

IHO HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA)
10th Meeting, Cambridge, Great Britain (20 – 22 September 2010)
National Report – Germany –

Surveys:

In 2010 two cruises of the German RV “POLARSTERN” led into the Southern Ocean (Amundsen and Bellingshausen Seas). Multibeam bathymetry was recorded using Atlas Hydrosweep DS2.

- ANT-XXVI/1, from Punta Arenas (CHL) 2009-11-27 to Wellington (NZL) 2010-01-26, DOI: 10.1594/PANGAEA.743980
- ANT-XXVI/2, from Wellington (NZL) 2010-01-29 to Punta Arenas (CHL) 2010-04-05, DOI: 10.1594/PANGAEA.743430

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 will be 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 will be carried out at AWI following S-44 standards. The editing of the paper chart and ENC will be finished at the BSH until summer 2011.

Divided workings**AWI**

- Post-processing of bathymetry data (multibeam data from RV “POLARSTERN”) using CARIS HIPS following S-44 standards
- Requesting raw data from other hydrographic services and institutes
- Requesting existing charts within or adjacent to INT 905 for inclusion and adjustment
- Calculating the grid; deriving contour lines and soundings from grid using CARIS BaseEditor
- Extract 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
- Delivering of magnetic variation data (isogons)
- Creating 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

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