INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO) INTERNATIONAL HYDROGRAPHIC ORGANIZATION





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

> Alfred Wegener Institute for Polar and Marine Research Bremerhaven, Germany 21-23 June 2006

> > FINAL REPORT

Page intentionally left blank

Notes: A list of acronyms, used in this report, is in Annex 6.

An alphabetical index of all undersea feature names appearing in this report is in Annex 7.

1. OPENING AND ADMINISTRATIVE ARRANGEMENTS

Docs: SCUFN19-1A rev.5 List of Documents (also Annex 1) SCUFN19-1B rev.4 List of Participants (also Annex 2)

The nineteenth meeting of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN) met at the Alfred Wegener Institute for Polar and Marine Research (AWI) in Bremerhaven, Germany under the Chairmanship of Dr. Hans Werner Schenke (AWI). Dr. Schenke opened the meeting by welcoming the members of SCUFN and the many observers to AWI in Bremerhaven. He stated that the large number of attendees at the meeting was an indication of the increasing interest in the world of topology. The chairman welcomed Dr. Hyun-Chul HAN of the Korea Institute of Geology, Mining and Materials (KIGAM), as a new member of the Sub-Committee. After a round-table of introductions, Dr. Schenke discussed logistical issues and reviewed a list of documents to be addressed during the meeting.

A list of documents is included in Annex 1.

Attendees included SCUFN chairman, Dr. Hans-Werner Schenke (AWI, Germany), SCUFN secretary, Mr. Michel Huet (IHB, Monaco), and Sub-Committee members LCdr. Harvinder Atvar (NHO, India), Mr. Norman Z. Cherkis (Five Oceans Consultants, USA), Lic. José Luis Frias Salazar (INEGI, Mexico), Dr. Hyun-Chul Han (KIGAM, Republic of Korea), Dr. Yasuhiko Ohara (HODJ, Japan), LCDR Rafael Ponce Urbina (DGAHC, Mexico), Lt. Walter Reynoso-Peralta (SHN, Argentina), Ms. Lisa A. Taylor (NOAA, USA) and Capt. Albert E. Theberge (NOAA, USA). Invited guests and advisors included Mr. Trent Palmer (USBGN, USA) and Dr. Dimitri Travin (IOC Secretariat).

Observers included Prof. Sungjae Choo (KIGAM, Republic of Korea), Mr. You-Sub Jung (NORI, Republic of Korea), Dr. Shigeru Kato (HODJ, Japan), Dr. Ki-Suk Lee (Republic of Korea), Capt. Paolo Lusiani (GGC, Italy), Mr. Taisei Morishita (HODJ, Japan), Dr. K. Srinivas (NIO, India), Dr. Shi Suixiang (NMDIS-IBCWP, China), Mr. Shin Tani (HODJ, Japan), Ms. Paola Travaglini (CHS, Canada), Dr. Nataliya Turko (GINRAS, Russia), Dr. Gleb Udintsev (Russia), and Dr. Kunio Yashima (JHA, Japan),

A list of attendees is included in Annex 2.

2. APPROVAL OF AGENDA

Doc: SCUFN19-2A rev. 5 Agenda (also Annex 3)

The agenda was accepted with no revisions.

Y. Ohara suggested that meeting documents posted on the web should be password protected or not publicly posted until after the meeting. The chairman supported the use of passwords if technically possible. After discussion, it was agreed that M. Huet would investigate the feasibility of providing SCUFN members access to meeting documents via passwords. Y. Ohara expressed concern over the statement, 'Distribution Limited', on the official reports. It was agreed that the statement would be removed on subsequent reports.

3. SCUFN TERMS OF REFERENCE

Docs: SCUFN19-3A Existing SCUFN Terms of Reference

SCUFN19-3B Revised SCUFN ToR, as proposed by IHB and IOC

Secretariat (2004)

SCUFN19-3C Revised SCUFN ToR, as drafted by the SCUFN ad hoc

group (HW. Schenke, N. Cherkis, A. Theberge and M.

Huet)

It was agreed that SCUFN members would present suggested changes to the SCUFN Terms of Reference (ToR) to the GEBCO Guiding Committee for final approval. A 'Rules of Procedure' section (see SCUFN19-3B) was proposed by the IHB and the IOC Secretariat, as there was nothing in the existing ToR about how the Sub-Committee should conduct business. An ad hoc group, formed at the SCUFN/18 meeting to address this issue (HW. Schenke, N. Cherkis, A. Theberge and M. Huet), suggested a number of additions (see SCUFN19-3C), including the following:

'Where feasible, provide information regarding the origin of names and where necessary, alternate names. This research will include discovery ship or organization, information regarding the individual or vessel being commemorated or geographic feature with which associated, origin of alternate names if required, and source material regarding naming information.'

After discussion, it was agreed that the paragraph would be modified to read:

'Where feasible, provide **historical** information regarding the origin of **preexisting** names and where necessary, alternate names. This research will include discovery ship or organization, information regarding the individual or vessel being commemorated or geographic feature with which associated, origin of alternate names if required, and source material regarding naming information.'

N. Turko suggested that a statement be added to Section 1.3i of the ToR to require IBC project Chief Editors to provide supporting documentation for proposed undersea feature names. The chairman did not see a need to change this section. T. Palmer pointed out that the requirement for supporting documentation is addressed by the Guidelines for the Standardization of Undersea Feature Names, Publication B-6. He recommended that this document be referenced in the ToR. M. Huet and T. Palmer offered to prepare words for Section 2 of the ToR, 'Rules of Procedure' for review during the meeting.

Y.Ohara expressed his view that SCUFN should never consider names of politically disputed areas and requested that this criterion be added to the new ToR. The chairman stated that the disputed areas are not known in every case and defining what constitutes a disputed area is often very difficult. A discussion ensued regarding this issue. The chairman stated that a final decision could not be made at this meeting, and that if a formal proposal regarding this matter was submitted to the Sub-Committee it would be carefully considered.

The appropriate number of voting SCUFN members was discussed, with views ranging from allowing unlimited membership to limiting membership to 12 people. The current number of SCUFN members is 12, 7 from IHO and 5 from IOC. Initially, the IHB and the IOC Secretariat proposed a limit of 10 members (see SCUFN19-3B). It was pointed out that the SCUFN charter requires that members have a technical background with a world view and knowledge of the history of topology, and that it would be a challenge to find more than 12 people who fit these criteria, willing to commit to the amount of work required of Sub-Committee members. D. Travin predicted that the number of countries interested in undersea feature names will increase over the next several years. It was agreed that a manageable group

size is required to effectively accomplish the Sub-Committee's work of considering proposed names. The following words were drafted to be added to the SCUFN ToR:

- 1.3(i)(e) Adherence to the principles contained in IHO-IOC Publication B-6 "Standardization of Undersea Features Names".
- 2.1(1) The Sub-Committee will consist of 12 members, preferably 6 members appointed by IHO and 6 by IOC. SCUFN members will be endorsed by the Joint IOC-IHO GEBCO Guiding Committee (GGC).
- 2.1(2) Members of the Sub-Committee are experts acting exclusively for the benefit of the IOC and IHO communities
- 2.1(3) Members of the Sub-Committee will be appointed for a four year period, which may be extended for a period of two years, with a further provision that, if there are no requests for a member to be included from another State, that a further, additional two years of service may be permitted. If another State requests membership, the GGC will decide which member should step down.
- 2.3 The Chairperson is selected for a four-year period and will normally be succeeded by the Vice-Chairperson. The Chairperson may be re-elected for one additional four-year period. Should the Chairperson step down before the end of his/her term, the Vice Chairperson will take over as Chairperson until the end of the current term.
- 2.4 The Chairperson, or in his/her absence the Vice Chairperson, will conduct the business of the Sub-Committee. Meetings will usually be held every year, ideally before the GGC meeting. In the intervening period, the Sub-Committee will conduct its business by correspondence (preferably electronic).
- 2.5 Entities and organizations that can provide a relevant and constructive contribution to the work of the Sub-Committee may be represented at meetings with observer status. In the event that a large number of observers seek to attend a meeting, the Chairperson may restrict attendance by inviting them to act through one or more collective representatives.
- 2.6 Observers from IHO and/or IOC member states may attend meetings. Attendance will be limited to one observer per State.
- 2.8 The Sub-Committee will strive to make decisions by consensus. If a vote is necessary, the quorum required is 7 members. The majority required for acceptance is a simple majority of the total number of SCUFN members. Only SCUFN members may cast a vote, either in person or by correspondence.

Revised SCUFN Terms of Reference for consideration by the GEBCO Guiding Committee, as agreed by the Sub-Committee, are contained in Annex 4.

4.0 STANDARDIZATION OF UNDERSEA FEATURE NAMES: IHO-IOC PUBLICATION B-6

4.1 Improvements to Publication B-6

Docs: SCUFN19-4.1A Proposed changes to Publication B-6

Proposed clarifications to paragraphs I.A and I.D on page 2-1 and the heading and note on page 2-9 of Publication B-6 (SCUFN19-4.1A) by the secretary (M. Huet) were discussed at length. At issue was how to better define the area for which SCUFN should name undersea features. The secretary proposed using the following definition of 'High Seas' used by UNCLOS to replace the current reference to territorial waters in the document.

'High Seas' ... applies to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State. (From Article 86 of the UN Convention of the Law of the Sea).

However, the Chairman remarked that the term "Exclusive Economic Zone" is not defined and internationally accepted for all countries, so identifying the extent of 'High Seas' is not always possible. After discussion, the consensus of the Sub-Committee was to replace all references in B-6 to 'territorial waters' or 'waters under national juridiction' with 'territorial sea'. The following words were agreed for the relevant paragraphs of B-6:

- Paragraph I.A International concern for naming undersea features is limited to those features entirely or mainly (more than 50%) outside the territorial sea, not exceeding 12 nautical miles from the baselines, in agreement with the United Nations Convention on the Law of the Sea.
- Paragraph I.D Names approved by national names authorities in waters beyond the territorial sea should be accepted by other States if the names have been applied in conformance with internationally accepted principles. Names applied within the territorial sea of a State should be recognized by other States.
- Title of Page 2-9 NAMES AND ADDRESSES OF NATIONAL AUTHORITIES TO WHICH THE "UNDERSEA FEATURE NAME PROPOSAL FORM" SHOULD BE SENT FOR CLEARANCE, FOR ANY FEATURE LOCATED IN A TERRITORIAL SEA.
- Note at the beginning of Page 2-9 Proposals forms for features located in the territorial sea of countries not listed here should be submitted to the IHB or to the IOC (See addresses on Pages 2-6).
- Paragraph III.G National authorities naming features within their territorial sea should conform to the principles and procedures stated above.

The chairman expressed his appreciation for the cooperation between countries on this topic.

The list of institutions with names, postal addresses and fax numbers starting on page 2-9 of B-6 is frequently subject to change. It was agreed that the revised B-6 should include the list of IHO Member States Hydrographic Offices with the following note:

• References for the Hydrographic Offices listed below (e.g. postal / e-mail addresses, fax / phone numbers, websites, etc.) can be found on the IHO website (www.iho.int).

In cases where the relevant institution is not a hydrographic office, the full contact information will be listed in the document.

Paragraph II.A.5 of B-6 - The Sub-Committee discussed naming features after people who have not made a substantial contribution to ocean science and who are living. Y. Ohara suggested deleting the word 'living' from paragraph II.A.5, which was not supported. T. Palmer cited a 2002 United Nations resolution encouraging U.N. naming authorities to limit names to people who have been deceased for more than five years. The Sub-Committee agreed that the UN resolution should be cited in B-6, and with the following words for this paragraph:

Names of living persons will normally not be accepted, in accordance
with the recommendation in UNCSGN Resolution VIII/2. In the rare
cases where names of living persons are used (surnames are preferable),
they will be limited to those who have made an outstanding or
fundamental contribution to ocean sciences.

4.2 Publication of B-6 in additional languages.

Docs: SCUFN19-4.2A E/Russian version of B-6

4.2.1 English/Russian version

N. Turko reported that the English/Russian version of B-6 is being translated by SCUFN member G. Agovapa and is 99% complete. She also said that when a new edition of B6 is adopted, the changes will be easily made to the English/Russian version. The secretary (M. Huet) stressed that the English text in the English/Russian version must be identical to the original English version. The Chairman stated that the dates of the two versions should be the same and that the front page should mention 'English/Russian Version'. On behalf of the Sub-Committee, the chairman thanked G. Agapova for her work and said that having this translation was very important for the scientific community.

4.2.2 English/Japanese version

Y. Ohara reported that the English/Japanese translation of B-6 still needs to be officially reviewed by the Japanese government, and will probably be available before the next SCUFN meeting. On behalf of the Sub-Committee, the chairman thanked Y. Ohara for his work and again stressed the importance of making these translations available to the scientific community.

