

UNDERSEA FEATURE NAME PROPOSAL

(See NOTE overleaf)

Ocean or Sea: Scotia Sea

Name proposed: Kant Knoll

Coordinates : **A** - of midpoint or summit : Lat. 55°51'54" S , Long. 42°23'26" W

_____ kilometres in _____ direction from _____

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

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

Description (kind of feature) : Koll

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

Shape: circular shaped Dimensions: 8 km diameter (4.3 M)
Total relief: 3900 to 3100 m Least depth: 3080 m

Associated features :

Surrounding moat.

Shape: circular /oval shape of feature, diameter between 7.4 and 8.6 km (4.0 and 4.6 M)

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) : Immanuel Kant

The professional domain of this person: Philosophy, but also physics and geography

Association: to professional work: Kant was a philosopher, influenced by new mathematical physics and enlightenment; he taught geography, physics etc. at the university in Königsberg.

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 philosophic thinking, metaphysics and practical and applied physics.

Short biography of person:

Immanuel Kant (22 April 1724 – 12 February 1804),

was a German philosopher from Königsberg (now Kaliningrad) in East Prussia. He is regarded as one of the most influential thinkers of modern Europe and the last major philosopher of the Enlightenment.

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Kant enrolled in the University of Königsberg in 1740, at the age of 16. He studied the philosophy of Leibniz and Wolff under M. Knutsen, a rationalist who was also familiar with the developments of British philosophy and science and who introduced Kant to the new mathematical physics of Isaac Newton.

Lectures on "Physial Geography" by Kant, continuously from the start of his professorship in 1755 until the end of his teaching in summer 1796; lectures were driven by Kant's own "dictatis" and not by a printed manual. Later, two volumes were edited in 1802: "Immanuel Kant's / physische Geographie."
Immanuel Kant researched in philosophy and metaphysics, but he teached geography, physics etc. at the university in Königsberg too.

Quotations by Kant concerning geography: "It is not anything, which cultivates and forms the trained understanding more, as geography." - "Geography is the mother of the sciences!"

Kant wrote numerous philosophy publications, connected to natural sciences and mathematics is one important: The "Metaphysische Anfangsgründe der Naturwissenschaft" in 1786 (Metaphysical Foundations of Natural Science)

Reference inter alia:

http://en.wikipedia.org/wiki/Immanuel_Kant

<http://www.bbaw.de/forschung/kant/geo/info.htm>

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

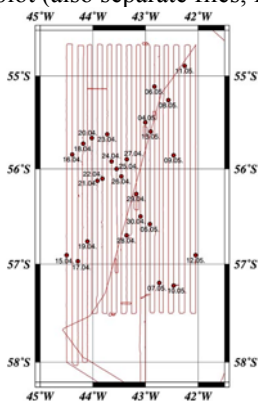
Nature and repository of other survey activities (dredge samples, cores, magnetics, gravity, photographs, etc.) :
geophysics: magnetics (ship-born; partially plus helicopter-born magnetics), gravity; oceanography: XBT, CTD;
geology: cores

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.

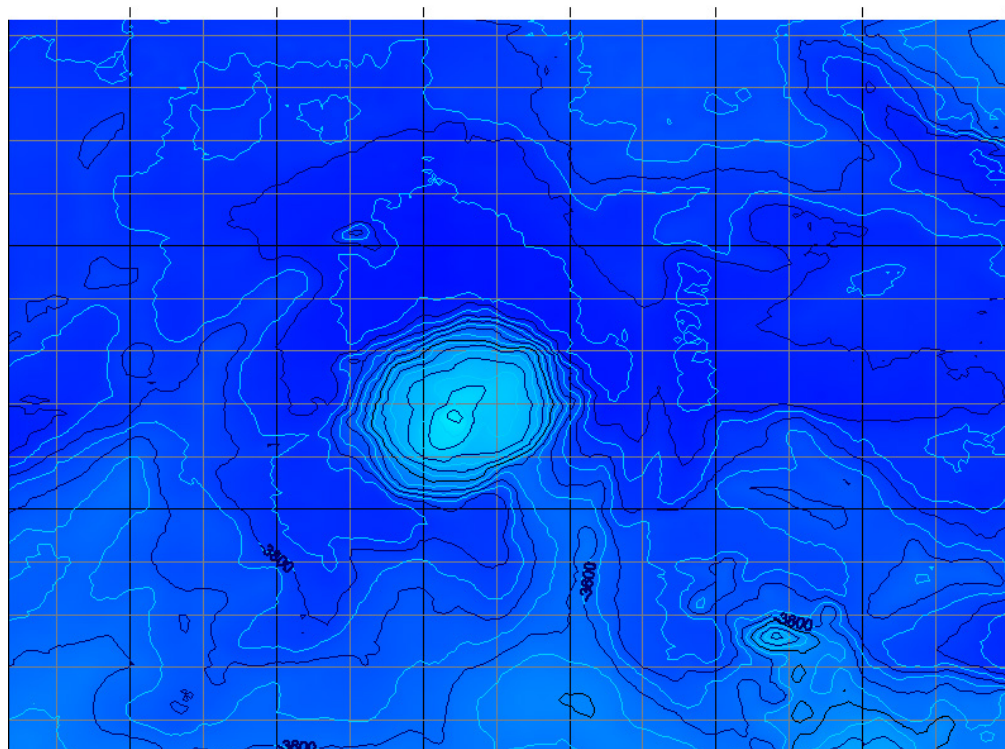
Track plot (also separate files, file names: ANTXXII-4-Kursplot.jpg, ANTXXII-4-Profile.jpg):



