Application for Consent to conduct
Marine Scientific Research

Date: 14.04.2014

1. General Information

1.1 Cruise name and/or number
: Akademik Ioffe, cruise # 45

1.2 Sponsoring Institution(s):	
Name:	Shirshov Institute of Oceanology
Address:	36 Nakhimovskii prospect, Moscow 117997
Name of Director:	Robert Nigmatulin

1.3 Scientist in charge of the Project:	
Name:	Sergey Gladyshev
Country:	Russia
Affiliation:	Shirshov Institute of Oceanology
Address:	36 Nakhimovskii prospect, Moscow 117997
Telephone:	+7 (499) 124 61 42
Fax:	+7 (499) 124 63 42
Email:	sgladyshev@ocean.ru
Website (for CV and photo):	www.ocean.ru

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	no
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
The main goal of the cruise is to provide high-frequency long-term monitoring of the Antarctic Circumpolar Current in the upper 1000-m layer in Drake Passage and in the Scotia Sea to understand its variable structure and influence of the large-scale bottom topography as well as water transport variations attributed to the atmospheric wind field.

2.2 If designated as part of a larger scale project, then provide the name of the project and the Organisation responsible for coordinating the project:
The cruise is part of the CLIVAR International Program

2.3 Relevant previous or future research projects:
International World Ocean Circulation Program

2.4 Previous publications relating to the project:
1. Gladyshev S. V. and A. V. Sokov Underway Current Measurements in the Drake Passage// Oceanology, 2014, Vol. 54, No. 1, pp. 106–112, **DOI:** 10.1134/S0001437014010056
2. Gladyshev S. V. Upper-layer structure and variability of the Antarctic Circumpolar Current in Drake Passage // Dokl. Earth Sciences 2014 (in print).

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet.
Underway current and surface temperature and conductivity measurements on a few ship tracks including: *Beagle – Falkland Islands – South Georgia – South Orkney Islands – Antarctic Peninsula – Beagle,* *Elephant Island – Falkland Islands,* *Beagle – Antarctic Peninsula – Beagle (Drake Passage)* Coordinates of the research area: 55.32° S 66.39° W, 66.70° S 68.00° W, 61.00° S 43.00° W, 54.50° S 34.00° W, 50.50° S 61.00° W

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.

4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	Akademik Ioffe
Type/Class:	Passenger ship/KM ★L1 1 AUT2
Nationality (Flag State):	Russia
Identification Number (IMO/Lloyds No.):	8507731
Owner:	Shirsov Institute of Oceanology
Operator:	Shirsov Institute of Oceanology
Overall length (meters):	117.1
Maximum draught:	5.9
Displacement/Gross Tonnage:	6600/6450
Propulsion:	PIELSTIK 6 ChN 40/46, 2 x 2576 kW
Cruising & maximum speed:	9 & 12
Call sign:	UAUN
INMARSAT number and method and capability of communication (including emergency frequencies):	INMARSAT-C: TLX – 427310287 INMARSAT – F77: TLF – 763477113, 763477121, FAX – 763477114 GMDSS system, region A3 "SEA" «Brig», 1.5 kW, frequency rng 1.6 – 25.8 мGz radio IW/SW, 300 W, 1.6- 25.8 mGz
Name of Master:	Leonid Sazonov
Number of Crew:	41
Number of Scientists on board:	1

4.2 Particulars of Aircraft:	
Name:	no
Make/Model:	

Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall Length (meters):	
Propulsion:	
Cruising & Maximum speed:	
Registration No.:	
Call Sign:	
Method and capability of communication (including emergency frequencies):	
Name of Pilot:	
Number of crew:	
Number of scientists on board:	
Details of sensor packages:	
Other relevant information:	

4.3 Particulars of Autonomous Underwater Vehicle (AUV):	
Name:	no
Manufacturer and make/model:	
Nationality (Flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall length (meters):	
Displacement/Gross tonnage:	
Cruising & Maximum speed:	
Range/Endurance:	
Method and capability of communication (including emergency frequencies):	
Details of sensor packages:	
Other relevant information:	

4.4 other craft in the project, including its use:
no

4.5 Particulars of methods, full description of scientific instruments to be used(for fishing gear specify type and dimension) and location

Types of samples and Measurements:	Methods to be used:	Instruments to be used:	To be carried out within 12nm (yes or no):
Surface temperature and conductivity	Underway measurements at 5 m depth	Thermosalinograph SBE21 + SBE56 remote sensor	no
U,V components of velocity	Underway measurements in the upper 1000 m layer	TRDI OS 38 kHz ship mounted current profiler	no

4.6 Indicate nature and quantity of substances to be released into the marine environment:
no

4.7 Indicate whether drilling will be carried out. If yes, please specify:
no

4.8 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

5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and Anticipated timeframe for recover, as far as possible exact locations and depth, and Measurements):

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:
21.11.14 – 12.02.15
6.2 Indicate if multiple entries are expected:
Yes

7. Port Calls

7.1 Dates and Names of intended ports of call:
Ushuaia (Argentina) 08 Nov., 20 Nov., 8 Dec.,18 Dec., 28 Dec. in 2014 9 Jan., 21 Jan., 31 Jan., 18 Feb., 3-5 Mar., 15 Mar., 25 Mar. in 2015 Port Stanley (Great Britain) 22 Nov. in 2014 7 Jan., 2 Feb. in 2015
7.2 Any special logistical requirements at ports of call:
no