4.2.3 English/Spanish version

J. Frias reported that the English/Spanish version is complete and ready for review by the Spanish speaking SCUFN members.

4.2.4 English/Hungarian version

T. Palmer found an English/Hungarian translation of B-6 on the internet. Hungary is not an IHO member state or a maritime state, and the Sub-Committee has no one to check the

accuracy of this translation. The Chairman said that the Sub-Committee should contact the author, since they are expressing an interest in ocean nomenclature.

5. MATTERS REMAINING FROM PREVIOUS MEETINGS

Docs:	SCUFN19-5A	List of Actions from SCUFN/18 and Status
	SCUFN19-5B	Report of SCUFN/18
	SCUFN19-5C	E-mail from VAdm B. Fridman, HDNO, Russia
	SCUFN19-5Ca	Erdman Seamount
	SCUFN19-5Cb	Gramberg Seamount
	SCUFN19-5Cc	Kazanskiy Seamount
	SCUFN19-5Cd	Biographies: Lapushkin, Gordeyev, Shaposhnikov, Nasyr',
		Kalyuzhnyy, Petrov, Maksyuta, Somov
	SCUFN19-5Ce	Lukin-Lebedev Seamount
	SCUFN19-5Cf	Teplov Seamount
	SCUFN19-5Cg	Vartan'yan Seamount
	SCUFN19-5Ch	Yermolenko Seamount
	SCUFN19-5Ci	Zhilinskiy Rise
	SCUFN19-5D	Y. Ohara's responses to SCUFN/18 action items
	SCUFN19-5E	Y. Ohara's response to Action 6.2 of SCUFN/18

5.1 Review of Actions from SCUFN/18 (Monaco, October 2005)

Note: Numbers in parentheses refer to corresponding paragraphs in SCUFN/18 Report.

- 5.1.1 HW. Schenke (Chairman), N. Cherkis, A. Theberge and M. Huet (Secretary) to prepare a draft revised 'Terms of Reference' document and circulate to all SCUFN members for review (2.2). **DONE** (See doc. SCUFN19-3C)
- 5.1.2 M. Huet to add to the remarks section of the GEBCO Gazetteer, for *Gagarin Seamount*: 'ACUF approved this feature in 1966, which was shown on 1963 USSR map of the Pacific Ocean and appeared on Prof. G. Udintsev's 1968 list of undersea features' (3.1.1.8e).

 DONE
- 5.1.3 M. Huet to add least depth of 200 meters and total relief of 1600 meters to the GEBCO Gazetteer remarks section for *Sapmer Seamount*. Also, adjust the position to 36°49.6' S 52°07.5' E (3.1.3e).

 DONE
- M. Huet to include in the agenda for SCUFN/19 the review of *Kinmei Guyot / Seamount* and *Koko Guyot / Seamount* (4.1c).DONE (see below)
 - Y. Ohara presented bathymetric maps and supporting material from the US Navy to clarify positions of the features. The positions given in the ACUF gazetteer for *Kinmei Seamount / Tablemount* are correct. The ACUF coordinates for *Koko Seamount* have been changed to match the coordinates listed in the GEBCO Gazetteer for *Koko Guyot*. ACUF has changed the name of *Kinmei Seamount* to *Kinmei Tablemount*.

<u>ACTION</u>: Secretary (M. Huet) to change coordinates of *Kinmei Guyot* to 33°43'N - 171°30'E in the GEBCO Gazetteer.

5.1.5 M. Huet, G. Agapova and T. Palmer to check all Russian names submitted for proper UN spelling. M. Huet to send the digital version of the UN rules to L. Taylor for posting on the GEBCO website. G. Agapova to check the international shipping lists for the spelling of the ship, *Vayda* (4.5c).

DONE

The UN rules are posted on the GEBCO website. M. Huet stated that he is not in a position to check the Russian names for proper UN spelling. After discussion, it was agreed that a Russian member of SCUFN will ensure that the Cyrillic names submitted to SCUFN are properly translated.

G. Agapova confirmed by e-mail to M. Huet (November 2005) that *Vayda* is the correct spelling.

T. Palmer reported that he had examined 11 Russian names for proper UN spelling and sent M. Huet a list of his findings. He noted that SCUFN had not followed the UN system of romanization for a few of the names.

<u>ACTION</u>: G. Agapova and/or V. Sobolev to ensure that the Cyrillic names submitted to SCUFN are properly translated (ongoing).

5.1.6 G. Agapova to report to SCUFN/19 on discussions with the Russian National Committee regarding standards for transliteration; All Sub-Committee members to review 'Linguistic Particularities of Transferring Russian Geographic Names' (doc. SCUFN18-8.4A) and provide comments to G. Agapova (8.4).

DONE

N. Turko reported that the Russian National Committee does not intend to change the national standards for transliteration. It currently uses the standards of Romanization approved by the United Nations during the Eighth Conference, 27 August to 5 September, 2002. She referenced Point F in document B6:

'Names not in the writing system of the country applying the names on maps or other documents should be transliterated according to the system adopted by the national authority applying the names.'

Currently, the country that proposes an undersea feature name to be published on a GEBCO international bathymetric map chooses the transliteration system. G. Agapova proposes that SCUFN specify the system that should be used for transliteration of undersea feature names included in GEBCO products to achieve consistency between languages. The Chairman requested that a detailed written proposal be submitted regarding this issue.

- 5.1.7 M. Huet to add coordinates to *Pernambuco Seamount Group*, in the GEBCO Gazetteer, to include the seamount at position 07°31'S 33°13'W (5.2.3b). **DONE**
- **5.1.8** M. Huet to provide G. Agapova with current English/French version of Publication B-6 (7.2). **DONE**
- 5.1.9 M. Huet to ask Dr. Davey and Dr. Stagpoole (New Zealand) to submit proposals for the feature names included on their maps; to then circulate the proposals to Sub-Committee members for comments (8.2)

 DONE (see para. 10.2)

5.1.10 HW. Schenke to send a letter of support for SCUFN to IOC Secretariat requesting funding (2.1).

DONE

The Chairman reported that although he has not received a written report from IOC, there is some funding support. The IOC will support an annual SCUFN meeting.

5.1.11 HW. Schenke to keep in contact with Dr. P. Hill (CSIRO, Australia) in view of possibly submitting name proposals for the six fracture zones identified by Dr. J. Cochran on the southeast Indian Ridge (3.1.1.2b).

PENDING

5.1.12 HW. Schenke to keep in contact with Dr. W. Bettac, in view of hopefully obtaining additional coordinates for 8 names in the Mozambique Channel (3.1.1.2c).

PENDING

Dr. Bettac has agreed to supply the additional coordinates, but has not contacted SCUFN to date.

5.1.13 HW. Schenke to check for information regarding the origin of *Echo Bank* and *Echo Seamount* (3.1.1.8f).

DONE (by A. Theberge)

A. Theberge provided the following information:

The name, Echo Bank, originated with the German 'METEOR' Expedition of 1925-1927. The METEOR discovered North and South Echo Banks in May 1927 on the homeward bound leg of the cruise. South Echo Bank is located at 25°19.4'N - 19°22.5'W and has a least observed depth of 268 meters. North Echo Bank, with a least observed depth of 1079 meters, was observed at 25°59.9'N - 18°41.1'W. Reference: Maurer, H. and Stocks, T. 1933. Die Echolotungen des 'METEOR'. p. 292 and Heimreise, Beilage XXVI.

<u>ACTION</u>: Secretary (M. Huet) to add the above comment at the History section of the GEBCO Gazetteer for *Echo Bank* and *Echo Seamount*.

5.1.14 HW. Schenke to ask the proposer of *Catalonia Seamount*, Dr. Hans-Joachim Wallrabe-Adams, Universität Bremen, Germany to propose a different name and provide more bathymetric evidence for the feature (4.7a).

PENDING

Dr. Schenke reported that no additional information or proposal had been provided by Dr. Wallrabe-Adams. This proposal is rejected until more bathymetric data and a different name is submitted.

5.1.15 HW. Schenke (also Chairman of the IBCSO project) to encourage IBCSO members to use approved names from the GEBCO Gazetteer for future compilation of bathymetric maps (8.2). **DONE**

During the last IBCSO meeting, Dr. Schenke asked the IBCSO members to use approved names from the GEBCO Gazetteer, as well as naming criteria defined for SCUFN.

5.1.16 G. Agapova to provide Prof. Thiede, via Dr. Schenke, with new data compilation for *Karasik Seamount* with grid, track control and depths (3.1.1.2d).

DONE

In the absence of Dr. Agapova, Dr N. Turko, GINRAS, Russia, reported that Dr. Agapova had recommended that the proposal for *Karasik Seamount* be rejected for lack of bathymetric evidence. This was agreed by the Sub-Committee.

<u>ACTION</u>: Secretary (M. Huet) to remove *Karasik Seamount* from the Reserve Section of the GEBCO Gazetteer database.

5.1.17 G. Agapova and/or V. Sobolev to provide the Secretary (M. Huet) with additional bathymetric evidence for *Zhilinsky Rise* (3.1.1.4b).

DONE

This information was provided by HDNO, Russia (Radm B. Fridman). See doc. SCUFN19-5Ci. The Secretary (M. Huet) indicated that, consequently, *Zhilinsky Rise* had been moved from the Reserve Section to the Approved Section of the GEBCO Gazetteer database.

5.1.18 G. Agapova to provide the secretary (M. Huet) with English/Russian version of Publication B-6 (3.1.1.4c and 7.2).

PENDING

In the absence of Dr. Agapova, Dr. N. Turko, GINRAS, Russia, reported that the English / Russian version of B-6 was being finalized.

5.1.19 G. Agapova and/or V. Sobolev to provide the secretary (M. Huet) with biographical information for *Somov Hill* (3.1.1.9f).

DONE

This information was provided by HDNO, Russia (Radm B. Fridman). See doc. SCUFN19-5Cd. The Secretary (M. Huet) indicated that, consequently, this biographical information had been added to the History Section of the GEBCO Gazetteer database for *Somov Hill*.

Y. Ohara, in liaison with G. Agapova and V. Sobolev, to research appropriate Japanese emperor names for the features located at 45°39.8'N – 170°00.0'E (originally proposed as Erdman Seamount by HDNO; not accepted at SCUFN/18) and at 47°26.3'N – 169°02.2'E (originally proposed as Maksyuta Seamount by HDNO; not accepted at SCUFN/18), taking into account the chronological order of the existing Emperor Seamount Chain names (3.1.3b and 4.1d).

PENDING

The chairman stated that the consensus from SCUFN/18 was that future names for unnamed seamounts along the Emperor Seamount Chain should be reserved for Japanese emperors. A. Theberge said that Robert Deitz named the Emperor Seamount Chain, and it was his intent that features along the chain be named for Japanese emperors. The HDNO re-submission for Erdman Seamount (doc. SCUFN19-5Ca) was not supported.

Y. Ohara reported that JCUFN had prepared 6 names proposals for seamounts in the Emperor Seamount chain; two of these correspond to those previously proposed by HDNO (Maksyuta and Erdman Seamounts). He said he attempted to communicate with the Russian representatives on this matter, but has received no response to date. JCUFN is waiting to propose the six new names to SCUFN until after consultation with the Russian representatives.

Y. Ohara presented multibeam bathymetry for the features, published by Christian Smoot in the journal, Marine Geology. After analyzing this data, it was agreed that there were not two separate features but one single guyot (Least depth: 912 meters, Total relief: 4588 meters, Maximum depth: 5500 meters). Y. Ohara proposed the name 'Tenmu Seamount' for the feature. However, it was remarked that Suiko Seamount is in the ACUF gazetteer, approved in 1966, with coordinates 44°30'N, 170°20'E. Y. Ohara indicated that he was willing to accept this name for the feature. The secretary (M. Huet) suggested including both positions proposed by the HDNO for the feature in the GEBCO Gazetteer.

The name Saimei Seamount or Guyot was proposed by Y. Ohara for the feature proposed by HDNO as Maksyuta Seamount. There is only some low detail Russian bathymetry to define this feature. The Sub-Committee needs more detailed bathymetry to determine whether it is a minor feature along the entire ridge or part of the Jimmu Guyot. The feature is not included in ACUF and appears as a separate feature in the satellite altimetry data.

The Sub-Committee discussed the issue of determining the appropriate level of granularity to consider when naming features that may be part of a larger feature. It was noted that Ogasawara Rise encompasses smaller features named in the GEBCO Gazetteer. H. Han stated that the feature is the result of a hot spot and recommended analyzing magnetic data to determine whether it should be considered a separate feature. The Chairman stated that the Sub-Committee only considers the geomorphology and not the origin of the feature when considering appropriate feature names. An exception to this guideline is the use of the generic term, 'fracture zone'.

<u>ACTION</u>: N. Cherkis and Y. Ohara to look for additional multibeam bathymetric and magnetic data to further define the proposed Saimei Seamount (or Guyot), and to determine whether it is part of the Jimmu Guyot.

