NOTIFICATION OF PROPOSED RESEARCH CRUISE

PART A: GENERAL

1. NAME OF RESEARCH SHIP: **RV HEINCKE** — CRUISE NO.: **HE 307**

2. DATES OF CRUISE: From **02 nd of July 2009** To **24 th of July 2009**

3. OPERATING AUTHORITY:
Alfred-Wegener-Institute for Polar and Marine Research
P.O. Box 12 01 61
D-27515 Bremerhaven

TELEPHONE:	**+49 471 4831-0**
TELEFAX:	**+49 471 4831-1355**
TELEX:	**238 695 polar d**

4. OWNER (if different from no. 3)

5. PARTICULARS OF SHIP:

Name:	**HEINCKE**
Nationality:	**German**
Overall length: (in metres)	**55,20**
Maximum draught: (in metres)	**4,16**
Net tonnage:	**396**
Propulsion e.g. diesel/steam:	**diesel electric**
Call sign:	**DBCK**
Registration port and number (if registered fishing vessel)	**Helgoland**

6. CREW

Name of master:	**Robert Voß**
Number of crew:	11

7. SCIENTIFIC PERSONNEL

Name and address of scientist in charge:	**Scientist in charge:** **Dr. Christian Schuett** **Alfred Wegener Institute** **for Polar and Marine Research** **D-27498 – Helgoland** **cschuett@awi-bremerhaven.de**
Tel/telex/fax no.:	**+49 4725 819-225 / 238 695 polar d / +49 4725 819-283**
No. of scientists:	**10**

8. GEOGRAPHICAL AREA IN WHICH SHIP WILL OPERATE (with reference to latitude and longitude)
North Sea/Atlantic Box A: 56°30N, 61°20N; 02°00E, 04°00W, Box B&C: 56°30N, 59°30N; 04°00W, 09°00W, Box B only covers an area between 04°00W and 08°00W

9. BRIEF DESCRIPTION OF PURPOSE OF CRUISE
Chemical ecology and symbiosis research. Interactions between Microorganisms and marine invertebrates. Chemical analysis of cnidarian venoms (jellyfish, sea anemonae)

10. DATES AND NAMES OF INTENDED PORTS OF CALL
16th July 2009 (morning) – 17 th of July 2009, Stornoway, Outer Hebrides

11. ANY SPECIAL REQUIREMENTS AT PORTS OF CALL
No special requirements

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PART B: DETAILS

1. NAME OF RESEARCH SHIP: **RV HEINCKE** — CRUISE NO.: **HE 307**

2. DATES OF CRUISE — From: **02nd July 2009** — To: **24th of July 2009**

3. a) PURPOSE OF RESEARCH
Chemical ecology and symbiosis research. A major objective is to understand how marine invertebrates are chemically defended against predators or fouling organisms. Topic focuses on the elucidation of chemical structures of cnidarian venoms, its cellular effects and producers. Biological material comprises *Cnidaria* species from the Orkney regions, the Hebrides, Shetland Islands and the waters of Helgoland.
b) GENERAL OPERATIONAL METHODS (including full description of any fish gear, trawl type, mesh size, etc.)
We will primarily collect marine invertebrates by diving and dredging. Additional plankton (water) samples taken by plankton-nets (up to 300 µm). Bottom trawl fishing for the institute's aquarium Helgoland.

4. ATTACHED 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
Working area marked in attached maps (see attachments), Region North Sea/Atlantic, Box A: 56°30N, 61°20N; 02°00E, 04°00W; Boxes B&C: 56°30N, 59°30N; 04°00W, 08°00W, Specific stations will be selected according previous cruises and weather conditions

5. a) TYPES OF SAMPLES REQUIRED (e.g., geological/water/plankton/fish/radionuclide)
1) Benthic invertebrates and macroalgae
2) Plankton
3) Bottom trawl, fishing for the the institute's aquarium at Helgoland
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).
1. Scuba diving; 2. Dredging; 3. Plankton-Net or pump (up to 300 µm); 4. Bottom trawl

6. DETAILS OF MOORED EQUIPMENT
No moored equipment

Dates Laying	Recovery	Description	Depth	Latitude	Longitude

7. EXPLOSIVES
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
- Frequency of detonation
- Depth of detonation
- Size of explosive charge in kg.

