

Application for Consent to conduct  
Marine Scientific Research

Date: 05.05.2015

1. General Information

1.1 Cruise name and/or number: <b>PS95</b>
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1.2 Sponsoring Institution(s):	
Name:	<b>Alfred-Wegener-Institute for Polar- and Marine Research</b>
Address:	<b>Am Handelshafen 12 27570 Bremerhaven Germany</b>
Name of Director:	<b>Prof. Dr. Karin Lochte</b>

1.3 Scientist in charge of the Project:	
Name:	<b>Dr. Rainer Knust</b>
Country:	<b>Germany</b>
Affiliation:	<b>Alfred-Wegener-Institut</b>
Address:	<b>Am Alten Hafen 26, 27568 Bremerhaven, Germany</b>
Telephone:	<b>+49-471-4831-1709</b>
Fax:	<b>+49-471-4831-1849</b>
Email:	<b>rainer.knust@awi.de</b>
Website (for CV and photo):	<b><a href="http://www.awi.de/People/show?rknust">http://www.awi.de/People/show?rknust</a></b>

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	<b>Not applicable</b>
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
<b>Transfer of vessel from Germany to Cape Town for the start of the following research campaign in Antarctica and in the Southern Ocean. In addition, the cruise will be used for en route measurements of meteorological and oceanographic data, tests and calibrations of on board sensors including the Hydrosweep multi-beam echosounder, and a training and research initiative for Ph.D. candidates and M.Sc. students from European and African universities and research institutions.</b>

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:
<b>Not applicable</b>

2.3 Relevant previous or future research projects:
<b>Not applicable</b>

2.4 Previous publications relating to the project:

**All cruise reports with detailed station lists are published in the series "Reports on Polar Research" by Alfred-Wegener-Institute for Polar-und Marine Research, Bremerhaven.**

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.

**Transfer of vessel from Bremerhaven, Germany to Cape Town, South Africa, via Las Palmas, Spain for the start of the following expeditions in the Antarctic.**

**The general course plot is shown in Attachment 1.**

**For British water see Attachment 2.**

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.

**See Attachment 2, beside en route measurements (air, water) one Station for water sampling and plankton sampling is planned at approx. 49°40'N / 004°40'W. Exact position depends on weather and traffic conditions.**

4. Methods and means to be used

4.1 Particulars of vessel:

Name:	<b>POLARSTERN</b>
Type/Class:	<b>RV / Icebreaker</b>
Nationality (Flag State):	<b>GERMAN</b>
Identification Number (IMO/Lloyds No.):	
Owner:	<b>Federal Ministry of Education and Research, German Government</b>
Operator:	<b>Alfred-Wegener-Institut. Helmholtz-Zentrum für Polar- und Meeresforschung</b>
Overall length (meters):	<b>117.91</b>
Maximum draught:	<b>11.21</b>
Displacement/Gross Tonnage:	<b>17,300 t</b>
Propulsion:	<b>2 Propeller, 4 Engines, MDO</b>
Cruising & maximum speed:	<b>12,0kn and 15.5 kn</b>
Call sign:	<b>DBLK</b>
INMARSAT number and method and capability of communication (including emergency frequencies):	<b>Inmarsat Telephone: 00871 32184 2611 or 2711 Fax: 00871 32184 2612 or 2712</b>
Name of Master:	<b>Th. Wunderlich</b>
Number of Crew:	<b>43</b>
Number of Scientists on board:	<b>55</b>

4.2 Particulars of Aircraft:

Name:	<b>Not applicable</b>
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:	

<b>4.3 Particulars of Autonomous Underwater Vehicle (AUV):</b>	
Name:	<b>Not applicable</b>
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:	

