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INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO) **INTERNATIONAL HYDROGRAPHIC ORGANIZATION**





Seventeenth meeting of the GEBGO Sub-Committee on Undersea Feature Names (SCUFN)

The Head Department of Navigation and Oceanography (HDNO) of the Russian Federation Ministry of Defense St. Petersburg, Russia 8-11 June 2004

SUMMARY REPORT

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Notes: A list of actions arising from this meeting is in Annex 3.

A list of acronyms, used in this report, is in Annex 4.

An alphabetical index of all undersea feature names appearing in this report is in Annex 5.

1. INTRODUCTION – APPROVAL OF AGENDA

The seventeenth meeting of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN) met at The Head Department of Navigation and Oceanography (HDNO) of the Russian Federation of Defense in St. Petersburg, Russia under the Chairmanship of Dr. Hans Werner Schenke, Alfred Wegener Institute (AWI), Germany. Dr. Schenke opened the meeting by thanking the HDNO for their hospitality and expressing his appreciation for the beauty of St. Petersburg during the 'white nights'.

Admiral Anatoliy A. Komaritsyn, Head Department of Navigation and Oceanography of the Russian Federation welcomed the meeting participants and gave a brief history of Russian ocean exploration.

Attendees included SCUFN members Dr. Galina V. Agapova (Geological Institute of the Russian Academy of Sciences, Russia), Ing. en chef Michel Huet, secretary (IHB, Monaco), Ms. Lisa A. Taylor (NGDC, USA), Captain Vadim Sobolev (HDNO, Russian Federation), Mr. Norman Z. Cherkis (Five Oceans Consultants, USA) and Dr. Yasuhiko Ohara (Hydrographic and Oceanographic Department of Japan) as an unofficial new member.

Invited guests and advisors included Mr. Dimitri Travin (IOC), Lic. José Luis Frias Salazar (INEGI, Mexico), Mr. Trent Palmer (USBGN, USA), Dr. Gleb Udintsev (Geological Institute of the Russian Academy of Sciences, Russian Federation), Dr. Turko Nataliya (Geological Institute of the Russian Academy of Sciences, Russian Federation), Dr. German Naryshkin (Russia Research Institute of the World Ocean Geology and Mineral Resources, Russian Federation), and Dr. Smirnov V.G. (HDNO, Russian Federation). *A list of participants is in Annex 1*.

Ms. Lisa A. Taylor agreed to serve as rapporteur for the meeting.

The draft agenda was approved with the following clarifications and changes:

- SCUFN Membership to be addressed first to clarify membership and voting rights.
- Item "Proposals on record or submitted during intersessional period" to include:
 - o 4 proposals from R. Whitmarsh, UK
 - o 16 proposals from G. Agapova, Russian Federation
 - o 38 proposals from HDNO, Russian Federation
 - o 1 proposal from Y. Kristoffersen, Norway
 - 2 proposals from J. Hatzky, Germany
 - o 2 proposal from T. Hartmann, Germany
- The web-based interface issue, under item "Gazetteer of Undersea Feature Feature Names", was clarified.
- Item "Any Other Business" to include discussion on SCUFN Terms of Reference.

The approved agenda is in Annex 2.

2. SCUFN MEMBERSHIP

The chairman welcomed Dr. Yasunhiko Ohara of Japan as a new unofficial member of SCUFN. It was noted that Dr. Ohara would have no voting privileges until the GEBCO Guiding Committee officially approves his appointment. It was agreed that the chairman would ask the GEBCO Guiding Committee to consider the approval of Dr. Ohara as full SCUFN member by correspondence before the next GEBCO Guiding Committee meeting (ACTION: Chairman). The chairman expressed appreciation for the participation of Mr. Trent Palmer, representing ACUF.

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The chairman reviewed the full membership of SCUFN. Five out of eight members were present at the meeting, representing a good turnout. Mr. Walter Reynoso Peralta from Argentina was not able to attend this meeting due to travel difficulties. The meeting was informed that membership of Mr. Jesus Dias, Colombia, had been withdrawn. The Secretary (Michel Huet, IHB) was tasked to seek a replacement within IHO. (ACTION: Secretary)

The meeting then discussed filling the remaining vacant position. This included whether the member should come from IOC or IHB, which regions were currently underrepresented on the sub-committee, attracting members from academia, the potential for attracting members from the NIPPON Education Program and the importance of approving a member who is committed to actively contributing to the work of the sub-committee.

3. MATTERS REMAINING FROM PREVIOUS MEETINGS

3.1 From SCUFN-XVI (Monaco, April 2003)

Ref: Doc. IOC-IHO/GEBCO SCUFN-XVI/3

3.1.1 Southwest Pacific region

• Paragraph 2.1.1 – An alternate name for Sub-Antarctic Escarpment located at 51°30'S, 176°30'E to 56°00'S, 167°00'E, considered inelegant and inaccurate by SCUFN, was discussed at SCUFN XIII. The name Antipodes Escarpment was suggested by SCUFN for this feature. Letters were sent to Dr. Ian Wright, NIWA and Falconer, NIWA, New Zealand on 16/06/03 with follow-up emails on 3/11/03 requesting concurrence with the proposed alternate name. Dr Lionel CARTER, National Institute of Water and Atmospheric Research (NIWA), New Zealand, proposed Campbell Scarp for the feature by letter to SCUFN on 2/07/03. Name Origin: The escarpment clearly defines the eastern margin of the Campbell Plateau.

STATUS: Accepted as Campbell Escarpment. Action completed.

• Paragraph 2.1.1 – Joseph Gilbert Seamount: Letters were sent to Dr. Ian Wright, NIWA and Falconer, NIWA, New Zealand on 16/06/03 with follow-up emails on 3/11/03 requesting concurrence with the proposed name. Dr Lionel CARTER, National Institute of Water and Atmospheric Research (NIWA), New Zealand, concurred with the proposed name by letter to SCUFN on 2/07/03.

STATUS: Accepted as **Joseph Gilbert Seamount.** Action completed.

3.1.2 Southeast Indian region

• Paragraph 2.1.3 – Proposed names solicited from James Cochran, L-DEO, for six "fractures zones" on the Southeast Indian Ridge, west of southwest Australia. The secretary has had no response from James Cochran so far.

<u>ACTION</u>: Chairman to contact Australian scientists, e.g. at the SCOR meeting in July 04, about proposing names for the features. N. Cherkis to contact James Cochran and Peter Hill of CSIO. <u>STATUS</u>: Pending.

3.1.3 Southeast Pacific region

- **Paragraph 2.3.2** –Awaiting additional information from SHOA (Chilean HO) for a number of proposed names to be shown on IBCSEP sheets.
- 1 **Arauco Basin**: Originally proposed at SCUFN-XV with only rudimentary sketches. Chilean HO (SHOA) contacted on 19/12/03. Still awaiting bathymetric evidence of the feature from SHOA. Capt. Gorziglia, IHB Director, has indicated the following: Name Origin Named after the nearby Golfo de Arauco. Araucanos lived in the Arauco region where they resisted the Spanish conquerers for four centuries.

STATUS: Placed in reserve section of gazetteer, pending bathymetric evidence.

.2 **Aconcagua Canyon**: Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after the Aconcagua River*.

ACTION: Secretary to correct spelling in gazetteer (was included as Acongagua Canyon).

STATUS: Accepted at SCUFN-XVI. Action completed.

.3 **Biobio Canyon:** Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin – Named after the Biobio River*.

STATUS: Accepted at SCUFN-XVI. Action completed.

.4 **Chiloé Basin:** Contacted SHOA on 19/12/03 for bathymetric evidence and name origin. Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after its proximity to Chiloé Island and the mayor of the Chiloé Archipelago*.

STATUS: Put in reserve section of gazetteer pending more bathymetric evidence.

.5 **Guafo Fracture Zone:** Contacted SHOA on 19/12/03 to request two additional positions for the feature and name origin. Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after its proximity to the nearby Guafo Island*.

STATUS: Placed in reserve section of gazetteer pending additional positions.

.6 **La Ligua Canyon:** Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after the Ligua River*.

STATUS: Accepted at SCUFN-XVI. Action completed.

.7 **Mocha Fracture Zone:** Contacted SHOA on 19/12/03 to request two additional positions for the feature and name origin. Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after the nearby Mocha Island*.

STATUS: Placed in reserve section of gazetteer pending additional positions.

Naldivia Basin: Contacted SHOA on 19/12/03 to request additional bathymetry and name origin for the feature. Capt. Gorziglia, IHB Director, has indicated the following: Name Origin - Named after the nearby Valdivia River.

STATUS: Placed in reserve section of gazetteer pending more bathymetric evidence.

9 **Valdivia Fracture Zone:** Contacted SHOA on 19/12/03 to request two additional coordinates and name origin for the feature. Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after the Spanish conquistador and nearby Valdivia River*.

