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INTERNATIONAL
HYDROGRAPHIC
ORGANIZATION



*Twenty First Meeting of the GEBCO
Sub-Committee on
Undersea Feature Names (SCUFN)*

Seogwipo
Jeju Island, Korea
19-22 May 2008

REPORT

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1. **OPENING AND ADMINISTRATIVE ARRANGEMENTS**

<i>Docs:</i>	<i>SCUFN20-01A</i>	<i>List of Documents (also Annex A)</i>
	<i>SCUFN20-01B</i>	<i>List of Participants (also Annex B)</i>
	<i>SCUFN20-01C</i>	<i>SCUFN Membership and Observers List</i>

The twenty first meeting of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN) met at the Hyatt Regency Hotel in Seogwipo, Jeju Island, Korea under the chairmanship of Dr. Hans Werner SCHENKE, AWI, Germany.

The chairman opened the meeting by welcoming the members of SCUFN and the many observers to Jeju Island. The Director-General of the Korean National Oceanographic Research Institute (NORI) and Chairman of the Korean Geographical Names Committee, Mr. Ye-Jong WOO, expressed his gratitude for the opportunity to host the meeting and his appreciation for the cooperation within the Sub-Committee and between the various national naming committees. He expressed his wish for all participants to take away beautiful memories from their short stay on Jeju Island. The chairman thanked Mr. WOO for his hospitality and excellent efforts in organizing the meeting.

After a round-table of introductions of the members and observers, the chairman discussed the various scheduling and logistical issues. He thanked the secretary, Mr. Michel HUET, for maintaining the SCUFN website including all the meeting documents for downloading. He confirmed that a voting quorum was achieved with 9 out of 11 SCUFN members in attendance. Dr. Ksenia DOBROLYUBOVA was proposed as a new member by the Russian Geographic Committee and accepted as an official SCUFN member by the IOC. SCUFN now has eleven members, with one vacant IOC seat that the chairman is working to fill. It was noted that Capt. Vadim SOBOLEV (IHO side) had been absent for three consecutive sub-committee meetings, and, to date, attempts to contact him have been unsuccessful. The Secretary tabled and described the list of meeting documents.

Dr. Yasuhiko OHARA queried about the IHO member of SCUFN from Mexico (LCdr. Rafael PONCE). The secretary informed the Sub-Committee that LCdr. PONCE had resigned, and that his resignation enabled the Sub-Committee to align itself with six members from each of the IHO and IOC.

Attendees included SCUFN chairman, Dr. Hans-Werner SCHENKE (AWI, Germany), SCUFN secretary, Mr. Michel HUET (IHB, Monaco), and sub-committee members LCdr. Harvinder AVTAR (NHO, India), Mr. Norman Z. CHERKIS (Five Oceans Consultants, USA), Dr. Ksenia DOBROLYUBOVA (GINRAS, Russia), Lic. José Luis FRIAS Salazar (INEGI, Mexico), Dr. Hyun-Chul HAN (KIGAM, Rep. of Korea), Dr. Yasuhiko OHARA (JHOD, Japan), Lt. Walter REYNOSO Peralta (SHN, Argentina), and Ms. Lisa A. TAYLOR (NOAA, USA). Sub-committee members absent from the meeting were Capt. Albert THEBERGE (NOAA Corps, retired, now at NOAA Headquarters, USA), and Capt. (1st Rank) Vadim SOBOLEV (DNO, Russia, retired).

Observers included LtCdr. Ana Angelica ALBERONI (DHN, Brazil), Mr. Shin-Ho CHOI (NORI, Rep. of Korea), Prof. Sungjae CHOO (KHU, Republic of Korea), Dr. Gábor GERCSÁK (ELU, Hungary), Mr. Yo IWABUCHI (JHOD, Japan), Mr. Teruo KANAZAWA (JHA, Japan), Mr. Jung-Hyun KIM (NORI, Republic of Korea), Mr. Ralf KROCKER (AWI, Germany), Mr. Trent PALMER (NGA & BGN/ACUF, USA), Dr. Vaughan STAGPOOLE (IGNS, New Zealand), Prof. Hyo Hyun SUNG (EWha, Rep. of Korea), Mr. Ye-Jong WOO (NORI, Rep. of Korea), Dr. Yeong-Jin YEON (MLTMA, Rep. of Korea), and Mr. Soo-Yeol

YOO (NORI, Rep. of Korea).