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 feature; 50 m contour interval:

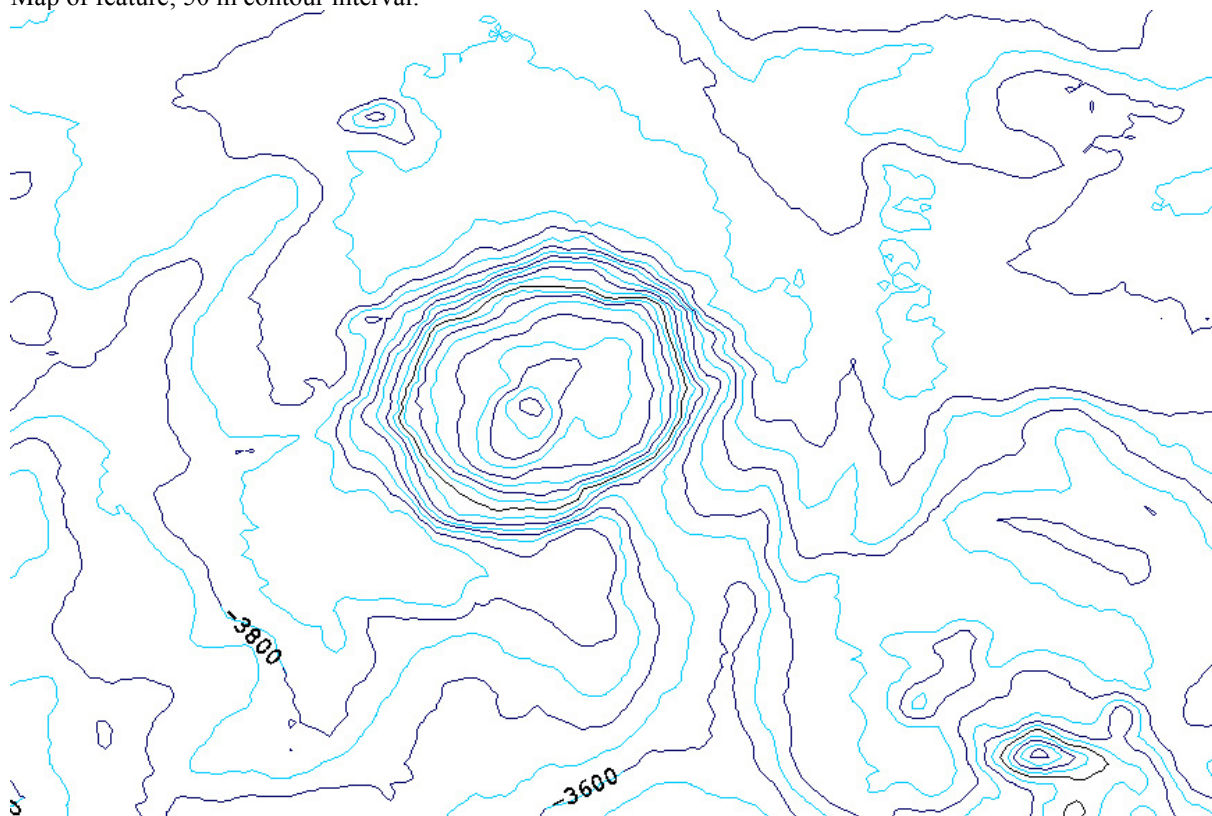
-42.8 -42.6 -42.4



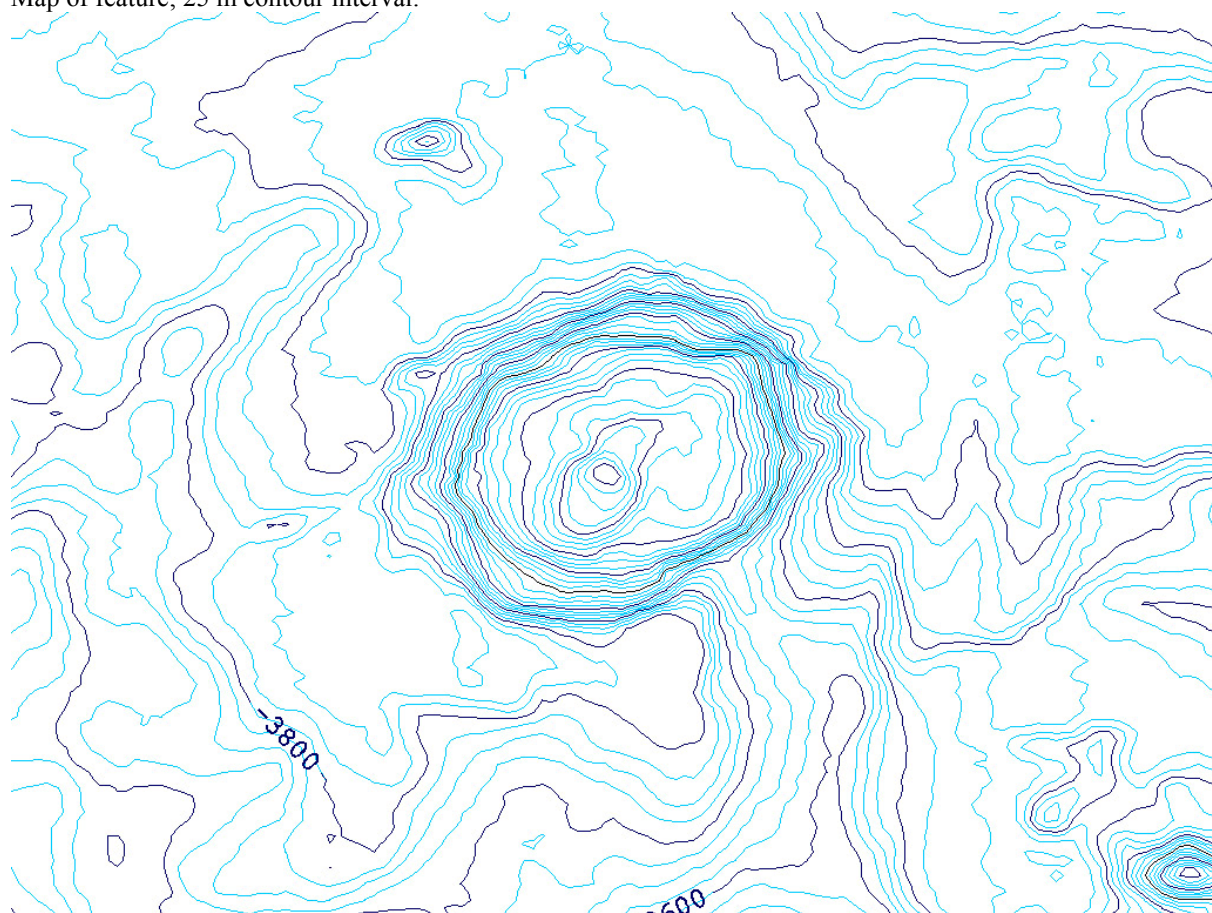
-54.7

-54.8

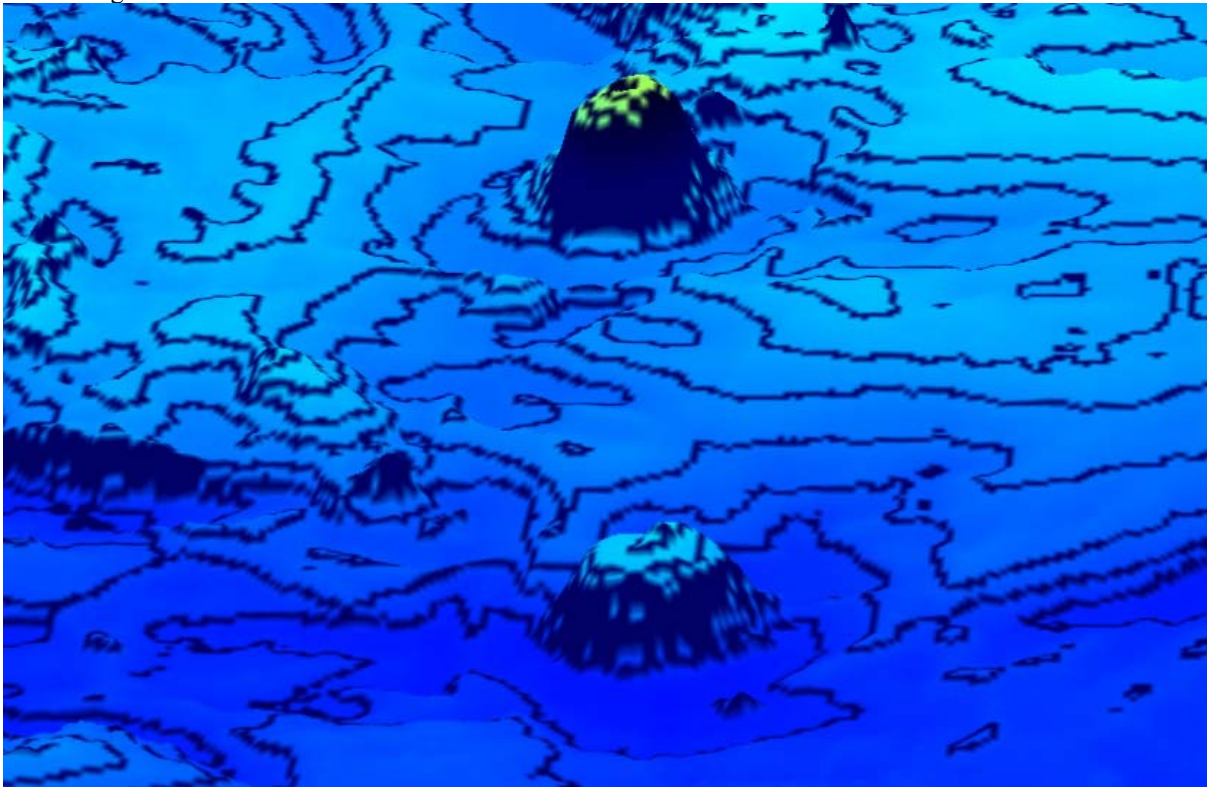