<u>ACTION</u>: Secretary (M. Huet) to add the name Erdman to the reserve section of the GEBCO Gazetteer.

5.1.21 Regarding the proposed 'NP-28 Channel', G. Agapova to check if there are any cross sections available from Russia and N. Cherkis to determine whether Scicex data is available to better define this feature, especially between profile lines (3.1.4a).

PENDING

- N. Cherkis reported that there are no submarine tracks that cross the channel. More detailed information is still required to better define the feature, so the proposal is still pending.
- **5.1.22** G. Agapova and V. Sobolev to check acceptance of HDNO for the name Skif Seamount and provide the secretary (M. Huet) with an appropriate proposal form (4.1i). **PENDING**
 - N. Turko reported that HDNO rejects the name 'Skif Seamount' and would like to submit additional biographic information to support the originally proposed, 'Shaposhnikov Seamount' for the feature. The Chairman stressed the importance of abiding by the SCUFN naming criteria contained in Publication B-6 that requires that the geographic area be considered first, followed by the discovering ship when proposing a feature name. The Sub-Committee would accept the name of the discovering ship, pending HDNO approval.
- **5.1.23** J.L. Frias Salazar to provide M. Huet with comments and corrections to the Spanish/English version of Publication B-6 (3.1.1.5c and 7.2).

PENDING

J. Frias reported that changes in punctuation and spelling were made to the Spanish version of B-6. Some synonyms were changed (e.g. standardization = normalizacion), and the title was changed to read:

'Normalizacion de los Nombres de las Formas del Relieve Submarino'. He stressed the importance of having the other Spanish speakers on the Sub-Committee review the suggested changes.

<u>ACTION</u>: J.L. Frias Salazar to consult with the Spanish speaking SCUFN members before submitting the revised Spanish/English version of Publication B-6 to the full Sub-Committee.

Y. Ohara to update an early edition of the Japanese/English Publication B-6, based on the 2001 English / French edition of the document (3.1.1.10a and 7.2).

PENDING

- Y. Ohara reported that the translation of the document is complete and, at the request of JCUFN, is being reviewed by an appropriate section of the Japanese government to ensure the accuracy of the translated Japanese.
- Y. Ohara to clarify the status of all features/names in the Western Pacific, which were marked 'Reserve Section' in paragraph 2.2.1 of the Summary Report of SCUFN/15 (3.3).

 IN PROGRESS

(1) From SCUFN/14

§ 4.2.4. Items 9, 11, 12, 13, 15 (i.e., Usuki, Minasuki, Fumisuki, Hasuki, and Kannasuki Smts.)

DONE

The names for these seamounts were accepted at SCUFN/14 (Tokyo, 2001). They need to be corrected as follows in the GEBCO Gazetteer to reflect accurate Japanese usage: "Uzuki, Minazuki, Fumizuki, Hazuki, and Kannazuki" Seamounts. This was agreed.

<u>ACTION</u>: Secretary (M. Huet) to change the seamount names currently included in the GEBCO Gazetteer as "Usuki, Minasuki, Fumisuki, Hasuki, and Kannasuki" Seamounts to "Uzuki, Minazuki, Fumizuki, Hazuki, and Kannazuki" Seamounts.

(2) From SCFUN/16

§ 2.2.1. Seamounts in the Daito Ridges region PENDING

The Japanese Continental Shelf Survey Project has completed mapping the concerned Daito Ridges region. The Japanese Committee on Undersea Feature Names (JCUFN) has not yet proposed new names for the features which were identified during SCUFN/14. JCUFN feels that some of these features are too minor to require individual names.

The Sub-committee recommended that JCUFN propose names for those features outside Japanese territorial waters and within the Japanese EEZ as seamounts or hills. Track control to go with the supporting bathymetry was requested.

§ 2.2.2. Raicho, Tancho, and Toki Escarpments, and associated troughs PENDING

During SCUFN/14, naming of these three escarpments was deferred because they are not topographically obvious. The Japanese Continental Shelf Survey Project completed mapping

IOC-IHO/GEBCO SCUFN-XIX Page 14

the concerned region, and found that these escarpments are part of the fracture zones (or transform faults) of the Parece Vela Basin, and the associated troughs are fossil spreading segments of the basin (Okino et al., 1998; Ohara et al., 2001). The survey identified more than eight fracture zones in the concerned area. During the last JCUFN meeting (March, 2006), it was decided to propose a single name for this group of fracture zones.

Associated references:

Okino, K., S. Kasuga, and Y. Ohara., a new scenario of the Parece Vela Basin genesis, Marine Geophysical Researches, 20, 21-40, 1998.

Ohara, Y., T. Yoshida, Y. Kato, and S. Kasuga, Giant megamullion in the Parece Vela backarc basin, Marine Geophysical Researches, 22, 47-61, 2001.

Y. Ohara will officially propose names for the escarpments at SCUFN/20. As there may not be an appropriate generic term to adequately describe this kind of area, a proposal may need to be submitted to add a new generic term to Publication B-6. Meanwhile, the three unnamed escarpments to be kept in the reserve section of the GEBCO Gazetteer.

§ 2.2.3. Japanese Guyots PENDING

The Japanese Continental Shelf Survey Project has completed mapping the concerned region, and JCUFN has two new name proposals for seamounts within the "Japanese Guyots". The proposals are for Kazuaki Seamount and Takahiro Seamount (see 6.3b). However, JCUFN has not yet considered an alternative name for "Japanese Guyots".

ACTION: Y.Ohara to request that JCUFN submit an alternative name for 'Japanese Guyots'.

§ 2.2.4. Suda Ridge, Yabe Plateau, and Uda Spur PENDING

These three feature names were proposed by the former SCUFN chairman, Dr. Robert Fisher, during SCUFN/14. The Japanese Continental Shelf Survey Project has completed mapping the concerned region.

The name, 'Ogasawara Plateau', is used in the scientific literature to refer to the larger feature encompassing Ogasawara Rise, Yabe Plateau, Suda Ridge and Uda Spur. JCUFN requests that SCUFN change the position coordinates of the Ogasawara Plateau (current position in the GEBCO Gazetteer is 26°05'N, 145°20'E) in the GEBCO Gazetteer to encompass this larger area. JCUFN will approve Suda Ridge, Yabe Plateau, and Uda Spur after confirmation of the position of the Ogasawara Plateau.

The chairman stated that the polygonal boundary of the Ogasawara Rise needs to be defined with additional coordinates. The ACUF gazetteer contains 'Michelson Ridge' defined as the feature to the east of Ogasawara Rise. The chairman suggested that discussion regarding the ridge be deferred until the next meeting, to give JCUFN time to determine whether the name, 'Michelson Ridge' is acceptable. Y.Ohara stated that he appreciates the scientific precedent of the name, 'Michelson Ridge', but predicted that JCUFN would not accept the name.

<u>ACTION</u>: Y.Ohara to provide historical information about the 'Ogasawara Plateau' and polygonal coordinates defining the 'Ogasawara Rise' to the secretary (M. Huet).

ACTION: T. Palmer to report at SCUFN/20 on the historical basis for the name 'Suda Ridge'.

§ 2.2.5. Nelson Seamount vs. Kiku Seamount DONE

The Japanese survey vessel, 'Takuyo', surveyed the seamount in 1991 and 1992, and JCUFN named it 'Kiku Seamount' in 1997. However, JCUFN acknowledges the fact that the name "Nelson Seamount" first appeared in a Mammerickx chart in 1985, and was accepted by ACUF in 1990. The Japanese charts do not include reference to Kiku Seamount. JCUFN is willing to accept the name 'Nelson Seamount' for the feature.

The Sub-Committee agreed with the decision to keep Nelson Seamount in the GEBCO Gazetteer.

§ 2.2.6. Seamounts around the Ogasawara Plateau

This action item is the same as the one detailed in above Sections 2.2.4 and 2.2.5.

5.1.25 Y. Ohara to check with JCUFN and SOEST to consider a name for the feature at position 32°44'N - 136°55'E (4.3a).

DONE

JCUFN reviewed the SOEST proposal for 'Kashino Knoll', named after the 'Kashino-zaki Lighthouse'. JCUFN concluded that, since 'zaki' means 'cape' in Japanese, the feature should be named 'Kashino-zaki Knoll', instead of 'Kashino Knoll'.

Since the knoll is located on the SE extension of the Zenisu Ridge, there was a discussion during SCUFN/18 as to whether it should be named after a Zenisu-related feature. Although JCUFN acknowledges the merit of this option, it considers the name 'Kashino-zaki' to be acceptable.

The chairman thanked Y.Ohara for the thorough review and presentation of his action items.

<u>ACTION</u>: Secretary (M. Huet) to inform SOEST that the name, 'Kashino Knoll', has been changed to 'Kashino-zaki Knoll'.

T. Palmer to provide M. Huet with two additional coordinates for Atlantis II Seamounts (3.1.1.8f).

DONE

- T. Palmer had provided the Secretary with the following two additional positions: 38°19.0'N, 63°00.0'W and 38°24.0'N, 62°48.0'W.
- T. Palmer to provide the secretary (M. Huet) with coordinates for the accompanying map for Mikura Seamount (5.2.10a).

DONE

- T. Palmer had provided the Secretary with coordinates, as follows: SW corner:33°30.0'N, 139° 10.0'E and NE corner: 33°50.0'N, 139°30.0'E.
- **5.1.28** Report on the 2005 ABLOS Conference at SCUFN-XIX (8.6). **DONE**
 - T. Palmer provided a brief verbal report to the Meeting on the 2005 ABLOS Conference.

IOC-IHO/GEBCO SCUFN-XIX

Page 16

T. Palmer to compare the 73 unnamed seamounts in the Central Pacific Ocean with ACUF's database (8.1).

DONE

T. Palmer sent the secretary (M. Huet) spreadsheets with the requested information. N. Cherkis expressed a concern that some of the unnamed seamounts may not exist, as they were identified with satellite altimetry data.

<u>ACTION</u>: HW. Schenke to look into having a student check the list of unnamed seamounts in the Central Pacific Ocean (doc. SCUFN19-10.1A) using the GDA, ETOPO2, and other sources to make sure there is sufficient evidence that each seamount actually exists.

In this connection, it was remarked that the coordinates provided for the seamount #52 in document SCUFN19-10.1A are: 13°28.0'N, 119°53.3'W, while the GEBCO Digital Atlas lists the feature coordinates as 13°27'N, 119°39'W.

5.1.30 V. Sobolev to provide the secretary (M. Huet) with additional information for Teplov Seamount (3.1.1.1i).

DONE

The Secretary reported that the requested Russian submarine data with tracklines, in support of Teplov Seamount, had been provided (see doc. SCUFN19-5Cf).

- **5.1.31** V. Sobolev to provide the following data to NGDC:
 - supporting data for Lukin-Lebedev Seamount (3.1.1.9b),
 - multibeam data used in the supporting compilation for Gramberg Seamount (3.1.1.9c),
 - supporting data for Kazanskiy Seamount (3.1.1.9d),
 - data used to identify Yermolenko Seamount (3.1.1.9e).

PENDING

As V. Sobolev was not present at the meeting, M. Huet reported that the NDNO resent the name proposals they submitted before SCUFN/18 to the Sub-Committee. There may have been some misunderstanding about the agreement to send supporting digital hydrographic data for these proposals to NGDC, as this has not been done.

5.1.32 A. Theberge to investigate the possibility of NOAA sending a letter of support to IOC, stressing the importance of SCUFN (2.1).

PENDING

5.1.33 L. Taylor to post HTML names submittal forms on the GEBCO website (6.1).

DONE

Online submissions of undersea feature name proposals can now be made on the GEBCO website (See www.ngdc.noaa.gov/mgg/gebco/scufn/index.html).

- 5.1.34 All Sub-Committee members to review the prototype of the web-based map gazetteer interface and send L. Taylor comments via email or list serve (3.1.1.11a).

 DONE
- **5.1.35** Review Publication B-6, in preparation for making recommendations for changes to the document at the next meeting, and send comments to the secretary (M. Huet) (3.1.1.11b and 7.1).

DONE

5.2 Additional supporting information supplied by HDNO, Russia for previously proposed feature names: Erdman Seamount, Gramberg Seamount, Kazanskiy Seamount, Lapushkin Seamount, Gordeyev Seamount, Shaposhnikov Seamount, Nasyr' Seamount, Kalyuzhnyy Seamount, Petrov Seamount, Maksyuta Seamount, Somov Hill, Lukin-Lebedev Seamount, Teplov Seamount, Vartan'yan Seamount, Yermolenko Seamount and Zhilinskiy Rise.

