

## NOTIFICATION OF PROPOSED RESEARCH CRUISE

ICELAND

GENERAL

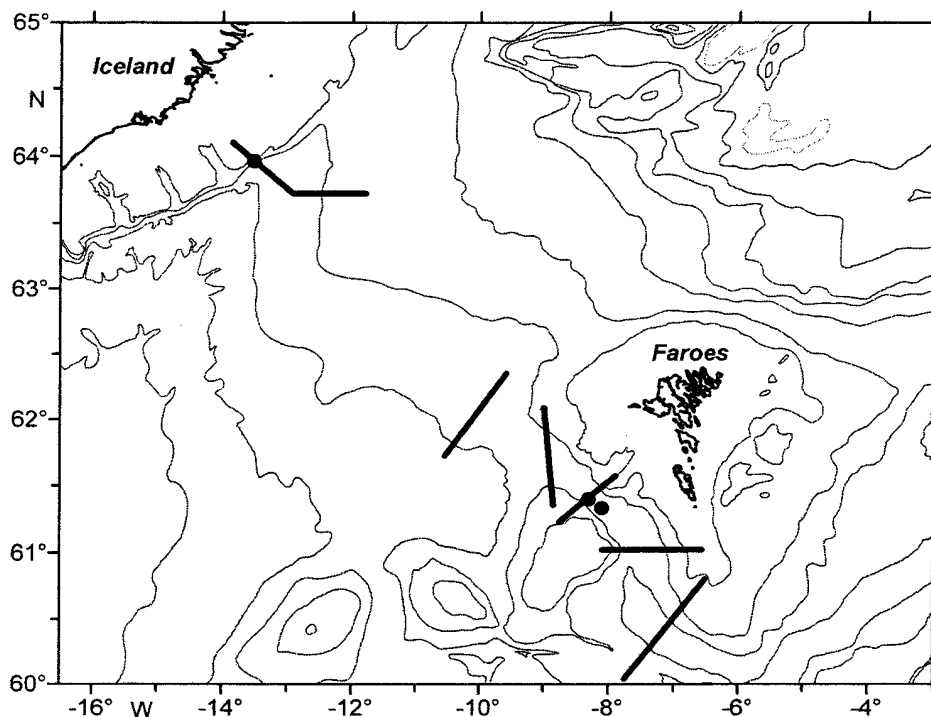
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Part A

01. Name of research ship: **MARIA S. MERIAN** Cruise No. **MSM05-6**
02. Dates of cruise **from 29. August, Kiel, to 15. September 2007, Torshavn**
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 **Federal State Mecklenburg-Vorpommern, Germany**
05. Particulars of ship:
- |                 |                        |
|-----------------|------------------------|
| Name            | <b>MARIA S. MERIAN</b> |
| Nationality     | <b>German</b>          |
| Overall length  | <b>94,8 metres</b>     |
| Maximum draught | <b>6,5 metres</b>      |
| Nett tonnage    | <b>1750 NRZ</b>        |
| Propulsion      | <b>Diesel Electric</b> |
| Call sign       | <b>D B B T</b>         |
06. Crew
- |                |                          |
|----------------|--------------------------|
| Name of master | <b>Kapt. K. Bergmann</b> |
| No. of crew    | <b><u>max. 23</u></b>    |
07. Scientific personnel:
- |   |  |
|---|--|
| Name and address of scientist in charge | <b>Prof. Dr. Detlef Quadfasel<br/>University of Hamburg<br/>Bundesstr. 53<br/>D-20146 Hamburg, Germany</b> |
| Tel.                                    | <b>0049 40 42838 5756</b>  |
| Fax                                     | <b>0049 40 42838 7477</b>  |
| e-mail                                  | <b>detlef.quadfasel@zmaw.de</b>  |
| No. of scientists                       | <b><u>max. 23</u></b>  |
08. Geographical areas in which ship will operate  
**Iceland – Faroe Ridge,**
09. Brief description of purpose of cruise  
**The main aim of the research is to study mixing processes in the Faroese overflows. In Icelandic Waters the recovery of a mooring is planned, plus a short CTD/IADCP Microstructure section at the mooring site.**
- It will be attempted to recover the mooring in August 2007 with the Icelandic RV Árni Friðriksson by Dr. Hedinn Valdimarsson (HAFRO). If that attempt fails, e.g. because of bad weather or logistical reasons, the recovery shall be done with RV Maria S. Merian.**
10. Dates and names of intended ports of call  
**n/a**
11. Any special logistic requirements at ports of call  
**n/a**

Part B

- 01. Name of research ship **RV MARIA S. MERIAN** Cruise No. **MSM05-6**
- 02. Dates of cruise from: **29. August 2007** to: **15. September 2007**
- 03. Purpose of research and general operational methods  
**The main aim of the research is to study the entrainment of ambient waters into overflow plumes. Classical CTD and lowered ADCP profiles will be taken and in addition Microstructure turbulence profiles.**
- 04. Chart showing the geographical area of the intended work, positions of moorings (dots) and tracks of hydrographic survey lines.



- 05. Types of samples required  
**water, hydro acoustic data,**  
 and methods by which samples will be obtained  
**pumping, hydro acoustic measuring**
- 06. Details of moored equipment:

**Mooring recovery:**

<b>Name</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Water depth</b>
<b>FRS-ADCP</b>	<b>63°57,91' N</b>	<b>013°31.07' W</b>	<b>584</b>

07. Explosives: **no explosives**

08. Detail and reference of

(a) Any relevant previous / future cruises

**RRS Charles Darwin cruise 163/164 September 2004**  
**RV Árni Friðriksson August 2005**  
**RRS DISCOVERY cruise D311 September/October 2006**  
**RV María S., Merian cruise MSM05-4 July 2007**

(b) Any previous published research data relating to the proposed cruise.

**Hansen, B., S. Østerhus, D. Quadfasel, W. Turrell (2004) Already the Day After Tomorrow? SCIENCE, 305, 953-954.**  
**Høyer, J.L., and D. Quadfasel (2001) Detection of cold overflows from altimeter satellites. Geophys. Res. Let., 28, 1611-1614.**  
**Käse, R.H., J. B. Girton and T. B. Sanford, 2003: Structure and variability of the Denmark Strait Overflow: Model and observations J. GEOPHYS. RES., 108, 3181, doi:10.1029/2002JC001548, 2003**  
**Rudels, B., D. Quadfasel, and H.J. Friedrich (1999) The Arctic circumpolar boundary current. Deep-Sea Res. II, 46, 1023-1062.**

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.

**Name: Dr. Hédinn Valdimarsson**  
**Marine Research Institute**  
**Address: Skulagata 4**  
**121 Reykjavik**  
**Iceland**  
**Telephone: 00354 552 0240**  
**Telefax: 00354 562 3790**  
**e-mail: hv@hafro.is**

10. State:

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

**n/a**

(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, upon request. Kiel 29. August 2007, Torshavn 15. September 2007**

(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**
- **navigational and bathymetric data (CD ROM) within 3 months**

COASTAL STATE: *Iceland*

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	Between	Between	Between
			3 NM	3 - 12 NM	12 - 50 NM	50 - 200 NM

<b>a)</b> vessel mounted systems: hydroacoustic mapping / measuring (incl. ADCP, Parasound and multibeam)	No	Yes	No	Yes	Yes	Yes
permanent surface water sampling / pumping (incl. Thermosalinograph)	No	yes	No	Yes	Yes	Yes
<b>b)</b> mobile equipment Hydrographic profiling: CTD and water sampling	No	Yes	Yes	Yes	Yes	Yes