CRUISE SUMMARY REPORT

FOR COLLATIMG CENTRE USE

Centre: **DOD** **Ref. No.:**

Is data exchange restricted ☐ Yes ☐ In part ☐ No

SHIP enter the full name and international radio call sign of the ship from which the data were collected, and indicate the type of ship, for example, research ship; ship of opportunity, naval survey vessel; etc.

Name: **POSEIDON** **Call Sign:** **DBKV**

Type of ship: **Research Vessel**

CRUISE NO. / NAME **POS315**

enter the unique number, name or acronym assigned to the cruise (or cruise leg, if appropriate).

CRUISE PERIOD start **(set sail)** **26/07/2004** **day/ month/ year** to **31/07/2004** **day/ month/ year** end **(return to port)**

PORT OF DEPARTURE (enter name and country) **Reykjavik, Iceland**

PORT OF RETURN (enter name and country) **Reykjavik, Iceland**

RESPONSIBLE LABORATORY enter name and address of the laboratory responsible for coodinating the scientific planning of the cruise

Name: **Leibniz-Institut für Meereswissenschaften, IFM-GEOMAR**

Address: **Düsternbrooker Weg 20, 24105 Kiel**

Country: **Germany**

CHIEF SCIENTIST(S) enter name and laboratory of the person(s) in charge of the scientific work (chief of mission) during the cruise.

Dr. T. J. Müller, IFM-GEOMAR, Kiel, Germany

OBJECTIVES AND BRIEF NARRATIVE OF CRUISE enter sufficient information about the purpose and nature of the cruise so as to provide the context in which the report data were collected.

The overflow through the Denmark Strait is one of the major sources to form North Atlantic Deep Water (NADW), and thus plays an essential role in the world-wide thermohaline circulation. Within the „Sonderforschungsbereich 460" of the German Research Foundation (DFG), the dynamics of its variability and interaction with overlying water masses is investigated.

In Denmark Strait, direct measurements of currents in the overflow layer at the sill were performed as one component of the project. During cruise P293-2 in 2002, a shielded ADCP was moored on the western shelf; this ADCP could not be recovered due to a technical problem one year later during cruise P302. Therefore, during P315 an attempt was made, to recover the ADCP using a small ROV of the MARUM, University of Bremen.

Cruise P315 (maps in Fig 3.1 and 3.2) was aimed to

- **recover the shielded ADCP moored during POSEIDON cruise 293/2 in 2002 and which could not be recovered during cruise P302 in 2003**
- **to recover and re-moor an ADCP of the MRI in Denmark Strait**
- **to take some CTD casts and ADCP sections across the sill when restricted time allows.**

PROJECT (IF APPLICABLE) if the cruise is designated as part of a larger scale cooperative project (or expedition), then enter the name of the project, and of organisation responsible for co-ordinating the project.

Project name: SFB460 / TPA1

Coordinating body: IFM-GEOMAR

PRINCIPAL INVESTIGATORS: Enter the name and address of the Principal Investigators responsible for the data collected on the cruise and who may be contacted for further information about the data. (The letter assigned below against each Principal Investigator is used on pages 2 and 3, under the column heading 'PI', to identify the data sets for which he/she is responsible)

A. Dr. Thomas J. Müller, Institut für Meereskunde, Kiel, tmueller@ifm.uni-kiel.de

B. Dr. Hedinn Valdimarsson, Marine Research Institute, Reykjavik, Iceland

C.

D.

E.

F.

MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS

This section should be used for reporting moorings, bottom mounted gear and drifting systems (both surface and deep) deployed and/or recovered during the cruise. Separate entries should be made for each location (only deployment positions need be given for drifting systems). This section may also be used to report data collected at fixed locations which are returned to routinely in order to construct 'long time series'.

