

**UNDERSEA FEATURE NAME PROPOSAL**

(See NOTE overleaf)

Ocean or Sea: Scotia Sea

Name proposed: Kertz Seamount

Coordinates : A - of midpoint or summit : Lat. 55°30'53" S , Long. 42°42'09" W

\_\_\_\_\_ kilometres in \_\_\_\_\_ direction from \_\_\_\_\_

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

Lat. \_\_\_\_\_ } to { Lat. \_\_\_\_\_  
Long. \_\_\_\_\_ } } Long. \_\_\_\_\_

Description (kind of feature) : Seamount

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

Shape: elongated shape                      Dimensions: about 14 km in SN and 4.1 km in WE direction ( 7.6 M x 2.3 M)  
Total relief: 3100 to 2025 m              Least depth: about 2025 m  
Characterized by 5 (five) local elevations at the feature

Associated features :

Elongated seamount in SSE - NNW direction.

relief: From the surrounding seafloor of about 3100 m in the South and 2700 m in the North to the maximum elevation of about 2025 m bsl.

5 (five) local elevations at the feature, the highest and largest in the North with an elevation of about 2025 m bsl. Elevation is 1000 to 800 m above the surrounding seafloor.

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) : Walter Kertz

The professional domain of this person: Geophysics

Association: to professional work: Walter Kertz contributed to our understanding of the atmospheric tides. In the field of geomagnetism he developed a method to separate the internal and external contribution for the geomagnetic field; his "Kertz-operator" is still used today. Kertz was one of the driving scientists in studies related to electromagnetic deep sounding and magnetotellurics. His interests covered polar and marine research, geothermal and marine magnetic problems.

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 geophysics.

Short biography of person (at September 1999):

Walter Kertz 1924 born in Remscheid, Germany (29 February 1924), 1997 died in Braunschweig, Germany (8 September 1997)

Univ.-Prof. Dr. rer. nat. Dipl.-Math. Walter Kertz

August 2, 1950: Graduation as Dr. rer. nat at the University of Göttingen with a thesis „Über den Einfluß der amerikanischen Kettengebirge auf die Gezeitenschwingungen der Atmosphäre“; PhD advisor: Prof. Dr. Julius Bartels

January 1950: Marriage with Ruth Friedrichs

1950 – 1958: Wiss. Assistent (equivalent to Ass.Prof.) at the University of Göttingen

Summer 1956: Visiting scientist at the Dept. of Meteorology and Oceanography of the New York University

February 3, 1958: Habilitation for Geophysics and Meteorology

1959/1960: Visiting professor at the Dept. of Meteorology and Oceanography of the New York University from October 1959 until July 1960

1960: Appointment as a Full Professor for Geophysics and Meteorology and as the Director of the newly created Institute of Geophysics and Meteorology of the Technical University of Braunschweig on December 1; retired September 30, 1991

1964: the vacant chair of Geophysics was offered to Walter Kertz after the death of Prof. Julius Bartels; Walter Kertz decided to stay in Braunschweig

1976 – 1982: Member of the Senat of the Deutsche Forschungsgemeinschaft

1980: First President of the Alfred-Wegener-Foundation

1991: Dr. h.c. of the University of Bremen to honor his scientific achievements and the crucial role he played in creating the Department of Geo-sciences there

September 8, 1997: Walter Kertz died in Braunschweig

#### Scientific activities:

Walter Kertz made important contributions to understand the atmospheric tides. In the field of geomagnetism he also developed a method for the separation of the internal and external contribution for the geomagnetic field represented in Cartesian coordinates; the Kertz-operator is still used today.

At the Technical University of Braunschweig Walter Kertz started a group developing magnetometer instruments for spacecraft and rockets; the major project in this period was the German Helios double probe mission to explore the Sun, where Walter Kertz and his group provided.

Walter Kertz was also one of the driving scientists in studies related to electromagnetic deep sounding and magnetotellurics.

His research interests also covered geothermal and marine magnetic problems.