2. APPROVAL OF AGENDA

Docs: SCUFN20-02A Agenda (also Annex C)

The agenda was approved with no modifications.

3 SCUFN TERMS OF REFERENCE AND RULES OF PROCEDURES

Doc: SCUFN21-3A New Terms of Reference and Rules of Procedures for SCUFN, and Current Status

The chairman (H.W. SCHENKE) stated that the new Terms of Reference (ToR) and Rules of Procedure (RoP) should be officially approved by the IOC at their next Assembly in Paris, France, in June of the current year. The GEBCO Guiding Committee and IHO Member States had already approved the new documents.

The position of vice chairperson would be considered after the final adoption of the new ToR and RoP, i.e. at the 2009 SCUFN Meeting.

The chairman drew attention to Article 2.5 of the new RoP which states "Members are expected to attend every meeting of the Sub-Committee. Sub-committee Members who are absent from meetings over two consecutive years will normally be considered to have resigned and new nominations shall be sought from the relevant parent organization." He hoped this will contribute to increasing participation in SCUFN meetings.

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

4.1 Publication B-6 in various languages.

*Doc: SCUFN21-04.1A Draft new edition of B-6 (English-French)
SCUFN21-04.1B Draft new edition of B-6 (English-Japanese)
SCUFN21-04.1C Draft new edition of B-6 (English-Spanish)
SCUFN21-04.1D Draft new edition of B-6 (English-Russian)
SCUFN21-04.1E Draft new edition of B-6 (English-Korean)*

A draft 4th edition of B-6 (English-French) was presented by the secretary, which took into account recent changes and the new Terms of Reference (ToR) and Rules of Procedures (RoP). He stressed that the English text must be identical in all language versions, i.e. English/French, English/Spanish, English/Russian etc., and that translation should be carried out by native speakers of those languages.

The draft was carefully reviewed by the meeting and some changes were agreed. In particular, it was confirmed that names of living persons will normally not be accepted, that "territorial sea" will replace "international waters" throughout the document, and that only the titles of Hydrographic Offices will be retained in B-6 since all contact details can be found on the IHO website. Also national naming committees will be added as appropriate.

The secretary felt that some further changes may be required as a result of the work done by the Terminology Sub-Group (see section 4.2). He added that any new edition of B-6 (English-French) needs to be adopted by the GEBCO Guiding Committee, then by IHO/IOC Member States. Therefore, SCUFN needs to agree on the English-French version at this meeting, so it can be submitted to the Guiding Committee for approval.

It was reported that the English-Spanish, English-Japanese and English-Korean versions of the draft 4th edition of B-6 had been updated from recent changes. However they, as well as the English-

Russian version, will need to be updated from the changes agreed at this meeting, and from any possible future changes that the GEBCO Guiding Committee and/or IHO/IOC Member States may decide. The secretary would monitor this matter as appropriate.

Prof. Sung Jae CHOO (Rep of Korea) indicated that the final English-Korean version will need to be accepted by the Korea Committee on Marine Geographical Names.

4.2 Revision of B-6 (Terminology Section)

Doc: SCUFN21-04.2A Report from SCUFN Sub-Group on Revision of B-6 (Terminology Section)

Y. OHARA, Chair of the SCUFN Sub-Group on Revision of B-6 (Terminology Section), reported on the work carried out by his sub-group. A comparison between the B-6 terminology section and the GEBCO gazetteer had revealed that:

- The following generic terms which are listed in B-6 do not appear at all in the GEBCO gazetteer: Abyssal Hills, Archipelagic Apron, Continental Margin, Continental Rise, Continental Shelf, Median Valley, Mid-Oceanic Ridge, Moat, Pinnacle, Scarp, Sea Valley, Shelf Break, Shelf-Edge and Submarine Valley. Further, examples given in B-6 to illustrate the use of generic terms include Hawaiian Moat and Gardner Pinnacles (plural) which, according to the above, are not in the GEBCO Gazetteer.

The sub-committee decided that the above generic terms should however be kept in B-6 for the time being, both on historical and implied genetic implications. The issue of inconsistent examples would be addressed in due course.

- The following generic terms are used in the GEBCO Gazetteer, but are not defined in B-6: Cap, Channel, Deep, Deeps, Discordance, Pass and Plain.