Map of feature; 50 m contour interval:



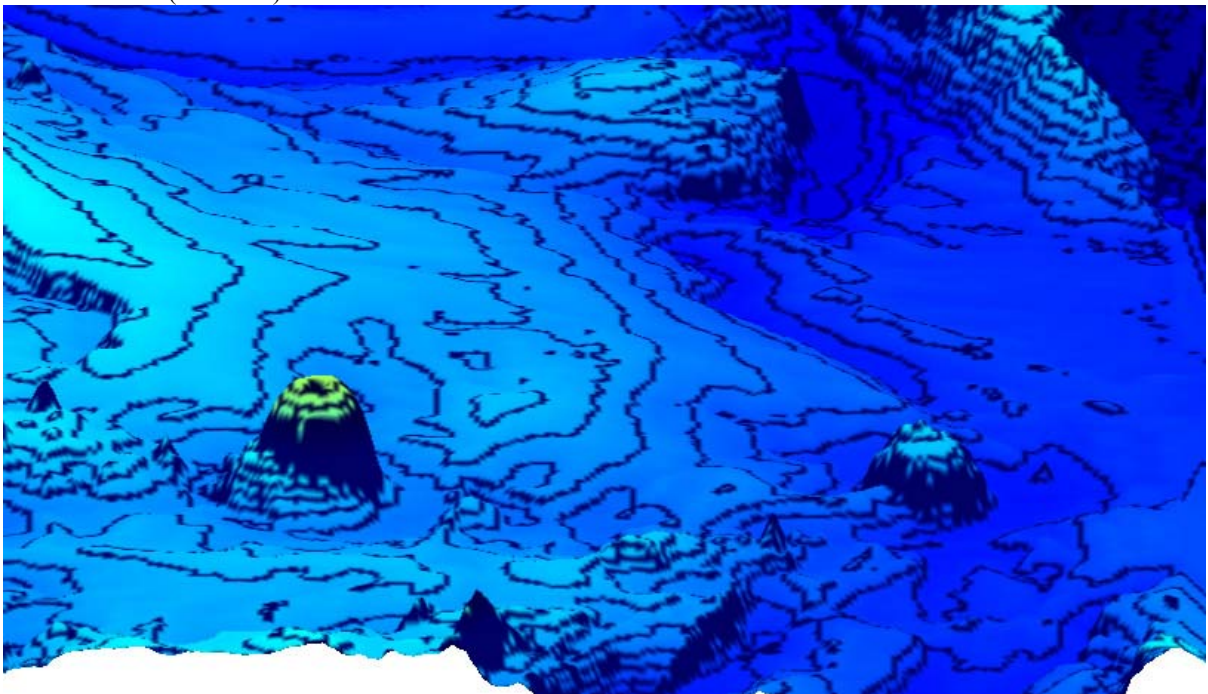
Map of feature; 25 m contour interval:



3D perspective view from North, vertical exaggeration, knoll feature is in the foreground, seamount is in the background:



3D perspective view from East, vertical exaggeration, knoll feature is at the right (Northern) side, seamount is at the left (Southern) side:



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^{er}
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
