

IHO HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA)

11th Meeting, Hobart, Tasmania (05 – 07 October 2011)

National Report – Germany –

Surveys:

In 2011 two cruises of the German RV “POLARSTERN” led into the Southern Ocean.

- ANT-XXVII/2, from Cape Town (ZA) 2010-11-28 to Punta Arenas (CHL) 2011-02-05, Single Beam was recorded down to Neumeyer-Station, crossing Weddell Sea in Bransfield Strait direction.

No DOI yet.

ANT-XXVII/3, from Punta Arenas (CHL) 2011-02-08 to Cape Town (ZA) 2011-04-18, Multi Beam was recorded punctually on its way through Scotia Sea, south of King George Island towards Larsen A and B Shelf proceeding through Weddell Sea towards Austaasen Bank. DOI:10.1594/PANGAEA.766940

New charts and updates:

One of Germany’s areas of responsibility for preparing INT charts in Antarctica is the central part of the Weddell Sea. INT chart 905 is defined as purpose 1 – overview:

- INT 905 “South Sandwich Islands”

- National chart number: 1700

- 59°10’ S – 71°00’ S, 59°00’ W – 11°00’W

- 1:2,000,000 at reference latitude of 66° S, Geodetic Datum: WGS 84

The paper chart and the corresponding ENC is under produced in a joint project by the Federal Maritime and Hydrographic Agency (BSH) as national HO, and the Alfred Wegener Institute for Polar and Marine Research (AWI), which holds much of the bathymetric data for this region. Since 1983 the RV “POLARSTERN” is visiting the Weddell Sea frequently and a huge dataset of swath bathymetry was recorded since. Furthermore a scientific bathymetric chart of the Weddell Sea was produced at AWI (AWI-BCWS). Experiences of its processing and data validation will be incorporated in the INT 905 chart as well.

Data evaluation and processing was carried out at AWI following S-44 standards.

The editing of the paper chart and ENC was planned be completed at the BSH until summer 2011. Due to unforeseeable amount and complexity of data to be processed this schedule has not been met. The target completion date is now scheduled for the first quarter of 2012. A first draft of the chart is presented at HSA11.

Divided workings

AWI

- Post-processing of bathymetry data (multibeam data from RV "POLARSTERN") using CARIS HIPS following S-44 standards
- Processing raw data from other hydrographic services and institutes
- Adjusting existing charts within or adjacent to INT 905 for inclusion
- Calculation of the grid; deriving contour lines and soundings from grid using CARIS BaseEditor
- Extraction of coastline and grounding line from WVS and ADD5
- Undersea feature names from SCUFN (GEBCO) and the SCAR Composite Gazetteer of Antarctica (CGA); Names of the seas from IHO S-23
- Gathering names and positions of Antarctic research stations.

BSH

- Definition of sea ice limits
- Delivery of magnetic variation data (isogons)
- Creation of the paper chart with cartographic layout using CARIS HPD
- Verification and validation of depth data
- Printing of the paper charts
- Disposition of ENCs and paper charts

The full workflow of the data processing is described in a report under <http://apps3.awi.de/eBathy/int905/int905.html>

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