<u>STATUS</u>: Placed in reserve section of gazetteer pending two additional coordinates.

.10 **Valparaiso Basin:** Contacted SHOA on 19/12/03 for more bathymetric evidence and name origin for the feature. Capt. Gorziglia, IHB Director, has indicated the following: *Name Origin - Named after the nearby Valparaiso city and port.*

STATUS: Placed in reserve section of gazetteer pending more bathymetric evidence.

3.1.4 Western Indian region

• **Paragraph 4.2.1** – The following eleven names, taken from the 1986 bathymetric map by Vanney *et al* (1986), were approved for inclusion in the Gazetteer. These names are to appear on IBCWIO Sheet 1.10. Name origins and additional coordinates needed.

Antandroy Seamount; Conducia Canyon; Grandidier Seamount; Macua Seamount; Memba Canyon; Mocalengia Canyon; Mocambo Canyon; Nacala Canyon; Pemba Canyon; Sakalave Seamount; and Sangage Canyon.

Dr. W. Bettac (Chairman IBCWIO) and Dr. J.R. Vanney contacted 10/12/03 for additional coordinates with no response.

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<u>ACTION</u>: Secretary to again contact Dr. J.R. Vanney for name origins; Chairman to contact Dr. W. Bettac for additional coordinates.

STATUS: Accepted at SCUFN-XVI.

3.1.5 Gulf of Mexico region

- **Paragraph 4.4.2** Group of names submitted for IBCCA sheets 1.01, 1.02, 1.03, 1.05, 1.06 and 1.11
- .1 **Chorreras Canyon:** To appear on IBCCA sheet 1.01. Name origin needed.

ACTION: J.L. Frias and L.A. Taylor to investigate the name origin.

STATUS: Accepted at SCUFN-XVI.

- .2 **Chubasco Bank** (15°33'N 94°40'W). This name was suggested by Dr. Robert L. Fisher at SCUFN-XVI. To appear on IBCCA sheet 1.05. *Name Origin Named after the typical strong storms originating in this region.Proposer Dr. R.L. Fisher, SIO, USA (April 2003).* STATUS: Accepted. Action completed.
- 3.3 **Sigsbee Abyssal Plain:** To appear on IBCCA sheet 1.02. Provisionally accepted at SCUFN-XVI as the deepest flat sector of the **Sigsbee Deep** pending detailed coordinates. The 3700 meter contour roughly delineates the deepest flat portion of the Sigsbee Deep. Detailed coordinates for the feature were provided by L. Taylor: 25°31'N, 94°51'W; 22°39'N, 94°41'W; 22°47'N, 91°27'W; 24°05'N, 89°41'W; 24°56'N, 90°26'W.

STATUS: Accepted. Action completed.

4 **Swan Trough:** Accepted at SCUFN-XVI with need for two additional coordinates. Detailed coordinates for the feature were provided by L.A. Taylor: 16°39'N, 86°27'W; 16°45'N, 86°12'W; 17°00'N, 85°36'W.

STATUS: Accepted at SCUFN-XVI. Action completed.

.5 **Tehuantepec Fracture Zone:** Position revised to 14°45'N, 95°20'W; 10°20'N, 100°30'W at SCUFN-XVI. The then chairman (Dr. R.L. Fisher) questioned the existence of this feature and recommended that magnetic patterns be checked.

<u>ACTION</u>: L. Taylor and N. Cherkis to check for magnetic data, altimetry data and ETOPO2 data. J.L. Frias to provide information on origin of name.

STATUS: Placed in reserve section pending analysis of magnetic data.

.6 **West Cayman Rise:** Accepted at SCUFN-XVI with need for additional coordinates. Detailed coordinates for the feature were provided by L. Taylor: 17°43'N, 86°20'; 18°37'N, 84°05'W; 19°06'N, 82°29'W

STATUS: Accepted at SCUFN-XVI. Action completed.

3.1.6 Southern Ocean region

• **Paragraph 3.4.1 - Drygalski Seamounts:** Accepted at SCUFN-XVI. Consultation with the proposer, G. Udintsev resulted in revised positions for the two seamounts. The larger seamount to the south has a minimum depth of 1046 m with a location of 59°53.3'S, 35°59.8'W. The smaller seamount to the north has a minimum depth of 1250 m with a location of 59°49.3 S, 35°59.6 W.

STATUS: Accepted at SCUFN-XVI. Action completed.

3.1.7 South Eastern Atlantic region

• **Paragraph 2.1.1.** – **Echo Bank**: Originally proposed – and approved - at SCUFN-XIII. Name origin needed. Letter sent to O. Parvillers, SHOM, on 5/08/02. Reply received from S. Youssef on 20/08/03 through T. Palmer. *Name Origin - Taken from a 1958 GEBCO sheet, on which it was named "Banc de l'Echo"*.

STATUS: Accepted at SCUFN-XIII. Action completed.

• Paragraph 2.1.1. – Le Trou Sans Fond Canyon: Originally proposed – and approved - at SCUFN-XIII. Name origin needed.E-mail sent to Professor Vanney on 17/10/03 who indicated the following: Name Origin – Name taken from "Carte générale de la Coste de Guinée" compiled by Ing. Ordinaire J.N. Bellin (1746), reproduced in "Hydrographie Françoise" (1750). First used in the scientific litterature by J.Y. Buchanan, 1887 as "Bottomless Pit".

STATUS: Accepted at SCUFN-XIII. Action completed.

• **Paragraph 2.1.2**. – **Estêvão Gomes:** It was suggested, at SCUFN-XVI, that an appropriate feature be identified to commemorate Estêvão Gomes, an early Portuguese explorer, by the Portuguese HO or Professor Jean-René Vanney (Univ. of Paris-IV, France). E-mail was sent to Prof. Vanney on 17/10/03. Reply received 17/10/03.

STATUS: Kept in reserve section of the gazetteer pending completion of IBCEA 1.02.

3.1.8 Arctic region

• Paragraph 2.3.1 – Karasik Seamount: Proposed to SCUFN-XVI by Joern Thiede and Hans-Werner Schenke (hschenke@AWI-Bremerhaven.de), Alfred-Wegener-Institute and accepted. G. Agapova showed the sub-committee that the multibeam data submitted in support of the feature does not cross the top of the Karasik Seamount. The location given for the seamount (86°43.0'N, 61°17.6'E) appears to be on the slope of the Leninskiy Komsomol Seamount (86°40.5'N, 60°50.0'E). G. Agapova presented additional supporting material including echosounding data and bathymetry that sheds doubt on the existence of the feature. G. Agapova's supporting material does not represent the final product as it is preprocessed data. The chairman requested that the latest geomorphologically interpreted Russian contours from submarine and ice surveys be provided to the sub-committee with tracks, depths and a grid. This data will then be submitted to the proposers for their review.

<u>ACTION</u>: G. Agapova to supply new compilation to the secretary with grid, track control and depths. Secretary to then send this material to Joern Thiede.

<u>STATUS:</u> Accepted as Karasik Seamount at SCUFN-XVI. Placed in reserve section of the gazetteer until new data is reviewed by proposers.

• **Paragraph 3.1.1 – Shmakov Escarpment**: Accepted provisionally at SCUFN-XVI but a suggestion was made that "**Papanin**" could be a more appropriate name for this major feature. G. Agapova suggested that the name Shmakov Escarpment be retained and that the name Papanin be saved for another feature. This was agreed.

STATUS: Accepted as Shmakov Escarpment. Action completed.

• Paragraph 3.1.1 – Zhilinsky Spur: Accepted provisionally as a Spur (proposed as a Ridge) at SCUFN-XVI and put in reserve section of gazetteer pending additional bathymetric evidence. G. Agapova proposed that the feature is more accurately described by 'rise'. It extends 70 miles N-S with a minimum depth of 960 m. The feature is named as a rise on the Russian bathymetric maps.
<u>ACTION</u>: G. Agapova to provide additional bathymetric evidence for the feature.
<u>STATUS</u>: Kept in reserve section of the gazetteer as Zhilinsky Rise pending additional bathymetric

<u>STATUS:</u> Kept in reserve section of the gazetteer as **Zhilinsky Rise** pending additional bathymetric evidence.

- Paragraph 3.1.1 Naletov Ridge: Accepted provisionally at SCUFN-XVI pending more definitive information from Russian surveys to determine identification of the feature as a ridge, and its relationship to topographic highs identified by other organizations. Accepted by ACUF as Brass Ridge, chosen to honor Dr. Garrett Brass. Discussions took place regarding the appropriate generic term for the feature (ridge, seamount chain, fracture zone or seamounts). No consensus could be reached at the meeting. STATUS: Name to be held in reserve section with decision deferred until next year.
- Paragraph 3.1.4 Greenland-Spitsbergen Sill: Accepted provisionally at SCUFN-XVI and put in reserve section pending more bathymetric evidence. Dr. M. Klenke (AWI) was contacted by email on 22/12/03 with a request for more bathymetric evidence, which he provided. As a result, it was confirmed

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that this feature controls the flow and acts as a barrier to the transport of cold Arctic bottom water from the Amundsen Basin to the Greenland Abyssal Plain and thus was accepted as a sill.