#### Teaching activities:

In 1969 and 1971 his two books “Introduction to Geophysics” were published, text books known to every geophysics student in Germany still today.

#### Science policy activities:

Between 1964 and 1990 Walter Kertz was very involved in German science policy; he was the first president of the Alfred-Wegener-Foundation; his activities were crucial in creating the Alfred-Wegener-Institute for Polar and Marine Research (AWI) as well as in founding the Department of Geoscience at the University of Bremen with all its outstanding research in marine geology and geophysics;

#### History of Science:

Over all his professional life time Walter Kertz was very interested in the history of science and geophysics; his books “History of Geophysics” and “Biographies to the History of Geophysics” were published posthumous 1999 and 2003.

---

#### 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.) :

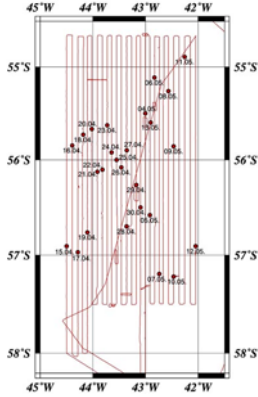
geophysics: magnetics (ship-born; partially plus helicopter-born magnetics), gravity; oceanography: XBT, CTD; geology: cores

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.

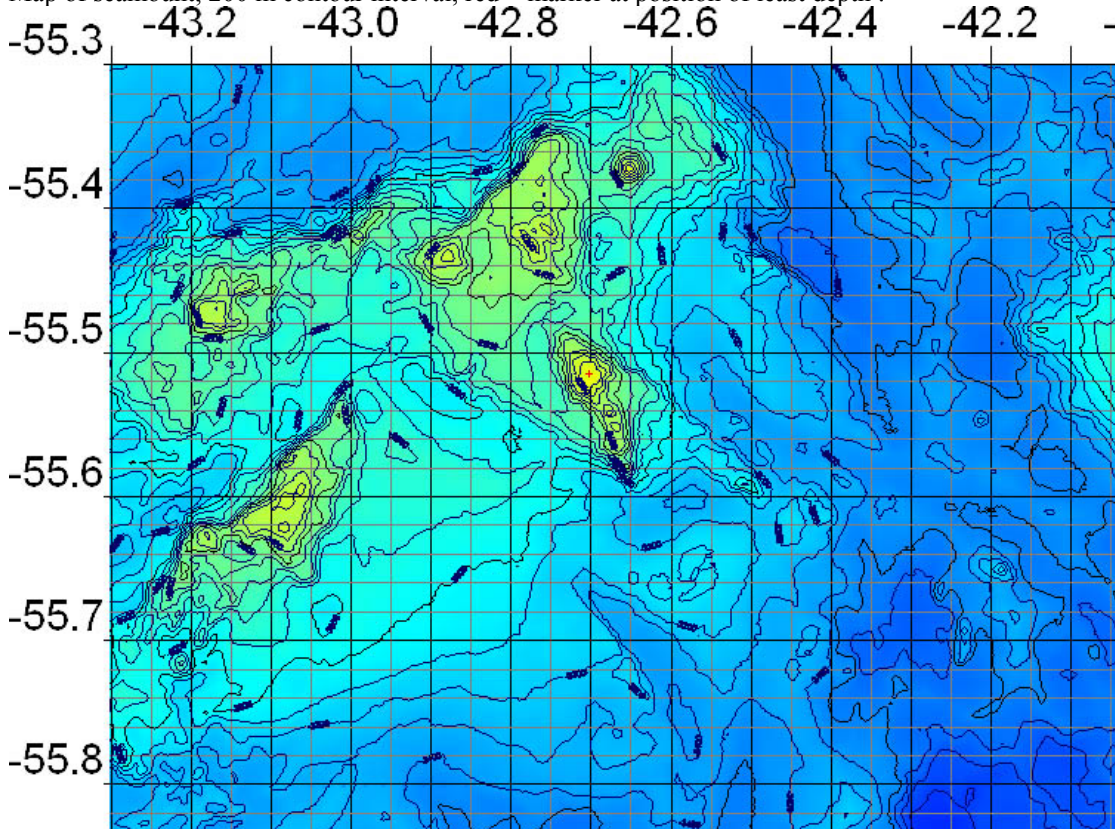
Report about the Antarctic expedition ANT XXII/4 of the research vessel "Polarstern" in 2005 will be published soon; Berichte zur Polarforschung / Reports on Polar Research, Bremerhaven, 2006.