The sub-committee decided to include “Deep” as a new generic term in B-6 with definition as follows “*An isolated localized deep area within the confines of a larger feature, such as a Trough, Basin or Trench*”. It was also agreed that a remark would be included in the GEBCO Gazetteer for the names using the remaining terms, as follows:

- Cap: “*According to terminology in IHO-IOC publication B-6, this is understood to be a bank*”
- Channel: “*According to terminology in IHO-IOC publication B-6, this is understood to be a seachannel*”
- Discordance: “*A discordance is understood to be an area on the seafloor with numerous fracture zones and ridge-offsets*”
- Pass: “*According to terminology in IHO-IOC publication B-6, this is understood to be a saddle*”
- Plain: “*According to terminology in IHO-IOC publication B-6, this is understood to be an abyssal plain*”

The Sub-committee agreed that the following text be included in the Note preceding the Terminology section of B-6, in reference to the above generic terms:

“It is realized that some named features, such as “cap” and “pass” have widely accepted longtime usage. No attempt has been made to refine or define them since they are no longer used in modern physiographic terminology. Where those features are noted in the GEBCO Gazetteer of Undersea Feature Names (Publication B-8), an alternative terminology is provided in the ‘remarks’ area.”

Y. OHARA conveyed Terminology Sub-Group’ suggestion that genetic terminology, i.e. implying the mode of formation and environment of the relevant feature, be used if it helps to define morphology and if it is widely accepted by the earth-science/hydrography community. Examples of genetic terms include Mud Volcano and Rift. After discussion, it appeared that there was not sufficient support for genetic

terms to be considered for inclusion in B-6. Additionally, attention was drawn to the comments by Dr. Robert Fisher, former Chairman of SCUFN, that adding genetic terminology would create more problems, rather than solving existing ones (Doc. SCUFN21-05B refers).

The chairman (H.W. SCHENKE) acknowledged that the majority was against using genetic terms and concluded that the consensus was to stay with present SCUFN policy.

Y. OHARA remarked that two generic terms, Hill and Seamount, are also listed as Hills and Seamounts in B-6, i.e. in their plural form. It could be inferred that only these two generic terms can have plural form. In reality the GEBCO Gazetteer contains many plural generic terms, such as Banks, Canyons, Guyots, Knolls, Reefs, Ridges and Shoals. In order to clarify this matter, the Terminology Sub-Group was tasked to establish, during the meeting, a list of all those generic features which can also be used in their plural form. As a result, the following list was agreed by the Sub-Committee:

Abyssal Hill(s), Bank(s), Canyon(s), Deep(s), Guyot(s), Hill(s), Knoll(s), Peak(s), Pinnacle(s), Reef(s), Ridge(s), Sea Valley(s), Seachannel(s), Seamount(s), Shoal(s), Submarine Valley(s), Tablemount(s), Terrace(s) and Valley(s).

Y. OHARA reminded that one of his sub-group tasks was to update the references cited in the terminology section of B-6. Most of these references are old and their updating would require significant work. Further, they were introduced before Internet and, nowadays, such references can be found via search engines like Google. Therefore, the usefulness to include them in B-6 is questionable. He recommended removing all reference citations from all language versions of B-6. Thus, all versions would have identical content.

The sub-committee agreed with this proposal, i.e. to remove all reference citations from B-6.

Prof. Hyo Hyun SUNG (Rep of Korea) proposed “Sand Ridge” as a new generic term. This feature is generated by currents and sea level changes. It is a permanent feature and, although of small size (25 to 30 meters height in the vicinity west of the Korean peninsula), it can constitute a hazard to navigation in shallow waters. Prof. SUNG mentioned that “Sand Ridges” are found world-wide and recognized.

The Chairman (H.W. SCHENKE) suggested that a documented proposal, with detailed description and some examples, be prepared for submission to the next meeting. This was agreed.

Outcome (from 4.1 & 4.2):

- The Sub-Committee agreed that the draft 4th edition of B-6 (English/French), as amended, be submitted to the GEBCO Guiding Committee for approval.
- The Sub-Committee rejected the use of genetic terms.
- **Action 21/1:** Chairman (H.W. SCHENKE) / Secretary (M. HUET) to monitor the approval of the 4th edition of B-6 (English/French) by the GEBCO Guiding Committee, then by IHO/IOC, and its publication.
- **Action 21/2:** Secretary (M. HUET) to monitor the production of the following language versions of the 4th edition of B-6: English/Spanish, English/Russian, English/Japanese and English/Korean.
- **Action 21/3:** Rep of Korea (H-C. HAN / H.H. SUNG) to submit a documented proposal on “Sand Ridge”, as proposed new generic term, to SCUFN-22.