<u>ACTION</u>: Secretary to ask Dr. Klenke for two additional positions for the feature. Secretary to change chart reference in gazetteer to GEBCO 5-17 from 5-18. T. Palmer to check when the feature was approved by ACUF.

STATUS: Accepted.

3.1.9 Review of ACUF Names Decisions and Policy Issues

Paragraph 5.2.3 - Group of names appearing on NIWA 1:1,000,000 chart, considered and approved by ACUF 294: Currituck Seamount, Hatherton Seamounts, Kaiwhata Bank, Lee Seamount, Scholl Deep and Pukaki Seachannel. Secretary contacted NIWA to obtain 1:1 million chart series on 12/22/03. ACTION: Secretary to examine NIWA charts.

STATUS: Placed in reserve section of gazetteer pending examination of NIWA charts.

3.2 From SCUFN-XV (Monaco, October 2002)

Ref: Doc. IOC-IHO/GEBCO SCUFN-XV/3

3.2.1 Southwest Pacific/ New Zealand region

• **Paragraph 2.1.1** – **Mahi Mahi Fracture Zone:** Further bathymetric evidence is still awaited from Dr. Mitchell Lyle, CGISS, Boise State University, who proposed this name in 1998. Feature name originated from ACUF. Secretary sent Dr. Lyle a letter requesting the bathymetric evidence on 17/10/03.

<u>ACTION</u>: Secretary and chairman to contact Dr. Lyle again to request bathymetric evidence. Trent Palmer to check if ACUF has bathymetric evidence for the feature in order to determine additional coordinates.

STATUS: Kept in reserve section of gazetteer pending bathymetric evidence and additional positions.

• Paragraph 2.1.1 – Moana Wave Ridge and Svendsen Ridge: Further bathymetric evidence is still awaited from Mr. Thomas J. Osborne, AT&T Submarine Systems, USA, who proposed these names in 1997, or from the University of Hawaii. Accepted by ACUF.

<u>ACTION</u>: Secretary of ACUF, Trent Palmer, to provide the Secretary with new bathymetric data collected by the NOAA Ship Ron Brown (Moana Wave Ridge) and with bathymetric data to define the feature (Svendsen Ridge).

<u>STATUS</u>: Kept in reserve section of gazetteer pending bathymetric evidence.

3.2.2 Southeast Atlantic region

• **Paragraph 2.1.2 – Tropic Seamount:** Received bathymetric information from SHOM indicating that the feature is a seamount and not a guyot, as originally proposed.

STATUS: Accepted as Tropic Seamount. Action completed.

4. PROPOSALS ON RECORD OR SUBMITTED DURING THE INTERSESSIONAL PERIOD

4.1. Proposals submitted by IBC Editorial Boards

There were no proposals submitted by IBC Editorial Boards.

4.2. Four (4) proposals from Robert Whitmarsh of the University of Southampton, UK, November 2003 – Indian Ocean

	Tropicbird	3°05.6' S		IBCWIO
.1	Orchid Knoll	56°14.7' E		1.05

Accepted as Tropicbird Orchid Hill.

Originally proposed as Laughton Knoll. SCUFN had considered that Sir Anthony Laughton, an eminent oceanographer and former Chairman of GEBCO, deserved a more significant feature. The proposer had then suggested "Tropicbird Orchid" as an alternate name. The elongated nature of the feature supports the generic term 'hill'. Minimum depth is 3275 m.

Named after the national flower of the Seychelles. The Tropicbird Orchid is indigenous to the country. It has fleshy leaves and a curving stem which produces white flowers five centimeters across and a long fifteen centimeter spur.

.2	Darwin Knoll	3°17.3'S		IBCWIO
		56°37.7'E		1.05

Accepted as Darwin Hill.

Minimum depth is 3550 m. Total relief is 450 m. The elongated nature of the feature supports the generic name of hill.

Named after the research ship RRS Charles Darwin which discovered the feature and indirectly after Charles Darwin the 19th Century scientist who discovered natural selection and evolution.

.3	Wallace Knoll	3°25.7'S		IBCWIO
		56°40.8'E		1.05

Accepted as Wallace Hill.

Minimum depth is 3475 m. Total relief is 400 m.

Named after the 19th Century scientist Alfred Russel Wallace who discovered natural selection and evolution at the same time as Charles Darwin. They gave papers together at the Linnean Society in 1858.

.4	Sharpeigh	3°33.8'S		IBCWIO
	Knoll	56°13.4'E		1.05

Accepted.

Minimum depth is 2800 m. Total relief is 700 m.

Named after Alexander Sharpeigh who made the first recorded discovery and landing in the Seychelles in 1609. He led an expedition sponsored by the East India Company as described in the Journal of John Jourdain.

4.3. Eight (8) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences, May 2004 – Arctic Ocean

.1	Admiralteystvo	73°52'N	77°43'N	GEBCO
	Rise	50°00'E	59°00'E	5.17

Accepted.

Note: Russian survey data was used for supporting contours. Track control and track density is not available. Contours are similar to those on the IBCAO sheet.

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Named after the nearby Admiralteystvo Peninsula. This is the Russian Spelling of 'Admiralty' which was the former name of the Russian navy.

.2	Admiralteystvo	73°50'N	75°35'N	GEBCO
	Trough	51°02'E	57°08'E	5.17

Accepted.

Total relief is 50 m. Maximum depth is 200 m.

Note: Russian survey data was used for supporting contours. Track control and track density is not available. Contours are similar to those on IBCAO sheet. Average spacing of soundings in this area is 5 km.

Named after the nearby Admiralteystvo Peninsula. This is the Russian Spelling of 'Admiralty' which was the former name of the Russian navy.

.3	Al'banov Bank	76°32'N	77°20'N	GEBCO
		61°02'E	67°10'E	5.17

Accepted.

Minimum depth is 68 m.

Named after Valerian I. Al'banov (1882-1919), navigator of the ship "Svyataya Anna" and leader of the expedition of G. Brusilov (1912-1914) in the Arctic. Al'banov and fourteen sailors left the drifting ship near 83°N-60°E and after three months reached Cape Flora. Al'banov kept documents of the missing ship.

.4	Hydrographers	86°38'N	86°00'N	GEBCO
	Rift Valley	57°30'E	77°00'E	5.17

Decision Postponed.

Rift valley of the central part of the Gakkel Mid-Oceanic Ridge. Length of valley is 95 miles. Width is 10-20 miles. Maximum depth is 5000 m.

<u>Discussion</u>: Should this small portion of the median valley be named independently? If so, are we opening up the possibility for every segment of the median valley to be named? Should the generic term 'median valley' continue to be included in the gazetteer? It was agreed that these issues would be discussed over the coming year.

Name proposed to commemorate the polar hydrographers.

.5	Kotsebu	70°00'N	67°40'N	GEBCO
	Trough	178°30'E	168°00'E	5.17

Not Accepted.

Not enough data was provided to support this feature. Trough length is 260 miles. Maximum width is 60 miles. Trough has a complex outline. Maximum depth is 55 m.

Name proposed for the Russian explorer Kotsebu O.E. (1788-1846), chief of the first Russian expedition in the eastern part of the Chukchi Sea and Aleutian Islands on the ship "Ryurik" (1815-1818). Kotsebu

participated in two Around the World expeditions: 1803-1806 on the ship "Nadezhda" and 1823-1826 on the ship "Predpriyatie".

.6	Litke Canyon	80°27'N	81°10'N	GEBCO
		09°49'E	10°12'E	5.17

Accepted as Litke Passage.

Named after the Russian explorer of the Arctic seas, Academician-Admiral F.P. Litke (1797-1882), founder of the Russian Geographical Society and participant in the round-the-world expedition led by V.M. Golovnin (1817-1819).

.7	Medvezhy	76°34'N	77°10'N	GEBCO
	Trough	62°00'E	68°07'E	5.17

Accepted.

Trough is located on the shelf. Length of trough is 70 miles. Width is 10 miles. Depth / relief is more than 200 m. Trough separates Al'banov Bank from Northern island of Novaya Zemlya.

Named for the nearby Cape Medvezhy.

.8	Sedov Rift	85°45'N	86°32'N	GEBCO
	Valley	18°30'E	41°00'E	5.17

Decision Postponed.

Discussion: Same as for the above "Hydrographers Rift Valley".

Name proposed for the Russian polar explorer G.Ya. Sedov (1877-1914), leader of the expedition to the North Pole on the ship "St.Foka" in 1912.