Track plot (also separate files, file names: ANTXXII-4-Kursplot.jpg, ANTXXII-4-Profile.jpg):

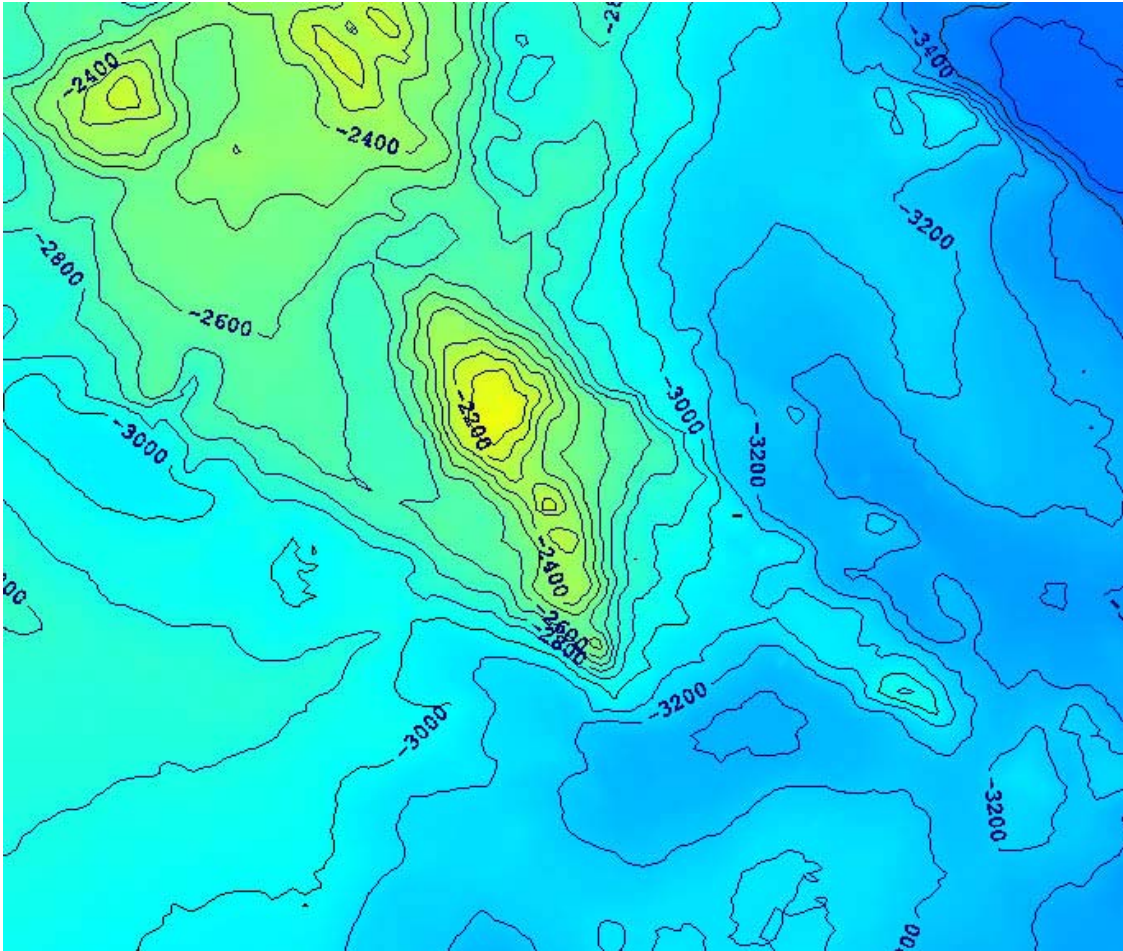


Maps etc. are produced from a DTM of about 300 m grid distance by Surfer and/or Fledermaus software (Golden Software; IVS)); higher resolutions and interpolation (e.g. Delaunay triangulation of swath data) will be processed by AWI soon.