<b>4.4 other craft in the project, including its use:</b>
<b>Not applicable</b>

<b>4.5 Particulars of methods, full description of scientific instruments to be used(for fishing gear specify type and dimension) and location</b>			
Types of samples and Measurements:	Methods to be used:	Instruments to be used:	To be carried out within 12nm (yes or no):
<b>en route:</b>			
<b>Meteorological measurements</b>		<b>Miscl.</b>	<b>yes</b>
<b>Air sampling</b>	<b>Neutron detection &amp; cosmic particles, pCO2</b>	<b>DOAS, pCO2</b>	<b>yes</b>
<b>Water sampling</b>	<b>pCO2, temperature, salinity</b>	<b>Ferrybox, Temp. / salinity sensors</b>	<b>yes</b>
<b>Sea bottom topography</b>	<b>hydro-acoustics</b>	<b>Hydrosweep DSIII</b>	<b>yes</b>
<b>Sea currents</b>	<b>hydro-acoustics</b>	<b>ADCP</b>	<b>yes</b>
<b>Sediment measurements</b>	<b>hydro-acoustics</b>	<b>Parasound DS-</b>	<b>yes</b>
<b>Water measurements</b>	<b>hydro-acoustics, multi frequency</b>	<b>EK60</b>	<b>yes</b>
<b>Plankton sampling</b>	<b>Net haul</b>	<b>Plankton recorder</b>	<b>yes</b>
<b>at station (WE-Shelf)</b>	<b>(see map attached)</b>		
<b>Water sampling</b>	<b>Sensor measurements and water bottles</b>	<b>CTD (conductivity, temperature, depth sensors) + Rosette</b>	<b>yes</b>

		<b>with water bottles</b>	
<b>Plankton sampling</b>	<b>nets hauls</b>	<b>Bongo net, Multinet, Plankton recorder</b>	<b>yes</b>

4.6 Indicate nature and quantity of substances to be released into the marine environment:

**None**

4.7 Indicate whether drilling will be carried out. If yes, please specify:

**None**

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:

**None**

## 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):

**Not applicable (no moorings, landers, etc. planned)**

## 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:

**En route measurements: Vessel will be on transit from Bremerhaven to Las Palmas. Route will follow regular vessel traffic separation schemes. Measurements will be done underway. Expected transit through the English channel: 30.10.2015 / 02.11.2015**

**Station work at approx. 49°40'N / 004°40'W is planned for 01.11.2015. Exact time and position depends on weather and traffic conditions.**

6.2 Indicate if multiple entries are expected:

**No**

## 7. Port Calls

7.1 Dates and Names of intended ports of call:

<b>Bremerhaven (Germany)</b>	<b>:</b>	<b>29.10.2015</b>	<b>departure</b>
<b>Las Palmas (Spain)</b>	<b>:</b>	<b>10. – 10.11.2015</b>	
<b>Cape Town (South Africa)</b>	<b>:</b>	<b>02.12.2015</b>	<b>final destination</b>

7.2 Any special logistical requirements at ports of call:

**Not applicable**

7.3 Name/Address/Telephone of shipping agent (if available):

**Not applicable**

## 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:

**Participation possible but not planned. Contact: Schiffskoord@awi.de**

8.2 Proposed dates and ports for embarkation/disembarkation:		
<b>Bremerhaven (Germany)</b>	<b>:</b>	<b>29.10.2015</b> <b>departure</b>
<b>Las Palmas (Spain)</b>	<b>:</b>	<b>10. – 10.11.2015</b>

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:
<b>6 months after the end of the cruise</b>

9.2 Anticipated dates of submission to the coastal State of the final report:
<b>12 months after the end of the cruise</b>

9.3 Proposed means for access by coastal State to data (including format) and samples:
<b>Via Internet, through the Pangaea database accessible at <a href="http://www.pangaea.de/">http://www.pangaea.de/</a></b>

9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:
<b>Results are published in the Reports of Polar Research by AWI and in other reports, papers and in international scientific journals.</b>

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:
<b>Data including documentation and contact details of the responsible scientists are available through the Pangaea database accessible at <a href="http://www.pangaea.de">http://www.pangaea.de</a></b>

9.6 Proposed means of making results internationally available:
<b>Results are published in the Reports of Polar Research by AWI and in other reports, papers and in international scientific journals.</b>

10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):
<b>Similar notification to all coastal states en route BRV - CPT</b>

11. List of Supporting Documentation

11.1 List of attachments, such as additional forms required by the coastal State, etc.:
<ul style="list-style-type: none"> <li>Attachment 1 + 2: Maps</li> </ul>

On behalf of the chief scientist:

Signature:



05.05.2015

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in der Helmholtz-Gemeinschaft  
Am Handelshafen 12  
27570 Bremerhaven