All these feature name proposals had been considered at either SCUFN/17 or SCUFN/18. The outcomes were as follows:

- Erdman Seamount: not accepted (SCUFN/18 See also 5.1.19)
- Gramberg Seamount: accepted as Gramberg Guyot (SCUFN/17)
- Kazanskiy Seamount: accepted (SCUFN/17)
- Lapushkin Seamount: not accepted (SCUFN/18)
- Gordeyev Seamount: not accepted (SCUFN/18)
- Shaposhnikov Seamount: provisionally accepted as Skif Seamount (SCUFN/18 See also 5.1.22)
- Nasyr' Seamount: not accepted (SCUFN/18)
- Kalyuzhnyy Seamount: not accepted (SCUFN/18)
- Petrov Seamount: not accepted (SCUFN/18)
- Maksyuta Seamount: not accepted (SCUFN/18 See also 5.1.19)
- Somov Hill accepted (SCUFN/17 See also 5.1.18)
- Lukin-Lebedev Seamount: accepted (SCUFN/17)
- Teplov Seamount: accepted (SCUFN/17 See also 5.1.30)
- Vartan'yan Seamount: not accepted (SCUFN/17)
- Yermolenko Seamount: accepted (SCUFN/17)
- Zhilinskiy Rise: Provisionally accepted (SCUFN/17). Acceptance now confirmed (see 5.1.16)

The additional information provided was taken into consideration as appropriate. However, these name proposals were not re-considered during SCUFN/19.

NOTE: M. Huet circulated a letter from HDNO (doc. SCUFN19-5C) requesting that SCUFN reconsider the rejection of the name, Vartan'yan Seamount. The Sub-Committee discussed the name and reconfirmed its status as rejected.

6.0 PROPOSALS ON RECORD OR SUBMITTED DURING INTERSESSIONAL PERIOD

IOC-IHO/GEBCO SCUFN-XIX Page 18

SCUFN19-6.10	Name Proposal for Takahiro Seamount
SCUFN19-6.1P	Name Proposal for Suruga Seamount
SCUFN19-6.1Q	Name Proposal for Wenzel Seamount
SCUFN19-6.1R	Name Proposal for Hinz Seamount
SCUFN19-6.1S	Name Proposal for Seeber Seamount
SCUFN19-6.1T	Name Proposal for Göttingen Province
SCHENIO 6 III	Nama proposal for Vanahan Williams Soamo

SCUFN19-6.1U Name proposal for Vaughan Williams Seamount

SCUFN19-6.1V Name proposal for Kertz Seamount

6.1 Proposals submitted by Yuzhmorgeologiya (State Scientific Centre, RV "Gelendzhik", Russia) for the area of the Magellan Seamounts.

As a general note, the Sub-Committee stressed the importance of considering the geographic location of a feature first when proposing an undersea feature name. G. Udintsev advised the Sub-Committee to be open-minded about which scientists are well known, as their notoriety often varies from region to region.

<u>ACTION</u>: N. Turko and/or G. Agapova to inquire into whether the digital data used to support the SCUFN/19 proposals submitted by Yuzhmorgeologiya for the area of the Magellan Seamounts are available from the Russian Ministry of Natural Resources.

<u>ACTION</u>: Secretary (M. Huet) to set up a vehicle to transfer data submitted to SCUFN to the GEBCO Sub-Committee on Digital Bathymetry as a matter of procedure.

6.1.1 Govorov Guyot ACCEPTED

Position: Lat. 17°50'N, Long. 150°50'E, Pacific Ocean

Minimum Depth: 1301 m Total Relief: 3200 m

The slope of the guyot varies from 4-7° to 25° and extends to the north-east. It is defined by multibeam data collected in 2005.

Named after Dr. I.N. Govorovs (1920-1997), a specialist on magnetism of the Pacific Ocean. His main areas of study were volcanism, geology, and tectonics. He studied the magnatism of the Marcus-Wake Rise, the Magellan Seamounts, and the Ogasawara Rise.

6.1.2 Pegas Guyot ACCEPTED

Position: Lat. 15°35'N, Long. 152°05'E, Pacific Ocean

Minimum Depth: 1303 m Total Relief: 3600 m

The slope of the guyot varies from $4-7^{\circ}$ to 25° .

Named after the vessel 'Pegas', which conducted regional geologic-geophysical investigations in the areas of the East-Mariana Basin, Magellan Seamounts and Marcus-Wake Rise in 1975-76.

6.1.3 Il'ichev Guyot ACCEPTED

Position: Lat. 16°55'N, Long. 152°05'E, Pacific Ocean

Minimum Depth: 1340 m Total Relief: 3600 m

The slope of the guyot varies from 4-7° to 25°.

Named after professor V.I. Il'ichev (1932-1994), an oceanographer and acoustic specialist. His research focused on the north-west Pacific Ocean. He was the director of the Pacific Oceanology Institute, Far Eastern Branch of the Russian Academy of Sciences from 1974 to 1994.

6.1.4 Kocebu Guyot

ACCEPTED as Kocebu Guyots

Position: Lat. 17°25'N, Long. 152°55'E, Pacific Ocean

Minimum Depth: 1174 m Total Relief: 3500 m

The feature consists of two isometric guyots. Slope steepness varies from 4-7° to 25°.

Named after Captain O.E. Kocebu (1788-1846), who conducted oceanographic and meteorological research during three round the world expeditions on the vessels, 'Nadezhda', 'Rurik', and 'Predpriyatie'. He studied the origins of coral reefs and guyots, and generated an atlas of the South Pacific Ocean.

ACTION: N. Turko and/or G. Agapova to provide coordinates for the western most Kocebu guyot.

6.1.5 Nazimov Guyot

ACCEPTED as Nazimov Guyots.

Position: Lat. 15°10'N, Long. 162°52'E, Pacific Ocean

Minimum Depth: 1278 m Total Relief: 3800 m

The feature consists of two guyots. Slope steepness varies from 4-7° to 25°.

Named after Admiral P.N. Nazimov (1829-1902), a researcher and commanding officer on the vessels 'Nadezhd', 'Pallada', and 'Cesarevich'. He mapped new coordinates of islands in the Marshall Islands and conducted the four year Miklucho-Makla expedition on New Guinea island.

ACTION: N. Turko and/or G. Agapova to provide coordinates for the northern most Nazimov guyot.

6.1.6 Butakov Guyot ACCEPTED

Position: Lat. 11°19'N, Long. 156°41'E, Pacific Ocean

Minimum Depth: 1185 m Total Relief: 4000 m

Slope steepness varies from 4-7° to 25°.

IOC-IHO/GEBCO SCUFN-XIX

Page 20

Named after Admiral I.I. Butakov (1788-1846), who participated in a round-the-world expedition on the frigates 'Pallada' in 1852 and 'Diana' in 1853.

6.2 Proposals submitted by Dr. Heinrich Hinze (Alfred Wegener Institute for Polar and Marine Research, Germany)

6.2.1 Eötvös Escarpment ACCEPTED

Center Position: Lat. 56°23'S, Long. 42°49'W, Scotia Sea

Minimum Depth: western - 2700 m, central - 2000 m, north eastern - 3600 m Total Relief: western - 1300 m, central - 2500 m, north eastern - 600 m

The escarpment is arc-shaped, about 103 km in length, and about 3.6 km wide. The slope varies from 36 % at the western end, 69 % at the center, and 18 % at the eastern end. Surveyed with multibeam in 2005.

Named after Dr. Lóránd Eötvös (1848 – 1919), a professional scientist in experimental physics and geophysics. Dr. Eötvös invented the Eötvös balance instrument and showed that, to a high degree of accuracy, gravitational mass and inertial mass are equivalent. Because the instrument is very sensitive and not suitable for data mass production, it was replaced by the gravimeter. However, the Eötvös balance is still used today for special geodetic and geophysical applications. Eötvös founded the Hungarian Society for Mathematics in 1885, and was active in improving educational standards in Hungary. What was once the Péter Pázmány University in Budapest is now known as the Lóránd Eötvös University.

6.2.2 Kaula Seamount ACCEPTED

Position: Lat. 55°24.4'S, Long. 42°46.9'W, Scotia Sea

Minimum Depth: 2150 m

Total Relief: 2150 to 3350 m

The seamount is oval in shape with three local elevations and one depression. Its extension is 12.3 km in the SW-NE direction, and 7.1 km in the SE-NW direction.

Named after Dr. William M. Kaula (1926 – 2000), USA, who studied satellite geodesy and planetary physics. Kaula recognized that tracking satellites could provide revolutionary information on how the earth works. He contributed to the determination of absolute positions on Earth to a millimeter accuracy using the satellite positioning system. Kaula was also one of the fathers of comparative planetology.

6.2.3 Schrick Knoll

ACCEPTED as an exception to the naming criteria, as Karl Schrick is living.

Position: Lat. 55°22.35'S, Long. 42°39.1'W, Scotia Sea

Minimum Depth: 2020 m Total Relief: 730 m

The feature is round in shape and about 3.5 km in diameter.

Named after Dr. Karl Wilhelm Schrick (1921 -), a professional hydrographer and director of hydrography and data processing for the German Hydrographic Office in Hamburg, Germany.

6.2.4 Kant Knoll

REJECTED. 'Kant Seamount' is already in use for a seamount in the Arctic.

Position: Lat. 54°45.7'S, Long. 42°40.8'W, Scotia Sea

Minimum Depth: 3080 m Total Relief: 730 m

The feature is round in shape with a diameter of between 7.4 and 8.6 km.

Immanuel Kant (1724–1804) 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. He taught geography and physics at the University of Königsberg.

6.2.5 Krarup Knoll

REJECTED. It is considered that Torben Krarkup has not made an outstanding contribution to ocean science.

The feature will be held in reserve pending the submittal of another name.

Position: Lat. 55°51.9'S, Long. 42°23.4'W, Scotia Sea

Minimum Depth: 2860 m Total Relief: 1040 m

The feature is round in shape with a diameter of between 7.4 and 8.6 km.

Dr. Torben Krarup (1919 -) is recognized as an authority in the field of physical geodesy. He worked at the Danish Geodetic Institute and actively participated in the construction of a computer built at the Institute around 1960. The term 'least—squares collocation' is inseparably connected with him.

6.3 Proposals submitted by the Japanese Committee on Undersea Feature Names

6.3.1 Hotta Seamount ACCEPTED

Position: Lat. 37°43'N, Long. 145°59'E, North Pacific Ocean

Minimum Depth: 2250 m Total Relief: 2750 m

The seamount is one of a group of seamounts in the Northwest Pacific Basin. It is conical in shape and well defined at the base by the 5000 m contour. It was discovered in a 2005 multibeam survey by the Japanese survey vessel 'Shoyo'.

Named after Dr. Hiroshi Hotta (1936 – 2002), a marine seismologist and marine engineer from the Japan Marine Science and Technology Center (JAMSTEC) for more than 20 years. He was responsible for developing ROV technology capable of operating at a water depth of 6000 meters. He was also responsible for coordinating the Japan-France collaborative project "STARMER" for the study of the North Fiji Basin, resulting in discovery of the first hydrothermal vent in a backarc basin. He published a number of professional papers and books.

IOC-IHO/GEBCO SCUFN-XIX Page 22

6.3.2 Kazuaki Seamount ACCEPTED

Position: Lat. 33°50'N, Long. 143°49'E, North Pacific Ocean

Minimum Depth: 2100 m Total Relief: 3400 m

The seamount is one of a group of seamounts in the Northwest Pacific Basin. It has two peaks and is well defined at the base by the 5500 m contour. This seamount complex is elongated ENE-WSW. It was discovered during a 2005 multibeam survey by the Japanese survey vessel 'Shoyo'.

Named after Dr. Kazuaki Nakamura (1932 – 1987), a professor of geology at the Earthquake Research Institute of the University of Tokyo. He was a celebrated volcanologist/marine geologist, and one of the co-PIs of the Japanese-French 'Kaiko' Project for the study of subduction zones, especially for the Sagami and Suruga Troughs. He published a number of professional papers and books.

The surname, Nakamura, is too common to uniquely distinguish the feature, so the feature name is accepted with the first or given name only. The full name, Kazuaki Nakamura, will be stated in the GEBCO Gazetteer.

<u>ACTION</u>: Secretary (M. Huet) to inform the SCDB that the coordinates are incorrect for Daiyon-Kashima Seamount in the GEBCO Digital Atlas. The coordinates are correct in the GEBCO Gazetteer.

6.3.3 Takahiro Seamount ACCEPTED.

Position: Lat. 33°01'N, Long. 143°24'E, North Pacific Ocean

Minimum Depth: 2000 m Total Relief: 3000 m

The seamount is one of a group of seamounts in the Northwest Pacific Basin. It is well defined by the 5000 m contour and consists of two peaks. This seamount complex is elongated northeast-southwest.

Named after Dr. Takahiro Sato (1932 – 1998), a geologist and hydrographer from the Hydrographic Department of Japan for more than 30 years. He was one of the key players of the early marine geology/hydrography community during 1960's - 1980's in Japan. He was responsible for the ocean floor mapping project around the main Japanese islands in the 1960's. The results of that project include the series, 'Basic Map of the Japanese Continental Shelves'. He published a number of professional papers and books, and contributed to the GEBCO project.