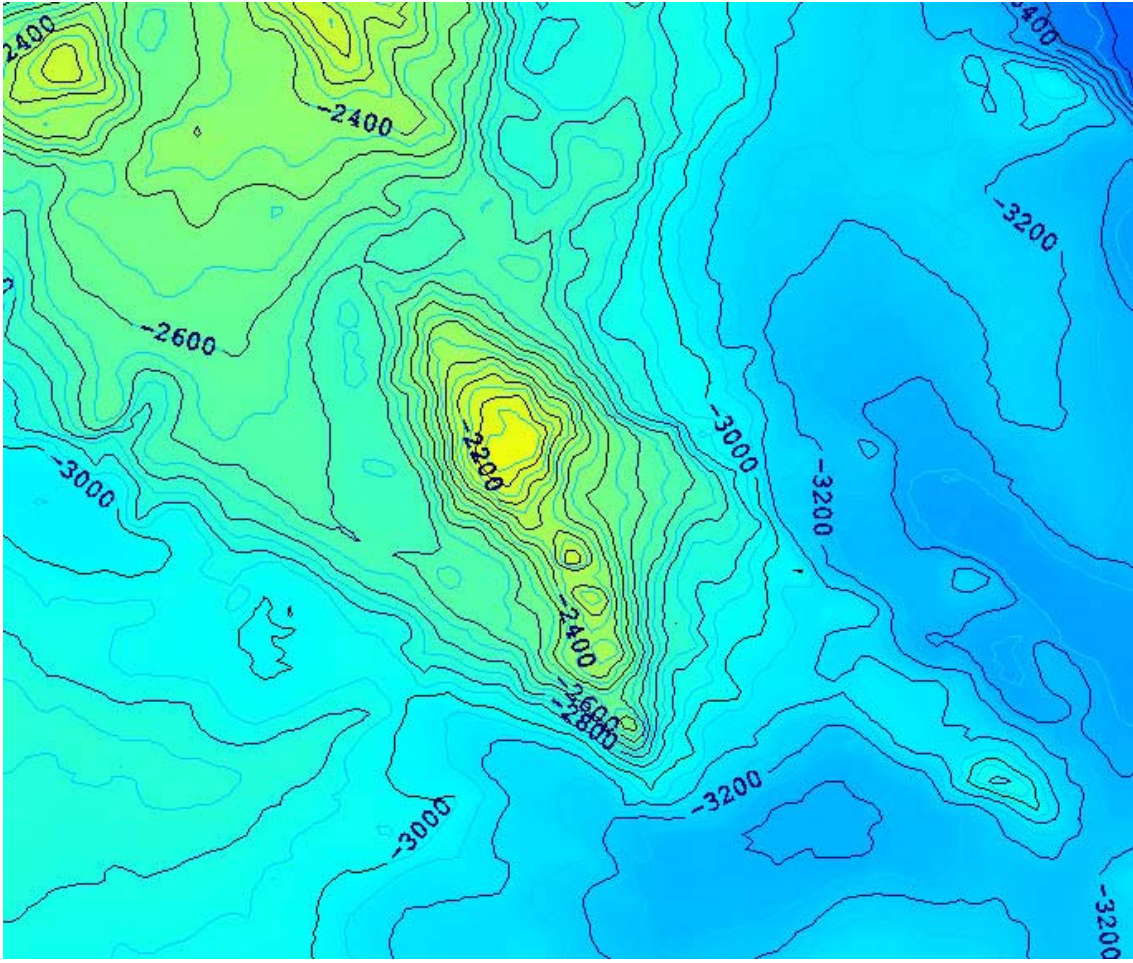
Map of seamount; 200 m contour interval, red + marker at position of least depth :