8. DETAIL AND REFERENCE OF
a) Any relevant previous/future cruises
Cruise No. HE 82, August 1996; HE 89, May/June 1997; HE 105, May/June 1998); HE 120, May/June 1999; HE 132, May/June 2000; HE 134, July 2000; HE 151, July 2001; HE 189, May/June 2003; HE 209, May/June 2004; HE 230, June 2005; HE 252, June 2006, HE271, June 2007
b) Any previously published research data relating to the proposed cruise
Groepler, W. & C. Schuett 2003: Bacterial community in the tunic matrix of a colonial ascidian

Diplosoma migrans. **Helg Mar Res 57:139-143**

Schuett et al. 2005: Diversity of intratunical bacteria in the tunic matrix of the colonial ascidian *Diplosoma migrans.* Helg Mar Res 59:136-140

Schuett et al. 2007: Bacterial aggregates in the tentacles of the sea anemone *Metridium senile* Helg Mar Res 59:211-216

Helmholz et al. 2007: Comparative study on the cell toxicity and enzymatic activity of two northern syphocoan species *Cyanea capillata* (L.) and *Cyanea lamarckii* (Péron & Léslieur). Toxicon 50.53-64

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

None

10. STATE

a) 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

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

Cruise Summary Report, scientific literature

PART C. SCIENTIFIC EQUIPMENT

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

Coastal state: **United Kingdom**

Port of call: **Stornoway, Outer Hebrides**

Dates: **16th to 17th of July 2009**

Indicate "YES" or "NO"

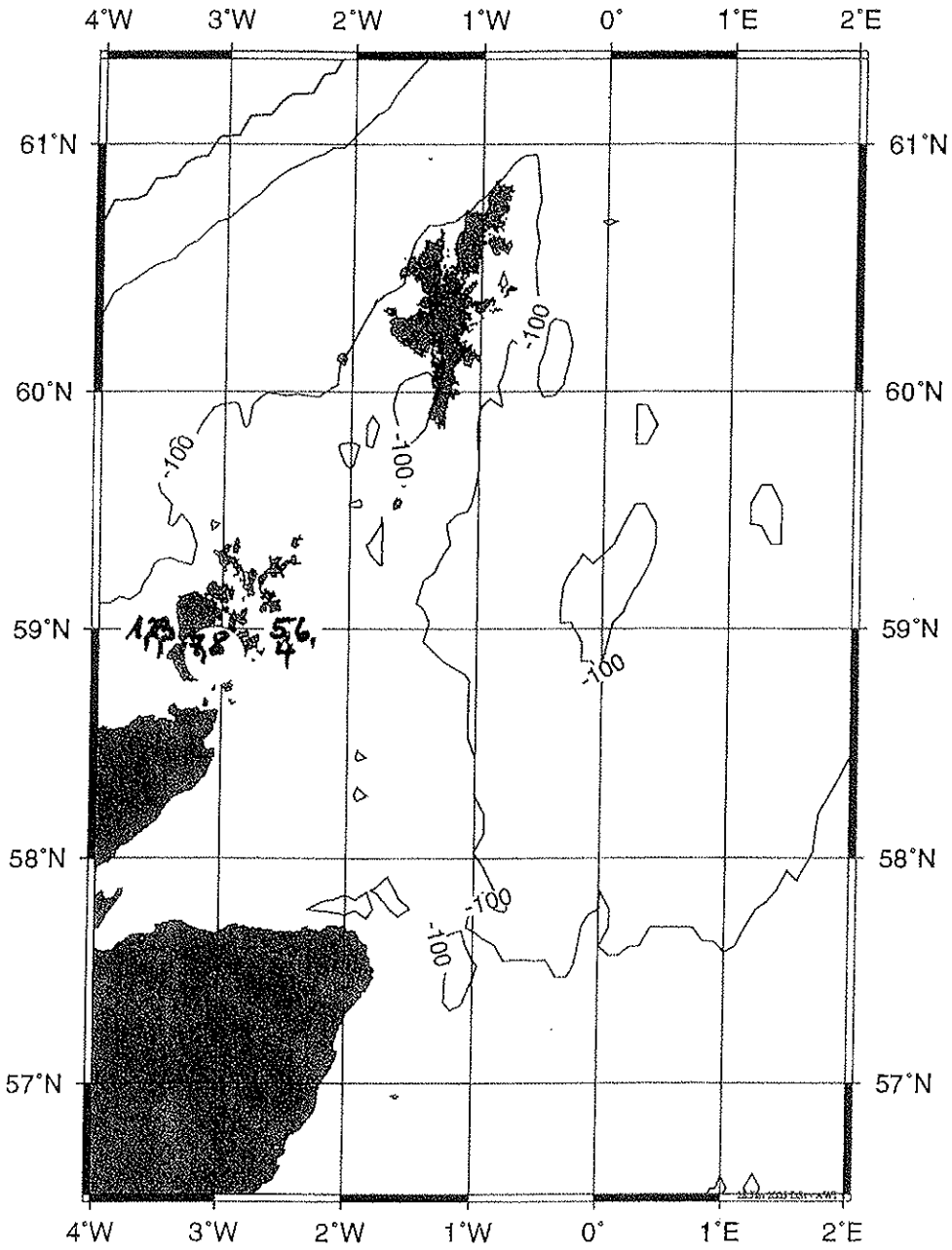
				DISTANCE FROM COAST		
List scientific work by function e.g.	Water column including sediment sampling of the seabed	Fisheries research within fishing limits	Research concerning the natural resources of the continental shelf or its physical characteristics	Within 3 nm	Between 3-12 nm	Between 12-200 nm
Plankton net (& water samples)	Yes	No	No	Yes	Yes	Yes
Dredge	Yes	No	No	Yes	Yes	Yes
Diving	Yes	No	No	Yes	No	No
Echosounding (< 50 kHz)	No	No	No	No	No	No
TV-camera	Yes (divers only)	No	No	Yes	Yes	No
Multicorer	No	No	No	No	No	No
CTD/Rosette	Yes	No	No	Yes	Yes	Yes
Gravity corer	Yes	No	No	Yes	Yes	Yes
Bottom trawl fishing for our institutes aquarium	Yes	No	No	Yes	Yes	Yes