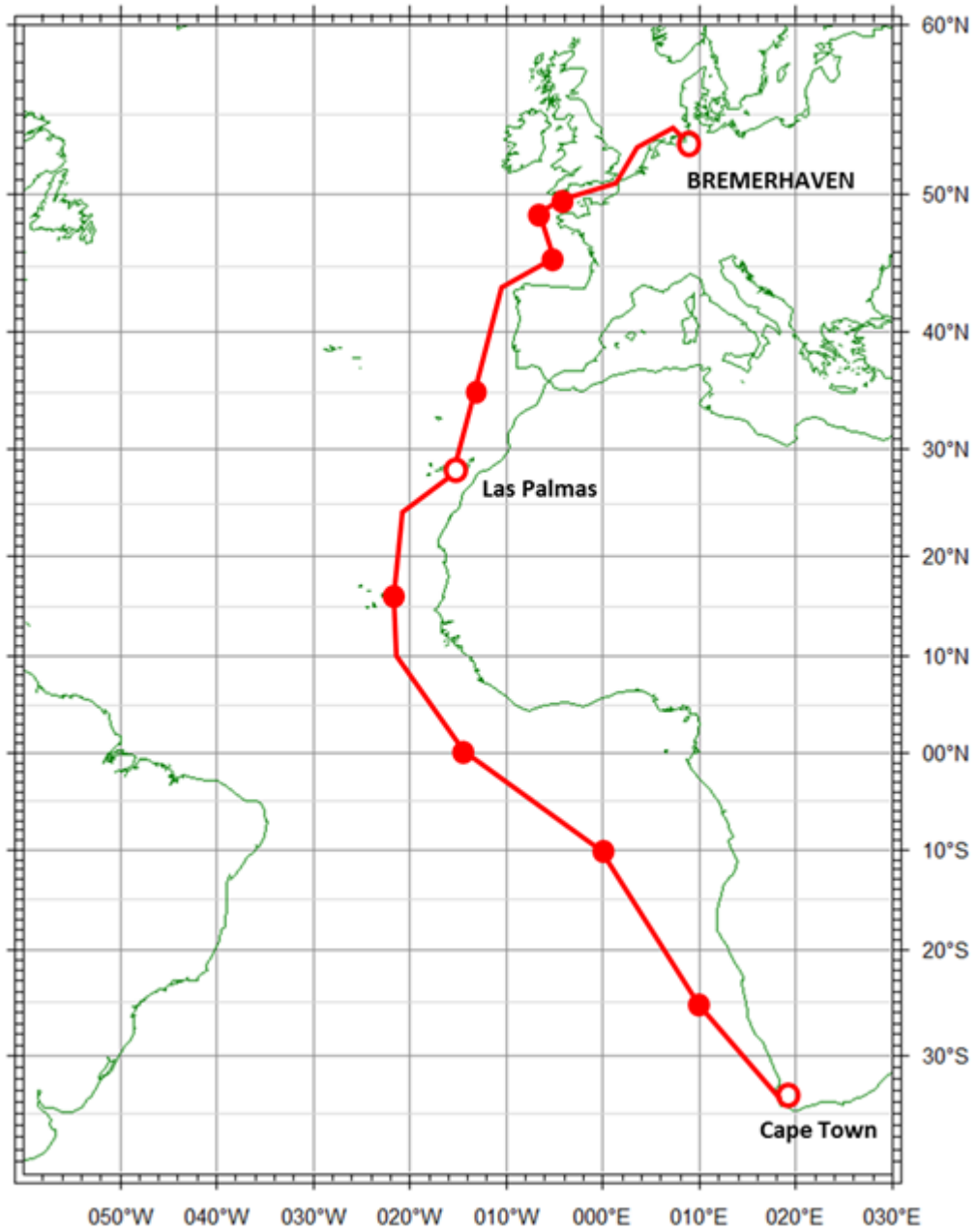
Contact information of the focal point:

Name: Marius Hirsekorn  
Country: Germany  
Affiliation: Alfred Wegner Institute

Telephone: +49-(0)471-4831-2241  
Email: [schiffskoord@awi.de](mailto:schiffskoord@awi.de)  
Address: Am Alten Hafen 26  
Bremerhaven/Germany

**Attachment 1:** General course plot of PS95

- Open circle = ports
- Closed circle = Station for CTD – Rosette and plankton sampling



**Attachment 2: Course plot and station in British waters (Channel)**

The track through the English Channel will follow the regular traffic separation schemes.

WE--Shelf = West European Shelf, Station for Water sampling and plankton sampling

