

NOTIFICATION OF PROPOSED RESEARCH CRUISE

Great Britain

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GENERAL

Part A

01. Name of research ship: **MARIA S. MERIAN** Cruise No. **MSM06-3**
02. Dates of cruise from **21.11.2007** to **20.12.2007**
03. Operating Authority **Institut für Meereskunde / University of Hamburg**
Bundesstr. 53, D-20146 Hamburg, Germany
Tel.: +49-40-42838-3974 - Fax: +49-40-42838-46 44
Telex: 212586 ifmhh d
04. Owner (if different from para 3) **Federal State Mecklenburg-Vorpommern, Germany**
05. Particulars of ship:
- | | |
|-----------------|------------------------|
| Name | MARIA S. MERIAN |
| Nationality | German |
| Overall length | 94,8 metres |
| Maximum draught | 6,5 metres |
| Nett tonnage | 1750 NRZ |
| Propulsion | Diesel Electric |
| Call sign | D B B T |
06. Crew
- | | |
|----------------|---------------------------|
| Name of master | Friedhelm von Staa |
| No. of crew | max. 23 |
07. Scientific personnel:
- | | |
|---|--|
| Name and address of scientist in charge | Prof. Dr. Colin Devey IFM-GEOMAR Wischhofstr. 1-3 24148 Kiel, Germany |
| Tel./Fax/Telex No. | +49-431-600-2257 / -2924 |
| No. of scientists | <u>max. 23</u> |
08. Geographical areas in which ship will operate (with reference in latitude and longitude)
4° S / 15° W -- 11° S / 10° W
09. Brief description of purpose of cruise
Aim of the work is to investigate the tectonics and structure of the Ascension transform and to constrain the volcanic, hydrothermal and tectonic processes operating at the Mid-Atlantic Ridge South of the Ascension Fracture Zone.
10. Dates and names of intended ports of call
18.11.-21.11.2007: Fortaleza, Brazil
20.12.-28.12.2007: Dakar, Senegal
11. Any special logistic requirements at ports of call: **-/-**

DETAIL

Part B

- 01. Name of research ship **MARIA S. MERIAN** Cruise No. **MSM06-3**
- 02. Dates of cruise from **21.11.2007** to **20.12.2007**
- 03. Purpose of research and general operational methods

Aim of the work is to investigate the tectonics and structure of the Ascension transform and to constrain the volcanic, hydrothermal and tectonic processes operating at the Mid-Atlantic Ridge South of the Ascension Fracture Zone. Mapping of bathymetry followed by Autonomous Underwater Vehicle exploration, water and rock sampling and ROV visual observations of the seafloor will be carried out.

- 04. 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 for working area. Exact location of stations, tracklines will be determined during the cruise based on the information being gathered at the time

- 05. Types of samples required, e.g. Geological / Water / Plankton / Fish / Radio-activity / Isotope

Rock, hydrothermal precipitates, sediments, fauna, water

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

pumping, volcanic coring, dredging, remotely operated vehicle (ROV) sampling, CTD rosette, sediment coring

- 06. Details of moored equipment:

| D a t e s | | Description | Latitude | Longitude |
|-----------|----------|-------------|----------|-----------|
| Laying | Recovery | | | |

-/-

07. 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

08. Detail and reference of
- (a) Any relevant previous / future cruises

Magnetic, gravity and bathymetry data are available from cruises described by Brozena and White (1990) and Brugier et al. (in press). Geological work in the area previously carried out during Meteor cruises M41/2 (1998), M62/4&5 (2004), M64/1 (2005), M68/1 (2006)

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

Brozena, J.M., and White, R.S., 1990, Ridge jumps and propagations in the South Atlantic ocean. Nature, 348, 149-152

Brozena, J.M., 1986, Temporal and spatial variability of seafloor spreading processes in the northern South Atlantic. J. Geophys. Res., 91, 497-510

Reston, T.J., and 8 others, 2002, A rifted inside corner massiv on the Mid-Atlantic Ridge at 5° S. Earth and Planet. Sci. Letts., 200, 255-269

09. Names and addresses of scientists of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made.
- Dr. Tim Minshull, Southampton Oceanographic Center**
Dr. Neil Mitchell, Cardiff University

10. State:

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

Not relevant, no port call in U.K.

