sea under the terms of its State of Florida license. Therefore, all waste must be returned to shore for disposal by the investigator's home laboratory or at the UM provided prior arrangements were made with the UM's Radiation Control Office.

Monitoring: A comprehensive series of radiation safety wipe samples (100 cm²) must be collected by the investigator both before and after radioisotope use. The entire area should be thoroughly tested and measure using the Liquid Scintillation Counter provided in the van.

The location of the wipe test samples should be indicated on a map of the working area. Results of wipe testing must be forwarded to the UM Radiation Control Center within 3 days after the end of the cruise.

In addition to the monitoring required of the investigator the UM's Tritium Laboratory conducts pre-cruise and post-cruise monitoring procedures. This includes a SWAB test, a more sensitive test than general wipe tests. SWAB testing indicates contamination using a range varying from trace levels for successive projects, up to human health hazards. Previous SWAB tests are available upon request. In any case, investigators are responsible for proper monitoring and clean up.

Costs associated with cleaning Rad Van or vessel spills or contamination will be billed to the PI. Non-reported spills or improperly monitored and/or cleaned work areas may result in the revocation of the responsible person's authorization from conducting further radioisotope projects aboard the vessel, as well as any UM facility.

Send all required information to Mr. Edward Pombier, UM Radiation Safety Officer (with a copy to Marine Operations):

RADIATION CONTROL CENTER

Mr. Edward Pombier, R.S.O.
University of Miami
Radiation Control Center
P.O. Box 016960
Miami, FL 33136
Phone 305-243-6369

MARINE OPERATIONS

Marine Operations
University of Miami
4600 Rickenbacker Cswy.
Miami, FL 33149

2. EXPLOSIVES, UNDERSEA SONIC EMITTERS AND DRAGGED DEVICES

Explosives: The use and handling of explosives is restricted to persons possessing proper training and certification. Explosives *cannot* be loaded or unloaded in the Port of Miami. Loading explosives in U.S. ports is supervised by the U.S. Coast Guard's Captain of the Port. The Captain of the Port for the port you are departing from requires the following, at least 8 weeks prior to departure:

1. Explosive handling facilities for loading
2. Date of Loading
3. Supplier and copy of explosive order
4. Carriers certificate for packing
5. Unit quantity of each type of explosive and hazardous material
6. Unit packaging dimensions and weight
7. Unit identification as listed in 46 CFR 146-149
8. Magazines to be provided, material dimension and weight
9. Magazine markings
10. Name of certified shooter
11. Shooting safety procedure

Undersea Acoustic Transducers: The National Geospatial-Intelligence Agency (NGA) is the point of contact for ship operations that use sonic emitters, towed devices, explosive charges, or deploy moored instrumentation. These items could pose a hazard to the

safe navigation and operation of submarines, or to surface vessels, particularly those engaged in fishing, towing or other research work. The Principal Investigator must contact the NGA at least 2 weeks prior to departure of their cruise aboard the R/V WALTON SMITH. The NGA disseminates the information through the “US Notice to Mariners” which corrects navigational charts and publications, both domestic and foreign. The agency also disseminates Broadcast Warnings in support of the Global Maritime Distress and Safety System (GMDSS) to ensure timely distribution of information for the safety of life at sea, as well as directly to appropriate naval commands. Providing the information to the US Coast Guard’s *Aids to Navigation Office* in the appropriate district, as well as to local Naval Commanders, in some cases, may improve the level of notification and coordination between offices. Visit the NGA Maritime Safety Information website here: <http://msi.nga.mil/NGAPortal/MSI.portal>.

3. MATERIAL SAFETY DATA SHEETS

Federal Occupational Health and Safety Administration (OSHA) rules require chemical manufacturers, importers and distributors to properly label hazardous chemicals for use, storage and emergency procedures. Principal Investigators must provide a list of all chemicals to be used during their cruise. Any hazardous material brought aboard the R/V WALTON SMITH must be accompanied by the appropriate Material Safety Data Sheets (MSDS). A copy of the MSDS must be provided to the Master for informational purposes in the event of an emergency. In addition, the Chief Scientist must brief all persons on board who will be exposed to such materials (called “Right To Know”) in the general physical and health hazards involved, appropriate protective measures, clean up procedures, and potential injuries resulting from exposure to the material.