_____ Dated_____

(On behalf of the Principal Scientist)

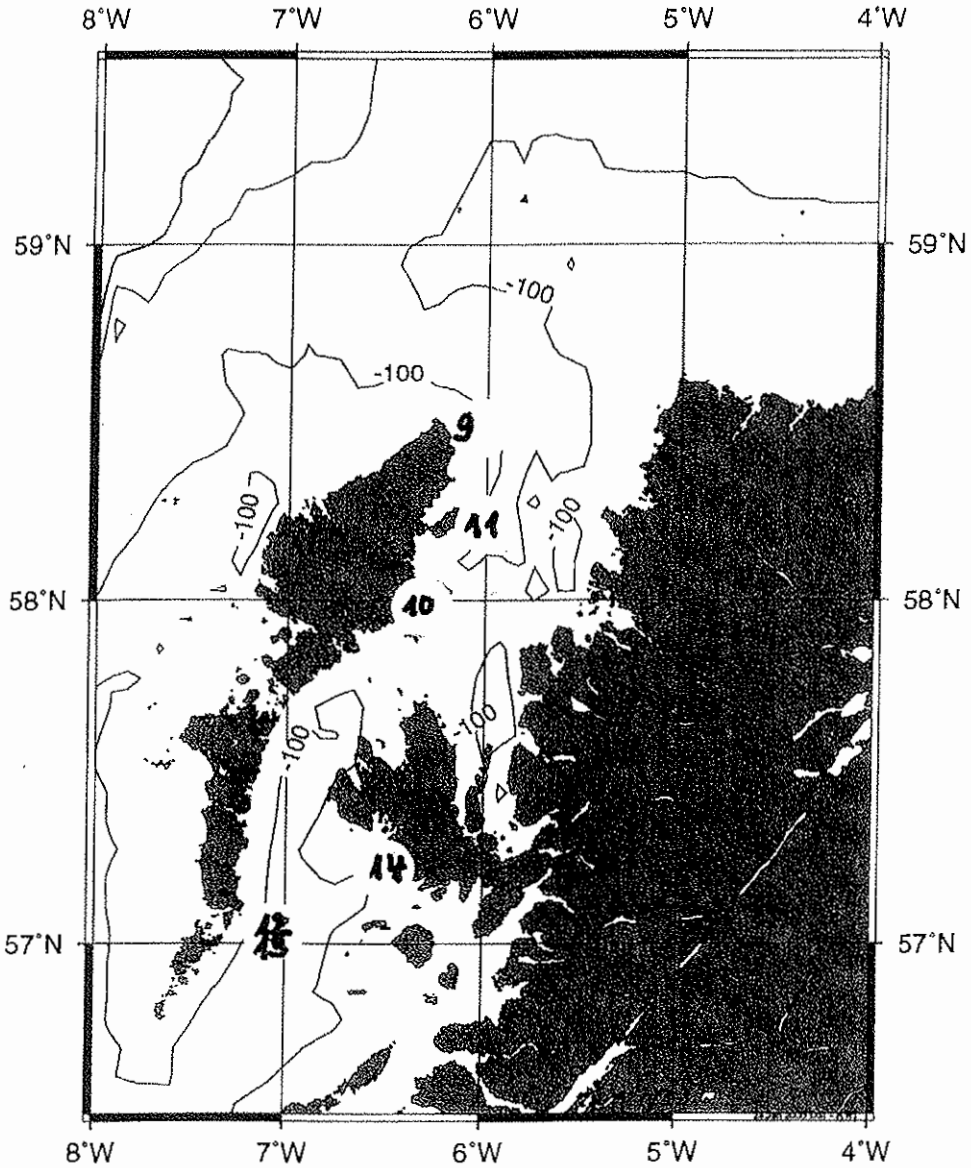
NB IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES/AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED, THE COASTAL STATE AUTHORITIES MUST BE NOTIFIED IMMEDIATELY