5 MATTERS REMAINING FROM PREVIOUS MEETINGS

Docs: SCUFN21-05A *List of Actions from SCUFN-20 and Status*
SCUFN21-05B *Vaughan Williams Seamount – Replacement proposal (Mann-Borghese)*
SCUFN21-05C *Proposal for East Adare Ridge*
SCUFN21-05D *Comments from Dr. R.L. Fisher on SCUFN-19 and SCUFN-20 Reports*
SCUFN21-05E *Publications by Robert E. Houtz and Dennis E. Hayes*

- Notes:
- 1) Numbers in parentheses refer to corresponding paragraphs in SCUFN-20 Report.
 - 2) The status of actions arising from previous meetings are classified as follows:
 - DONE
 - PENDING (Additional work is needed to complete the action.)
 - 3) The status of proposed undersea feature names are classified as follows:
 - ACCEPTED
 - NOT ACCEPTED
 - PENDING (The proposed feature name/feature will be put in the reserve section of the GEBCO gazetteer database pending the provision of additional information, e.g. supporting bathymetry or biographic information.)

5.1 Review of Actions from SCUFN-20 (Monaco, July 2007)

5.1.1 Action by Secretary, Michel HUET

5.1.1.1 Make the SCUFN-19 report available on the GEBCO and IHO websites for public access. (§2.1)
DONE. Action closed.

5.1.1.2 Make available the English/Japanese and English/Russian versions of B-6 on the IHO and GEBCO websites, and make arrangements to inform IHO member states and the IOC secretariat. (§4.2)
DONE. See § 4.1 above. Action closed.

5.1.1.3 Invite DNO to propose an appropriate feature for the name 'Erdman'. (§5.1.1.2)
DONE. Awaiting proposal.

5.1.1.4 Inform SOEST that the name, 'Kashino Knoll', has been changed to 'Kashino-zaki Knoll'. (§5.1.1.4)
DONE. Action closed.

5.1.1.5 Provide the GBE with any new UFN proposal along with the supporting documentation, as a matter of procedure. (§5.1.1.5)
Ongoing. Action closed.

5.1.1.6 Request that Dr. Heinrich HINZE suggest another name for the feature proposed as 'Vaughan Williams Seamount'. (§5.1.1.8)
DONE. Proposal received (see Doc. SCUFN21-05B). Dr. HINZE had proposed 'Mann-Borghese Seamount' as a replacement.

ACCEPTED.

Elisabeth Veronika Mann-Borghese (24 April 1918 - 8 February 2002) early committed herself to the protection of the environment, in particular the oceans, and was one of the founding members of the Club of Rome. As a recognized expert on maritime law and policy, she later worked as a university professor in Halifax, Canada.

Action 21/4: Secretary (M. HUET) to include the name Mann-Borghese Seamount in the GEBCO Gazetteer, in replacement of Vaughan Williams Seamount.

5.1.1.7 Provide two more coordinates for Central Basin. (§5.1.1.10e)

DONE. The following five positions were provided by Dr. Davey; they have been included in the GEBCO Gazetteer:

1. 70°50' S – 176°45' E
2. 71°40' S – 178°00' E
3. 72°40' S – 176°30' E
4. 72°45' S – 179°30' E
5. 71°00' S – 180°00' E

Action closed.

5.1.1.8 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' (see Doc. SCUFN19-10.2A, item 1). (§5.1.1.11)

DONE. Proposal received (see doc. SCUFN21-05C). Dr. DAVEY had proposed to name the above feature **East Adare Ridge**.

ACCEPTED.

Position:	<i>Lat. 69°20' S, Long. 172°15' E, Southern Ocean</i> <i>Lat. 70°51' S, Long. 173°24' E</i>
Proposer:	Dr. Fred J Davey (F.Davey@gns.cri.nz)
Date of Proposal:	May 2008
Discoverer:	USNS Eltanin (Cruise 32)
Date of Discovery:	1968
Minimum Depth:	1400 m
Maximum Depth:	<i>Not provided</i>
Total Relief:	<i>Not provided</i>

It is the eastern margin ridge of a distinct rift feature north of Cape Adare. Two parts of the rift have been named: the central low area has been named "Adare Trough" modified after proposal by Professor S Cande and the shallower western rift margin ridge named "Adare Ridge" by SCUFN (subsequently renamed "West Adare Ridge"). The three features are genetically related.

