INTERNATIONAL HYDROGRAPHIC ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

IHO/IOC Form No. 1

UNDERSEA FEATURE NAME PROPOSAL

(See NOTE overleaf)

Ocean or Sea: Scotia Sea Name proposed: Seeber Seamount

Coordinates : **A** - of midpoint or summit : Lat. 55° 06' 13" S , Long. 42° 35' 30" W

_____ kilometres in _____ direction from _____

and/or **B** - extremities (if linear feature) :

Lat. _____ } to { Lat. _____
Long. _____ } to { Long. _____

Description (kind of feature) : Seamount

Identifying or categorizing characteristics (shape, dimensions, total relief, least depth, steepness, etc.):

Shape: conical, circular shape Dimensions: 14 km (7.7 M) diameter for seamount,
Total relief: 3500 to 2350 m Least depth: about 2350 m
Characterized by a local deep of about 200 m at the top, diameter of about 1300 m, opens to East

Associated features : moat: 28 km (15 M) diameter incl. moat region

Chart reference :
Shown with name on chart No. : none
Shown but not named on chart No. : unknown
Not shown but within area covered by chart No. : 511 GEBCO Plotting Sheet 1,000,000

Reason for choice of name (if a person, state how associated with the feature to be named) : Günter Seeber
The professional domain of this person: Precise navigation and positioning
Association: to professional work: Günter Seeber did research work within the Antarctic Peninsula / Scotia Sea region (navigation, geodynamics, glaciology).
The feature lies within an area which demands further geophysical research to study the geo-tectonics of the seafloor; thus it is an appropriate feature to carry a name in relation to marine geophysics and geodesy.

Short biography of person (at March 2006):

Günter Seeber Born at 10 Februar 1941 in Rastenburg, East Prussia; February 2006 retired

Studies of geography, mathematics, astronomy, surveying in Germany
1969 Building-up of the Satellite Station Bonn Todenfeld, Germany
1972 Dissertation: Photographic coordinate determination of stars and artificial satellites
1973 Professorship for "Geodetic Astronomy, Satellite Geodesy" at Institut für Erdmessung, Universität Hannover, Hannover
1978 also professor in Brasil (universities in Curitiba and in Recife)

1976-1985 Leader of the Special Research Group for "Precise Position Determination in Marine Areas by Means of Navigation Satellites"
1980 Development of a transportable zenith camera for astro-geodetic deflections of the vertical, digital version since 1995
1993 Book "Satellite Geodesy" in several languages
2006 retired

Many years editor of the journal "Marine Geodesy"
Outstanding research in real-time navigation and position determination by satellite navigation systems

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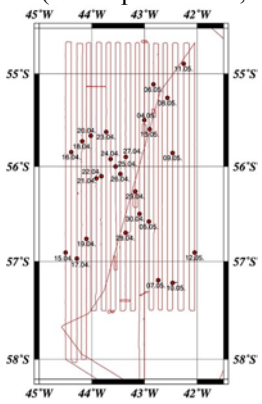
Discovery facts :
Date 14 April 2005 – 17 May 2005 by (individuals or ship) Research Vessel “Polarstern”
By means of (equipment) : Mapping of swath sonar measurement and compilation of boxed survey
Navigation used : GPS Two frequencies Trimble plus other data (gyro, inertial etc.)
Estimated positional accuracy in nautical miles : 10 m to 30 m (0.005 M to 0.016 M)

Description of survey (track spacing, line crossing, grid network, etc.) : boxed survey