The surname, Sato, is too common to uniquely distinguish the feature, so the feature name is accepted with the first or given name only. The full name, Takahiro Sato, will be stated in the GEBCO Gazetteer.

6.3.4 Suruga Seamount ACCEPTED as Suruga Bank

Position: Lat. 14°14'N, Long. 142°53'E, North Pacific Ocean

Minimum Depth: 40 m Total Relief: 1560 m The seamount is located at the southern end of the West Mariana Ridge, in the Philippine Sea. It is almost conical in shape, with a smaller peak on its southern flank. The top of the feature is not well defined, as there are only a few Sea Beam 2001 multibeam tracks across the summit.

Named after the first vessel to conduct a full-scale spawning ground investigation of the area, Japanese fisheries research ship 'Suruga Maru'. In 1977, an investigation was conducted of the spawning ground for Eel Anguilla japonica by the Suruga Maru. Detailed geological/geophysical mapping was then performed by R/V Yokosuka in 2001. The latest study confirmed Eel Anguilla japonica spawns at this seamount (Tsukamoto, 2006, Nature). The name, 'Suruga seamount', has appeared in several scientific journals for fisheries. The Research Vessel 'Yokosuka' of the Japan Agency for Marine-Earth Science and Technology Center (JAMSTEC) discovered the feature in 2001.

<u>NOTE</u>: The chairman requested that the multibeam data associated with this proposal be supplied to the GEBCO Sub-Committee on Digital Bathymetry. The shallow depth of the proposed seamount makes the generic term 'bank' more appropriate for the feature. It is unclear how the least depth was determined. A. Theberge offered to recommend that the U.S. run a complete survey over the feature to determine the exact minimum depth.

<u>ACTION</u>: Y. Ohara to ask the proposer of 'Suruga Seamount' how the least depth of 40 m was determined.

6.4 Proposals submitted by Dr. Heinrich Hinze (Alfred Wegener Institute for Polar and Marine Research, Germany)

6.4.1 Wenzel Seamount ACCEPTED

Position: Lat. 55°28.3'S, Long. 43°10.3'W, Scotia Sea

Minimum Depth: 2220 m Total Relief: 1200 m

The seamount is rectangular in shape, with dimensions of about 10 km by 15 km. It is characterized by a local deep of about 100 m at the top.

Named after Hans-Georg Wenzel (1945-1999), an internationally known geophysicist who contributed to the understanding of the tides, the global gravity field, and modeling of the geopotential of the Earth. Wenzel's research included both land and sea, however, he paid special attention to the marine and Polar Regions.

6.4.2 Hinz Seamount

ACCEPTED as an exception to the naming criteria, as Karl Hinz is living.

Position: Lat. 56°00.9'S, Long. 42°40.0'W, Scotia Sea

Minimum Depth: 2420 m Total Relief: 1100 m

The seamount is circular in shape, about 13 km in diameter with a local deep of about 100 meters at the top. Surveyed in 2005 by the Research Vessel 'Polarstern'.

IOC-IHO/GEBCO SCUFN-XIX

Page 24

Named after Karl F. Hinz (1934 -), a retired marine geologist who served as head of the Geological and Geophysical Research Division of the Federal Institute for Geosciences and Natural Resources (BGR), Hannover, Germany. He participated in 48 marine expeditions designed to study aspects of geodynamics, and plate tectonic, and conducted research in the Scotia Sea region. He was active internationally, serving as a member of advisory panels and working groups of the International Deep Sea Drilling Project/Ocean Drilling Program (DSDP/ODP), advisor of CCOP, member of the scientific committee to IGCP, and member of the Editorial Board of Marine and Petroleum Geology. During the course of his career, he published over 140 papers on aspects of marine geosciences.

6.4.3 Seeber Seamount REJECTED with feature in reserve.

Position: Lat. 55° 06' 13"S, Long. 42° 35' 30"W, Scotia Sea

Minimum Depth: 2350 m Total Relief: 1150 m

The seamount is circular in shape, and about 14 km in diameter with a local deep of about 200 meters at the top. Surveyed in 2005 by the Research Vessel 'Polarstern'.

Günter Seeber (1941 -) is a retired marine geodesist who conducted research in geography, mathematics, astronomy, and surveying in German. He served as a professor of Geodetic Astronomy and Satellite Geodesy at the Institut für Erdmessung, Universität Hannover, Hannover, Germany and was the leader of the Special Research Group for 'Precise Position Determination in Marine Areas by Means of Navigation Satellites'. He developed a transportable zenith camera for astro-geodetic deflections of the vertical and authored the book, 'Satellite Geodesy' in several languages.

NOTE: The generic term 'Seamount' was accepted. It was determined that the name was not appropriate, because Günter Seeber is still living and relatively young. The feature will be kept in reserve pending the proposal of a different name.

6.4.4 Göttingen Province

REJECTED with feature in reserve.

Position: Lat. 55°33'S, Long. 43°03.5'W, Scotia Sea

Minimum Depth: 2025 m Total Relief: ~1975 m

The province is trapezium in shape, and consists of a combination of escarpments, ridges, seamounts, moats and plateaus. Partially surveyed in 2005 by the Research Vessel 'Polarstern'.

The German city of Göttingen is home to Göttingen University with a long history of outstanding research in various sciences including the first geophysical research conducted (e.g. Karl Friedrich Gauß and Wilhelm Weber in geomagnetics 1830-1840, Emil Wiechert in seismics 1898-1928, the first ever professor of geophysics).

G. Udintsev recommended postponing the naming of the northern part of the province until more research can be conducted in the area. He suggested that the geographic location of the feature (Scotia Sea) and ship names be considered when selecting a name for the area. Pirie Rise and Pirie Plateau have appeared in several articles, and the names Bruce Bank and Che Guevara Ridge have also been published. The Chairman stressed that the Sub-Committee is open to hearing from all observers, and he welcomed Dr. Udintsev's contribution.

The feature is reserved for consideration at the next meeting when alternate proposals may be considered. The chairman recommended considering the historical use of the names Discovery Rise, Bruce Rise, and Pirie Rise when proposing names for the area.

6.4.5 Vaughan Williams Seamount RESERVE (feature and name)

Position: *Lat.* 55°36'10"S, *Long.* 43°04'50"W, Scotia Sea

Minimum Depth: 2150 m Total Relief: 1075 m

The seamount has an elongated shape, and is about 50 km in the SW-NE, and 17 km in the SE-NW directions. It was surveyed in 2005 by the Research Vessel 'Polarstern'.

Ralph Vaughan Williams (1872 – 1958) was a musical composer, who composed "A Sea Symphony" (Symphony No. 1) in 1910 and in 1958 he completed the "Sinfonia Antartica" (Symphony No. 7), based on his 1948 film score for 'Scott of the Antarctic'. The Northern part of the seamount is V-shaped, corresponding to the first letter of the name Vaughan.

Given that the symphony, "Sinfonia Antartica", was composed in honor of Robert F. Scott, the famous Antarctic explorer, and that the feature is outside the Southern Ocean, it was decided that the name is not appropriate for this feature. The ACUF gazetteer includes 'Williams Seamount' in two different locations, and the GEBCO Gazetteer includes a 'William's Seamount'. The name is reserved for a feature within the Southern Ocean. The secretary (M. Huet) will request that Dr. Heinrich Hinze propose another name for the feature.

<u>ACTION</u>: N. Cherkis and A. Theberge to find out the source of the name, William's Seamount, listed in the GEBCO Gazetteer (53°09'S, 81°15'E) by searching the literature and asking Dr. Robert Fisher.

<u>ACTION</u>: Secretary (M. Huet) to discuss the use of the apostrophe in the GEBCO Gazetteer at SCUFN/20.

<u>ACTION</u>: Secretary (M. Huet) to request that Dr. Heinrich Hinze propose another name for the feature proposed as 'Vaughan Williams Seamount'.

6.4.6 Kertz Seamount

ACCEPTED

Position: *Lat.* 55°30'53"S, *Long.* 42°42'09"W, Scotia Sea

Minimum Depth: 2025 m Total Relief: 1075 m

The seamount has an elongated shape, and is about 14 km in the NS, and 4.1 km in the EW directions. It was surveyed in 2005 by the Research Vessel 'Polarstern'.

Named after Walter Kertz (1924 - 1997), a geophysicist who contributed to the understanding of the atmospheric tides. He developed a method to separate the internal and external contribution to the geomagnetic field; his "Kertz-operator" is still used today. Kertz was one of the driving scientists in studies related to electromagnetic deep soundings and magnetotellurics. His interests covered polar and marine research and geothermal and marine magnetic problems.

7.0 LIAISON WITH THE ADVISORY COMMITTEE ON UNDERSEA FEATURES (ACUF) [of the US Board on Geographical Names]

7.1 Harmonization of GEBCO and ACUF Gazetteers

No document was available in support of this agenda item. It was agreed to defer discussion on this matter in the interest of time.

7.2 Review of Reports of ACUF Meetings since July 2005

Docs: SCUFN18-5.2A Review of ACUF Activities

7.2.1 ACUF 312, August 2005

Docs: SCUFN19-7.2.1A Minutes of ACUF 312

No new names considered for inclusion in the GEBCO Gazetteer.

7.2.2 ACUF 313, September 2005

Docs: SCUFN19-7.2.2A Minutes of ACUF 313

No new names considered for inclusion in the GEBCO Gazetteer.

7.2.3 ACUF 314, November 2005

Docs: SCUFN19-7.2.3A Minutes of ACUF 314

No new names considered for inclusion in the GEBCO Gazetteer.

7.2.4 ACUF 315, January 2006

Docs: SCUFN19-7.2.4A Minutes of ACUF 315

No new names considered for inclusion in the GEBCO Gazetteer.

7.2.5 ACUF 316, March 2006: Ginsburg Hill, Yuma Hill

Docs: SCUFN19-7.2.5A Minutes of ACUF 316

SCUFN19-7.2.5B Proposal forms for Ginsburg Hill and Uma Hill

7.2.5.1 Ginsburg Hill, proposed by Dr. Joan Gardner, Naval Research Laboratory

REJECTED

Position: Lat. 35°22.5'N, Long. 7°05.2'W, Atlantic Ocean

Minimum Depth: 900 m. Total Relief: 200 m

The hill is a mud volcano located in the Gulf of Cadiz in the Atlantic Ocean. It is conical in shape and approximately 4 km in diameter.

The R/V Kane and R/V Professor Logachev were the discovering vessels. The late Gabriel Ginsburg was a Russian scientist and pioneer in the field of methane hydrates. He was responsible for the bulk of research conducted in this field from the late 1970s to the early 1990s.

This feature name will not be included in the GEBCO Gazetteer, because it is considered a

minor feature.

7.2.5.2 Yuma Hill, proposed by Dr. Joan Gardner, Naval Research Laboratory

REJECTED

Position: Lat. 35°25.4'N, Long. 7°06'W, Atlantic Ocean

Minimum Depth: 900 m. Total Relief: 200 m.

The hill is a mud volcano located in the Gulf of Cadiz in the Atlantic Ocean. It is conical in shape and approximately 4 kms in diameter.

The R/V Kane and R/V Professor Logachev were the discovering vessels. The hill's name is proposed for Dr. Joan Garner's birthplace.

This feature name will not be included in the GEBCO Gazetteer, because it is considered a minor feature.

8.0 LIAISON WITH THE UN GROUP OF EXPERTS ON GEOGRAPHICAL NAMES (UNGEGN)

T. Palmer briefed the Sub-Committee on issues regarding UNGEGN. UNGEGN meets every two years, while the USBGN meets every five years. A resolution was passed to refrain from naming features after living persons. South Korea and Mexico have new naming working groups, and Turkey has a new gazetteer. UNGEGN is relying on SCUFN to carry on the work of the disbanded Maritime Undersea Feature Names working group.

The chairman invited the UNGEGN chairperson, Helen Kerfoot, to attend the SCUFN/19 meeting. She was unable to attend, but stressed the importance of SCUFN and UNGEGN working closely together. She will try to attend the SCUFN/20 meeting. Randal Flynn, the IHO liaison from the U.S. National Geospatial-Intelligence Agency was also invited, but could not attend.

9. GAZETTEER OF UNDERSEA FEATURE NAMES

9.1 Web-based Map Interface for Undersea Feature Names Gazetteer

L. Taylor gave a demonstration on how the undersea feature names included in the GEBCO Gazetteer can be displayed and searchable using Google Earth. She also reviewed the options available for viewing, searching and proposing feature names via the ArcIMS on-line viewer, search and management interfaces developed by NGDC.

