

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH

1. General Information

1.1 Cruise name and/or number:	OSNAP Iceland Basin - F2014-024
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1.2 Sponsoring institution(s):		
Name	Address	Name of Director
University of Miami	Dr. William E. Johns RSMAS/MPO University of Miami 4600 Rickenbacker Causeway Miami, FL 33149 Office: (305) 421-4054 Fax: (305) 421-4696 email: bjohns@rsmas.miami.edu	Dean Roni Avissar

1.3 Scientist in charge of the project:	
Name:	William Johns
Country:	US
Affiliation:	University of Miami, RSMAS
Address:	, US
Telephone:	305-421-4054
Email:	bjohns@rsmas.miami.edu

1.4 Entity(ies) /Participant(s) from coastal State involved in the planning of the project:	
Name:	See Section 6.2.
Country:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
This research is part of the U.S. led "Overturning in the Subpolar North Atlantic Program (OSNAP), an effort to determine the strength of the meridional overturning circulation and associated heat and freshwater fluxes in the subpolar North Atlantic. It is a collaborative program with scientists from several nations, including the U.K., the Netherlands, Germany, France, and Canada. Scientists from the U.S., the U.K., and the Netherlands will participate in this cruise. The specific objectives of this cruise are as follows: 1. To deploy 20 current meter and sound source moorings along a line from west of the Reykjanes Ridge to the coast of Scotland. 2. To conduct standard CTD (Conductivity-Temperature-Depth) and Lowered ADCP (Acoustic Doppler Current Profiler) stations at selected sites along the same mooring line. 3. To launch an array of acoustically tracked RAFOS floats at a number of sites near the mooring line.

2.2 Relevant previous or future research projects:
Ocean circulation dynamics; climate variability and change

2.3 Previous publications relating to the project:
none

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude, including coordinates of cruise track/ way points):
57.29N, 9.4W to 57N, 12.77W.

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical areas of the intended work and, as far as practicable, the location and depth of sampling stations, the tracks of survey lines, and the locations of installations and equipment.
Chart provided - see Section 10.1.

4. Methods and Means to be Used

4.1 Particulars of vessel:	
Name:	KNORR

Type/Class:	Ship
Nationality (Flag state):	United States
Identification Number (IMO/Lloyds No.):	
Owner:	Office of Naval Research
Operator:	Woods Hole Oceanographic Institution
Overall length (meters):	281.00
Maximum draught (meters):	16.70
Displacement/Gross tonnage:	2518.00
Propulsion:	Two Lips diesel-electric azimuthing stern thrusters, 1500 SHP each
Cruising:	11.00
Maximum speed:	13.00
Call sign:	KCEJ
INMARSAT number and method and capability of communication (including emergency frequencies):	500/2182 kHz
Name of master:	Captain Kent Sheasley
Number of crew:	24
Number of scientists on board:	32

4.2 Other craft in the project, including its use:
none

4.3 Particulars of methods and scientific instruments:		
Types of samples and measurements	Methods to be used	Instruments to be used
currents, temperature, salinity, pressure, position, depth	taut-wire subsurface moorings standard CTD/LADCP stations subsurface drifting floats	CTD (Conductivity-temperature-depth) LADCP (Lowered Acoustic Doppler Current Profiler) Current meters Temperature/salinity./pressure recorders Acoustically-tracked floats (RAFOS)
bottom topography underway shipboard velocity profiling	echosounders (single and multibeam) Vessel-mounted Acoustic Doppler Current Profiler (VM-ADCP)	12 kHz echosounder, Seabeam system Teledynce/RD Instruments VM-ADCP

4.4 Indicate nature and quantity of substances to be released into the marine environment:
No

4.5 Indicate whether drilling will be carried out. If yes, please specify:
No

4.6 Indicate whether explosives will be used. If yes, please specify type and trade name, chemical content, depth of trade class and stowage, size, depth of detonation, frequency of detonation, and position in latitude and longitude:
No

4.7 Indicate whether protected species be studied. If yes, please specify:
No

5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and anticipated timeframe for recovery, locations and depth, and measurements):
yes Table 1. Moorings to be deployed (dates depend on weather conditions): Name Latitude Longitude Depth(m) U.S. Mooring positions in the Iceland Basin: M1 58.85 -30.54 1695 D1 58.73 -30.10 1770 D2 58.53 -29.50 2520 D3 58.28 -28.79 2100 M2 58.00 -28.00 2330 D4 58.00 -27.00 2640 M3 58.00 -24.50 2840 M4 58.00 -21.08 2900 Dutch Mooring positions in the eastern Irminger Basin: IC1 59.14 -33.72 2450 IC2 59.04 -32.69 2110 IC3 58.96 -31.92 1690 IC4 58.89 -31.23 1510 UK Mooring positions in Rockall/Hatton region: RTADCP2 57.29 -9.4 400 RTADCP1 57.22 -9.45 800 RTEB1 57.1 -9.563 1800 RTWB1 57.2 -12.77 1600 RTWB2 57.12 -12.77 1800 WHOI Sound Source moorings: SS-5 59.00 -34.00 2633 SS-6 58.00 -28.00 2326 SS-7 58.00 -23.00 3087

6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:
Project Start Date: Jul 04, 2014
Project End Date: Jul 30, 2014

6.2 Coastal State-specific details:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
United Kingdom	Jul 12, 2014	Jul 20, 2014
Explanation of multiple entries: N/A		

Research will be performed: between 12-200 nm
Extent to which United Kingdom will be enabled to participate or to be represented in the research project: U.K. scientists will be aboard the cruise, and are part of the research project
Name, affiliation and contact information for all participants from coastal state United Kingdom: Coordinator: Dr. Stuart Cunningham Scottish Association for Marine Science Scottish Marine Institute, Oban Argyll PA37 1QA

7. Port Calls

No port calls

8. Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research project: See Section 6.2.

8.2 Proposed dates and ports for embarkation/disembarkation: See Section 6.2.
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9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include the expected dates of submission of the data and research results: No more than 60 days from the end date of the research as provided in Section 6.1.
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9.2 Anticipated dates of submission to the coastal State of the final report: No more than 2 years from the end date of the research as provided in Section 6.1.

9.3 Proposed means for access by coastal State to data (including format) and samples: Data will be provided through official channels at no cost to the coastal State(s). Samples will be provided upon request.
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9.4 Proposed means to provide coastal State with assessment of data, samples and research results: Assessment of data, samples and research results will be provided at no cost to the coastal State(s).

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples and research results: Assistance in further assessment or interpretation will be provided upon request.
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9.6 Proposed means of making results internationally available: A website has been developed for data archiving and sharing: www.o-snap.org
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10. List of Supporting Documentation

10.1 List of attachments, such as additional forms required by the coastal State, etc.:			
Attachment Type	Description	Attachment	Submission Date
Proposed Cruise Track	Cruise Track	8760625000_Cruise_Prospectus_Knorr_July2014.pdf	Feb 13, 2014