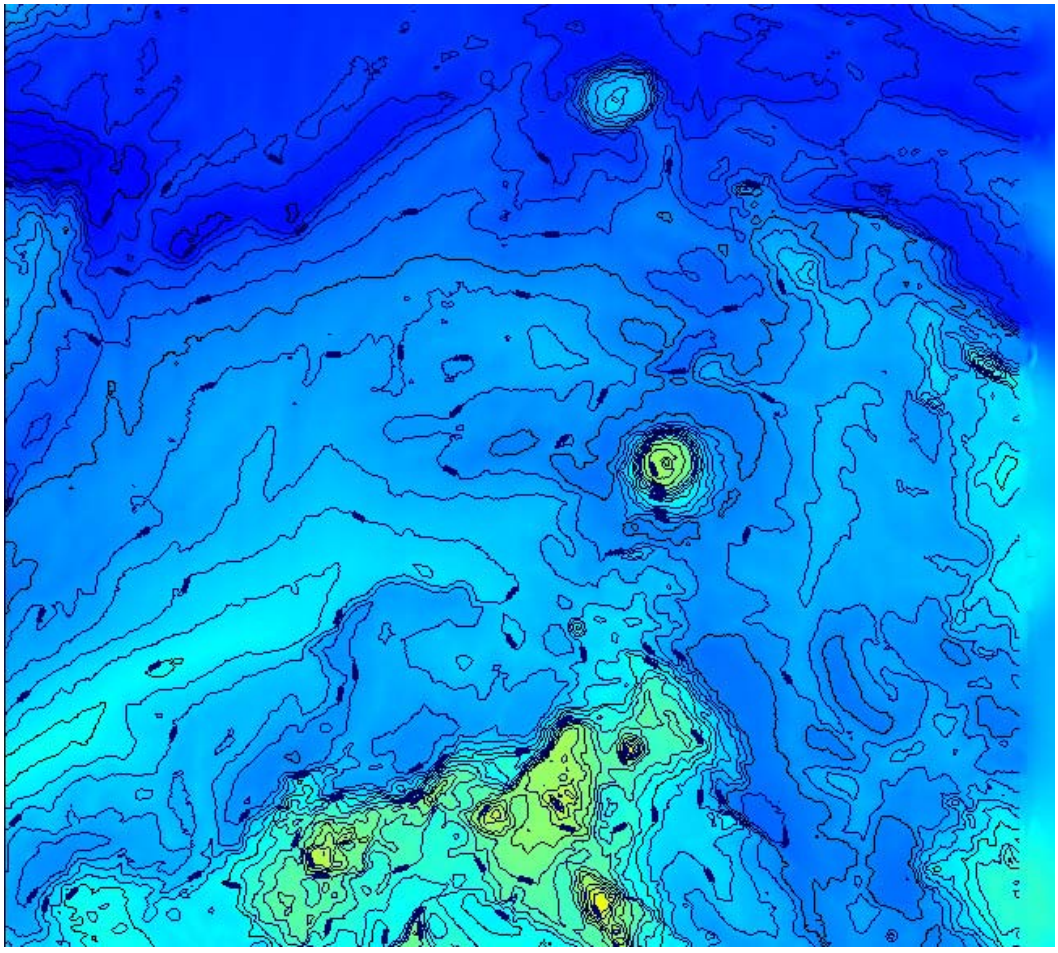
Nature and repository of other survey activities (dredge samples, cores, magnetics, gravity, photographs, etc.) : geophysics: magnetics (ship-born; partially plus helicopter-born magnetics), gravity; oceanography: XBT, CTD; geology: cores

Supporting material : enclose, if possible, a sketch map of the survey area, profiles of the features, etc., with reference to prior publication, if any :
Publication/s: not yet published.
Report about the Antarctic expedition ANT XXII/4 of the research vessel "Polarstern" in 2005 will be published soon; Berichte zur Polarforschung / Reports on Polar Research, Bremerhaven, 2006.
Track plot (also separate files, file names: ANTXXII-4-Kursplot.jpg, ANTXXII-4-Profile.jpg):