MSDS will be posted in the dry lab and/or wet lab as appropriate. For more information, visit the MSDS website: <http://www.msds.com>.

4. LITHIUM BATTERIES

In May 2012, the UNOLS’ Office released a Circular on an increasing prevalence of Lithium batteries in oceanographic research. These batteries can be very useful, but also very dangerous. MSDS sheets are not sufficient for these. Special firefighting techniques are being disseminated to institutions and shipboard crew. The UNOLS Research Vessel Safety Standards (RVSS) will be updated to address issues resulting from lithium battery usage more thoroughly in its Chapter 9 (subject: HAZMAT). The UNOLS Circular can be located at: http://www.unols.org/committees/rvoc/Lithium_Battery_Safety_Circular_May_2012.pdf.

5. MARINE MAMMAL PROTECTION ACT

All vessels must comply with the Marine Mammal Protection Act and Endangered Species Act. Low and mid-frequency sonar and other acoustic studies have been identified as having potentially severe impacts to marine mammals. If you plan to conduct acoustic research, please visit the UNOLS website for resources about permitting and NSF Guidelines for Permitting and Clearances.

Visit: <http://www.unols.org/committees/ssc/permits/permits.html#mamm>.

SECTION F - VESSEL OPERATIONS

1. CREW

The R/V WALTON SMITH is operated by an experienced, competent and safety-oriented crew of seven. The crew is comprised of the Vessel Master (aka Captain), Chief Mate, Engineer, Second Mate, Assistant Engineer/Third Mate, Steward and Marine Technician. All but the steward and the technician are qualified to operate the vessel. All are experienced in oceanographic research and myriad science disciplines. The Chief Scientist is requested to report and discuss any problems with equipment, personnel and/or procedures with the Master as soon as they are identified. The Chief Mate can also address most issues in the Master's absence or off-watch period.

2. OPERATING HOURS

While underway, the R/V WALTON SMITH can operate up to 24 hours per day, 7 days per week.

3. OPERATING DAYS

Operating days include all days or any part thereof which the vessel spends away from the port of embarkation. An operating day begins and ends at midnight. For safety, departures and returns to/from ports are almost always limited to daylight hours. Departures and arrivals from the RSMAS pier are also subject to tide conditions due to the shallow Miami Bay. Principal Investigator's must request the required number of operating days on a UNOLS' Ship Time Request Form which can be found at (https://strs.unols.org/Public/diu_login.aspx).

4. STAGING AND LOADING

The R/V WALTON SMITH can stage and load in almost any port. Loading may begin as early as 0800 on the day prior to the scheduled departure day. When crew assistance is not required, the loading will not interfere with ships' maintenance or repair work, and/or the prior cruise's scientific equipment is off loaded, the laboratories and deck areas will be available for equipment set up. Crew rest will dictate loading which continues beyond 1600 of the scheduled day of departure and may prohibit departure that day. Special loading requirements can be met provided they are included in the Ship Time Request and the RSMAS Cruise Configuration forms. Most importantly, communicating these and other pre-cruise needs to Marine Operations as the departure date nears will augment a seamless and timely departure.

5. MEALS AND CLEANING

The R/V WALTON SMITH provides three meals per day while at sea and in any port aside from RSMAS. While at sea, meals are served at times posted on the Mess Deck. Depending on the work load 2 meals a day (brunch and dinner) may be served while in port other than at RSMAS. Meal times may fluctuate to accommodate operations. If a time change is desired, please notify the Steward as early as possible.

It is our desire to provide healthy, nutritious meals and snacks for all. We proudly display our 2011 and 2013 “Best Grub Award” from the National Science Foundation. While most dietary requests can be accommodated (i.e. dietary restrictions, vegetarian meals, allergies, etc.) advance notice is greatly appreciated for planning purposes. Special requests must be submitted to Marine Operations two weeks prior to the cruise departure.

The Chief Scientist is responsible for assigning specific duties to the scientific party for areas to be cleaned which include scientific staterooms, heads/showers and labs. Cleaning supplies are available upon request from any crew member.

