

NOTIFICATION OF PROPOSED RESEARCH CRUISE

Page 1

GENERAL

Part A

- 01. Name of research ship** M/V FRANKLIN **Cruise No.** BGR 07
- 02. Dates of cruises** leg1 + leg2 from 23. 06. 2007 to 28. 07. 2007
- 03. Operating Authority** Federal Institute for Geosciences and Natural Resources (BGR), Stilleweg 2, 30655 Hannover, Germany
Telephone: +49-511-643-2786 (Dr. L. Reinhardt)
Fax: +49-511-3663
- 04. Owner (if different from para 3)** Marin Mätteknik AB
 Nya Varvet, Building 84
 S-426 71 Västra Frölunda, Sweden
 Telephone: +46-31-695280
- 05. Particularities of ship:**
- | | |
|------------------------|--------------|
| Name | M/V FRANKLIN |
| Nationality | Swedish |
| Overall length | 55 metres |
| Maximum draught | 6 metres |
| Nett tonnage | 353 NRZ |
| Propulsion | Diesel |
| Call sign | SEIN |
- 06. Crew**
- Name of master** Captain Martin Backman or Captain Lars Olofsson
- No. of crew** max. 14
- 07. Scientific personnel:**
- | | |
|--|---|
| Name and address of scientist in charge | Dr. L. Reinhardt (Leg2)
Dr. Sönke Neben (Leg1)
Federal Institute for Geosciences and Natural Resources (BGR), Stilleweg 2,
30655 Hannover, Germany |
| Tel./Fax/Telex No. | +49-511-643-2786/3663/- |
| No. of scientists | max. 12 |
- 08. Geographical area in which ship will operate (with reference in latitude and longitude):**
- | Nr. | Lat | Lon | remarks | | | | |
|-----|------------|-----------|---------|----|------------|-----------|-------|
| | | | | 7 | 53.4700000 | 3.0166667 | 13 |
| 1 | 55.7650000 | 3.3702778 | E8 | 8 | 53.5850000 | 2.9883333 | 14 |
| 2 | 55.8350000 | 3.4000000 | D | 9 | 53.6683333 | 2.9566667 | 15 |
| 3 | 55.9192778 | 3.3500000 | S7 | 10 | 53.9633333 | 2.8666667 | 16 |
| 4 | 56.0866667 | 3.2500000 | | 11 | 54.3800000 | 2.7633333 | 17 |
| 5 | 55.0000000 | 1.0000000 | | 12 | 54.6216667 | 2.8983333 | 18 |
| 6 | 54.0000000 | 1.0000000 | | 13 | 55.7650000 | 3.3702778 | 19/E8 |
- 09. Brief description of purpose of cruise:**
 The legs aim mainly on the EEZ of Germany with focus on the "tail end". Leg1: high-resolution multi-channel seismic survey with focus on the shallow subsurface (Tertiary delta deposits and Pleistocene valleys). Leg2: geological seabed sampling at selected sites by vibration corer, multicorer, and gravity corer for age dating, sediment properties, etc.
- 10. Dates and names of intended ports of call**
- | | |
|--------------|--|
| Bremerhaven: | 23. 06. 2007 (start) |
| Heligoland: | if weather conditions are unfavourable |
| Bremerhaven: | 10./11. 07. 2007 harbour: change of equipment (leg1 /leg2) |
| Bremerhaven: | 28. 07. 2007 (ending) |

11. Any special logistic requirements at ports of call: none

Page 2

DETAIL

Part B

1. Name of Research ship M/V FRANKLIN

Cruise No. BGR 07

2. Dates of cruise from: Bremerhaven 23. 06. 2007 to: Bremerhaven 28. 07. 2007

3. Purpose of research and general operational methods

Main objective of this operation is the survey of the shallow subsurface of the EEZ of Germany with a focus on the "tail end" by means of multi-channel seismic complemented by high-resolution methods (Boomer, Sparker, CHIRP systems). This is done to map Quaternary and Tertiary deposits (subglacial valleys, delta deposits). In this context we intend to connect existing seismic profiles to the German sector. Sediment sampling is intended mainly for the German EEZ, only if sediment echosounder lines measured during the cruise should indicate suitable sampling locations in English waters permission for sampling is asked herewith.

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

See attached map (Figure 1). Details of tracks of survey lines will be discussed with BGS (Dan Evans, Edinburgh) to connect existing surveys to the German sector. Sampling locations will be determined from sediment echosounder lines obtained during cruise.

