

**NOTIFICATION OF PROPOSED RESEARCH CRUISE****PART A: GENERAL**

1. NAME OF RESEARCH SHIP CRUISE NO.  
**RV POLARSTERN** **ANT XXIII/10**
2. DATES OF CRUISE From To  
**12.04.2007** **04.05.2007**
3. OPERATING AUTHORITY:  
**Stiftung Alfred-Wegener-Institut für Polar-und Meeresforschung**  
**Postfach 12 01 61**  
**D-27515 Bremerhaven**
- TELEPHONE: **0049 471 4831-0**
- TELEFAX: **0049 471 4831 1355**
- TELEX: **238 695 polar d**
4. OWNER (if different from no. 3)
5. PARTICULARS OF SHIP:
- |   |                   |  |
|---|-------------------|--|
| Name:   | <b>POLARSTERN</b> |  |
| Nationality:  | <b>GERMAN</b>     |  |
| Overall length: (in metres)                                 | <b>117,91</b>     |  |
| Maximum draught: (in metres)                                | <b>11,21</b>      |  |
| Net tonnage:  | <b>3.532,30</b>   |  |
| Propulsion e.g. diesel/steam:                               | <b>diesel</b>     |  |
| Call sign:  | <b>DBLK</b>       |  |
| Registration port and number (if registered fishing vessel) |                   |  |
6. CREW
- Name of master: **Stefan Schwarze**
- Number of crew: **42**
7. SCIENTIFIC PERSONNEL
- Name and address of scientist in charge: **Prof. Andreas Macke**  
**IFM-GEOMAR**  
**Düsternbrooker Weg 20**  
**D-24105 Kiel, Germany**
- Tel/telex/fax no.: **0431-600-4057**
- No. of scientists: **5**
8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)
- 53° N, 20° W**  
**33° S, 20° E** **see also map attached, attachment 1**
9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE
- To perform basic marine research in atmospheric science.**
10. DATES AND NAMES OF INTENDED PORTS OF CALL
- Cape Town (RSA):** **11./12.04.2007**
11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL  
**Cape Town: change of personnel and supply**

NOTIFICATION OF PROPOSED RESEARCH CRUISE**PART B: DETAILS**

1. NAME OF RESEARCH SHIP CRUISE NO.  
RV POLARSTERN ANT XXIII/10

2. DATES OF CRUISE From To  
12.04.2007 04.05.2007

3. a) PURPOSE OF RESEARCH

Atmospheric Remote Sensing and Energetics: to perform continuous observations of vertical profiles of temperature and humidity as well as liquid water path, cloud cover, cloud type and radiation budget  
Atmospheric Chemistry: to study the distribution of trace constituents in the atmosphere.

b) GENERAL OPERATIONAL METHODS (including full description of any fish gear, trawl type, mesh size, etc.)

Standard recorded data in the frame of Global Watch programme:  
Water temperature, Salinity, Water depth, ship position, ship velocity, ship heading,

Passive microwave remote sensing of temperature and humidity with multi.channel microwave radiometer

Active remote sensing of cloud bottom height with standard ceilometer

Whole sky imager for scene identification

Pyranometer and Pyrgeometer for surface radiation budget

Infrared radiometer for skin sea surface temperature and cloud bottom temperature

Collect water samples, air samples, aerosol samples

Make optical measurements in the atmosphere, deploy balloons with ozone and radiosondes.

Measurement of spectral solar and UV radiation.

4. ATTACH CHART showing (on an appropriate scale) the geographical area of intended work, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment, areas to be fished

Areas of planned operations see attachment I.

5. a) TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton/fish/radionuclide)  
Water, air, aerosol samples.

b) METHODS OF OBTAINING SAMPLES (e.g., dredging/coring/drilling/fishing, etc. When using fishing gear, indicate fish stocks being worked, quantity of each species required, and quantity of fish to be retained on board).

Collection of aerosols (suspended particles) by air-pumping and fixation of particles on paper filters.

6. DETAILS OF MOORED **No moorings**

<u>Dates</u>	<u>Recovery</u>	<u>Description</u>	<u>Depth</u>	<u>Latitude</u>	<u>Longitude</u>
<u>Laying</u>					

7. ANY HAZARDOUS MATERIALS (chemicals/explosives/gases/radioactives, etc.)  
(Use separate sheet if necessary)

– **no hazardous material (except liquid nitrogen and Helium)**

a) Type and trade name

b) Chemical content (and formula)

c) IMO IMDG code (reference and UN no.)

d) Quantity and method of storage on board

e) If explosives give dates of detonation **no explosives**

Method of detonation

Position of detonation

Position of detonation

Frequency of detonation

Depth of detonation

Size of explosive charge in kg.