A washer/dryer combination is located at the base of the ladder in the starboard hull for personal items. Laundry detergent is provided. As a courtesy to others, please transfer laundry from the washer to the dryer as soon as it is finished and remove clothes from the dryer when dry. Use discretion when placing very soiled items (i.e. grease, oil, and chemicals) in these units; some may require rinsing on deck before placing items in the washer.

6. GARBAGE AND TRASH

In accordance with Federal regulations, the R/V WALTON SMITH has a Waste Management Plan for control of all waste material. All members of the scientific party should become familiar with the plan.

- All plastics will be separated and held onboard for the duration of the voyage. Upon return, these will be disposed of or recycled in accordance with local regulations.
- During operations beyond 12 nautical miles from shore, organic garbage (food “slops”) may be disposed of overboard. A “slop” container is kept in the galley. Please ask the Steward until you become familiar with routine food waste.
- During operations within 12 nautical miles from shore, all garbage will be held onboard. Upon return to port, the garbage will be disposed of in accordance with federal, state, and local regulations.
- It is illegal for any vessel to dump plastic trash of any kind, anywhere in the ocean or navigable waters of the United States.

Often, the crew will review this Waste Management Plan with all embarking personnel during the initial Safety Briefing at the start of the cruise. Please refer to the Pollution Prevention placards posted in the mess area and throughout the vessel.

7. BERTHING

The R/V WALTON SMITH is designed to carry up to 12 scientists and 7 crew. Additional crew for increased scientific operations will require a reduction in the available scientific berths. The Chief Scientist is responsible for assigning berths for the scientific party. Male and female scientists may not share staterooms. Berthing for the scientific party can be made available the night before the scheduled departure date, but please check

and confirm this option with Marine Operations first. Depending on the vessel's turnaround time, there may be times when scientists from the previous cruise remain on board.

8. SAFETY AND RESPONSIBILITIES

Safety is a culture that is strictly abided by aboard the R/V WALTON SMITH. The command and crew do not take safety lightly. They strive to eliminate all possible accidents, or potential hazards. Awareness of one's surroundings is key in this sometimes challenging and dangerous environment. However, some accidents cannot be avoided. When they do occur, all accidents and/or injuries must be reported to the bridge as soon as possible.

The Master, by Maritime Law, has ultimate authority over all persons assigned to or embarked on the ship. The Master has full responsibility for the safety of the vessel and all personnel aboard. The Master is vested with the authority to take whatever action he/she deems necessary to preserve and maintain the safety and integrity of the vessel and all personnel, including but not limited to: handling of small craft, diving and/or snorkeling activities, weather, navigation hazards and machinery malfunctions. Enforcement of policy, safety standards, and compliance with the laws of the territorial waters, in the vessel's area of operation, is the sole responsibility of the Master.

Violations or circumvention of safety standards or local laws may cause termination of the cruise and immediate return of the vessel to port. The Master has the authority to determine violations or circumvention. The Chief Scientist is required to advise the Master of all-special permit licenses, clearances, etc. issued to the project regarding the collection of data or other scientific activities.

The Master is required to provide information, orientation and demonstrations of the safety equipment and emergency procedures aboard the vessel. A Safety Briefing combined with a fire and abandon ship drill will be held either before or very shortly after departure. **All embarked personnel are required to participate.** Life jackets must be worn at all drills. Assignments for all drills and emergencies are listed on the station card located on each bunk.

It is the Chief Scientist's responsibility to notify participants of the following required reading for all embarked scientific personnel on a UNOLS vessel. The UNOLS' Research Vessel Operators Committee (RVOC) Safety Training Manual (Chapter 1) highlights safety matters aboard research vessels. Prior to arrival, the Chief Scientist should request all scientists sailing view the RVOC Safety Training Manual available on the UNOLS website at http://www.unols.org/publications/manuals/safe_man.html .

The Safety Training Manual is also aboard the vessel and available for reading. Though it covers a lot of information Chapter 1 is intended to be read in one sitting. All scientific personnel should be aware of the contents of this safety manual.