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

seismic/hydroacoustic data, geological samples

and methods by which samples will be obtained (including dredging/coring/drilling)

hydroacoustic measuring (multichannel seismic, sediment echosounders)

coring: vibration coring (6 m max. penetration), gravity coring (5 m max. penetration), and multicoring (0,5 m max. penetration)

rosette water multisampler

6. Details of moored equipment: none

Dates		Description	Latitude	Longitude
Laying	Recovery			

7. Explosives no explosives

- (a) **Type and Trade name**
- (b) **Chemical content**
- (c) **Dept. 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

EU Southern North Sea Project 1989-1992 (FS GAUSS 1987 + 1990)
BGR cruises with MV AURELIA BGR03-AUR (2003), BGR04-AUR (2004, Leg 1+2)
BGR cruises with RV HEINCKE HE 242 (2005, Leg 1+2)
BGR cruise with RV ALKOR AL 278 (2006)

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

Cameron, T.D.J., Bulat, J. and Mesdag, C.S. 1993. High resolution seismic profile through a Late Cenozoic delta complex in the southern North Sea. *Marine and Petroleum Geology*, 10: 591-599.
Cameron, T.D.J., Stoker, M.S. and Long, D. 1987. The history of Quaternary sedimentation in the UK-Sector of the North Sea Basin. *J. Geol. Soc., London*, 144: 53-58.
Cameron, T.D.J., van Doorn, D., Laban, C. and Streif, H. 1993. Geology of the Southern North Sea Basin. In: *Coastlines of the Southern North Sea* (Eds R. Hoellen and H.J. Verhagen), pp. 14-26. American Society of Civil Engineers, New York.
Huuse, M. and Lykke-Andersen, H. 2000. Overdeepened Quaternary valleys in the eastern Danish North Sea: morphology and origin. *Quaternary Science Reviews*, 19: 1233-1253.
Huuse, M., Lykke-Andersen, H. and Michelsen, O. 2001. Cenozoic evolution of the eastern Danish North Sea. *Marine Geology*, 177: 243-269.
AUR, MV AURELIA (16. 09. - 09. 10. 2003), BGR, Hannover.
Kudrass, H.-R., Wiedicke-Hombach, M. and shipboard-scientific-party 2004. *Fahrtbericht/Cruise Report: Nordsee, BGR04-AUR, MV AURELIA, Leg2 (09. 09. - 02. 10. 2004)*, BGR, Hannover.
Neben, S. and shipboard-scientific-party 2004. *Fahrtbericht/Cruise Report: Nordsee, BGR04-AUR, MV AURELIA, Leg1 (30. 05. - 19. 06. 2004)*, BGR, Hannover.
Neben, S. and shipboard-scientific party 2006, *Fahrtbericht/Cruise Report: RV Heincke cruise HE242 Leg1 Nordsee (17.10. – 31.10. 2005)*, BGR Hannover.
Reinhardt, L.. and shipboard-scientific party 2006, *Fahrtbericht/Cruise Report: RV Heincke cruise HE242 Leg2 Nordsee (01.11. – 14.11. 2005)*, BGR Hannover.

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

Dan Evans
British Geological Survey, Murchison House,
West Mains Road, Edinburgh EH9 3LA, UK.

Mads Huuse,
3D Lab School of Earth, Cardiff University
Park place, Cardiff CF10 3YE, Wales, UK.

10. State:

- a.) **Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable:** yes
- 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:** generally yes, but at the present state all places are taken by functional personnel necessary to run the various seismic systems/sampling equipment due to the restriction on 12 scientists on M/V FRANKLIN.
- c.) **When research data from intended cruise is likely to be made available to the coastal state and if so by what means:** Cruise report three months after finishing the research cruise. Digital data sets of seismic lines. Scientific publication within the following three years.