8. DETAIL AND REFERENCE OFa) Any relevant previous/future cruisesto be edited

Previous:

POLARSTERN ANT VIII/1	05.08 - 05.09.1989
POLARSTERN ANT VIII/7	01.05 - 29.05.1990
POLARSTERN ANT XV/1	15.10 - 07.11.1997
POLARSTERN ANT XIX/1	07.11 - 30.11.2001
POLARSTERN ANT XX/1	26.10 - 22.11.2002
POLARSTERN ANT XX/3	25.01 - 17.02.2003
POLARSTERN ANT XXI/1	22.10 - 15.11.2003
POLARSTERN ANT XXI/5	07.05 - 2.06 2004
POLARSTERN ANT XXII/1	12.10 - 04.11.2004

Future cruises are planned.

POLARSTERN ANT XXIV/1	10/11 2007
POLARSTERN ANT XXIV/4	04/05 2008
POLARSTERN ANT XXV/1	10/11 2008
POLARSTERN ANT XXV/4	04/05 2009
POLARSTERN ANT XXVI/1	10/11 2009
POLARSTERN ANT XXVI/5	04/05 2010
POLARSTERN ANT XXVII/1	10/11 2010

b) Any previously published research data relating to the proposed cruise

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.

9. NAMES AND ADDRESSES OF SCIENTISTS OF THE COASTAL STATE(S) IN WHOSE WATERS THE PROPOSED CRUISE TAKES PLACE WITH WHOM PREVIOUS CONTACT HAS BEEN MADE**Prof. Hein de Baar, Royal NIOZ, Texel, the Netherlands****Dr. Gideon Henderson, Department of Earth Sciences, Parks Road, Oxford, UK****Dr. Catherine Jeandel, LEGOS/Obs Midi-Pyrénées, Toulouse, France****Dr. Jeronimo Lopez-Martinez, Faculty of Sciences Universidad Autónoma de Madrid, Spain**10. STATEa) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable (Yes/No)

Yes

b) Participation of an observer from the coastal state for any part of the cruise together with the dates and the ports for embarkation and disembarkation

Yes, dates see above.

c) When research data from the intended cruise are likely to be made available to the coastal state and by what means

Data are available digitally within one year after the cruise. In addition, the data are published in the Reports of Polar Research by AWI and in other reports, papers and in international scientific journals.

**PART C. SCIENTIFIC EQUIPMENT**

Complete the following table  
using a separate page for  
each coastal state

Coastal state**United Kingdom**Port of callDates

Indicate "YES" or "NO"

List scientific work by function e.g.	Water column including sediment sampling of the seabed	Fisheries research within fishing limits	Research concerning the natural resources of the continental shelf or its physical characteristics	DISTANCE FROM COAST		
				Within 3 nm	Between 3-12 nm	Between 12-200 nm
Magnetometry	no	no	no	no	no	no
Gravity	no	no	no	no	no	no
Diving	no	no	no	no	no	no
Seismics	no	no	no	no	no	no
Seabed sampling	no	no	no	no	no	no
Bathymetry	no	no	no	no	no	no
Trawling	no	no	no	no	no	no
Echo sounding	no	no	no	no	no	no
Water sampling	yes	no	yes	no	yes	yes
U/W TV	no	no	no	no	no	no
Moored instr.	no	no	no	no	no	no
Towed instr.	yes	no	no	no	no	no
beach sampling	no	no	no	no	no	no
Sampling of air				no	yes	yes
Balloon sampling (ozone and radiosonde)				no	no	yes

Alfred-Wegener-Institut  
für Polar- und Meeresforschung  
Bereich Logistik  
Postfach 120161  
D-27515 Bremerhaven

*A. Jane Wixdorf*  
(On behalf of the Principal Scientist)