The Sub-Committee further decided:

A. to rename **West Adare Ridge** the existing Adare Ridge, with positions as follows:

- Lat. 69°42'S, Long. 171°30'E*
- Lat. 70°50'S, Long. 172°30'E*

B. to add the following position to the existing **Adare Trough**:

- Lat. 69°00'S, Long. 171°30'E*

Action 21/5: Secretary (M. HUET) to include the new East Adare Ridge in the GEBCO Gazetteer and amend the existing Adare Ridge and Adare Trough, as accepted.

5.1.1.9 Put on a password protected area of the IHO website, as an Excel file, all names which are in the reserve section of the Gazetteer. (§5.1.1.12)

DONE. Provided on a CD to participants at the meeting. Action closed.

5.1.1.10 Remove the comment 'Southern segment of the very major Peru Chile Trench' in the remarks section for Chile Trench in the gazetteer. (§6.1.a)

DONE. Action closed.

5.1.1.11 Change the coordinates of Peru-Chile Trench to *Lat. 15°50'S, Long. 76°13'W to Lat. 19°14'S, Long. 71°45'W to Lat. 27°00'S, Long. 71°54'W to Lat. 37°37'S, Long. 74°39'W.* (§6.1.a)

DONE. Action closed.

- 5.1.1.12 Ask DNO (former HDNO, Russian Federation) to resubmit proposals for the features for which names were proposed after Kovrigin, Kuzin, Moroz, Osokin, Shapovalov and Naletov, suggesting more appropriate names and providing comprehensive supporting data and information. (§6.2)
DONE. Awaiting proposals.
- 5.1.1.13 Ask DNO to submit additional track control to support Afanasenkov Seamount and to obtain multibeam data from IBCAO to better define the feature. (§6.2.a)
DONE. Awaiting response.
- 5.1.1.14 Ask DNO to submit additional track control to support Agafonov Seamount and to obtain multibeam data from IBCAO to better define the feature. (§6.2.b)
DONE. Awaiting response.
- 5.1.1.15 Ask DNO to submit additional track control to support Aref'yev Seamount. (§6.2.c)
DONE. Awaiting response.
- 5.1.1.16 Determine if Boytsov Seamount (*Lat.* 74°27'N, *Long.* 6°32'E) is within international waters. (§6.2.d)
DONE. The feature is actually located in international waters, and is, therefore, accepted. It has been included in the GEBSCO Gazetteer. Action closed.
- 5.1.1.17 Ask DNO to submit additional track control to support Bukhmeyer Seamount. (§6.2.e)
DONE. Awaiting response.
- 5.1.1.18 Ask DNO to provide a more detailed contour map including a scale to support Danil'chuk Seamount in order to determine if the feature is a seamount or a ridge. (§6.2.f)
DONE. Awaiting response.
- 5.1.1.19 Ask DNO to submit additional track control to support Karasev Seamount. (§6.2.g)
DONE; awaiting response.
- 5.1.1.20 Ask DNO to select an appropriate name for the feature located at *Lat.* 31°39.5'N, *Long.* 149°00.0'E included in the proposal for Knizhnik Seamounts. (§6.2.h)
DONE. Awaiting response.
- 5.1.1.21 Ask DNO to submit additional track control to support Kovrigin Seamount. (§6.2.i)
DONE. Awaiting response.
- 5.1.1.22 Ask the proposer to provide track control for Gordin Guyot, Skornyakova Guyot, Vulkanolog Guyot, and Zatonky Guyot. (§6.4.a to 6.4.d)
PENDING.

Action 21/6: K. DOBROLYUBOVA to provide track control for Gordin Guyot, Skornyakova Guyot, Vulkanolog Guyot, and Zatonky Guyot.
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- 5.1.1.23 Request seismic profiles from the JCUFN for Oki-Daito Escarpment. (§6.6.c)
DONE. Y. OHARA provided the seismic profiles of the escarpment. Action closed.
- 5.1.1.24 Review and comment on the list from ACUF, as in Doc. SCUFN20-7.1A. (§7.1)
PENDING. (refer to SCUFN21-07.1A)
See section 7.1.
- 5.1.1.25 Amend the GEBSCO Gazetteer to read Lefavor, Sengteller and Tittmann, instead of Lefacor, Sengfeller and Tittman, respectively. (§7.2.d.i to 7.2.d.iii)
DONE. Action closed.