SECTION G - PRE-CRUISE REQUIREMENTS

1. SHIP TIME REQUESTS & SCHEDULING

To obtain ship time aboard the R/V WALTON SMITH, each scientific project must complete a UNOLS Ship Time Request (https://strs.unols.org/Public/diu_login.aspx). It is prudent for scientists to submit their ship time requests early. Support for all projects is based upon the initial information provided in the ship time request so please complete the request to the best extent possible at the time of completion. This information is reviewed by the UNOLS's office, Ship Scheduling Committee, Marine Operations, Marine Technology Group and some agency Program Managers.

Ship scheduling for the R/V WALTON SMITH is managed by RSMAS Marine Operations and coordinated with other institutions through the UNOLS' Ship Scheduling Committee. Please do not hesitate to contact Marine Operations with any questions before submitting your Ship Time Request or with questions about scheduling. The R/V WALTON SMITH's schedule may shift, with approval from scheduled PIs, due to weather, funding changes, or to accommodate unexpected oceanographic events.

2. CONFIGURATION FORM & CRUISE PLAN

The Configuration Form & Cruise Plan form (or config form) is designed to inform Marine Operations, Marine Techs and the ship's crew about the requirements for the project. The form can be found online at the Marine Operations website at <http://www.rsmas.miami.edu/resources/marine-department/cruise-planning-manual/>. Of all the required forms, the config form has the most substantial impact on the success of the cruise. This form addresses instrumentation, dive operations, small boat usage and other information which may identify potential issues early on. The Principal Investigator is encouraged to submit the Configuration Form as soon as received by Marine Operations or 6 months prior to the scheduled departure date. Preliminary drafts are encouraged. If some pertinent project information is unknown then a final version can be submitted at a later date. Early submissions allow preparation of equipment, and in many cases allow modifications and/or additions of new equipment. The final version must be submitted no later than 45 days prior to the cruise's departure. The date of submission may be used to resolve equipment request conflicts. Remember, portable equipment is designated as "Shared Use" and may be requested by other UNOLS' member institutions, vessels or RSMAS supported projects. Reserve early! Submit the config form as soon as possible.

3. PARTICIPANTS FORM

The RVWS Cruise Participants Form contains vital information for all those that are embarked on the ship for the cruise. This form must be completed two weeks prior to departure. The form can be found at the Marine Operations website at <http://www.rsmas.miami.edu/resources/marine-department/cruise-planning-manual/>. The form serves as a record of all persons on board and is submitted to the UNOLS Office post-cruise. This Adobe PDF form has recently changed. Each participants' nationality and classification (i.e. student, technician, etc.) is now required a minimum of two weeks prior to sailing due to regulatory export control compliance.

4. FINANCING

Principal Investigators holding Federal agency grants or contracts may be awarded ship time where costs are included in the Ship Operations Grant or in contracts between those agencies and the University of Miami. Other investigators should include ship costs, as determined by the RSMAS Marine Operations, within their grant budget. Commercial users will operate under a Charter Party Agreement at a slightly higher rate as sponsored users.

5. FOREIGN OPERATIONS

The Principal Investigator is required to consult the U.S. Department of State's Marine Scientific Research Authorization's website for the proper procedures for requesting foreign clearances (<http://www.state.gov/e/oes/ocns/opa/rvc/index.htm>). Marine Operations will assist with the securing of clearances *but it is the responsibility of the Principal Investigator to secure this clearance*. It is important the Principal Investigator submit the necessary information in time to allow the State Department to comply with the specific lead-time required by the host country, which may be six months or more, in advance. Once your clearance is obtained, please submit that appropriate clearance documents to Marine Operations, so the necessary permits can be obtained.

6. PERSONNEL INSURANCE REQUIREMENTS

The Principal Investigator and/or the Chief Scientist determine the makeup of the scientific party. Personnel joining the scientific party must have a legitimate reason for participating cruises by association with the scientific program as a researcher, research assistant, technician, observer or student. All participants in a cruise aboard the R/V WALTON SMITH are required to supply a certificate of insurance, Governmental Travel Orders, or a letter from their employer certifying coverage for Worker's Compensation.

University of Miami/RSMAS students are insured and able to embark on the R/V WALTON SMITH. Participants from other U.S. institutions embarking on the R/V WALTON SMITH must be covered by their institution's Workman's Compensation insurance.

All self-employed personnel or volunteers invited to participate on a cruise on the R/V WALTON SMITH must be employed by the Chief Scientist's or Principal Investigator's home institution.