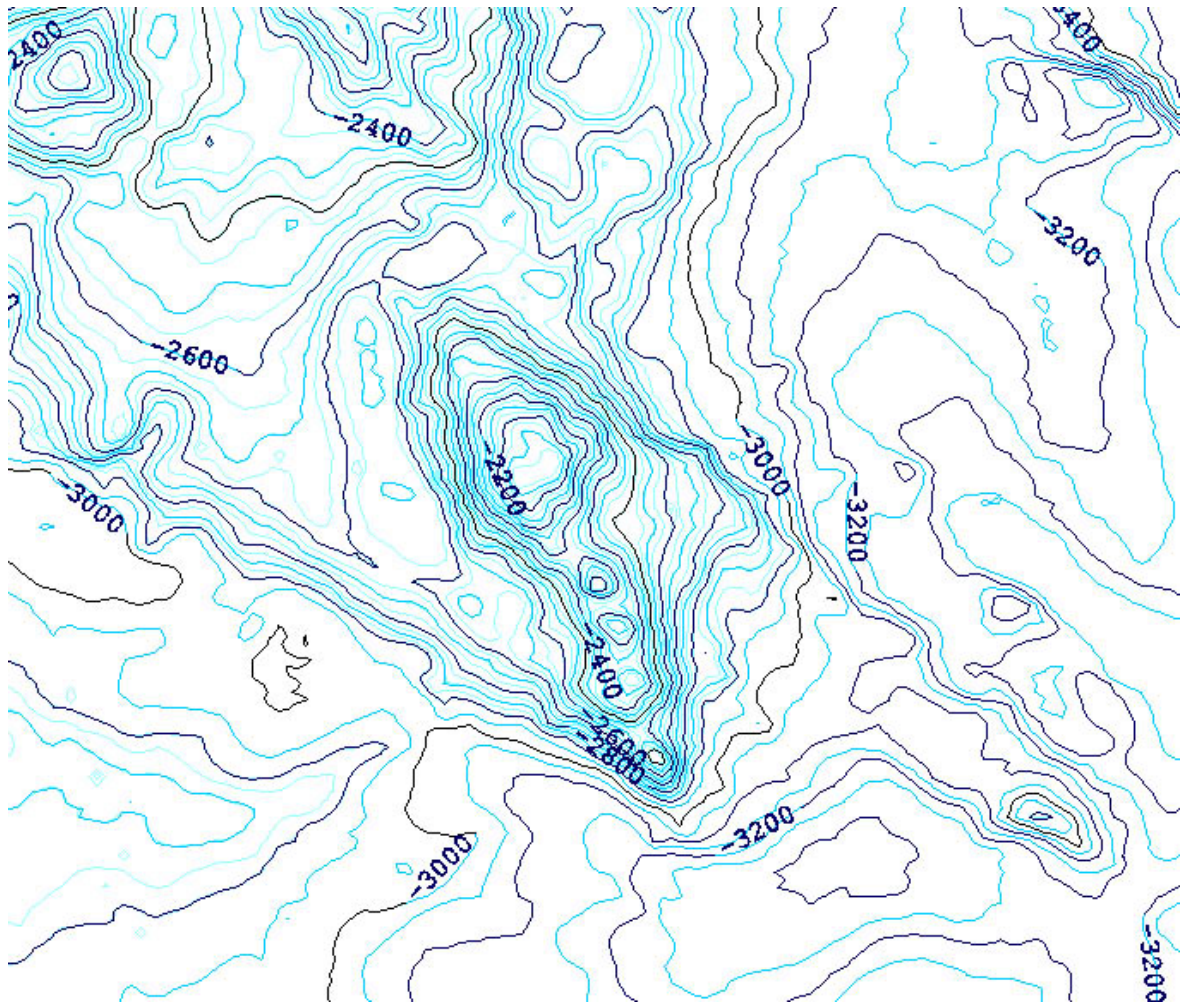
Map of seamount; 100 m contour interval:



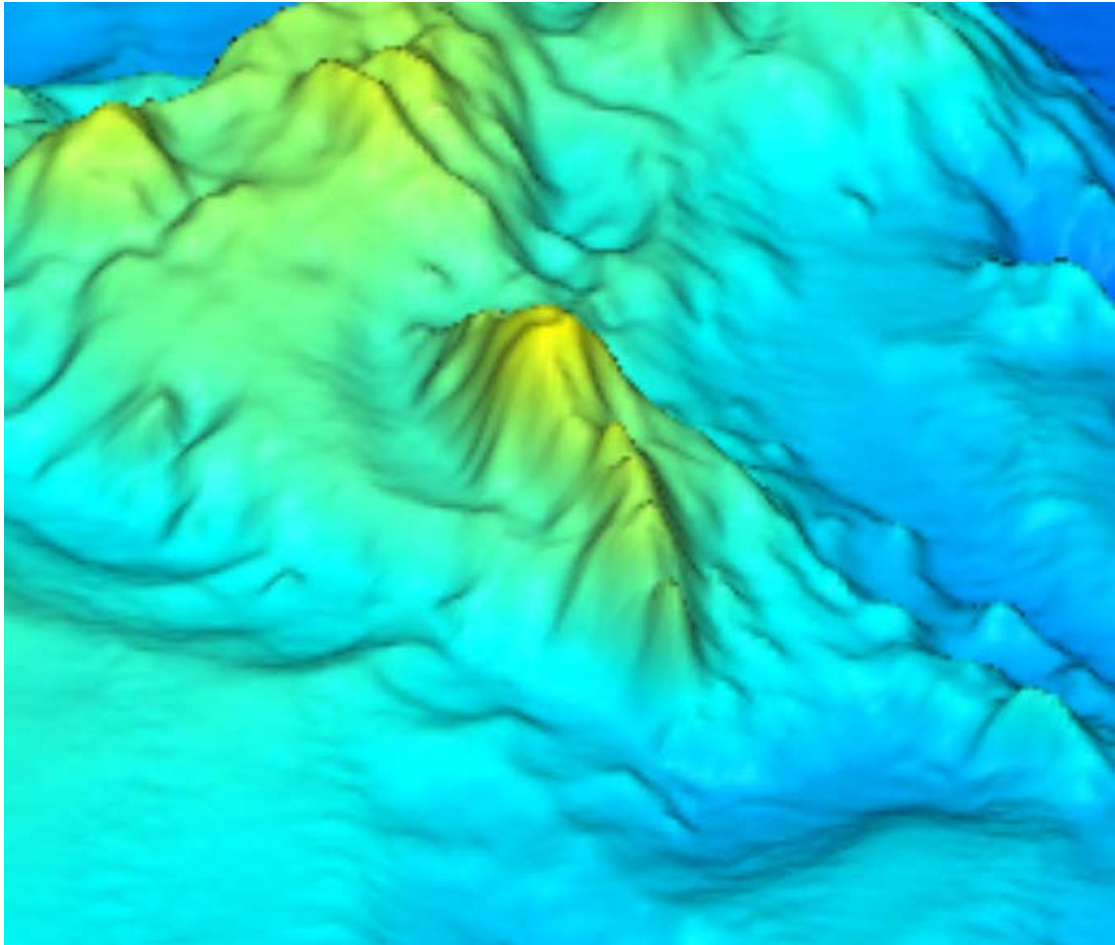
Map of seamount; 50 m contour interval:



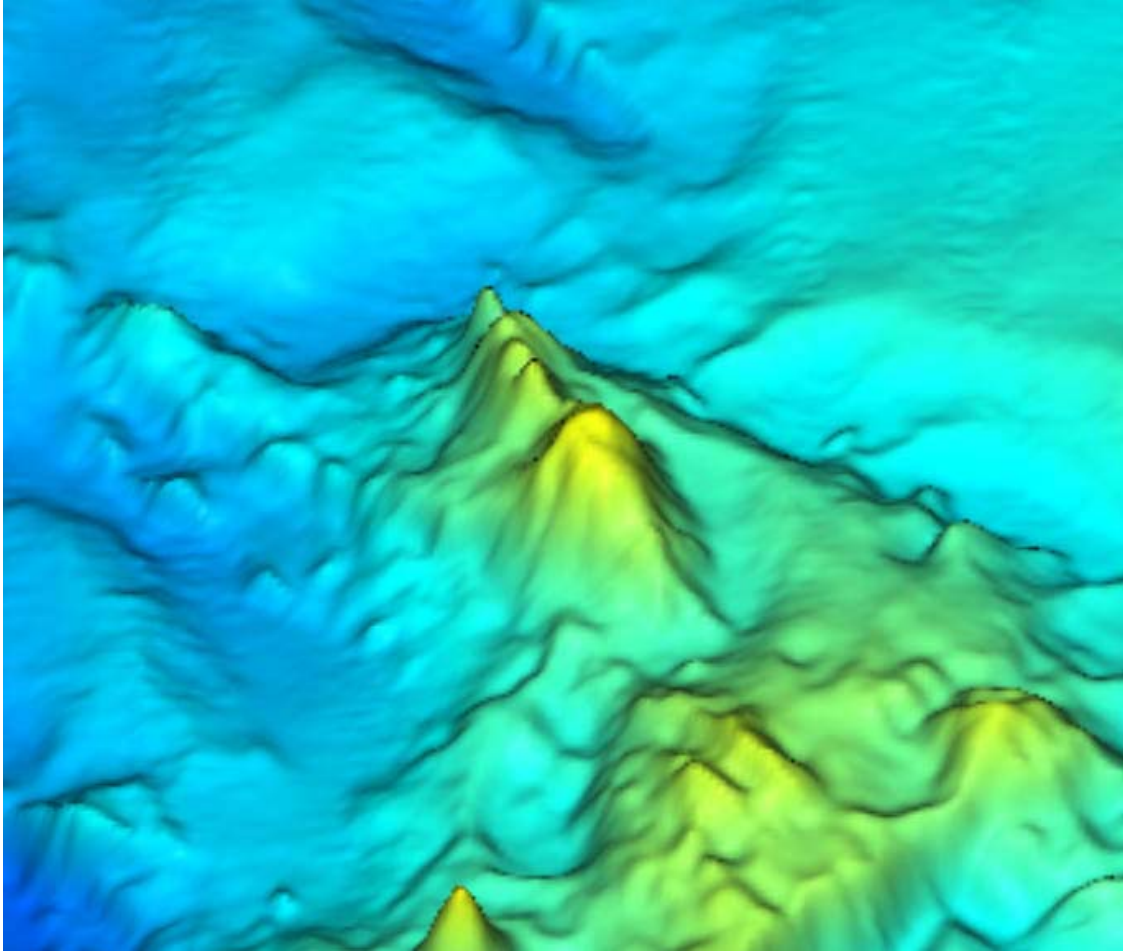
Map of seamount; 25 m contour interval:



3D perspective view from South, vertical exaggeration, illumination from South:



3D perspective view from North, vertical exaggeration, illumination from North:



Submitted by : Dr. Heinrich Hinze

Date : 9 May 2006

Address : AWI, Van Ronzelen Str. 2, D-27568 Bremerhaven, Germany

Concurred in by (if applicable) :

---

Address :

---

National Authority (if any) : Alfred Wegener Institute for Polar and Marine Research (AWI)

Address : AWI, D - 27515 Bremerhaven, Germany

---

**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 1<sup>er</sup>  
B.P. 445  
MC 98011 MONACO CEDEX  
Principality of MONACO  
Fax: +377 93 10 81 40  
E-mail: [info@ihb.mc](mailto: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](mailto:info@unesco.org)

---