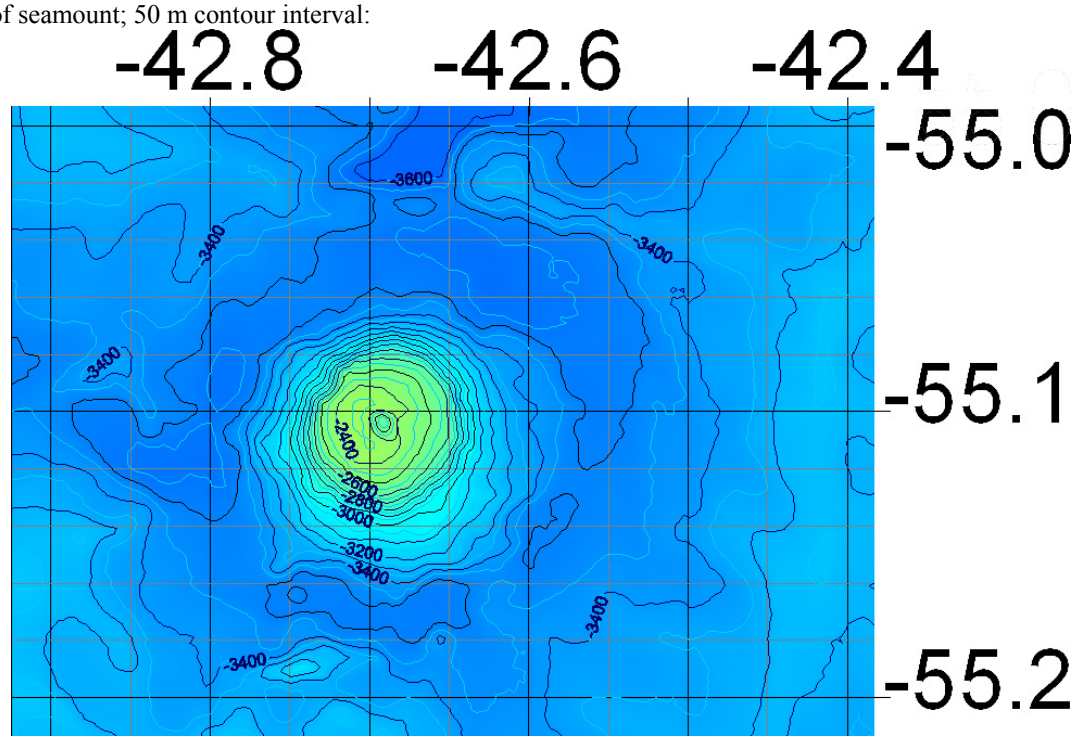


Maps etc. are produced from a DTM of about 300 m grid distance by Surfer and/or Fledermaus software (Golden Software; IVS)); higher resolutions and interpolation (e.g. Delauny triangulation of swath data) will be processed by AWI soon.

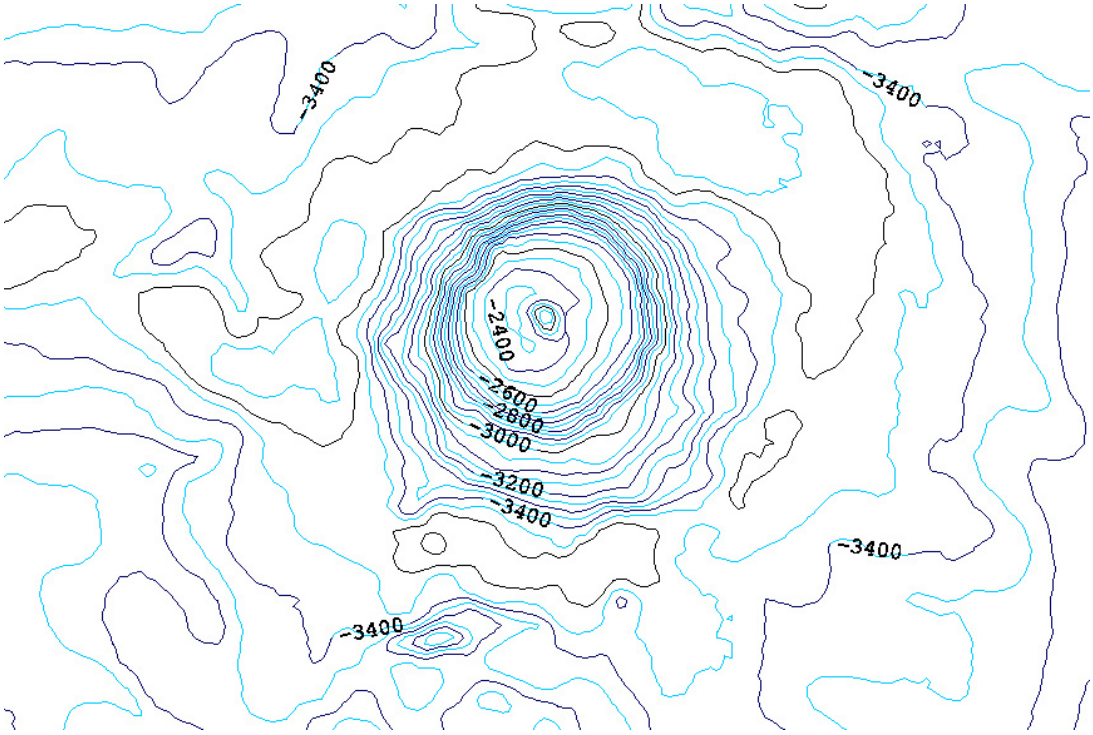
Map of seamount and surrounding area; 100 m contour interval:



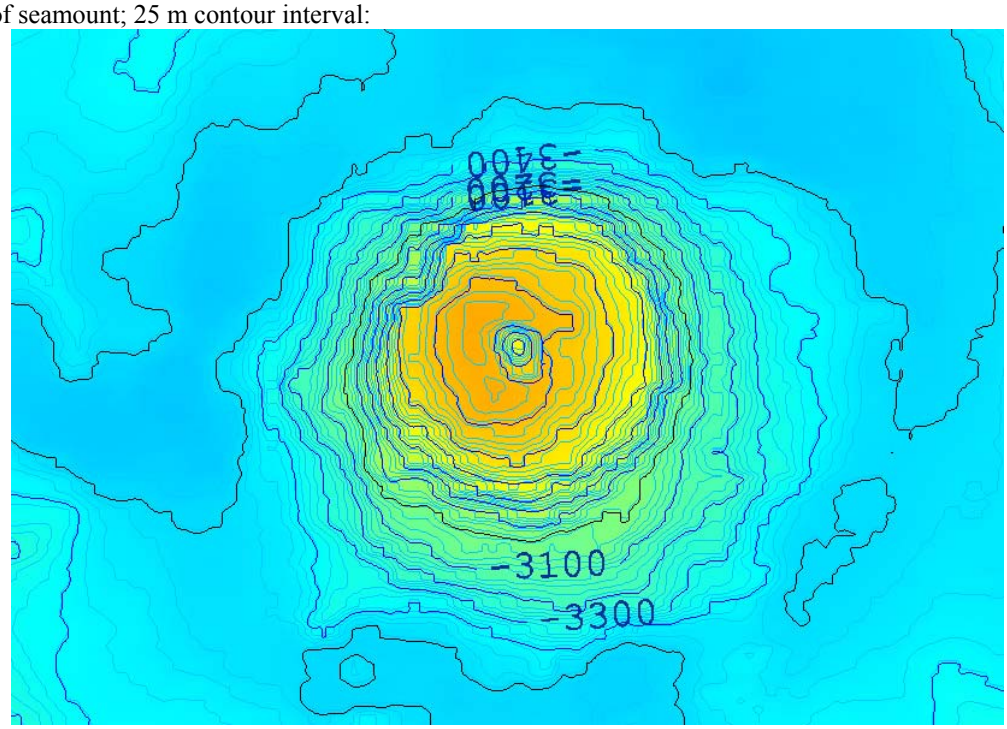
Map of seamount; 50 m contour interval:



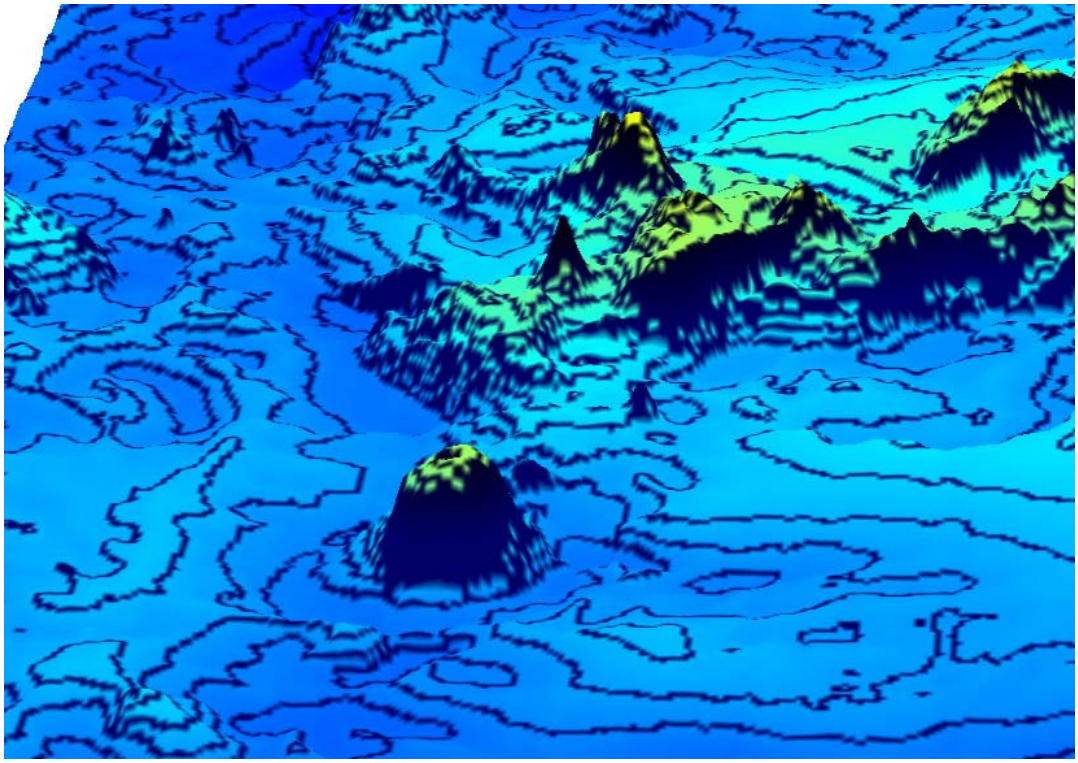
Map of seamount; 50 m contour interval:



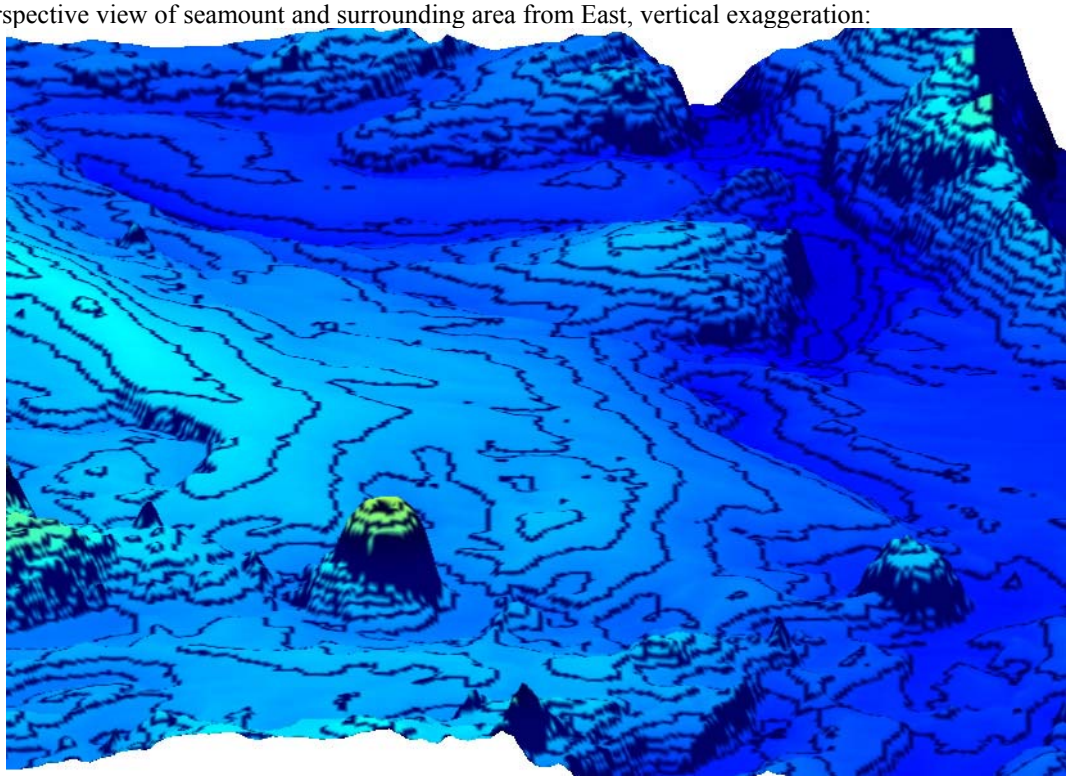
Map of seamount; 25 m contour interval:



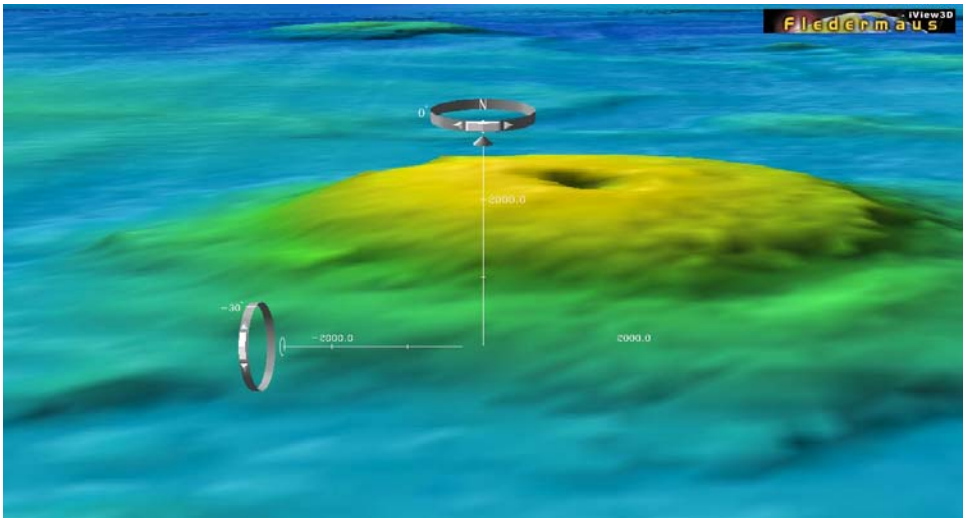
3D perspective view of seamount and surrounding area from North, vertical exaggeration:



3D perspective view of seamount and surrounding area from East, vertical exaggeration:



3D perspective view from South:



Submitted by : Dr. Heinrich Hinze
Date : 9 May 2006
Address : AWI, Van Ronzelen Str. 2, D-27568 Bremerhaven, Germany

Concurred in by (if applicable) :

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Address :

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National Authority (if any) : Alfred Wegener Institute for Polar and Marine Research (AWI)
Address : AWI, D - 27515 Bremerhaven, Germany

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NOTE : This form should be forwarded, when completed :

a) **If the undersea feature is located in territorial waters** :-
to your "National Authority for Approval of Undersea Feature Names" or, if this does not exist or is not known, either to the International Hydrographic Bureau or to the Intergovernmental Oceanographic Commission (see addresses below);

b) **If the undersea feature is located in international waters** :-
to the International Hydrographic Bureau or to the Intergovernmental Oceanographic Commission, at the following addresses :

International Hydrographic Bureau
4, quai Antoine 1er
B.P. 445
MC 98011 MONACO CEDEX
Principality of MONACO
Fax: +377 93 10 81 40
E-mail: info@ihb.mc

Intergovernmental Oceanographic Commission
UNESCO
Place de Fontenoy
75700 PARIS
FRANCE
Fax: +33 1 45 68 58 12
E-mail : info@unesco.org

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