Attachment(s):



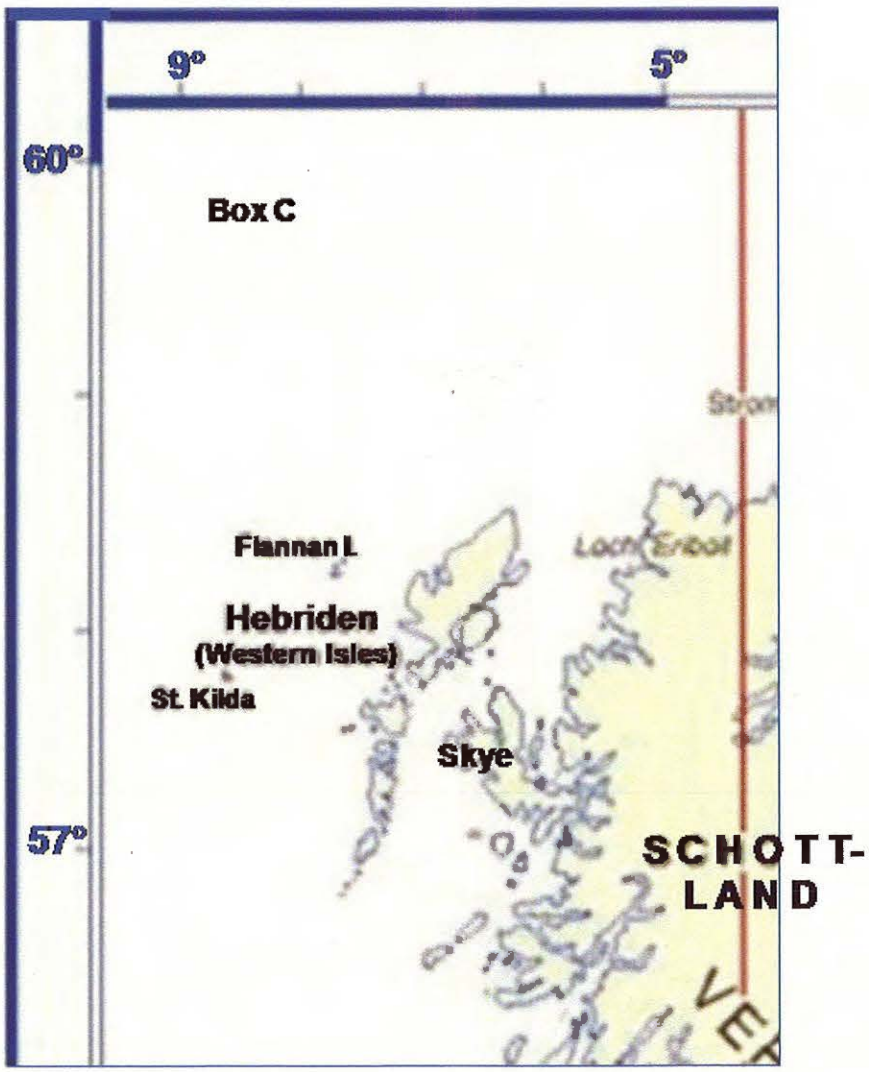
Projection: Mercator, Standard Parallel 59°N
100 m (green), 500 m (cyan)
1000-5000 m (blue, in steps of 1000 m)
Software: GMT, data: ETOPO5

Box A



Projection: Mercator, Standard Parallel 59°N
100 m (green), 500 m (cyan)
1000-5000 m (blue, in steps of 1000 m)
Software: GMT, data: ETOPO5

Box B


9°
5°
60°
Box C
Flannan I.
Hebriden
(Western Isles)
St. Kilda
Skye
57°
SCHOTT-
LAND