4.4. Three (3) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences, May 2004 – Antarctica / Southern Ocean

.1	Man Trough	66°30'S	65°40'S	GEBCO
		82°20'E	96°00'E	5.18

Not accepted.

<u>Note</u>: The bathymetric contours used as evidence for this feature are taken from a compilation by Leonard Johnson. New contours compiled by Dr. Robert Fisher and incorporated into the centenary edition of the GEBCO Digital Atlas do not show this feature at all. It is necessary to locate more data to determine the existence of this feature.

The Johnson contours show a length of 150 miles, a maximum width of 40 miles, and a maximum depth of 1440 m for the proposed feature. The proposed feature is located between Shackleton Ice Shelf and West Ice Shelf.

ACTION: G. Udintsev to supply additional bathymetric information to the Secretary.

STATUS: Placed in the reserve section of the gazetteer pending analysis of additional data.

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Name proposed for Captain Man I.A. (1903-1982), who led three Russian Antarctic expeditions on the occasion of the International Geophysical Year (1955-1958).

	Dubinin	68°15'N	66°20'N	GEBCO
.2	Trough	78°50'E	82°30'E	5.18

Accepted.

Length of trough is 140 miles. Maximum width is 60 miles. Maximum depth is 1400 m.

Trough has complex outlines and irregular bottom topography.

Named after Captain Dubinin .A. I. (1908-1963). Dubinin was in command of the Polar Research Vessels "Lena" (1956-1958) and "Ob" (1958-1961).

<u>Note</u>: The 3rd proposal was for **Lazarev Trough** (65°39'S, 129°15'E; 65°22'S, 134°00'E), which is already included in the GEBCO Gazetteer.

4.5. Five (5) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences, May 2004 - Pacific Ocean.

.1	Alba Guyot	16°57'N		GEBCO
		154°18'E		5.06
				INT 510

Accepted.

Minimum depth is 551 m. Total relief is over 5000 m.

The guyot is located in the central part of the Magellan Seamounts.

Named after Francisco Alba, a navigator and member of Magellan's expedition who kept an account of the expedition.

.2	Gagarin	1°20'N		GEBCO
	Seamount	154°10'W		5.07

Accepted.

Minimum depth is 1595 m. Total relief is 2905 m.

The feature is located near south-west end of the Clipperton Fracture Zone.

Note: Previously accepted by ACUF.

<u>ACTION</u>: T. Palmer to check position of feature in ACUF gazetteer, taking into account the new supporting data.

Named after the Russian cosmonaut, Yuri Gararin.

.3	Gelendzhik	12°15'N		GEBCO
	Guyot	156°21'E		5.06
	-			INT 510

Accepted.

Minimum depth is 1450 m. Total relief is more than 4000 m.

The guyot is located in the central part of the Magellan Seamounts.

Named after the Russian RV "Gelendhzik", which conducted a multibeam survey in 2002 in the central and southeast parts of the Magellan Mountains.

.4	Gramberg	13°56'N		GEBCO
	Guyot	157°35'E		5.06

Accepted.

Minimum depth is 1200 m. Total relief is more than 4500 m.

The guyot is located in the southeast part of the Magellan Seamounts.

<u>Note</u>: Not shown in the GEBCO Digital Atlas. It is shown in ETOPO2 and Smith and Sandwell predicted topography.

Named after academician S.I. Gramberg (1922-2002), who worked as director of VNII Oceangeologiya. He was a reknown Russian geologist, researcher of the Arctic Ocean and the editor of a number of geotectonic and bathymetric maps of the oceans.

.5	Pallada Guyot	15°41'N		GEBCO
		155°12'E		5.06

Accepted.

Minimum depth is 1350 m. Total Relief is more than 4000 m. The guyot is located in the central part of the Magellan Seamounts. G. Udinsev offered to provide more bathymetric data on this Guyot.

Named after the Russian frigate "Pallada" commanded by Captain I.S. Unkovsky, who surveyed this area during a scientific expedition in the Atlantic, Indian and Pacific oceans reaching the coast of Japan (1852-1855).

Also, it was agreed that an additional position for Magellan Seamounts was needed and that position of Fedorov Guyot was appropriate.

<u>ACTION</u>: Secretary to add position of Fedorov Guyot (14°07'N, 156°11'E) to the Magellan Seamounts

ACTION: G. Udintsev to provide more data to the Secretary to support Pallada Guyot.

4.6. Seven (7) proposals from the HDNO - Arctic Ocean

Note: Relevant Russian nautical charts were reviewed at the meeting, i.e. Nos. 11166, 11247, 91115, 01187, and 11252. The coordinates and depths were confirmed by SCUFN members.

.1	Makorta	84°46'N		GEBCO
	Seamount	94°50'E		5.17

Accepted.

The seamount is located on the north part of Gakkel Ridge, on its south slope adjoining Nansen Basin. The seamount is irregular in shape and trends in a SE-NW direction. It has three summits:

- 1. 84°46'N, 94°50'E. Minimum depth is 1936 m. Total relief is 1864 m from the base contour of 3800 m.
- 2. 84°50' N, 95°50' E. Minimum depth is 2106 m.
- 3. 84°52' N, 96°25' E. Minimum depth is 2322 m.

Named after the Russian hydrographer Aleksandr Pavlovich Makorta (1948–2002). He served in the

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Northern Fleet hydrographic subdivisions for more than 26 years and was an active explorer of the central part of the Arctic Basin. He contributed to the study of the bottom relief and geophysics of the Arctic Ocean.

.2	Garkusha	83°19'N		GEBCO
	Seamount	109°10'E		5.17

Accepted.

Minimum depth is 2235 m. Total relief is 1165 m. The seamount is located in the SE part of Nansen Basin adjoining Gakkel' Ridge, among depths of 3400-3600 m. The seamount has an oval shape and trends in an E-W direction.

Named after Ivan Fyodorovich Garkusha (1909–1980), chief of the Russian North Hydrographic Expedition for twelve years. He contributed to the Northern Seas bottom relief study.

.3	Rassokho	83°15.5'N	83°22.1'N	83°27.5'N	GEBCO
	Seamounts	114°26.5'E	113°10'E	111°31'E	5.17

Accepted.

Three isolated seamounts in the east sector of Gakkel Ridge with total relief ranging from 1200 to 2200 m.

- 1. 83°15′.5 N, 114°26′.5 E. Minimum depth is 2464 m.
- 2. 83°22'.1 N, 113°10' E. Minimum depth is 1422 m.
- 3. 83°27'.5 N, 111°31' E. Minimum depth is 2340 m.

The seamounts are separated from each other by saddles with depths of 2649 and 3020 m.

Named after Admiral Anatoliy Ivanovich Rassokho (1914–2003), chief of the Head Department of Navigation and Oceanography of the Russian Federation Ministry of Defense. For his active participation in the creation of the Atlas of the Oceans as deputy managing editor and for his development of new methods of Arctic research, he was twice awarded the title of the USSR State Prize Winner.

.4	Zefirov	84°35'N		GEBCO
	Seamount	117°35'E		5.17

Accepted.

Minimum depth is 2605 m. Total relief is 1395 m.

The seamount is located in the SE part of Gakkel Ridge among the depths of 4100-4300 m, is oval in shape and trends in a N-S direction.

Named after Vasiliy Ivanovich Zefirov (1904–1970), a professor at the Russian Naval Academy. His students contributed to research in the Arctic Ocean and the northern parts of the Atlantic and Pacific Oceans. He served in the Black Sea Fleet hydrographic subdivisions. Generations of hydrographers know him as an excellent teacher.

.5	Shinkov	81°48'N		GEBCO
	Seamount	117°50'E		5.17

Accepted.

Minimum depth is 2246 m. Total relief is 1100 m. The seamount has a rounded shape.

Named after the Russian hydrographer Dmitriy Vasil'yevich Shinkov (1900-1981), who served in the Northern Fleet hydrographic subdivisions. He contributed to the study of the bottom relief of the Arctic. He was the assistant chief editor of the Russian Nautical Atlas.

.6	Teplov	83°48.5'N		GEBCO
	Seamount	119°30.0'E		5.17

Accepted.

Total relief is 1241 m. Minimum depth is 2559 m. Sounding depths are 5 km apart, taken from ice. The seamount is located in the SE part of Gakkel Ridge, on its N slope adjoining Amundsen Basin.

Named after the Russian hydrographer Viktor Dmitriyevich Teplov (1917 – 1984), who served in the hydrographic units of the Black Sea and Baltic Sea Fleets. He was the Deputy Chief of the Russian State Research Navigational and Hydrographic Institute and contributed to fitting ships with modern navigational and hydrographic devices. He contributed to the development of oceanographic equipment for ice and submarine surveying.

<u>ACTION</u>: Secretary to add note to the gazetteer that additional Russian submarine data with tracklines used in the interpretation could not be shown. Request was made to HDNO to provide sufficient coordinates on supporting contour plot.