To comply with these requirements self-insured institutions may use the proposed letter format that can be found at the Marine Department website at <http://www.rsmas.miami.edu/resources/marine-department/cruise-planning-manual/> . Certificates and letters must be submitted to the University of Miami's Risk Management Office at two weeks prior to the cruise's departure date. Please send all required information to Marine Operations who will forward to Risk Management. Contact information can be found on page 4 of this document for any insurance-related questions.

All insurance coverage shall be provided for the named individuals for the duration of

the cruise. The Chief Scientist is responsible for providing proof of insurance for each cruise participant. It is the responsibility of the Principal Investigator and/or the Chief Scientist to ensure compliance with the University of Miami's insurance requirements. Questions may be referred to the UM Risk Management Office.

7. CUSTOMS AND IMMIGRATION

All participants scheduled to visit foreign ports must visit the U.S. Department of State website (http://travel.state.gov/travel/travel_1744.html). This site provides all foreign nation entry requirements (visas, immunizations, etc.). The Scientific Personnel Information & Immigration Form provides the information necessary for the Master of the R/V WALTON SMITH to obtain the clearances needed for the scientific complement to disembark from a foreign country.

Before departing the United States, it is imperative that each scientist embarking have the required documents for entry back in to the United States. The documents required for reentry can be found on the U.S. Customs and Border Patrol's website at <http://www.cbp.gov/xp/cgov/travel/>.

Upon return from a foreign port, all vessel personnel, including the scientific party, are required to remain aboard the vessel, without any contact with persons ashore, until U.S. Customs and Border Protection (CBP) officials clear the ship. Individuals are responsible for declaring to CPB all articles purchased or acquired in foreign ports during the cruise. Any person leaving the ship prior to the first return to an U.S. port after a foreign port call must take all dutiable articles with them.

It is recommended that all personal items of high value and foreign manufacture (items like cameras, watches, computers, etc.) be registered with CBP prior to departure from the United States. To register these items, obtain a CBP's Certification of Registration for Personal Effects Taken Abroad (CBP form 4457) and follow the instructions provided (http://forms.cbp.gov/pdf/cbp_form_4457.pdf).

SECTION H - WHILE ABOARD

1. RESPONSIBILITIES OF CHIEF SCIENTIST

The Chief Scientist is responsible for the coordination of the entire scientific mission while at sea. The Chief Scientist may be the Principal Investigator or may be a member of the scientific party.

The Chief Scientist must work and communicate with the Master on a daily basis as to the plan of the day and execute the operations necessary to complete the project. The Chief Scientist, in coordination with the Master, needs to solve any problems that may arise during the cruise. Problems are not limited to the scientific objectives but encompass all phases of the ship's operation and performance.

The Chief Scientist governs the personal conduct of the scientific party; however, the Master has the final responsibility and authority for the operation of the ship and wellbeing of all aboard.

2. PERSONNEL RESPONSIBILITIES

Chief Scientists are responsible for the behavior of all members of the scientific party. Chief Scientists must ensure that all members of the scientific party are aware of the ship's and Master's guidelines and take action to ensure compliance and report any possible violations to the Master.

Sexual Harassment

The University of Miami is committed to providing an environment free from all forms of discrimination including sexual harassment. Sexual harassment is not tolerated. Sexual harassment includes physical or verbal abuse of a sexual nature including graphic commentaries about an individual's body, sexually degrading remarks used to describe an individual, or unwelcome propositions and physical advances of a sexual nature. It is the policy of the University to promote a cooperative work environment in which mutual respect exists for all. Sexual harassment is inconsistent with this objective and contrary to the University of Miami's policy.

The social atmosphere at sea is very different from that on shore. When people work and live in close proximity for lengthy periods of time, personal and professional boundaries may become blurred. The usual shore-based distinctions between "at work" and "at home" become meaningless aboard ship. In general, everyone should be sensitive to the altered social conditions and atmosphere in which all must work and live. We encourage all sea-going personnel to recognize the unique circumstances of shipboard life and to take practical steps to prevent sexual harassment from occurring.

