

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

1. Name of ship **FS 'HEINCKE'**
2. Dates of cruise from **2011-01-24** to **2011-02-06**
3. Operating Authority **Alfred-Wegener-Institut für Polar- und Meeresforschung
Sektion Biologische Anstalt Helgoland, Postfach 180,
D-27483 Helgoland
Telephone +49 (0) 471-4831-2241
Telefax +49 (0) 471-4831-1355
e-mail: schiffskoord@awi.de**
4. Owner(if different from para 3) **Federal Ministry of Education and Research
German Government**
5. Particulars of ship:
- | | |
|-----------------|---|
| Name | HEINCKE |
| Nationality | German |
| Overall length | 55,20 metres |
| Maximal draught | 3,95 metres |
| BRT | 1000 |
| Propulsion | Diesel Electric |
| Call Sign | DBCK |
| IMO no. | 8806113 |
| MMSI no. | 211216570 |
| Telephone | INMARSAT +870-764-140-491
IRIDIUM +881-631-815-155 |
| Telefax | INMARSAT +870-764-140-493 |
| e-mail | <u>Heincke-f@skyfile.de</u> |
6. Crew
- | | |
|----------------|-------------|
| Name of Master | Voss |
| No of Crew | 11 |
7. Scientific Personnel
- | | |
|---------------------|--|
| Scientist in charge | |
| Name and address | Prof. Dr. Michael Tuerkay
Senckenberg Forschungsinstitut
Senckenberganlage 25
60325 Frankfurt am Main |
| Phone | : +(49)69 7542 1240 |
| Fax | : +(49)69 74 62 38 |
| e-mail | : michael.tuerkay@senckenberg.de |
| No of Scientists | : 11 |

8. Geographical area in which ship will operate (with reference to latitude and longitude)

Doggerbank and surroundings: Rectangle 55°40'N - 04°50'E – 54°00'N - 00°50'E

9. Brief description of purpose of cruise

The purpose of this cruise is to gather epibenthic beam trawl samples at the station grid shown above. Furthermore, it aims to verify the results gained by data of a winter cruise to the same area one year before (HE317).

10. Dates and names of intended ports of call

none

11. Any special logistic requirement at ports of call

none

DETAIL

PART B

1. Name of research ship **F.S. "HEINCKE"** Cruise No. **HE346**
2. Dates of cruise from **2011-01-24** to **2011-02-06**
3. Purpose of research and general operational methods.

Long term studies are critical for understanding environmental changes and relating them to ecological factors. Especially in connection to climate change and global warming such series are invaluable data sets that describe the respond of the biosphere in detail. The first step of such changes are always extensions of areas inhabited by certain species which at the end can result in a regime shift leading to ecosystems and communities with a different function. Such studies must prevail for at least 10 years in order to be of use for detecting discernible changes. While the long term sampling has to be performed at about the same time of the year, it is necessary, especially in the context of climate induces changes, to include sampling in the cold season. This allows seeing the effect of minimum temperatures on the composition of the fauna.

The Doggerbank is an offshore area of the North Sea that has been sampled since the 1920ies at different intensity. It is situated at the crossroad of different water-bodies, i. e. Channel Water, Northern Oceanic Influx (originating in the Fair Isle Current), and continental Water masses in the German Bight. Temperature shifts, therefore, have a strong influence on the distribution of bottom animal communities. The area is under study by the Senckenberg-Institute since 1990 for the epibenthos on a yearly basis. Since the foundation of the research-centre for "Biodiversity and Climate" at Senckenberg there is growing interest on the climatic effects on the benthic communities and therefore winter cruises have been organised in 2009 and 2010. The forthcoming 2011 cruise will be the third in this series.

Epibenthos will be sampled at 37 routine stations within the 30m contour and 5 comparative stations (T1-T5 on the attached map) outside that range with a beam-trawl of 2m breadth and a net with 1cm mesh-size (stretched meshes) in the cod end. Time and weather permitting a 48-hours sampling at a 3 hours' interval will be performed at the western (station 7), central (station 21) and eastern (station 40) parts of the bank, respectively. An epibenthic sledge (mesh-size 500µ) will be used randomly in all three regions. Endobenthos will be recorded qualitatively with a ring-dredge and a Van Veen grab. At every station temperature, salinity, current speed and velocity will be recorded.

4. Attach chart showing (on an appropriate scale) the geographical area of the intended work, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment.

See attachment at the end of this form

5. Types of samples required e.g. Geological/Water/Plankton/Fish/Radioactivity/Isotope

Benthic fauna, temperature, salinity, current attributes

6. Details of moored equipment:

None

Dates:

<u>Deployment</u>	<u>tentative Recovery</u>	<u>Description</u>	<u>Latitude</u>	<u>Longitude</u>
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7. Explosives: **none**

- (a) Type and Trade Name
- (b) Chemical content
- (c) Depth of Trade class and stowage
- (d) Size
- (e) Depth of detonation
- (f) Frequency of detonation
- (g) Position in latitude and longitude
- (h) Dates of detonation

8. Detail and reference of

- (a) Any relevant previous/future cruises

HE317 (February 9 – 22, 2010)

- (b) Any previously published research data relating to the proposed cruise. (Attach separate sheet if necessary)

(c) **none**

9. Names and addresses of scientists of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made.

none

10. State:

- (a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable.

Yes, but no port of call in coastal state

- (b) Whether it will be acceptable to carry on board an observer from the coastal state for any part of the cruise and dates and ports of embarkation/disembarkation.

Yes, but no port of call in coastal state

- (d) When research data from the intended cruise is likely to be made available to the coastal state and if so by what means.

Cruise report with general informations within 6 months, detailed work is in progress and will be available by the end of 2011.

SCIENTIFIC EQUIPMENT

COASTAL STATE

UK

11. Complete the following table - SEPARATE COPY FOR EACH COASTAL STATE
(INDICATE 'YES' OR 'NO')

List of all major Marine Scientific Equipment it is proposed to use and indicate waters in which it will be deployed.	Fisheries Research Within Fishing Limits	Research concerning Continental Shelf out to coastal state's margin	DISTANCE FROM COAST			
			Within 3 NM	Between 3 - 12 NM	Between 12 - 50 NM	Between 50 - 200 NM
0.2 m ² Van Veen grab	no	no	no	no	no	Yes
Hydrographic probe (CTD and current measurement)	no	no	no	no	no	Yes
Beamtrawl	no	no	no	no	no	Yes
Epibenthic sledge	no	no	no	no	no	Yes
Ring dredge	no	no	no	no	no	Yes

(On behalf of the Principal Scientist)

Dated: 19.10.2010



Operating Authority:

Stiftung Alfred-Wegener-Institut
für Polar- und Meeresforschung
in der Helmholtz-Gemeinschaft
Am Handelshafen 12
27570 Bremerhaven

N.B. IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES / AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED THE COASTAL STATE'S AUTHORITIES MUST BE NOTIFIED IMMEDIATELY.

ATTACHMENT I
Position of stations