The Sub-Committee agreed that taking advantage of popular display interfaces like Google Earth would make the GEBCO Gazetteer more accessible to the public and give the work of SCUFN valuable international exposure. In order to do this, the GEBCO Gazetteer must be maintained in a geospatially enabled database such as Oracle. It was agreed that maintaining two databases, one in Oracle and one in the current format was not a good idea. M. Huet and L. Taylor would investigate the options open to the IHB for transferring the GEBCO Gazetteer to a geospatially enabled database.

<u>ACTION</u>: M. Huet and L. Taylor to investigate the possibility of transferring the GEBCO Gazetteer to a geospatially enabled data base.

9.2 New version of the IHO-IOC GEBCO Gazetteer Viewing Software

The Secretary (M. Huet) reported that the IHB viewing software is in transition, due to problems that are currently being addressed. The company that created the custom software has ceased to exist, so resolving the problems has been challenging. However, progress was being made in resolving the current issues and improving the software. A report on the matter would be provided at SCUFN/20.

10. ANY OTHER BUSINESS

10.1 Unnamed seamounts in the Central Pacific Ocean

Docs: SCUFN19-10.1A Unnamed Seamounts in the Central Pacific Ocean

The Sub-Committee recommended that the list of 72 unnamed seamounts in the central Pacific Ocean be checked for coordinate accuracy. It was agreed that this would be a good student project. See also 5.1.29.

10.2 Undersea feature names in the Ross Sea

Docs: SCUFN19-10.2A Undersea Feature Names in the Ross Sea – IHB

Comments

SCUFN19-10.2B Ross Sea List of names on maps not in GEBCO

Gazetteer

SCUFN19-10.2C Ross Sea List of names appearing in GEBCO

Gazetteer and not shown on the maps

M. Huet reviewed the points mentioned in a LINZ letter dated 29 March 2004 with the Ross Sea Bathymetry Map compiled by F.J. Davey (2004, scale 1:2 million), and corresponding comments by the IHB. He also reviewed features named on the Davey map that are not in the GEBCO Gazetteer and names appearing in GEBCO Gazetteer that are not shown on the Davey map or the map compiled by Vaughan Stagpoole at a scale of 1:5 million.

M. Huet asked Dr. Davey to submit formal proposals for those features shown on his map that are not in the GEBCO Gazetteer. The IHB has checked to see if the positions of features in the GEBCO Gazetteer are correct when compared to the Davey map (see SCUFN19-10.2A). It was decided that a digital map numerically annotating each feature position should be made available to all members for review. The features identified as Adare Seamounts on the Davey map appear to be part of a two ridge complex, separated by Adare Trough. The secretary recommended that the feature located at 69°42'S, 171°30'E; 70°50'S, 172°30'E be renamed as a ridge, and that a new name be proposed for the second ridge located at 69°20'S, 172°15'E; 70°42'S, 173°20'E.

A. Theberge noted that the GEBCO Gazetteer incorrectly lists George M. Bowers, the U.S. commissioner of fisheries, as the origin of Bowers Canyon (71°12'S, 173°30'E). This feature was actually named for Bertie Bowers, of the Scott South Pole Expedition.

All other comments made by the IHB in document SCUFN19-10.2A were noted by the Sub-Committee. However, it was agreed that this matter would be dealt with by correspondence or at SCUFN/20.

<u>ACTION</u>: Secretary (M. Huet) to distribute digital map, with numbers annotating positions of features in the Ross Sea, to all members for review.

<u>ACTION</u>: Secretary (M. Huet) to request Dr. Davey to submit a formal name proposal for the ridge located at 69°20'S, 172°15'E; 70°42'S, 173°20'E (doc. SCUFN19-10.2A, item 1).

10.3 Linguistic particularities of transferring Russian geographical names

Docs: SCUFN19-10.3A Romanization of Russian geographical names (UN system)

N. Turko submitted the following questions on behalf of G. Agapova for consideration regarding the Romanization of Russian undersea feature names:

- Which countries publish and apply undersea feature names to GEBCO products?
- Which system of transliteration adopted by which national authority should be used?
- O How do we ensure that people using GEBCO products read and pronounce undersea feature names from different writing systems (Russian, Chinese, Japanese, Arabian etc.) and different variations of the Latin alphabet (English, French, Spanish, Vietnamese etc.) in the same way?

G. Agapova and N. Turko proposed that these questions be discussed at the next SCUFN meeting. They requested that all SCUFN members consult with their respective cartographic bodies, and that the chairman and secretary consult with the IHB and BODC regarding these questions. The Chairman requested that a detailed written proposal be submitted to the secretary (M. Huet) regarding this issue.

<u>ACTION</u>: N. Turko and/or G. Agapova to submit a detailed written proposal to the secretary (M. Huet) to address questions and issues regarding transliteration included in GEBCO products.

10.4 Post deadline submitted name proposals

Docs:	SCUFN19-10.4A	Name Proposal for Davey Bank
	SCUFN19-10.4B	Name Proposal for Adare Basin
	SCUFN19-10.4C	Name Proposal for Julia Seamount
	SCUFN19-10.4D	Name Proposal for Marion Seamount
	SCUFN19-10.4E	Name Proposal for Central Basin
	SCUFN19-10.4F	Name Proposal for Hayes Bank
	SCUFN19-10.4G	Name Proposal for Houtz Bank

The secretary (M. Huet) received the above mentioned proposals one week before the meeting. Sub-Committee guidelines require that electronic names proposals be submitted no later 30 days prior to meetings, so the proposal will be considered via correspondence by all SCUFN members after the meeting, or at SCUFN/20.

10.5 Access to SCUFN Documents

The Sub-Committee discussed the appropriate method for members to access documents and correspondence sent to the secretary intersessionally. The secretary currently assigns a number to all documents he receives and divides them into three categories: administrative; name proposals; and correspondence with corresponding documents. The latter category contains documents to be reviewed at the following SCUFN meeting. Because, in some cases these documents may be sensitive in nature, the Sub-Committee agreed that they should be accessible to members with individual passwords from the IHO website. After the meeting, the documents would be made available for public access.

<u>ACTION</u>: Secretary (M. Huet) to set up passwords for each member to access pre-meeting documents from the IHO website.

11. SITE AND DATES FOR THE NEXT MEETING

The next meeting will be held the week of July 9th, 2007 in Monaco, at the International Hydrographic Bureau.

The meeting took note of the formal offer by Dr. Han to host the 2008 SCUFN meeting in Rep. of Korea.

12. CONCLUSION

Before the conclusion of the meeting, the following statement was presented by Mr.You-Sub Jung, director of the Korean National Oceanographic Research Institute (NORI) and observer of the 19th SCUFN meeting:

'Since the 1990s, the Republic of Korea has conducted a systematic analysis for undersea features within its jurisdiction, examining and identifying the features, and naming them. Through this process, Korea has been carrying out a precise and detailed review of the validity of the currently known features and their names.

In the process of scrutinizing undersea features in our jurisdiction and identifying them in the IHO-IOC GEBCO Gazetteer as of December 2005, it is found that there are some problems with a couple of names listed in the Gazetteer in respect of generic origin, the territorial limit the feature belongs to, or the historical background of the specific terms. One feature name is not related to any geographic entity near the feature.

We have a view that the names of the undersea features located in the water where there is no official delimitation between the neighboring countries should be determined by mutual consent between them. However, some undersea features are mostly located in the EEZ of Korea, but named without any consultations or consent with us.

Furthermore, there is no information provided in the Gazetteer on the origin of the specific designation of these features. Therefore, as Chairman of the Korean Committee on Marine Geographical Names, is planning to review these problems in more diverse ways make some further proposals in the near future. Today, I don't want to make any controversy on this matter with SCUFN members, but in the future we will raise our concerns in the SCUFN meeting.'

The chairman suggested that the large turn out for the meeting indicated that the interest in undersea feature names was growing. He stressed the importance of continuing to work hard both during the meetings and intercessionally. He thanked the Sub-Committee members and observers for the productive discussions and their willingness to consider all points of view. He also thanked the SCUFN secretary, M. Huet, for his continued commitment to the work of the Sub-Committee and L. Taylor for her efforts as rapporteur. He was grateful to the director of AWI for supplying the meeting rooms and the technology necessary to run the meeting. He also thanked the helpful support staff from AWI. On behalf of all meeting participants, M. Huet thanked AWI for their hospitality and the chairman for conducting a successful meeting.

The chairman stressed the need to thoroughly prepare for meetings and suggested using the detailed names proposals submitted by Y. Ohara as a guide for future proposals. He stated that he is always open to recommendations about how Sub-Committee procedures can be improved. He acknowledged the importance of the work accomplished to revise documents B-6 and Terms of Reference.

The chairman said that on behalf of the director of AWI, Dr. Jörn Thiede, and himself, that it was a pleasure to host the meeting and he hoped that all participants would leave with good memories of Bremerhaven.

Annex 1

GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES 19th Meeting, Bremerhaven, Germany, 21-23 June 2006

LIST OF DOCUMENTS

SCUFN19-1A rev.4	List of Documents		
SCUFN19-1B rev.3	List of Participants		
SCUFN19-1C	SCUFN Membership and Observers List		
SCUFN19-2A rev.4	Agenda		
SCUFN19-3A	Existing Terms of Reference for SCUFN		
SCUFN19-3B	Revised SCUFN ToR, as proposed by IHB and IOC Secretariat (2004)		
SCUFN19-3C	Revised SCUFN ToR, as drafted by the SCUFN ad hoc group (HW. Schenke, N. Cherkis, A. Theberge and M. Huet)		
SCUFN19-4.1A	Proposed changes to the Guidelines for the Standardization of Undersea Feature Names, Publication B-6		
SCUFN19-4.2A	E/Russian version of B-6		
SCUFN19-4.2B	E/Japanese version of B-6		
SCUFN19-5A	List of Actions from SCUFN/18 and Status		
SCUFN19-5B	Report of SCUFN/18		
SCUFN19-5C	E-mail from Radm B. Fridman, HDNO, Russia		
SCUFN19-5Ca	Erdman Seamount		
SCUFN19-5Cb	Gramberg Seamount		
SCUFN19-5Cc	Kazanskiy Seamount		
SCUFN19-5Cd	Biographies: Lapushkin, Gordeyev, Shaposhnikov, Nasyr', Kalyuzhnyy, Petrov, Maksyuta, Somov		
SCUFN19-5Ce	Lukin-Lebedev Seamount		
SCUFN19-5Cf	Teplov Seamount		
SCUFN19-5Cg	Vartan'yan Seamount		
SCUFN19-5Ch	Yermolenko Seamount		
SCUFN19-5Ci	Zhilinskiy Rise		
SCUFN19-6.1A	Proposals by Yuzhmorgeologiya: Overview		
SCUFN19-6.1B	Name Proposal for Govorov Guyot		
SCUFN19-6.1C	Name Proposal for Pegas Guyot		
SCUFN19-6.1D	Name Proposal for Il'ichev Guyot		
SCUFN19-6.1E	Name Proposal for Kocebu Guyot		
SCUFN19-6.1F	Name Proposal for Nazimov Guyot		

IOC-IHO/GEBCO SCUFN-XIX Page 32

SCUFN19-6.1G	Name Proposal for Butakov Guyot
SCUFN19-6.1H	Name Proposal for Eötvös Escarpment
SCUFN19-6.1I	Name Proposal for Kaula Seamount
SCUFN19-6.1J	Name Proposal for Schrick Knoll
SCUFN19-6.1K	Name Proposal for Kant Knoll
SCUFN19-6.1L	Name Proposal for Krarup Knoll
SCUFN19-6.1M	Name Proposal for Hotta Seamount
SCUFN19-6.1N	Name Proposal for Kazuaki Seamount
SCUFN19-6.10	Name Proposal for Takahiro Seamount
SCUFN19-6.1P	Name Proposal for Suruga Seamount
SCUFN19-6.1Q	Name Proposal for Wenzel Seamount
SCUFN19-6.1R	Name Proposal for Hinz Seamount
SCUFN19-6.1S	Name Proposal for Seeber Seamount
SCUFN19-6.1T	Name Proposal for Göttingen Province
SCUFN19-6.1U	Name Proposal for Vaughan Williams Seamount
SCUFN19-6.1V	Name Proposal for Kertz Seamount
SCUFN19-7.2.1A	Minutes of ACUF 312
SCUFN19-7.2.2A	Minutes of ACUF 313
SCUFN19-7.2.3A	Minutes of ACUF 314
SCUFN19-7.2.4A	Minutes of ACUF 315
SCUFN19-7.2.5A	Minutes of ACUF 316
SCUFN19-7.2.5B	Forms for Ginsburg Hill and Yuma Hill
SCUFN19-10.1A	Unnamed seamounts in the central Pacific Ocean
SCUFN19-10.2A	Names in Ross Sea - IHB comments
SCUFN19-10.2B	Ross Sea - Names on Davey & Stagpoole maps, not in GEBCO Gazetteer
SCUFN19-10.2C	Ross Sea – Names in GEBCO Gazetteer and not shown on Davey & Stagpoole maps
SCUFN19-10.3A	Romanization of Russian Geographical Names (UN System)
SCUFN19-10.4A	Name Proposal for Davey Bank
SCUFN19-10.4B	Name Proposal for Adare Basin
SCUFN19-10.4C	Name Proposal for Julia Seamount
SCUFN19-10.4D	Name Proposal for Marion Seamount
SCUFN19-10.4E	Name Proposal for Central Basin
SCUFN19-10.4F	Name Proposal for Hayes Bank
SCUFN19-10.4G	Name Proposal for Houtz Bank