- 5.1.1.26 Invite the proposer for McGee Seamount to submit another proposal with a more appropriate name. (§7.2.f.i)
DONE. This feature was rejected by SCUFN at SCUFN20, as it did not meet the naming criteria of the Sub-Committee. However, it was accepted by ACUF. It was reported that no change will be made in the ACUF gazetteer. Action closed.
- 5.1.1.27 Invite the proposer for Byus Seamount to submit another proposal with a more appropriate name. (§7.2.f.ii)
DONE. This feature was rejected by SCUFN at SCUFN20, as it did not meet the naming criteria of the Sub-Committee. However, it was accepted by ACUF. It was reported that no change will be made in the ACUF gazetteer. Action closed.
- 5.1.1.28 Convey to sub-committee members the part of R. FLYNN / T. PALMER's report on UNGEGN-24 which relates to SCUFN. (§8)
DONE. See Doc. SCUFN21-08A. Action closed.
- 5.1.1.29 Provide each Sub-Committee member with the new version of the GEBCO Gazetteer Viewing Program and its associated database, including the reserve section of the gazetteer. (§9.2)
DONE. Provided on CD distributed to all members. Action closed.

5.1.2 Action by Yasuhiko OHARA

- 5.1.2.1 As chairman of the B-6 Terminology Working Group, provide the SCUFN chairman and secretary with a report on the proposed revision regarding B-6 nomenclature matters by 1 March, 2008. (§4.1)
DONE. See Doc. SCUFN21-04.2A and §4.2 above. Action closed.
- 5.1.2.2 In liaison with JCUFN, submit an alternative name for 'Japanese Guyots' (§5.1.5.2)
DONE. Y. OHARA reported that he had consulted with JCUFN. It results that 'Japanese Guyots' is considered appropriate, with the coordinates originally proposed by Heezen et al. (1973), i.e. 29°28'N - 153°20'E to 34°14'N - 143°50'E.

After discussion, the sub-committee confirmed the **acceptance of Japanese Guyots** but agreed that the boundary of the Japanese Guyots area be amended to exclude Makarov Seamount in the south east corner.

<p>Action 21/7: Y. OHARA to define the extent of the Japanese Guyots and provide the coordinates and a shape file.</p> <p>Action 21/8: Secretary (M. HUET) to remove the existing comments in the remarks section of the GEBCO Gazetteer for Japanese Guyots.</p>

- K. Dobrolyubova, in consultation with G. Agapova (a previous long-standing member of SCUFN), stated that she objected to including three spatially distinct groups of seamounts within the same feature name. Y. Ohara stated that these three groups are not tectonically related, as evidenced by the geomorphological expression of the seamounts.
- 5.1.2.3 Look into submitting a proposal for Seiko Seamounts. (§6.2.h)
DONE. Y. OHARA reported that this feature is already named 'Takuyo-Daisan Guyot', as part of the Japanese Guyots. Action closed.
- 5.1.2.4 Provide a formal statement to SCUFN indicating whether 'Geisha Guyots' is an acceptable name to be maintained by GEBCO. (§6.2.h)
DONE. Y. OHARA reported that he had consulted with JCUFN and that the answer was clearly: NO. See also §5.1.2.2 above. The accepted name for this feature is 'Japanese Guyots'.

Action 21/9: Secretary (M. HUET) to remove from the GEBCO Gazetteer any information relating to Geisha Guyots, keeping only the name and the comment "See Japanese Guyots" in the Remarks section.