.7	Gramberg	82°58'N		GEBCO
	Seamount	159°20'W		5.17

Accepted as Bukovskiy Knoll.

Minimum depth is 760 m. The total relief of this feature being less than 1000 m, it is considered a knoll. The sub-committee recommended that a larger feature be named after Igor' Sergeyevich Gramberg (1922-2002), such a prominent contributer to ocean science. HDNO proposed that this feature originally proposed for Gramberg be named after Bukovskiy, and the opposite (see item 4.7.7 below).

Note: The supporting contours were compiled using Russian submarine and airborne landing data not shown on the plot.

Named after the Russian hydrographer Boleslav Iosifovich Bukovskiy (1912 – 1966), who served in hydrographic subdivisions of the Pacific and Baltic Fleets. He was the chief of an Atlantic oceanographic expedition and a Baltic hydrographic expedition. He contributed to the bottom relief study of marginal seas and the Atlantic Ocean. The Nuclear icebreaker 'Lenin' trials were carried out under his command.

4.7. Eleven (11) proposals from the HDNO - Atlantic Ocean

<u>Note</u>: Relevant Russian nautical charts were reviewed at the meeting, i.e. Nos. 20042, 30051, 30054, 30053, 30152 and 30129. The coordinates and depths were confirmed by SCUFN members.

.1	Vladimirskiy	10°47.5'N	10°39.5'N	GEBCO
	Rise	44°46.0'W	43°57'W	5.08

Not accepted.

This feature is located in the central part of the Atlantic Ocean, in the Vema Fracture Zone. Total relief is 1963 m. Minimum depth is 537 m.

This name will be placed in reserve until additional supporting materials and coordinates are submitted. The proposal was supported by old single beam data, but multibeam is available in the area. This feature is an integral part of the Vema Fracture Zone. The sub-committee discussed whether it should set the precedent of naming a small part of a bigger system. The feature is very steep, so would rather be considered a ridge. Dr Ohara noted that the Japanese Hydrographic Office would consider the feature a transverse ridge.

STATUS: Placed in the reserve section of the gazetteer pending analysis of additional data.

Name proposed for Lev Anatol'yevich Vladimirskiy (1903–1973), a navigation officer who served in the Russian Black Sea Fleet. He was an active explorer and leader of several hydrographic expeditions on the World Ocean study. A research hydrographic vessel is named after him.

.2	Gnitsevich	44°32'N		GEBCO
	Seamount	25°17'W		5.08

Accepted provisionally as Gnitsevich Seamounts.

This feature is placed in reserve pending accurate coordinates and minimum depths for all three seamounts. The seamounts are located in the central part of the Atlantic Ocean, east of the Mid-Atlantic Ridge. Approximate minimum depths from north to south are 1010, 540 and 1180 m. Total relief is about 2360 m.

Note: All the supporting data available was shown on the contour plot submitted.

<u>STATUS</u>: Placed in the reserve section of the gazetteer pending analysis of additional data. <u>ACTION</u>: HDNO to provide coordinates and minimum depths for all three seamounts.

Name proposed for the Russian hydrographer Yevgeniy Kupriyanovich Gnitsevich (1928-2001), who served in the Pacific and Baltic Fleet hydrographic subdivisions. Under his command, the detailed hydrographic survey of the Baltic Sea was carried out. He was the organizer and chief scientist of at least five expeditions in the Atlantic Ocean. He was chief of the hydrographic office of the Baltic Fleet.

.3	Georgiy Zima	42°29.0'N		GEBCO
	Seamount	19°00.7'W		5.08

Accepted.

The first name was used to distinguish this man from other hydrographers with the same name. The seamount is located in the middle part of Azores-Biscay Rise. Total relief is 2244 m. Minimum depth is 1756 m. The seamount is irregular in shape with a SW-NE orientation.

Named after the Russian hydrographer Georgiy Ivanovich Zima (1904 – 1980), who served in the Baltic Fleet hydrographic subdivisions. He contributed to the study of the bottom relief of Russian marginal seas. He guided cartographic works for more than 30 years.

.4	Snezhinskiy	38°30.8'N		GEBCO
	Seamount	63°12.5'W		5.08

Accepted provisionally.

It was agreed that this name would be placed in reserve section of the gazetteer pending status information from the ACUF gazetteer. The feature is outside the US EEZ. Total relief is 3256 m. Minimum depth is 1644 m.

STATUS: Placed in the reserve section of the gazetteer pending analysis of additional data.

<u>ACTION</u>: T. Palmer to provide the Secretary with status information on this name.

Name proposed for Vladimir Apollinar'yevich Snezhinskiy (1896 – 1978), an oceanographer and active explorer of the North Atlantic, Black Sea and Sea of Azov. He contributed to the study of Atlantic Ocean bottom relief and geophysics, publishing over 100 scientific papers.

.5	Rybin	31°47.2'N		GEBCO
	Seamount	12°49.4'W		5.08

Accepted.

The seamount is located NE of the Canary Islands among the depths of 2800-3600 m. Total relief is 2788 m. Minimum depth is 412 m.

Note: Russian Nautical chart 30051 was consulted to see if the feature is located within the Spanish EEZ. It is on the limit of the 200 mile limit in the vicinity of Agadir Canyon.

Named after Georgiy Nikolayevich Rybin (1901 – 1975), a Russian hydrographer and active explorer of the Arctic and Baltic seas. He contributed to the study of the bottom relief of Russian seas. He was a professor of geodesy at the Russian Naval Academy, and the editor of nautical charts for the Naval Charts Division.

.6	Lukin-Lebedev	44°26.2'N		GEBCO
	Seamount	24°39.2'W		5.08

Accepted.

Minimum depth is 1160 m. Total relief is 1800 m.

Located on the NW continuation of the King's Trough. Visible in the Smith and Sandwell predicted topography, but not in the GEBCO Digital Atlas.

ACTION: HDNO to supply the supporting data to NGDC.

Named after the Russian hydrographer Oleg Petrovich Lukin-Lebedev (1918-1994), who served in the hydrographic subdivisions of the Baltic Fleet. He was an explorer of the Baltic Sea, northern seas and the seas of the Far East. He was a teacher and dean of the Russian Naval Graduate School. He held seven patents for his inventions. His hyphenated name indicates that he was a nobleman.

.7	Bukovskiy	15°23.0'N		GEBCO
	Seamount	51°05.6'W		5.08

Accepted as Gramberg Seamount.

As said above (see item 4.6.7), it was agreed that this significant feature be named after I.S. Gramberg and that B.I. Bukovskiy be given to the feature referred to in 4.6.7.

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The seamount is the western most seamount in the Researcher Ridge. It is located in the NE part of the Mendeleyev Abyssal Plain among depths of 3100-3700 m. Total Relief is 3790 m. Minimum depth is 760 m.

ACTION: Secretary to add three positions to Researcher Ridge (15°23'N, 51°05'W; 14°56'N,

49°44'W; and 14°45'N, 47°57'W).

ACTION: HDNO to supply multibeam data used in the supporting compilation to NGDC.

Named after Igor' Sergeyevich Gramberg (1922–2002), an oceanographer. The author of the theoretical foundations of the formation of ocean sediment basins and associated fossils. An active explorer of the central part of the Arctic Basin and the World Ocean shelf. He made considerable contributions to the study of marine geology. He was a member of the Russian Academy of Sciences, and a USSR and Russian Federation State Prize laureate.

.8	Kazanskiy	26°14.2'S		GEBCO
	Seamount	39°15.1'W		5.12

Accepted.

The seamount is located in the SW part of the Atlantic Ocean near the Eastern limit of Santos Plateau among the depths of 3900-4100 m. Total relief is 2888 m. Minimum depth is 1112 m.

Note: The feature is not shown in the GEBCO Digital Atlas, but is visible in the Smith and Sandwell predicted topography.

<u>ACTION</u>: HDNO to provide NGDC with the data used to support this proposal.

Named after Mikhail Mikhaylovich Kazanskiy (1915–1994), a Russian oceanographer and active explorer of the Arctic and Antarctic oceans. He was the scientific leader of 13 ocean expeditions. He contributed to the study of the World Ocean bottom relief and geophysics. He was the chief of the Aids to Navigation Department of HDNO.

.9	Vartan'yan	33°35'S		GEBCO
	Seamount	31°10'W		5.12

Not accepted.

Smith and Sandwell Predicted topography does not indicate that there are distinct seamounts along the Konstantinov Ridge. The relative height is 3103 m. The minimum depth is 497 m.

Note: The feature is part of the Konstantinov Ridge.

Named after Sergey Il'ich Vartan'yan (1921 – 1999), a Russian hydrographer and active explorer of the Arcticand AtlanticOceans and the Baltic and Caspian Seas. He led an oceanographic expedition in the Caribbean Basin. He contributed to hydrographic and geophysical research for the World's Ocean.