PI	APPROXIMATE POSITION						DATA TYPE	DESCRIPTION
	LATITUDE			LONGITUDE				Identify, as appropriate, the nature of the instrumentation the parameters (to be) measured, the number of instruments and their depths, whether deployed and/or recovered, dates of deployments and/or recovery, and any identifiers given to the site.
See top of page.	deg	min	N/S	deg	min	E/W	enter code(s) from list on cover page.	
B	**66**	**05.9**	**N**	**027**	**05.0**	**W**	**D71**	**bottom moored long ranging ADCP recovered**
B	**66**	**06.0**	**N**	**027**	**06.0**	**W**	**D71**	**bottom moored long ranging ADCP launched**
A	**66**	**11.4**	**N**	**027**	**30.1**	**W**	**D71**	**V423-3: bottom moored shielded ADCP spotted upside down with ROV; could not recovered**
A	**66**	**11.3**	**N**	**027**	**46.3**	**W**	**D09**	**V421-2: bottom moored shielded inverted echosounder with pressure sensor not located; give**

								Please continue on separate sheet if necessary

SUMMARY OF MEASUREMENTS AND SAMPLES TAKEN

Except for the data already described on page 2 under ‘Moorings, Bottom Mounted Gear and Drifting Systems‘, this section should include a summary of all data collected on the cruise, whether they be measurements (e.g. temperature, salinity values) or samples (e.g. cores, net hauls).

Separate entries should be made for each distinct and coherent set of measurements or samples. Different modes of data collection (e.g. vertical profiles as opposed to underway measurements) should be clearly distinguished, as should measurements/sampling techniques that imply distinctly different accuracy’s or spatial/temporal resolutions. Thus, for example, separate entries would be created for i) BT drops, ii) water bottle stations, iii) CTD casts, iv) towed CTD, v) towed undulating CTD profiler, vi) surface water intake measurements, etc.

Each data set entry should start on a new line – it’s description may extend over several lines if necessary.

NO, UNITS : for each data set, enter the estimated amount of data collected expressed in terms of the number of ‘stations‘; miles‘ of track; ’days‘ of recording; ‘cores‘ taken; net ‘hauls‘; balloon ‘ascents‘; or whatever unit is most appropriate to the data. The amount should be entered under ‘NO‘ and the counting unit should be identified in plain text under ‘UNITS‘.

PI see page 2	NO see above	UNITS see above	DATA TYPE Enter code(s) from list on cover page	DESCRIPTION Identify, as appropriate, the nature of the data and of the instrumentation/sampling gear and list the parameters measured. Include any supplementary information that may be appropriate, e. g. vertical or horizontal profiles, depth horizons, continuous recording or discrete samples, etc. For samples taken for later analysis on shore, an indication should be given of the type of analysis planned, i.e. the purpose for which the samples were taken.
A	**7**	**casts**	**H10**	**SBE 911; calibrated sensors**

				Please continue on separate sheet if necessary

TRACK CHART: You are strongly encouraged to submit, with the completed report, an annotated track chart illustrating the route followed and the points where measurements were taken.	**Insert a tick(✓) in this box if a track chart is supplied**	☒

GENERAL OCEAN AREA(S): Enter the names of the oceans and/or seas in which data were collected during the cruise – please use commonly recognised names (see, for example, International Hydrographic Bureau Special Publication No. 23, 'Limits of Oceans and Seas').

North Atlantic, Denmark Strait

SPECIFIC AREAS: If the cruise activities were concentrated in a specific area(s) of an ocean or sea, then enter a description of the area(s). Such descriptions may include references to local geographic areas, to sea floor features, or to geographic coordinates.
Please insert here the number of each square in which data were collected from the below given chart