- (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, after discussion

- (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

- Scientific publication within the following three years

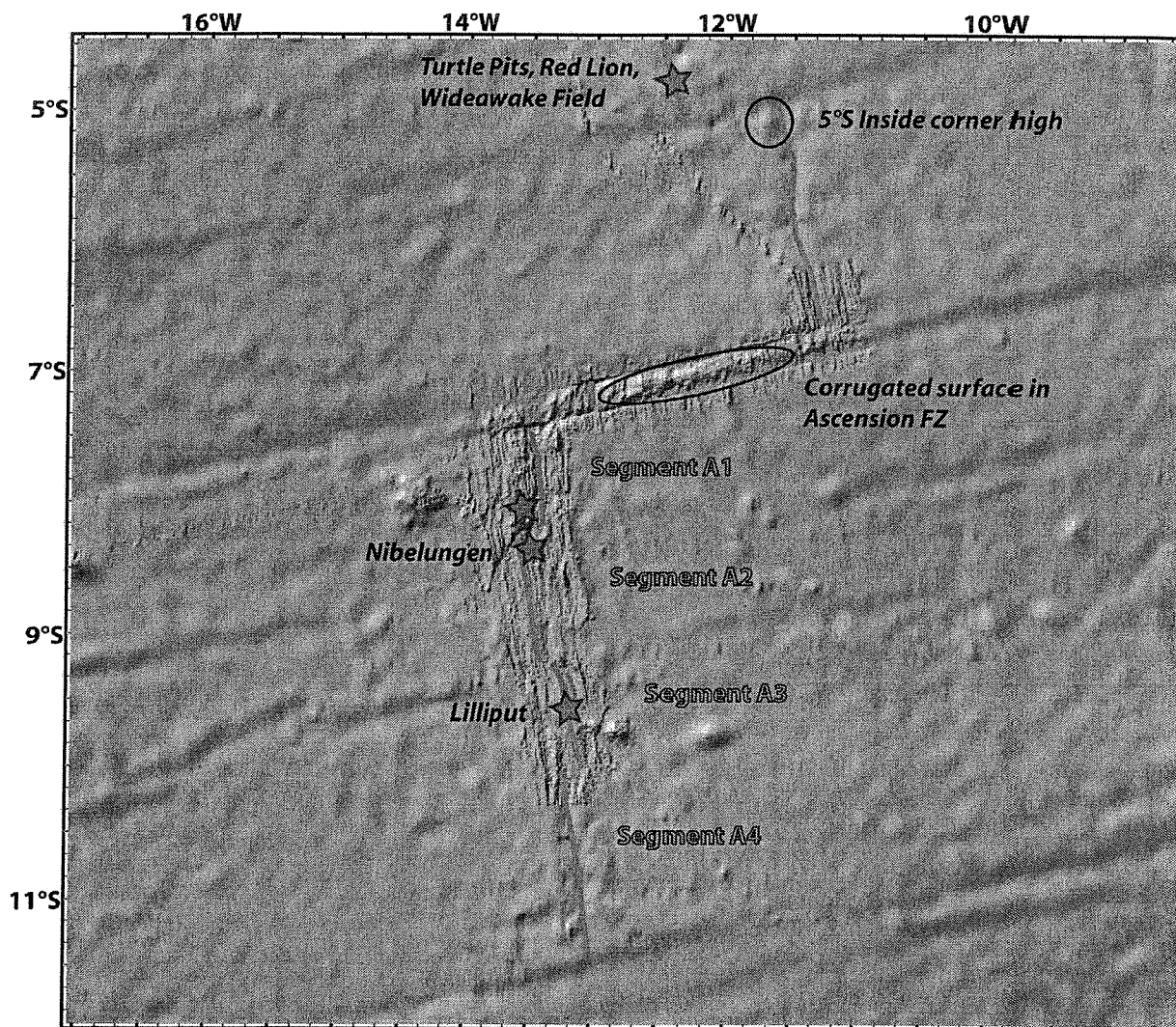
COASTAL STATE: **Great Britain**SCIENTIFIC EQUIPMENT

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 | 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 and Hydrosweep) | No | Yes | No | No | Yes | Yes |
| permanent surface water sampling / pumping (incl. Thermosalinograph) | No | No | No | No | Yes | Yes |
| b) Ocean-Bottom-Seismometer | No | Yes | No | No | Yes | Yes |
| Autonomous Underwater Vehicle | No | No | No | No | Yes | Yes |
| Dredge | No | Yes | No | No | Yes | Yes |
| Remotely operated vehicle | No | No | No | No | Yes | Yes |
| CTD rosette | No | No | No | No | Yes | Yes |
| Gravity corer | No | Yes | No | No | Yes | Yes |



Working area for cruise MSM 06/3: Research will take place along the Mid-Atlantic Ridge (green line) concentrating on known hydrothermal systems (named stars) and areas of particular tectonic interest (blue circles).