.10	Yermolenko	42°24.7'S		GEBCO
	Peak	1°33.3'W		5.12

Accepted as Yermolenko Seamount.

Total Relief is 3000 m. Minimum depth is 248 m. The feature is the highest of the Discovery Seamounts.

<u>ACTION</u>: HDNO to supply the data used to identify this feature to NGDC.

Named after Konstantin Vasil'yevich Yermolenko (1925–2001), a hydrometeorologist and active explorer of the Atlantic Ocean. He led 11 oceanographic expeditions and contributed to the hydrometeorological and hydrographic study of the Atlantic Ocean.

.11	Mikhaylov	57°20.8'S		GEBCO
	Seamount	58°31.0'W		5.16

Accepted as Somov Hill.

HDNO proposed that this feature be rather be named Somov Seamount.

This feature is part of the West Scotia Ridge located in the SW part of the Atlantic Ocean in Drake Passage. In fact, the feature is not very prominent and the total relief is less than 1000 m, so it was accepted as 'hill'. Total relief is 700 m. Minimum depth is 1740 m.

<u>ACTION</u>: HDNO to provide secretary with biographical information for Somov.

<u>Note</u>: There remained 20 proposals from HDNO that could not be handled during the meeting due to lack of time. It was agreed they would be dealt with by correspondence.

4.8. One (1) proposal from Prof. Yngve Kristoffersen, Department of Earth Science, University of Bergen, Norway, April 2004 - Arctic Ocean

It was agreed that this agenda item would be addressed and completed after the meeting by correspondence.

4.9. Two (2) proposals from Dr. Thomas Hartmann, Alfred Wegener Institute of Polar and Marine Research, Bremerhaven, Germany, May 2004 - Arctic Ocean

It was agreed that this agenda item would be addressed and completed after the meeting by correspondence.

4.10. Two (2) proposals from Dr. Jörn Hatzky, Alfred Wegener Institute of Polar and Marine Research, Bremerhaven, Germany, May 2004 - Arctic Ocean

It was agreed that this agenda item would be addressed and completed after the meeting by correspondence.

5.0 REVIEW OF REPORTS OF ACUF MEETINGS SINCE APRIL 2003

5.1 Harmonization of GEBCO and ACUF Gazetteers

It was agreed that this agenda item would be addressed and completed after the meeting by correspondence.

6.0 GAZETTEER OF UNDERSEA FEATURE NAMES

6.1 Web-based Map Interface for Undersea Feature Name Gazetteer

L. Taylor presented an overview of the Woods Hole Workshop on Federated Approaches to Marine Names Gazetteers that she attended with T. Palmer and N. Cherkis in March. She also reviewed a prototype of a web-based map interface for the GEBCO gazetteer and an on-line names submittal form. She stressed the benefits of maintaining the gazetteer in a geospatially enabled table, including

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compatibility with other software packages such as the IHB gazetteer viewing software. The chairman commented that the Woods Hole workshop activities indicate that there is much interest worldwide in having the ability to access gazetteers on-line. Using the interface would be an effective way to involve the scientific and hydrographic communities in properly naming features in their publications. L. Taylor requested that the sub-committee review the prototype on-line and send comments and suggestions to her via email.

<u>ACTION</u>: Sub-committee members to review the prototype of the web-based map gazetteer interface and send L. Taylor comments via email or list serve.

6.2 Improvements to the IHB Gazetteer Software

The secretary presented the updated IHB Gazetteer Viewing Software and encouraged the sub-committee to review the software and send him comments via email. The software will be placed on the GEBCO/SCUFN web pages for downloading soon. The chairman commented that the software is very user friendly and helpful in navigating the gazetteer. T. Nataliya suggested that the IHB Gazetteer Viewing Software should be renamed the 'IHO-IOC Gazetteer Viewing Software'. The secretary agreed that this seemed to be a good idea.

<u>ACTION:</u> Sub-committee members to review the Gazetteer Viewing Software and send Secretary comments.

<u>ACTION</u>: Secretary to see whether the viewing software can be renamed 'IHO-IOC Gazetteer Viewing Software'.

7.0 STANDARDIZATION OF UNDERSEA FEATURE NAMES

7.1 Improvements to Publication B-6

A discussion regarding necessary changes to the IHO-IOC Publication B-6 "Standardization of Undersea Feature Names" was deferred to the next meeting. The secretary briefly reviewed the protocol for naming undersea features, and stated that there may be a need to amend or improve these rules. The secretary suggested that the sub-committee consider revising the list of undersea feature generic term definitions. He stated that any changes made to the document will require final approval from the GEBCO Guiding Committee. The secretary requested that sub-committee members review the document and come to the next meeting prepared to make recommendations for changes.

<u>ACTION</u>: Sub-committee members to review the document and come to the next meeting prepared to make recommendations for changes.

V. Sobolev stated his opinion that naming features after famous people should take priority over naming features after associated geographic features. G. Naryshkin summarized his opinion regarding problems associated with the classification of undersea feature names and offered to send a proposal for change to the chairman for comments.

7.2 Publication B-6 in additional languages

The sub-committee discussed the need to expand the availability of Publication B-6 in additional languages. J. L. Frias agreed to review the Spanish/English version of the current 3rd edition of B-6 (2001) for accuracy. G. Agapova offered to work on a Russian/English version and Y. Ohara offered to look into creating a Japanese/English version. The secretary stressed that any language version must have its English part identical to that in the original 3rd edition of B-6 (English/French version, April 2001), which is available on the GEBCO/SCUFN web pages.

ACTION: G. Agapova to provide the secretary with a Russian/English version of B-6.

<u>ACTION</u>: Y. Ohara to consider creating a Japanese/English version of B-6 and notify the secretary of decision.

<u>ACTION</u>: J.L. Frias to provide the secretary with comments and corrections to the Spanish/English version of B-6.

8.0 ANY OTHER BUSINESS

8.1 Deadlines for submitting proposals for consideration at SCUFN annual meetings

It was agreed that, in the future, proposals which are to be considered at SCUFN meetings must be submitted 30 days before meetings if in digital form, and 60 days if in analog form. This, in order to allow sufficient time for SCUFN members to read the proposals in advance of meetings. If at all possible, proposals should be submitted in digital form as they are easier to distribute, display and incorporate into the meeting minutes.

8.2 Communicating intersessionally

The sub-committee discussed the need to communicate effectively between meetings and agreed that using a list serve would facilitate correspondence. L. Taylor agreed to set up a list serve.

ACTION: L. Taylor to set up list serve for the sub-committee.

9.0 SITE AND DATES FOR THE NEXT MEETING

The next meeting, SCUFN/XVIII, was planned either during the last week of June or the last week of September in Monaco in 2005.

ACTION: Secretary to confirm next meeting dates and notify sub-committee members.

10.0 CONCLUSION

On behalf of the sub-committee, the chairman expressed his gratitude to the hosts of the meeting for their warm hospitality and excellent organization. He thanked the sub-committee for their hard work which resulted in a very productive meeting. He also thanked the continuing valuable contribution of the secretary, M. Huet, and L. Taylor for accepting the responsibility of rapporteur. The chairman expressed his satisfaction with the composition of the sub-committee saying that the diversity of disciplines represented in the group lends itself to thorough review and discussion of the issues at hand. Admiral Anatoliy A. Komaritsyn, thanked the sub-committee for their important efforts and invited the members to visit St. Petersburg again in the near future.

Annex 1

LIST OF PARTICIPANTS

I - SCUFN MEMBERS

Dr. Hans-Werner SCHENKE [IOC] (Chair)

Alfred Wegener Institute für Polar und Meeresforschung (AWI) Postfach 12 01 61 Columbustrasse D 27515 Bremerhaven

GERMANY

Fax:+49 (0)471 4831 1149 Tel: +49 (0)471 4831 1222/1223

E-mail: schenke@AWI-Bremerhaven.de

Ms. Lisa A. TAYLOR [IHO]

National Geophysical Data Center E/GC3 325 Broadway Boulder, Colorado USA 80305-3328

UNITED STATES OF AMERICA Fax: +1 (303) 475 84 3571 E-mail: Lisa.A.Taylor@noaa.gov

Capt. Vadim SOBOLEV [IHO]

Head Department of Navigation and Oceanography (HDNO)

8-11, Liniya V.O. B-34 199034 St Petersburg RUSSIAN FEDERATION Fax: +7 812 323 75 68

Tel: + 7 812 323 75 68 E-mail: gunio@homepage.ru

II - SECRETARY

Ing. en Chef Michel HUET

International Hydrographic Bureau 4, Quai Antoine 1er B.P. 445 - MC 98011 Monaco Cedex PRINCIPALITY OF MONACO