Dated *07. November 2006*

# Attachment 1

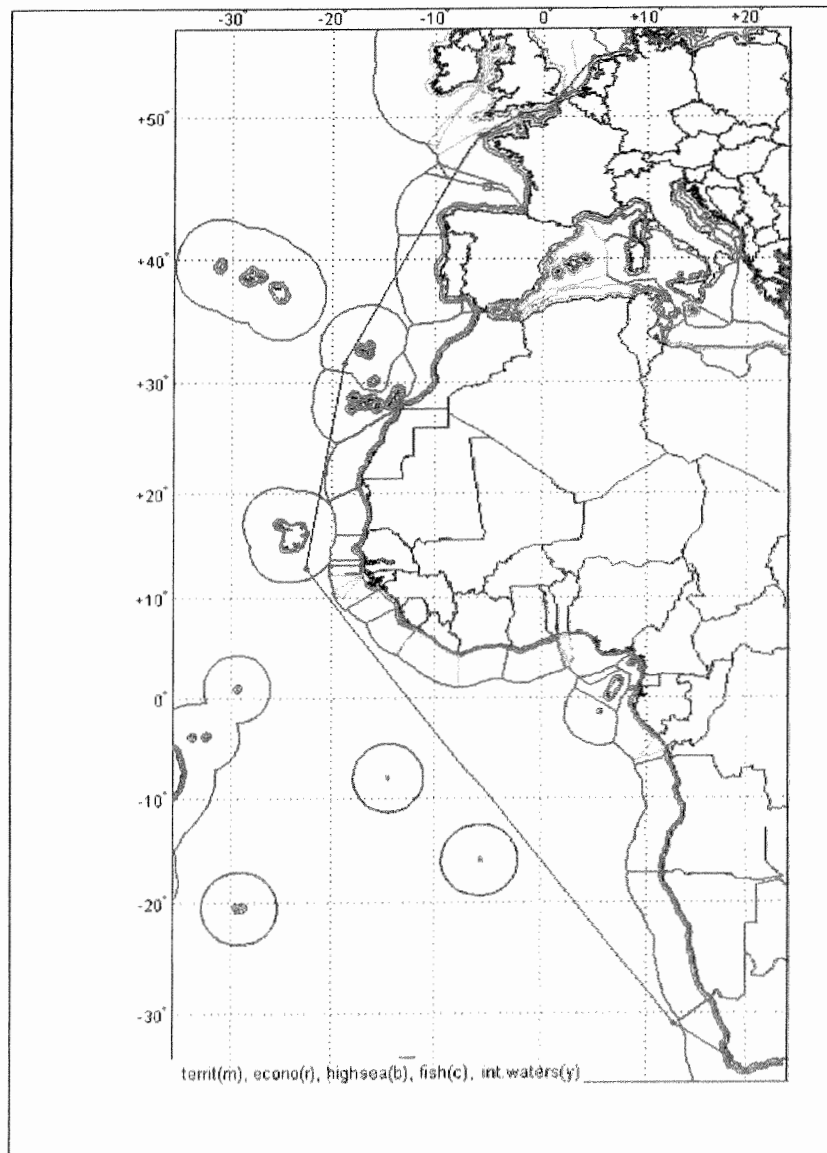


Fig. 1. scheduled cruise track from Cape Town to Bremerhaven

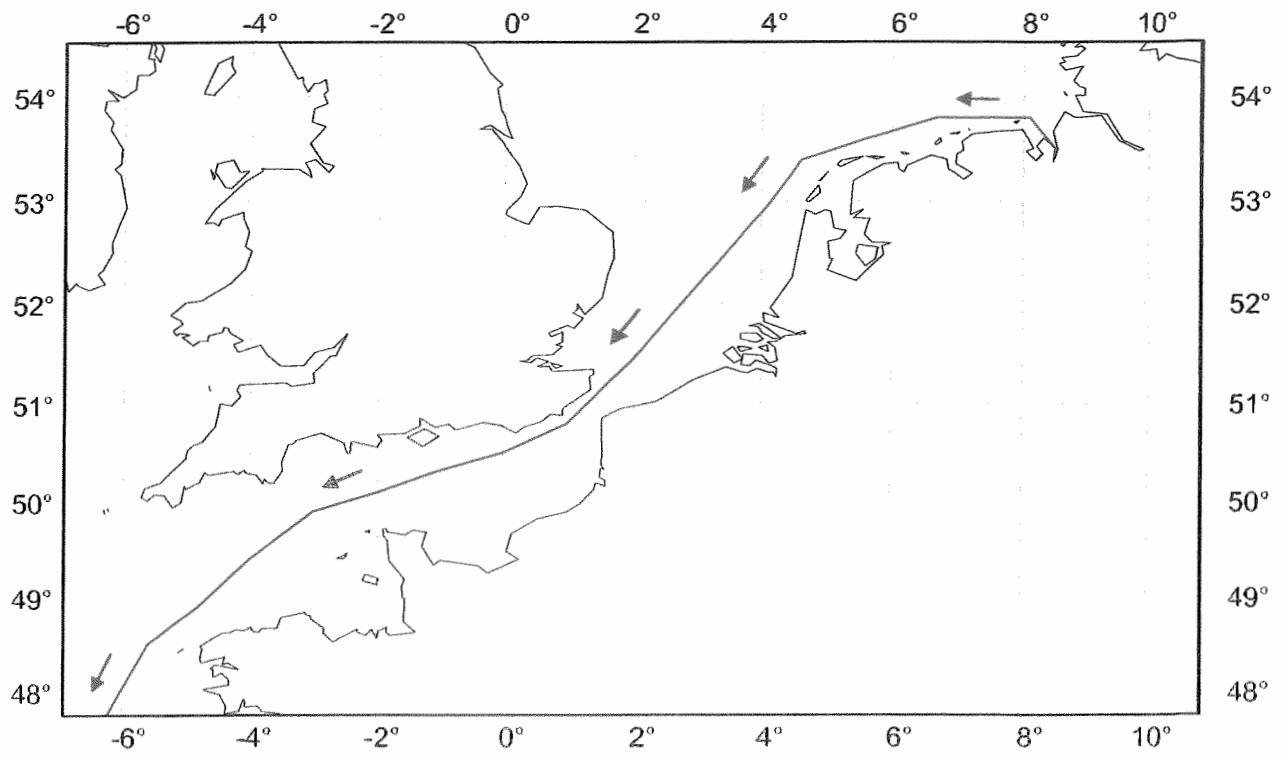


Fig. 2. Last part of cruise track to Bremerhaven  
(red arrows should point towards Bremerhaven)

## Attachment 2

DG's

No.	Name	IMO Class	UN Code	Amount
1	Liquid nitrogen	2,2	1977	550 L
	Helium			