7.3 Name/Address/Telephone of shipping agent (if available):
no

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:
yes

8.2 Proposed dates and ports for embarkation/disembarkation:
Ushuaia (Argentina) 08 November 2014/ Ushuaia (Argentina) 25 March 2015

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:
within 6 months after completing the cruise

9.2 Anticipated dates of submission to the coastal State of the final report:
within 6 months after completing the cruise

9.3 Proposed means for access by coastal State to data (including format) and samples:
by e-mail

9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:
by e-mail

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:
by e-mail

9.6 Proposed means of making results internationally available:
Publication in the International Peer-Reviewed Journals

10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):
Argentina, Chile

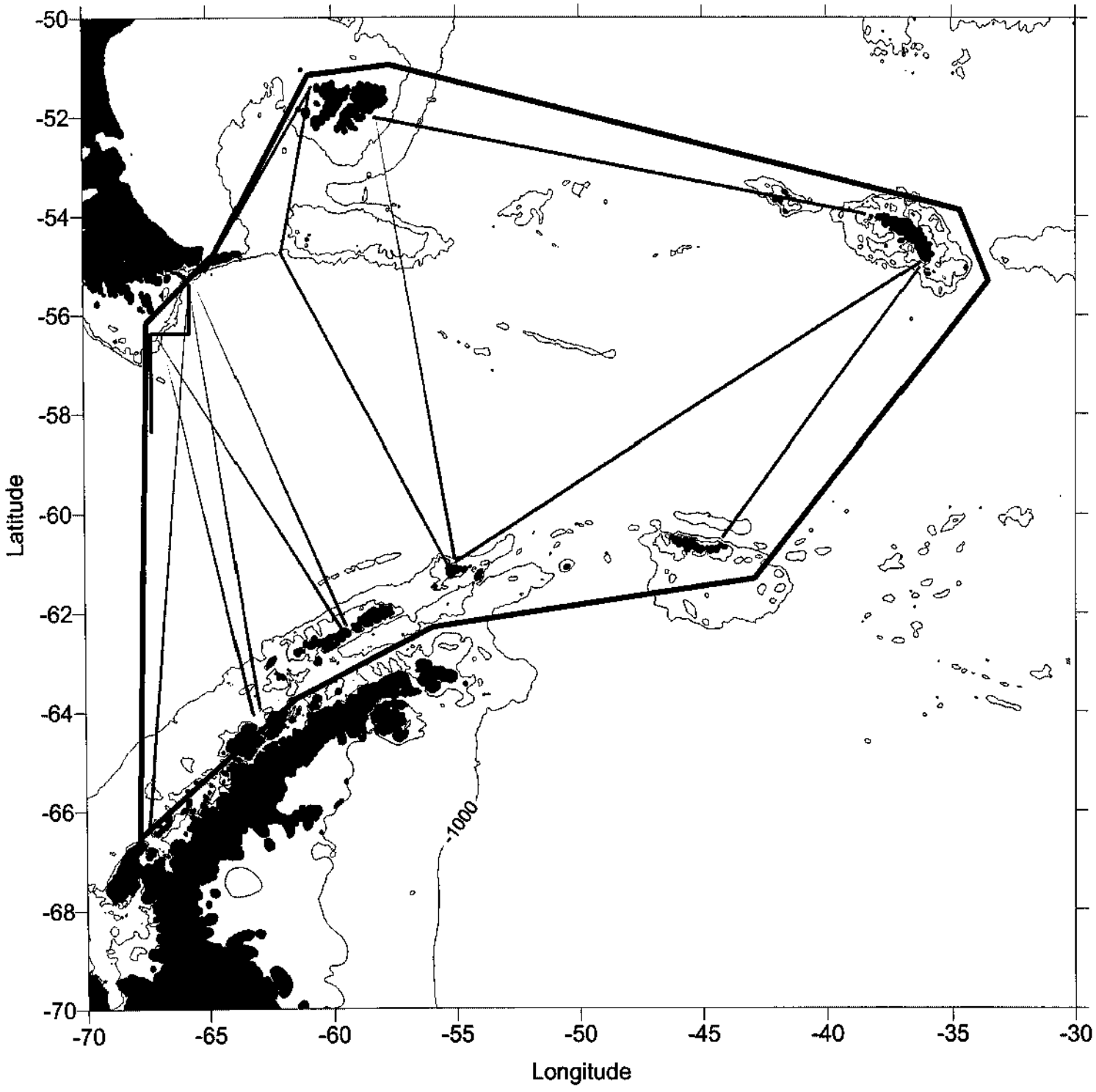
11. List of Supporting Documentation

11.1 List of attachments, such as additional forms required by the coastal State, etc.:
Chart of research area and planned cruise tracks

Signature:

Contact information of the focal point:
Name: Sergey Gladyshev
Country: Russia
Affiliation: Shirshov Institute of Oceanology
Address: 36 Nakhimovskii prospect, Moscow 117997
Telephone: +7 (495) 719 02 55
Fax: +7 (499) 124 63 42
Email: sgladyshev@ocean.ru

R/V Akademik Ioffe tracks in the research area in 2014 - 2015



Legend

black line - research area boundary

red line - part of the Chile-Argentina border

green line - planned ship tracks, along which underway measurements should be taken in the research area (the ship tracks may be changed due to ice and weather