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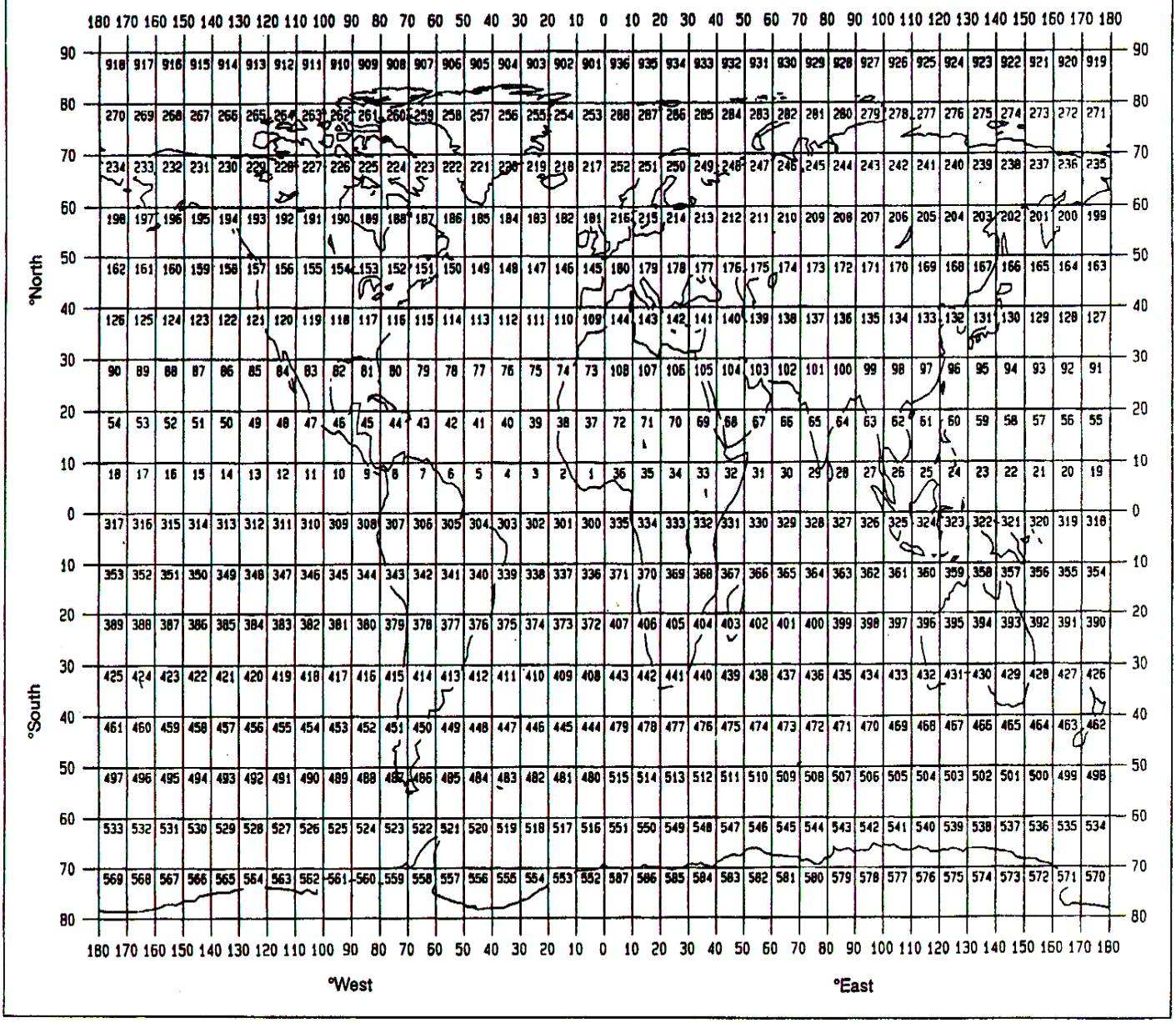
GEOGRAPHIC COVERAGE - INSERT 'X' IN EACH SQUARE IN WHICH DATA WERE COLLECTED

see above



THANK YOU FOR YOUR COOPERATION

Please send your completed report without delay to the collating centre indicated on the cover page