Annex 2

GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES (SCUFN) 19th Meeting, Bremerhaven, Germany, 21-23 June 2005

ATTENDEES

Participant	Status	Country	Contact Information
LCdr. Harvinder ATVAR	Member (IHO)	India	National Hydrographic Office 107-A, Rajpur Road, Post Box No. 75 Dehradun, INDIA Fax: +91-135-2748373 Tel: +91-135-2747365
Mr. Norman Z. CHERKIS	Member (IOC)	USA	E-mail: Avtar_Hydro70@rediffmail.com 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
Lic. José Luis FRIAS Salazar	Member (IOC)	Mexico	Instituto Nacional de Estadística Geografia e Informática (INEGI) Héroe de Nacozari sur N° 2301 Puerta 8, 1° nivel Jardines del Parque, C.P. 20270 Aguascalientes, MEXICO Fax :+(52) 449 442 41 76 Tel :+(52) 449 910 53 00 Ext. 5893 E-mail : jose.frias@inegi.gob.mx
Dr. Hyun-Chul HAN	Member (IOC)	Republic of Korea	Korea Institute of Geoscience & Mineral Resources (KIGAM) 30 Gajeong-dong, Yuseong-gu Daejon 305-350 Rep. of KOREA Fax: +82 42 862 7275 Tel: +82 42 868 3202 han@kigam.re.kr
Dr. Yasuhiko OHARA	Member (IHO)	Japan	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

IOC-IHO/GEBCO SCUFN-XIX Page 34

Participant	Status	Country	Contact Information
Lt. Walter REYNOSO- PERALTA	Member (IHO)	Argentina	Servicio de Hidrografía Naval Avenida Montes de Oca 2124 1271 Buenos Aires ARGENTINA Fax: + 541 1 4301 3883 Tel: + 541 1 4301 0061 / 68 E-mail: wreyper@yahoo.com.ar
Ms. Lisa A. TAYLOR	Member (IHO)	USA	National Geophysical Data Center E/GC 325 Broadway Boulder, Colorado USA 80305-3328 USA Fax: +1 (303) 497-6513 Tel: +1 (303) 497-6767 E-mail: Lisa.A.Taylor@noaa.gov
Dr. Hans Werner SCHENKE (Chairperson)	Member (IOC)	Germany	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
Capt. Albert E. THEBERGE	Member (IHO)	USA	Office of Coast Survey 1315 East-West Highway, Room 6207 Silver Spring, Maryland, USA Fax: +1(301)713-4019 Tel: E-mail: Albert.E.Theberge.Jr@noaa.gov
LCdr. Rafael PONCE Urbina	Member (IHO)	Mexico	Dirección G ^{al} Adj de Hidrografia y Cartografia Eje 2 Oriente, Tramo H. Escuela Naval Militar No. 861, Edificio "B", 1/er. Nivel. Col. Los Cipreses, Delegación Coyoacán C.P. 04830 México D.F. MEXICO Fax: +52 556 246500 Ext. 1242 Tel: +52 556 246515 E-mail: hidrografia.mexico@gmail.com
Ing. en chef Michel HUET	SCUFN Secretary (IHB)	Monaco	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
Prof. Sungjae CHOO	Observer	Rep. of Korea	sjchoo@khu.ac.kr

Participant	Status	Country	Contact Information
Mr. You-Sub JUNG	Observer	Rep. of Korea (NORI)	JungYS@momaf.go.kr info@nori.go.kr
Dr. Shigeru KATO	Observer	Japan (HODJ)	shigeru-kato@kaiho.mlit.go.jp
Dr. Ki-Suk LEE	Observer	Rep. of Korea	LeeKiSuk@snh.ae.kr
Capt. Paolo LUSIANI	Observer	Italy (GGC)	lusianip@marina.difesa.it
Mr. Taisei MORISHITA	Observer	Japan (HODJ)	taisei-morishita@kaiho.mlit.go.jp
Mr. Trent PALMER	Observer	USA	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 2680 E-mail: Trent.C.Palmer@nga.mil
Dr. K. Srinivas	Observer	India (NIO)	srinivas@nio.org
Dr. SHI Suixiang	Observer	China (NMDIS- IBCWP)	ssx@mail.nmdis.gov.cn
Mr. Shin Tani	Observer	Japan (HODJ)	shin.tani@cas.go.jp
Ms. Paola Travaglini	Observer	Canada (CHS)	travaglinip@dfo-mpo.gc.ca
Dr. Dmitri TRAVIN	Observer	IOC	Secretariat Intergovernmental Oceanographic Commission (IOC) UNESCO 1 rue Miollis 75732 Paris Cedex, FRANCE Fax: +33 1 456 85812 Tel: +33 1 456 84044 E-mail: D.Travin@unesco.org
Dr Nataliya TURKO	Observer	Russia (GINRAS)	turko@ginras.ru
Dr. Gleb Udintsev	Observer	Russia	galstrel@mail.ru
Dr. Kunio YASHIMA	Observer	Japan (JHA)	yashima@jha.jp

GEBCO SUB-COMMITTEE ON UNDERSEA FEATURE NAMES 19th Meeting, Bremerhaven, Germany, 21-23 June 2006

AGENDA

1. OPENING AND ADMINISTRATIVE ARRANGEMENTS

Docs: SCUFN19-1A List of Documents SCUFN19-1B List of Participants

SCUFN19-1C SCUFN Membership and Observers List

2. APPROVAL OF AGENDA

Docs: SCUFN19-2A Agenda

3. SCUFN TERMS OF REFERENCE

Docs: SCUFN19-3A Existing SCUFN Terms of Reference

SCUFN19-3B Revised SCUFN ToR, as proposed by IHB and IOC

Secretariat (2004)

SCUFN19-3C Revised SCUFN ToR, as drafted by the SCUFN ad hoc group

(HW.Schenke, N. Cherkis, A. Theberge and M. Huet)

4. STANDARDIZATION OF UNDERSEA FEATURE NAMES: IHO-IOC PUBLICATION B-6

4.1 Improvements to Publication B-6.

Docs: SCUFN19-4.1A Proposed changes to the Guidelines for the

Standardization of Undersea Feature Names,

Publication B-6

4.2 Publication B-6 in additional languages.

Docs: SCUFN19-4.2A E/Russian version of B-6 SCUFN19-4.2B E/Japanese version of B-6

5. MATTERS REMAINING FROM PREVIOUS MEETING

Docs: SCUFN19-5A List of Actions from SCUFN/18 and Status

SCUFN19-5B Report of SCUFN/18

SCUFN19-5C E-mail from Radm B. Fridman, HDNO, Russia

SCUFN19-5Ca Erdman Seamount SCUFN19-5Cb Gramberg Seamount SCUFN19-5Cc Kazanskiy Seamount

SCUFN19-5Cd Biographies: Lapushkin, Gordeyev, Shaposhnikov,

Nasyr', Kalyuzhnyy, Petrov, Maksyuta, Somov

SCUFN19-5Ce Lukin-Lebedev Seamount

SCUFN19-5Cf Teplov Seamount SCUFN19-5Cg Vartan'yan Seamount SCUFN19-5Ch Yermolenko Seamount

SCUFN19-5Ci Zhilinskiy Rise

6. PROPOSALS ON RECORD OR SUBMITTED DURING INTERSESSIONAL PERIOD

6.1 Proposals by Yuzhmorgeologiya (State Scientific Centre, RV "Gelendzhik", Russia).

Docs: SCUFN19-6.1A Proposals by Yuzhmorgeologiya: Overview

SCUFN19-6.1B Name Proposal for Govorov Guyot

SCUFN19-6.1C	Name Proposal for Pegas Guyot
SCUFN19-6.1D	Name Proposal for Il'ichev Guyot
SCUFN19-6.1E	Name Proposal for Kocebu Guyot
SCUFN19-6.1F	Name Proposal for Nazimov Guyot
SCUFN19-6.1G	Name Proposal for Butakov Guyot
SCUFN19-6.1H	Name Proposal for Eötvös Escarpment
SCUFN19-6.11	Name Proposal for Kaula Seamount
SCUFN19-6.1J	Name Proposal for Schrick Knoll
SCUFN19-6.1K	Name Proposal for Kant Knoll
SCUFN19-6.1L	Name Proposal for Krarup Knoll
SCUFN19-6.1M	Name Proposal for Hotta Seamount
SCUFN19-6.1N	Name Proposal for Kazuaki Seamount
SCUFN19-6.10	Name Proposal for Takahiro Seamount
SCUFN19-6.1P	Name Proposal for Suruga Seamount
SCUFN19-6.1Q	Name Proposal for Wenzel Seamount
SCUFN19-6.1R	Name Proposal for Hinz Seamount
SCUFN19-6.1S	Name Proposal for Seeber Seamount
SCUFN19-6.1T	Name Proposal for Göttingen Province
SCUFN19-6.1U	Name proposal for Vaughan Williams Seamount
SCUFN19-6.1V	Name proposal for Kertz Seamount

7. LIAISON WITH THE ADVISORY COMMITTEE ON UNDERSEA FEATURES (ACUF)

[of the US Board on Geographical Names]

- 7.1 Harmonization of GEBCO and ACUF Gazetteers
- 7.2 Review of Reports of ACUF Meetings since July 2005
- 7.2.1 ACUF 312, August 2005

Docs: SCUFN19-7.2.1A Minutes of ACUF 312

7.2.2 ACUF 313, September 2005

Docs: SCUFN19-7.2.2A Minutes of ACUF 313

7.2.3 ACUF 314, November 2005

Docs: SCUFN19-7.2.3A Minutes of ACUF 314

7.2.4 ACUF 315, January 2006

Docs: SCUFN19-7.2.4A Minutes of ACUF 315

7.2.5 ACUF 316, March 2006

Docs: SCUFN19-7.2.5A Minutes of ACUF 316

SCUFN19-7.2.5B Forms for Ginsburg Hill and Yuma Hill

8. LIAISON WITH THE UN GROUP OF EXPERTS ON GEOGRAPHICAL NAMES (UNGEGN)

9. GAZETTEER OF UNDERSEA FEATURE NAMES

- 9.1 Web-based Map Interface for Undersea Feature Name Gazetteer
- 9.2 New Version of the IHO-IOC GEBCO Gazetteer Viewing Software

10. ANY OTHER BUSINESS

10.1 Unnamed seamounts in the Central Pacific Ocean

Docs: SCUFN19-10.1A Unnamed Seamounts in the Central Pacific Ocean

10.2 Undersea feature names in the Ross Sea

Docs: SCUFN19-10.2A Undersea Feature Names in the Ross Sea – IHB Comments
Docs: SCUFN19-10.2B Ross Sea List of names on maps not in GEBCO Gazetteer

IOC-IHO/GEBCO SCUFN-XIX

Page 38

Docs: SCUFN19-10.2C Ross Sea List of names appearing in GEBCO Gazetteer and

not shown on the maps.

10.3 Linguistic particularities of transferring Russian geographical names

Docs: SCUFN19-10.3A Romanization of Russian geographical names (UN system)

10.4 Post deadline submitted name proposals

Docs: SCUFN19-10.4A Name Proposal for Davey Bank

SCUFN19-10.4B Name Proposal for Adare Basin
SCUFN19-10.4C Name Proposal for Julia Seamount
SCUFN19-10.4D Name Proposal for Marion Seamount
SCUFN19-10.4E Name Proposal for Central Basin
SCUFN19-10.4F Name Proposal for Hayes Bank
SCUFN19-10.4G Name Proposal for Houtz Bank

11. SITE AND DATES FOR THE NEXT MEETING

12. CONCLUSION

Annex 4

GEBCO Sub-Committee on Undersea Feature Names (SCUFN)

PROPOSED REVISED TERMS OF REFERENCE

(as agreed by the 19th SCUFN Meeting, Bremerhaven, Germany, 21-23 June 2006)

1. Objectives:

- 1.1 The Sub-Committee on Undersea Feature Names reports to the Joint IOC-IHO GEBCO Guiding Committee (GGC) as its designated authority for all matters concerning undersea feature names.
- 1.2 It is the function of the Sub-Committee to select those names appropriate for use on GEBCO graphical and digital products, on the IHO small-scale INTernational chart series, and on the regional IBC series.
- 1.3 The Sub-Committee shall:
- (i) Select undersea feature names on the basis of:
 - a) undersea feature names provided by national and international organizations concerned with nomenclature;
 - b) names submitted to the Sub-Committee by individuals, agencies and organizations involved in marine research, hydrography, etc.;
 - c) names appearing in scientific journals or on appropriate charts and maps, with valid supporting evidence.
 - d) Names submitted to the Sub-Committee by the Chairpersons or Chief Editors of IBC projects, in relation to the work on these projects.
 - e) Adherence to the principles contained in IHO-IOC Publication B-6 "Standardization of Undersea Feature Names"

Such names will be reviewed before they are inputted into the Gazetteer.