Fax: +377 93 10 81 40 Tel: +377 93 10 81 04 E-mail: mhuet@ihb.mc

Dr. Galina V. AGAPOVA [IOC]

Geological Institute of the Russian Academy of Sciences Pyzevskiy, 7 109017 Moscow RUSSIAN FEDERATION

Fax: +7 (095) 231-8106 Tel: +7 (095) 230-8180 / 8145 E-mail: marine@geo.tv-sign.ru

Dr. Yasuhiko OHARA [IHO]

Ocean Research Laboratory Hydrographic and Oceanographic Department of Japan 5-3-1 Tsukiji, Chuo-ku Tokyo, 104-0045 JAPAN

Fax: +81 (3) 3541 3870 Tel: +81 (3) 3541 4387 E-mail: ohara@jodc.go.jp

Mr. Norman Z. CHERKIS [IOC]

Five Oceans Consultants 6300 Saddle Tree Drive Alexandria, VA 22310-2915 USA

Fax: +1 (703) 971 3141 Tel: +1 (703) 971-3141

E-mail: fiveoceanscon@yahoo.com

III- ADVISER TO SCUFN

Mr. Trent PALMER

Secretary ACUF, US Board on Geographic Names National Geospatial-Intelligence Agency (NGA)

Mail Stop D-61

Bethesda, Maryland 20816-5003 UNITED STATES OF AMERICA

Fax: +1 (301) 227 5515 Tel: +1 (301) 227 3051 E-mail: palmert@nga.mil

IV - IOC SECRETARIAT

Mr. Dimitri TRAVIN

Intergovernmental Oceanographic Commission (IOC)

UNESCO 1 rue Miollis

75732 Paris Cedex, FRANCE Fax: 00 (33) 1 456 85812 Tel.: 00 (33) 1 456 84044 E-mail: D.Travin@unesco.org

V – BY INVITATION

Lic. José Luis FRIAS Salazar

Instituto Nacional de Estadística Geografía e Informática Ave. Patriotismo No. 711-PH Col. San Juan Mixcoac – C.P. 03910 México D.F. MEXICO

Fax :+(52) 55 52 78 10 00, ext. 1481 Tel :+(52) 55 55 63 99 32, ext. 1481 E-mail : Jose.Frias@inegi.gob.mx

Dr. German NARYSHKIN

All – Russia Research Institute of the World Ocean Geology and Mineral Resources, Angliyskiy pr., 1 St. Petersburg

RUSSIAN FEDERATION Fax: +7 (095) 951-04-43 Tel: +7 (812) 114-04-71

Captain V. FOMIN

Navy Charts Division Deputy Chief 193167, 2 Atamanskaya st. St. Petersburg

RUSSIAN FEDERATION Fax: +7 (812) 277-59-00 Tel.: +7 (812) 277-58-79 E-mail: gunio@homepage.ru

Dr. Gleb UDINTSEV

Veznadsky Institute of Geochemistry, Russian Geological Institute of the Russian Academy of Sciences Pyzevskiy, 7 109017 Moscow RUSSIAN FEDERATION

Fax: +7 (095) 938-2054 Tel: +7 (095) 137-86-48 E-mail: galstzel@geokhy.ru

Dr. TURKO Nataliya

Geological Institute, Russian Accademy of Sciences Geological Institute of the Russian Academy of Sciences Pyzevskiy, 7 109017 Moscow RUSSIAN FEDERATION

Fax: +7 (095) 951-04-43 Tel: +7 (095) 230-81-80

turko@ginras.ru

Captain Dr. SMIRNOV V.G.

Head Department of Navigation and Oceanography (HDNO)

<u>Navy Charts Division</u>, Chief of the Bureau of Cartographic Information Collection

193167 2 Htamanshaya ul

St. Petersburg

RUSSIAN FEDERATION Fax: +7 (812) 277-5900 Tel: +7 (812) 277-4362 gunio@homepage.ru

AGENDA

- 1. INTRODUCTION APPROVAL OF AGENDA
- 2. SCUFN MEMBERSHIP
- 3. MATTERS REMAINING FROM PREVIOUS MEETINGS
 - 3.1 From SCUFN-XVI (Monaco, April 2003)
 - 3.2 From SCUFN-XV (Monaco, October 2002)
- 4. PROPOSALS ON RECORD OR SUBMITTED DURING INTERSESSIONAL PERIOD
 - 4.1 Proposals submitted by IBC Editorial Boards
 - 4.2 Four (4) proposals from Prof. Robert Whitmarsh, University of Southampton, UK Indian Ocean
 - 4.3 Eight (8) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences Arctic Ocean
 - 4.4 Three (3) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences Antarctica / Southern Ocean
 - 4.5 Five (5) proposals from Dr. Galina Agapova, Geological Institute of the Russian Academy of Sciences Pacific Ocean
 - 4.6 Seven (7) proposals from the HDHO Arctic Ocean
 - 4.7 Eleven (11) proposals from the HDNO Atlantic Ocean
 - 4.8 One (1) proposal from Prof. Yngve Kristoffersen, Department of Earth Science, University of Bergen, Norway, April 2004 Arctic Ocean
 - 4.9 Two (2) proposals from Dr. Thomas Hartmann, Alfred Wegener Institute of Polar and Marine Research, Bremerhaven, Germany, May 2004 Arctic Ocean
 - 4.10 Two (2) proposals from Dr. Jörn Hatzky, Alfred Wegener Institute of Polar and Marine Research, Bremerhaven, Germany, May 2004 Arctic Ocean
- 5. REVIEW OF REPORTS OF ACUF MEETINGS SINCE APRIL 2003
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- 6. GAZETTEER OF UNDERSEA FEATURE NAMES
 - 6.1 Web-based Map Interface for Undersea Feature Name Gazetteer
 - 6.1.1 Report on the Woods Hole Workshop
 - 6.1.2 Web-Based Undersea Feature Name Proposal Form
 - 6.1.3 NGDC prototype
 - 6.2 Improvements in the IHB Gazetteer Software
- 7. STANDARDIZATION OF UNDERSEA FEATURE NAMES: IHO-IOC PUBLICATION B-6
 - 7.1 Improvements to Publication B-6.
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- 9. SITE AND DATES FOR THE NEXT MEETING
- 10. CONCLUSION

ACTION ITEMS LISTED BY SUB-COMMITTEE MEMBER /ADVISER

- 1. Secretary (Michel Huet)
- a. Seek a replacement within IHO for the withdrawn membership of Jesus Dias (2.).
- b. Correct spelling in gazetteer of Aconcagua Canyon, currently included as 'Acongagua Canyon' (3.1.2).
- c. Contact SHOA for:
 - two additional positions for Guafo Fracture Zone (3.1.3.5).
 - two additional positions for Mocha Fracture Zone (3.1.3.7).
 - additional bathymetry for Valdivia Basin (3.1.3.8).
 - two additional positions for Valdivia Fracture Zone (3.1.3.9).
 - additional bathymetry for Valparaiso Basin (3.1.3.10).
- d. Contact Dr. J.R. Vanney for name origin for Antandroy Seamount, Conducia Canyon, Grandidier Seamount, Macua Seamount, Memba Canyon, Mocalengia Canyon, Mocambo Canyon, Nacala Canyon, Pemba Canyon, Sakalave Seamount and Sangage Canyon (3.1.4).
- e. Ask M. Klenke for two additional positions for Greenland-Spitsbergen Sill and change chart reference in gazetteer to GEBCO 5-17 from 5-18 (3.1.8).
- f. Examine evidence for Currituck Seamount, Hatherton Seamounts, Kaiwhata Bank, Lee Seamount, Scholl Deep and Pukaki Seachannel on NIWA 1:1 million charts (3.1.9).
- g. Contact Dr. Lyle to request bathymetric evidence for Mahi Mahi Fracture Zone (3.2.1).
- h. Add position of Fedorov Guyot (14°07'N, 156°11'E) to the Magellan Seamounts (4.5.5)
- i. Add note to gazetteer that additional Russian submarine data with tracklines used in the interpretation cannot be shown for Teplov Seamount (4.6.6).
- j. Add three positions to Researcher Ridge (15°23'N, 51°05'W; 14°56'N; 49°44'W; 14°45'N; 47°57'W) (4.7.7).
- k. See whether the viewing software can be renamed 'IHO-IOC Gazetteer Viewing Software' (6.2).
- 1. Confirm next meeting dates and notify sub-committee members (9.0).
- 2. Hans Werner Schenke
- a. Seek GEBCO Guiding Committee's approval of Dr. Ohara as SCUFN Member (2.)
- b. Contact Australian scientists, e.g. at the SCOR meeting in July 04, about proposing names for six fracture zones on the southeast Indian Ridge, west of southwest Australia (3.1.2).
- c. Contact W. Bettac for additional feature coordinates for Conducia Canyon, Memba Canyon, Mocalengia Canyon, Mocambo Canyon, Nacala Canyon, Pemba Canyon, Sakalave Seamount and Sangage Canyon (3.1.4).
- d. Send Joern Thiede new data compilation for Karasik Seamount with grid, track control and depths provided by G. Agapova (3.1.8).
- e. Contact Dr. Lyle to request bathymetric evidence for Mahi Mahi Fracture Zone (3.2.1).
- 3. Lisa Taylor
- a. Provide name origin for Chorreras Canyon (3.1.5.1).
- b. Check for magnetic data, Smith and Sandwell predicted topography and ETOPO2 data for evidence of the Tehuantepec Fracture Zone (3.1.5.5).
- c. Set up list serve for the sub-committee (8.2).
- 4. Galina Agapova
- a. Provide new compilation of Karasik Seamount to the secretary with grid, track control and depths (3.1.8).
- b. Provide additional bathymetric evidence for Zhilinsky Rise (3.1.8).
- c. Provide secretary with Russian/English version of Publication B-6 (7.2).