COASTAL STATE: United Kingdom

SCIENTIFIC EQUIPMENT

**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
a) Vessel mounted systems: Hydroacoustic mapping/measuring (incl. ADCP, Parasound, multibeam)	No	Yes	No	No	Yes	Yes
Permanent surface water sampling / pumping (incl. Thermosalinograph)	No	Yes	No	No	Yes	Yes
b) mobile acoustic equipment: multichannel seismic sidescan-sonar Boomer/Sparker	No	Yes	No	No	Yes	Yes
c) mobile coring equipment incl. vibration, piston, box, multicorer	No	Yes	No	No	Yes	Yes

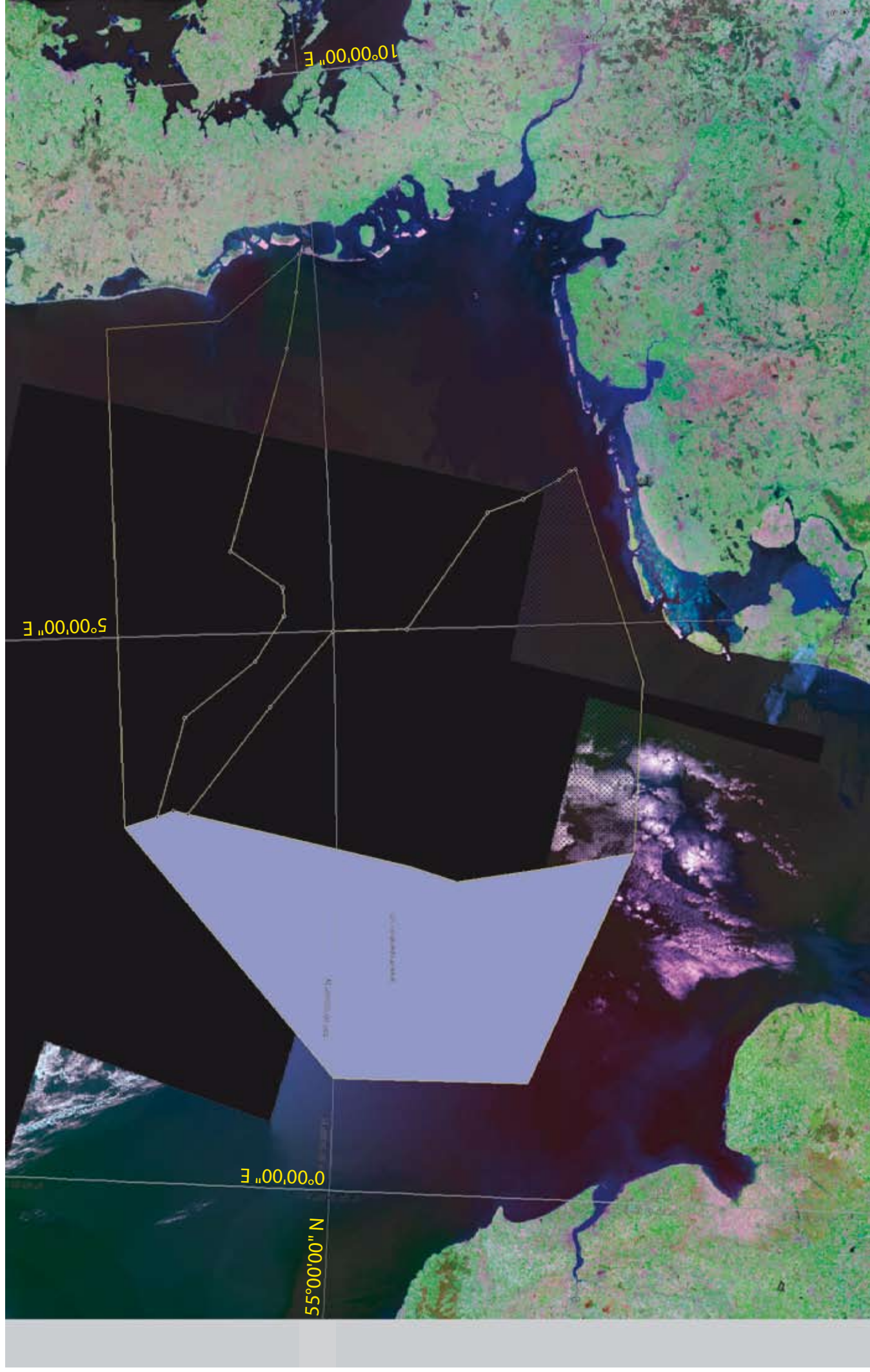


Figure 1: Chart showing the geographical area of intended work within British EEZ.

Yellow lines frame the limits of areas of operation in the EEZ's of Denmark, The Netherlands, and Germany.

LANDSAT images provided through NASA's Earth Science Enterprise Scientific Data Purchase Program. Produced, under NASA contract, by Earth Satellite Corporation.