- (ii) Define when appropriate the extent of named features;
- (iii) Provide advice to individuals and appropriate authorities on the selection of undersea feature names in international waters and, on request, in waters under national jurisdiction;
- (iv) encourage the establishment of national boards of geographical names and undersea features, and when such a board does not exist for a given coastal state, co-operate in the naming of seafloor features related to those national waters;
- (v) prepare and maintain an international and worldwide gazetteer of undersea feature names;
- (vi) encourage the use of undersea feature names included in the Gazetteer, on any maps, charts, scientific publications, and documents by promulgating them widely;
- (vii) prepare and maintain internationally agreed guidelines for the standardization of undersea feature names and encourage their use;
- (viii) review and address the need for revised or additional terms and definitions for submarine topographic features.
- (ix) maintain close liaison with the UN Group of Experts on Geographical Names, the focal point of

IOC-IHO/GEBCO SCUFN-XIX

Page 40

which shall be invited to attend meetings of the Sub Committee, and international or national authorities concerned with the naming of undersea features.

(x) Where feasible provide historical information regarding the origin of pre-existing names and, where necessary, alternate names. This research will include discovery ship or organization, information regarding the individual or vessel being commemorated or geographic feature with which associated, origin of alternate names if required, and source material regarding naming information.

2. Rules of Procedure

- 2.1 Membership of the Sub-Committee on Undersea Feature Names is covered by the following guidelines:
- (i) The Sub Committee will consist of 12 members, preferably 6 members being appointed by IHO and 6 by IOC. SCUFN members will be endorsed by the Joint IOC-IHO GEBCO Guiding Committee (GGC).
- (ii) Members of the Sub Committee are experts acting exclusively for the benefit of the IOC and IHO communities 1.
- (iii) Members of the Sub Committee will be appointed for a four-year period, which may be extended for a period of two additional years, with a further provision that, if there are no requests for a member to be included from another State, that a further, additional two years of service may be permitted. If another State requests membership, the GGC will make the decision for which member will be changed.
- 2.2 The Chairperson and Vice Chairperson will be elected by the Sub Committee and endorsed by the GGC. They should come from different Parent Organizations.
- 2.3 The Chairperson is elected for a four-year period and will normally be succeeded by the Vice Chairperson. The Chairperson may be re-elected for one additional four-year period. Should the Chairperson step down before the end of his/her term, the Vice Chairperson will take over as Chair till the end of the current term.
- 2.4 The Chairperson, or in his/her absence the Vice Chairperson, will conduct the business of the Sub Committee. Meetings will usually be held every year, ideally before the GGC meeting. In the intervening period the Sub Committee will conduct its business by correspondence (preferably electronic).
- 2.5 Entities and organisations that can provide a relevant and constructive contribution to the work of the Sub Committee may be represented at meetings with observer status. In the event that a large number of observers seek to attend a meeting, the Chairperson may restrict attendance by inviting them to act through one or more collective representatives.
- 2.6 Observers from IHO and/or IOC Member States may attend meetings. Attendance will be limited to one observer per State.
- 2.7 Proposals which are to be considered at SCUFN meetings must be submitted 30 days before meetings if in digital form, or 60 days if in analog form.

¹ So far as IOC is concerned, the SCUFN Sub Committee is classed as a Joint Group of Experts under the IOC guidelines for subsidiary bodies.

- 2.8 The Sub Committee should strive to decide by consensus. If a vote is necessary, the quorum required is 7 members. The majority required for acceptance is a simple majority of the total number of members. Only members may cast a vote either in person or by correspondence.
- 2.9 Recommendations of the Sub Committee will be submitted to the GGC for consideration and decision.

2.10 The Chairperson is to submit an annual report to the Chairperson of the GGC.

Annex 5

ACTION ITEMS LISTED BY SUB-COMMITTEE MEMBER

Note: Numbers in parentheses refer to corresponding paragraphs in this report

1. Action by the Secretary, Michel Huet

- 1.1. Change coordinates of Kinmei Guyot to 33°43'N, 171°30' E in GEBCO Gazetteer (5.1.4).
- 1.2. Add the name Erdman to the reserve section of the GEBCO Gazetteer (5.1.20).
- 1.3. Change the seamount names currently included in the GEBCO Gazetteer as "Usuki, Minasuki, Fumisuki, Hasuki, and Kannasuki" Seamounts to "Uzuki, Minazuki, Fumizuki, Hazuki, and Kannazuki" Seamounts (5.1.24).
- 1.4. Inform SOEST that the name, Kashino Knoll, has been changed to Kashino-zaki Knoll (5.1.25).
- 1.5. Set up a vehicle to transfer data submitted to SCUFN to the GEBCO Sub-Committee on Digital Bathymetry as a matter of procedure (6.1).
- 1.6. Inform the SCDB that the coordinates are incorrect for Daiyon-Kashima Seamount in the GEBCO Digital Atlas. The coordinates are correct in the GEBCO Gazetteer (6.3.2).
- 1.7. Discuss the use of the apostrophe in the GEBCO Gazetteer at SCUFN20 (6.4.5).
- 1.8. Request that Dr. Heinrich Hinze propose another name for the feature proposed as 'Vaughan Williams Seamount' (6.4.5).
- 1.9. Investigate the possibility of transferring the GEBCO Gazetteer to a geospatially enabled data base (9.1).
- 1.10.Distribute a digital map, with numbers annotating positions of features in the Ross Sea, to all members for review (10.2).
- 1.11.Request Dr. Davey to submit a formal name proposal for the ridge located at 69°20'S, 172°15'E; 70°42'S, 173°20' (doc. SCUFN19-10.2A, item 1) (10.2).
- 1.12.Set up passwords for each member to access pre-meeting documents from the IHO website (10.4).
- 1.13.Inform SOEST that the name, 'Kashino Knoll', has been changed to 'Kashino-zaki Knoll' (5.1.25).

2. Action by the Chairman, Hans Werner Schenke

2.1 Look into having a student check the list of unnamed seamounts (SCUFN19-10.1A) using the GDA, ETOPO2, and other sources to make sure there is sufficient evidence that each one exists (5.1.29).

3. Action by Galina Agapova

- 3.1 Inquire into whether the digital data used to support the SCUFN/19 proposals submitted by Yuzhmorgeologiya for the area of the Magellan Seamounts are available from the Russian Ministry of Natural Resources (6.1).
- 3.2 Provide coordinates for the western most Kocebu guyot (6.1.4).
- 3.3 Provide coordinates for the northern most Nazimov guyot (6.1.5).
- 3.4 Submit a detailed written proposal to the secretary (M. Huet) to address questions and issues regarding transliteration included in GEBCO products (10.3).

4. Action by Norman Cherkis

- 4.1 Look for additional multibeam bathymetric and magnetic data to further define the proposed Saimei Seamount (or Guyot), and to determine whether it is part of the Jimmu Guyot (5.1.20).
- 4.2 Find out the source of the name, William's Seamount, listed in the GEBCO Gazetteer (53°09'S, 81°15'E) by searching the literature and asking Dr. Robert Fisher (6.4.5).

5. Action by Yasuhiko Ohara

- 5.1 Look for additional multibeam bathymetric and magnetic data to further define the proposed Saimei Seamount (or Guyot), and to determine whether it is part of the Jimmu Guyot (5.1.20).
- 5.2 Request that JCUFN submit an alternative name for 'Japanese Guyots' (5.1.24).
- 5.3 Provide historical information about the 'Ogasawara Plateau' and polygonal coordinates defining the 'Ogasawara Rise' to the secretary (M. Huet) (5.1.24).
- 5.4 Ask the proposer of 'Suruga Seamount' how the least depth of 40 m was determined (6.3.4).

6. Action by Trent Palmer

6.1 Report at the next SCUFN meeting on the historical basis for the name 'Suda Ridge' (5.1.24).

7. Action by José Luis Frias Salazar

7.1 Consult with the Spanish speaking SCUFN members before submitting the revised Spanish/English version of Publication B-6 to the full Sub-Committee (5.1.22).

8. Action by Lisa Taylor

8.1 Investigate the possibility of transferring the GEBCO Gazetteer to a geospatially enabled data base (9.1).

IOC-IHO/GEBCO SCUFN-XIX

Page 44

Annex 6

LIST OF ACRONYMS

ABLOS Advisory Board on the Law of the Sea

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

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

BGN Board on Geographical Names (USA)

CSIRO Commonwealth Scientific and Research Organization (Australia)

EEZ Exclusive Economic Zone

ETOPO2 Earth Topography on a 2-minute grid (NGDC)

GEBCO General Bathymetric Chart of the Oceans (IOC/IHO)

GIRAS Geological Institute of the Russian Academy of Sciences

HDNO Head Department of Navigation and Oceanography (Russia)

HO Hydrographic Office

HTML HyperText Markup Language

IBC International Bathymetric Chart

IBCAO International Bathymetric Chart of the Arctic Ocean (IOC-IHO-IASC)

IBCSO International Bathymetric Chart of the Southern Ocean (IOC-IHO-SCAR)

IHB International Hydrographic Bureau (IHO)

IHO International Hydrographic Organization

INEGI Instituto Nacional de Estadística Geografía e Informática

IOC Intergovernmental Oceanographic Commission (of UNESCO)

JCUFN Japanese Committee on Undersea Feature Names

JHD Japan Hydrographic Department

LDEO Lamont Doherty Earth Observatory (USA)

NGA National Geospatial-intelligence Agency (USA)

NGDC National Geophysical Data Center (USA)

NH New Hampshire (USA)

NHO National Hydrographic Office (India)

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

NMOC Naval Meteorology and Oceanography Command (USA)

NOAA National Oceanic and Atmospheric Administration (USA)

R/V Research Vessel

SCOR Scientific Committee on Oceanic Research

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

SOEST School of Ocean and Earth Science and Technology (USA)

UN United Nations

UNCLOS United Nations Convention on the Law of the Sea

USGS United States Geological Survey (USGS)

IOC-IHO/GEBCO SCUFN-XIX Page 46

Annex 7

ALPHABETIC INDEX OF UNDERSEA FEATURE NAMES CONSIDERED AT SCUFN/19 AND REFERRED TO IN THIS REPORT

NAME	Page	NAME	Page
Atlantis II Seamounts	13		
Butakov Guyot	18	Pernambuco Seamount Group	7
Catalonia Seamount	8	Raicho Escarpment	12
Davey Bank	27	Saimei Seamount / Guyot	10-46
Echo Bank	8	Sapmer Seamount	6
Emperor Seamount Chain	9	Schrick Knoll	19
Eötvös Escarpment	18	Seeber Seamount	22
Erdman Seamount	9	Shaposhnikov Seamount	6
Fumizuki Seamount	11	Skif Seamount	10-15
Gagarin Seamount	6	Somov Hill	6-15
Ginsburg Hill	24	Suda Ridge	12
Göttingen Province	22	Suiko Seamount	10
Govorov Guyot	16	Suruga Seamount	21
Gramberg Seamount	15	Takahiro Seamount	20
Hazuki Seamount	11	Tancho Escarpment	12
Hinz Seamount	18	Teplov Seamount	6-14-15
Hotta Seamount	19	Toki Escarpment	12
Il'ichev Guyot	17	Uda Spur	12
Japanese Guyots	12	Uzuki Seamount	11
Jimmu Guyot	10	Vartan'yan Seamount	6-15
Kannazuki Seamount	11	Vaughan Williams Seamount	16-23
Kant Knoll	19	Wenzel Seamount	21
Karasik Seamount	9	Yabe Plateau	12
Kashino Knoll	13	Yermolenko Seamount	6-14-15
Kaula Seamount	18	Yuma Hill	24-25
Kazanskiy Seamount	6-14-15	Zenisu Ridge	13
Kazuaki Seamount	20	Zhilinskiy Rise	6
Kertz Seamount	24		
Kiku Seamount	13		
Kinmei Guyot/ Seamount	6		
Kocebu Guyot	17		
Koko Guyot/ Seamount	6		
Krarup Knoll	19		
Lukin-Lebedev Seamount	6-14		
Michaelson Ridge	12		
Mikura Seamount	13		
Minazuki Seamount	11		
Mozambique Channel	8		
Nazimov Guyot	17		
Nelson Seamount	13		
Ogasawara Plateau	10-12-46		
Ogasawara Rise	10-12-13		
Parece Vela Basin	12		