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5. <u>José Luis Frias Salazar</u>

- a. Provide name origin for Chorreras Canyon (3.1.5.1).
- b. Provide name origin for Tehuantepec Fracture Zone (3.1.5.5).
- c. Provide secretary with comments and corrections to the Spanish/English version of Publication B-6.

6. Norman Cherkis

- a. Contact James Cochran and Peter Hill of CSIO about proposing names for six fracture zones on the southeast Indian Ridge, west of southwest Australia (3.1.2).
- b. Check for magnetic data, altimetry data and ETOPO2 data for Tehuantepec Fracture Zone (3.1.5.5).

7. Gleb Udintsev

- a. Supply secretary with more information for Man Trough (4.4.1).
- b. Provide secretary with more data to support Pallada Guyot (4.5.5).

8. Trent Palmer

- a. Provide ACUF approval date for Greenland-Spitsbergen Sill (3.1.8).
- b. Check to see if ACUF has bathymetric evidence for the Mahi Mahi Fracture Zone in order to determine additional coordinates (3.2.1).
- c. Provide secretary with new bathymetric data for Moana Wave Ridge collected by the NOAA Ship Ron Brown (3.2.1).
- d. Provide secretary with bathymetric evidence for Svendsen Ridge (3.2.1).
- e. Check position of Gagarin Seamount in ACUF gazetteer, taking into account the new supporting data (4.5.2).

9. Vadim Sobolev

- a. Provide secretary with coordinates and minimum depths for the three Gnitsevich Seamounts (4.7.2).
- b. Provide supporting data for Lukin-Lebedev Seamount to NGDC (4.7.6).
- c. Provide multibeam data used in the supporting compilation for Gramberg Seamount to NGDC (4.7.7).
- d. Provide supporting data for Kazanskiy Seamount to NGDC (4.7.8).
- e. Provide the data used to identify Yermolenko Seamount to NGDC (4.7.10).
- f. Provide secretary with biographical information for Somov Hill (4.7.11).

10. Yasuhiko Ohara

a. Notify secretary regarding creation of Japanese/English version of Publication B6 (7.2).

11. <u>All Sub-Committee Members</u>

- a. Review the prototype of the web-based map gazetteer interface and send L. Taylor comments via email or list serve.
- b. Review Publication B-6 "Standardization of Undersea Feature Names", in preparation for making recommendations for changes to the document at the next meeting (7.1).

Annex 4

LIST OF ACRONYMS

AARI Arctic and Antarctic Research Institute

ACUF Advisory Committee on Undersea Features (to the US BGN)

AGSO Australian Geological Survey Organization

AWI Alfred-Wegener-Institut für Polar - und Meeresforshung (Germany)

BGN Board on Geographical Names (USA)

ETOPO1 Earth Topography on a 1-minute grid (NGDC)
GEBCO General Bathymetric Chart of the Oceans (IOC/IHO)
HDNO Head Department of Navigation and Oceanography

HO Hydrogaphic Office

IBCAO International Bathymetric Chart of the Arctic Ocean (IOC)

IBCCA International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IOC)

IBCEA International Bathymetric Chart of the Central Eastern Atlantic (IOC)

IBCM International Bathymetric Chart of the Mediterranean (IOC)
IBCSEP International Bathymetric Chart of South East Pacific (IOC)
IBCWP International Bathymetric Chart of the Western Pacific (IOC)
IBCWIO International Bathymetric Chart of the Western Indian Ocean (IOC)

IHB International Hydrographic Bureau (IHO)
IHO International Hydrographic Organization

INEGI Instituto Nacional de Estadística Geografía e Informática

IEMIRWP Institute of the Earth Magnetism, Ionosphere and Radio Wave Propagation

IOC Intergovernmental Oceanographic Commission (of UNESCO)

JCUFN Japanese Committee on Undersea Feature Names

JHD Japan Hydrographic Department

LDEO Lamont Doherty Earth Observatory (USA)

NIWA National Institute of Water and Atmospheric Research Ltd (New Zealand)

NGDC National Geophysical Data Center (USA)

NOAA National Oceanic and Atmospheric Administration (USA)

PFRI Polar Floating Research Institute (USSR)

RAS Russian Academy of Sciences

RSDSR Russian Soviet Federative Socialist Republic

R/V Research Vessel

SCGN Sub-Committee on Geographical Names and Nomenclature of Ocean Bottom Features (now

SCUFN)

SCUFN Sub-Committee on Undersea Feature Names (of GEBCO)

SHOM Service Hydrographique et Océanographique de la Marine (France)

SIO Scripps Institution of Oceanography (USA)

UNGEGN United Nations Group of Experts on Geographical Names

Annex 5

ALPHABETIC INDEX OF UNDERSEA FEATURE NAMES CONSIDERED AT SCUFN -XVII

Name	Page	Name	Page
Agongague Convon	5	Lazarev Trough	12
Aconcagua Canyon Admiralteystvo Rise	9	Le Trou Sans Fond Canyon	7
Admiratelystvo Trough	10	Lee Seamount	8
Al'banov Bank	10	Litke Canyon	11
	12	Litke Carryon Litke Passage	11
Alba Guyot	5	Lukin-Lebedev Seamount	17
Antinodos Fossamount		Macua Seamount	5
Antipodes Escarpment Arauco Basin	4	Mahi Mahi Fracture Zone	8
	5	Makorta Seamount	13
Biobio Canyon		Man Trough	11
Bukovskiy Knoll	15	Medvezhy Trough	11
Bukovskiy Seamount	17	Memba Canyon	5
Campbell Escarpment	4 4	Mikhaylov Seamount	19
Campbell Scarp		Mocalengia Canyon	5
Chiloé Basin	5	Mocambo Canyon	5
Chorreras Canyon	6	Mocha Fracture Zone	5
Chubasco Bank	6		8
Conducia Canyon	5	Moana Wave Ridge	5
Currituck Seamount	8	Nacala Canyon	
Darwin Hill	9	Naletov Ridge	7 13
Darwin Knoll	9	Pallada Guyot	
Drygalski Seamounts	6	Pemba Canyon Pukaki Seachannel	5 8
Dubinin Trough	12		
Echo Bank	6	Rassokho Seamounts	14
Estêvão Gomes	7	Rybin Seamount	17
Gararin Seamount	13	Sakalave Seamount	5
Garkusha Seamount	14	Sangage Canyon	5
Gelendzhik Guyot	12	Scholl Deep	8
Georgiy Zima Seamount	16	Sedov Rift Valley	11
Gnitsevich Seamount	16	Sharpeigh Knoll	9
Gramberg Guyot	13	Shinkov Seamount	15
Gramberg Seamount	15, 17	Shmakov Escarpment	7
Grandidier Seamount	5	Sigsbee Abyssal Plain	6
Greenland-Spitsbergen Sill	7	Sigsbee Deep	6
Guafo Fracture Zone	5	Snezhinskiy Seamount	17
Hatherton Seamounts	8	Somov Hill	19
Hydrographers Rift Valley	10	Sub-Antarctic Escarpment	4
Joseph Gilbert Seamount	4	Svendsen Ridge	9
Kaiwhata Bank	8	Swan Trough	6
Karasik Seamount	7	Tehuantepec Fracture Zone	6
Kazanskiy Seamount	18	Teplov Seamount	15
Kotsebu Trough	10	Tropic Seamount	8
La Ligua Canyon	5	Tropicbird Orchid Hill	9

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Tropicbird Orchid Knoll	8
Valdivia Basin	5
Valdivia Fracture Zone	5
Valparaiso Basin	5
Vartan'yan Seamount	18
Vladimirskiy Rise	16
Wallace Hill	9
Wallace Knoll	9

West Cayman Rise	6
Yermolenko Peak	18
Yermolenko Seamount	18
Zefirov Seamount	14
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Zhilinsky Spur	7

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