In the event that a member of the scientific party or crew feels that their personal rights have been abused, the individual may find it appropriate to speak with the ship's Master and/or the Chief Scientist about the potential harassment. In the case of overt sexual harassment, it is the aggrieved person's right and obligation to report the offense. Failure of a supervisor to take immediate, appropriate action where it was known, or should have been known, that a case of inappropriate conduct existed, will place that

supervisor in serious jeopardy should future legal action be warranted. As an assault upon the individual's rights and dignity, it is clearly inconsistent with, and unacceptable to, the standards of the University of Miami.

In addition to sexual harassment being illegal, it is also against the law to retaliate against someone for complaints or participation in an investigation of sexual harassment. Retaliation is against the University's policy. Retaliation against any person who, in good faith, reports alleged harassment or who participates in an investigation or who knowingly makes false and malicious complaints of sexual harassment may be subjected to appropriate discipline.

Dangerous Items

Sharp objects, guns, firearms, martial arts or self-defense items, explosives, flammable materials, or disabling chemicals are not permitted aboard the R/V WALTON SMITH.

Fresh Water

Fresh water can be limited, especially when operating in waters that might restrict the use of the ships' water making equipment. Please make every effort to conserve water.

Smoking

Smoking is not permitted in any interior space aboard. Smoking is permitted only on the aft deck. Please be aware there is no smoking in areas such as near fuel stations and flammable storage areas. Please be aware of "No Smoking" signs in critical areas. Do not throw tobacco waste overboard; proper receptacles are available on the aft deck.

Nighttime or Foul Weather

At night, or when in foul weather, you must use extra caution moving about the vessel. Do not go out on deck alone. If you must go out on deck alone inform another member of the crew or scientific party.

Bridge

Please request permission to enter the bridge anytime the vessel is underway. Preparing for departure, during anchoring, or while entering a harbor or channel are busy times on the bridge therefore please refrain from entering the bridge during those times. When entering the bridge at night make sure that you do not introduce unwelcome light which can interfere with the watch standers night vision.

Engine Room

Never enter the engine room area without the company of a crew member. It is a noisy, hazardous environment and it is easy for inexperienced personnel to be injured.

Illness

Please do not expect to sail if you are ill. The chance of infecting others with a contagious sickness like a cold or the flu (influenza) is great. The Master is entrusted with ensuring the safety and well-being of everyone aboard and has the authority and responsibility to deny passage to anyone that is suspected of being ill.

Drugs and Alcohol

It is the policy of the University of Miami to provide a safe working environment. In order to do so, the University has established policies and procedures regarding the use and

possession of intoxicants including drugs and alcohol. The possession or use of alcoholic beverages or illegal drugs while aboard the R/V WALTON SMITH is prohibited.

Illegal drugs are forbidden on the R/V WALTON SMITH. The Master is empowered to conduct searches of personal effects, as well as any space aboard vessel based on reasonable suspicion that illegal substances may be present. The R/V WALTON SMITH complies with United States federal regulations governing possession and/or use of illegal or controlled substances.

Alcoholic beverages are not allowed aboard the R/V WALTON SMITH. No one may bring, possess or consume alcohol on board. No person should report for duty while under the influence of alcohol whether the vessel is in port or at sea. Based on reasonable suspicion, the Master is authorized and empowered to search any part of the vessel at any time for alcoholic beverages.

Any person in violation of this policy is subject to immediate removal from the ship as well as additional actions that may include, but are not limited to, administrative actions involving the person involved, their research group, their employer, their funding agency, and UNOLS.

In the event liquor is purchased in a foreign port it must be surrendered to the Master to hold until ship arrives at the next port and an individual's departure.

3. MOVING ABOARD

While the R/V WALTON SMITH is located at the RSMAS dock, the scientific party will normally be allowed aboard the evening prior to the scheduled sailing date. Please confirm with Marine Operations prior to your arrival. It is the responsibility of the Chief Scientist to assign berths to the scientific party (Refer to Section D.7.). The Chief Scientist will post a berthing plan. A few points while aboard:

- ✓ Bed linen, towels and washcloths will be provided and exchanged weekly
- ✓ Please stow your personal gear in the storage provided in staterooms
- ✓ Meals will not be served until the morning of departure of your cruise
- ✓ Please do not take food to your stateroom
- ✓ Please bring plenty of sunscreen, sun protection gear, non-slip closed toed shoes and foul weather gear
- ✓ There is a TV with a DVD player on the mess deck. We welcome favorite movies, books, or music to share.
- ✓ While some items may be available, please bring personnel items, over-the-counter medications, treats, or specific items (i.e. particular juices, gum, tea bags, supplements, flavored coffee creamer, whatever you cannot live without).

4. EMERGENCY & SAFETY EQUIPMENT

After finding your stateroom and stowing your personal gear please do the following:

- ✓ Locate your life jacket.
- ✓ Locate the inflatable life rafts.
- ✓ Locate all escape routes, doors & hatches.
- ✓ Locate fire extinguishers throughout ship.

- ✓ Locate work vests and hard hats.
- ✓ Locate the First Aid Kits.

The R/V WALTON SMITH carries a complete inventory of medical supplies appropriate to a vessel her size. The crew is trained to handle most common medical emergencies. However, every situation cannot be predetermined, therefore it is very important all operations are conducted with the utmost focus on safety to prevent potential accidents and injuries.

SECTION I - POST CRUISE REQUIREMENTS

1. SHIPBOARD CLEAN-UP PROCEDURES

At the conclusion of each cruise all areas used by scientific party must be cleaned as described:

- ✓ *Wet/Dry Labs:* Remove all scientific equipment, empty all trash into proper receptacles, wipe down bulkheads with damp cloth and dry with clean rags, sweep and mop deck, wipe off benches, cabinets, clean sinks and faucets.
- ✓ *Staterooms:* Strip bunks of linens, deposit towels and linen in furnished laundry bags, wipe down furniture and bulkheads, fold blankets and put them at the foot of the bunk.
- ✓ *Heads and Showers:* Clean toilets and wipe down outside of bowl; clean sinks, mirror, soap dish, and faucets; wipe down shower bulkheads and deck; sweep and mop deck; and empty wastebasket.
- ✓ *Passageways, stairs:* Sweep and mop.
- ✓ *Scientific Freezers and Refrigerators:* Once all samples are removed wipe down inside and outside of all units used during the cruise.

The crew will furnish all cleaning equipment and supplies. The Master is responsible for the inspection of these areas prior to the departure of the scientific party. A clean vessel was provided, please respectfully do the same for the next scientific party.

2. OFFLOADING

The R/V WALTON SMITH is normally offloaded on the day of arrival in port. The ship's crane will be available to assist in the offloading of heavy scientific gear. The crew will operate the ship's loading equipment during the offloading process. Please do not depend on the crew to assist in the offloading of small, hand-carried science gear as they will likely be preparing the vessel and conducting maintenance for the next cruise.

3. DISEMBARKING

The scientific party is expected to leave the vessel within a reasonable time frame after arrival at the dock. If more time is needed the Chief Scientist must consult with the Master on the what kind of extension is needed.

4. POST CRUISE FORMS AND REPORTS

The Chief Scientist is requested to complete a UNOLS Post Cruise Assessment Report (PCAR) at the completion of the cruise. This form is used by UNOLS to assess the degree of success achieved in accomplishing the cruise's scientific objectives from the PI or Chief Scientist's perspective. The online form can be found at :

http://strs.unols.org/Public/diu_pre_pcar.aspx

Once completed the form is disseminated to UNOLS, the funding agency of the cruise, RSMAS Marine Operations, RSMAS Marine Technology Group as well as serving as a historical record of the cruise. We respectfully ask that any major issues you encountered during your cruise be addressed and discussed with the Master or Director

prior to report completion. It is our desire to provide a safe, efficient and pleasant experience aboard the R/V WALTON SMITH. Communication is vital to vessel and procedural improvements. Contact Marine Operations for the proper cruise number.

The same UNOLS assessment report is completed by the R/V WALTON SMITH's Master and Marine Technician to assess the degree of success of the cruise from their unique perspective. Their reports are distributed the same as the Chief Scientist's report.

All forms and resources listed or referenced in this manual are available upon request from UM Marine Operations or at the F.G. Walton Smith Cruise Planning website at <http://www.rsmas.miami.edu/resources/marine-department/cruise-planning-manual/>.