- 5.1.2.5 Provide the IHO Data Centre for Digital Bathymetry with data and track control used to identify the proposed Japanese undersea feature names, upon Secretary's request. (§6.6)
PENDING. See Note 2.a under section 6 below.
- 5.1.2.6 Provide the secretary (M. HUET) with a formal proposal for Bōsō Canyon with at least three coordinates. (§7.2.b.ii)
DONE. See section 6.2.b below. Action closed.
- 5.1.3 Action by Hyun-Chul HAN**
- 5.1.3.1 To provide the IHO Data Centre for Digital Bathymetry with data and track control used to identify the proposed Korean undersea feature names, upon Secretary's request. (§6.5)
PENDING. H-C. HAN reported that this would be provided before the end of 2008. See also Note 2.a under section 6 below.
- 5.1.4 Action by Walter REYNOSO-PERALTA**
- 5.1.4.1 Report at SCUFN-21 on his work on verifying the existence of unnamed seamounts in the Central Pacific. (§5.1.2.1)
DONE. See Doc. SCUFN21-10.1A and §10.1. Action closed.
- 5.1.4.2 Submit a revised Spanish/English version of Publication B-6 to the secretary. (§5.1.7.1)
DONE. See Doc. SCUFN21-04.1C and §4.1. Action closed.
- 5.1.5. Action by Trent PALMER**
- 5.1.5.1 Submit formal proposals for Thomas Washington and Winterer Seamounts. (§6.2.h)
DONE. T. PALMER reported that the original proposals for Thomas Washington and Winterer Seamounts (subsequently renamed guyots) could not be found. However, he presented a bathymetric graphic showing both guyots as well as Stout Seamount (also renamed guyot). He further provided the original proposal for Stout Seamount. There followed a discussion as to whether these three guyots should be included in the GEBCO Gazetteer. Decision was to put them into the reserve section of the Gazetteer until new data and track control can be obtained.

PENDING

A. Thomas Washington Guyot

Position: *Lat. 32°00'N, Long. 149°15'E, North Pacific Ocean*
Proposer: *Drs Peter R. Vogt and N. Christian Smoot*
Date of Proposal: *1984*
Discoverer: *Not provided*
Date of Discovery: *Not provided*
Minimum Depth: *~ 800 m*
Maximum Depth: *~ 3000 m*
Total Relief: *~ 2200 m*
Reason for naming: *Not provided*

B. Winterer Guyot

Position: *Lat. 32°45'N, Long. 148°20'E, North Pacific Ocean*
Proposer: *Drs Peter R. Vogt and N. Christian Smoot*
Date of Proposal: *1984*
Discoverer: *Not provided*
Date of Discovery: *Not provided*

Minimum Depth: ~ 800 m
Maximum Depth: ~ 2800 m
Total Relief: ~ 2000 m
Reason for naming: *Named for Edward Winterer, marine geologist.*

C. Stout Guyot

Position: *Lat. 31°40'N, Long. 149°00'E, North Pacific Ocean*
Proposer: *Dr N. Christian Smoot*
Date of Proposal: *1984*
Discoverer: *Not provided*
Date of Discovery: *Not provided*
Minimum Depth: *~ 800 m*
Maximum Depth: *~ 2900 m*
Total Relief: *~ 2100 m*
Reason for naming: *Named for Walter Douglas Stout, late of NAVOCEANO. He made over 100 cruises in northern oceans from 1969-1984. Buried at sea in August 1984.*

Action 21/10: Secretary (M. HUET) to include Thomas Washington Guyot, Winterer Guyot and Stout Guyot in the Reserve Section of the GEBCO Gazetteer.
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5.1.6 Action by all SCUFN Members

- 5.1.6.1 Review the draft edition of B-6 as prepared during SCUFN-20 and provide the secretary with any suggested improvements before 1 March, 2008. (§4.1)
DONE. See § 4.1. Action closed.

5.2 Consideration of SCUFN21-05D: Emden Trench versus Philippine Trench

The Sub-Committee reviewed paper SCUFN21-05D containing comments by Dr. R.L. FISHER (former SCUFN Chair) which, *inter alia*, related to Emden versus Philippine Trench. Noting that both names Emden Trench and Philippine Trench have been assigned to same feature at position 10°00'N – 126°45'E in the current GEBCO Gazetteer, the Sub-Committee agreed with Dr. FISHER that the appropriate name for this feature should be Philippine Trench for the following reasons:

- This elongated depression was known to be very deep before Emden's passage in 1925.
- The world's other trenches have been named in relation to their geographic position, e.g. Aleutian, Mariana, Tonga, Puerto Rico, Middle America, or South New Hebrides.

As a result, the Sub-Committee agreed the following:

A. **To keep Philippine Trench** in the Gazetteer with following positions:

1. 15°20'N – 124°03'E
2. 14°39'N – 125°04'E
3. 12°29'N – 125°52'E
4. 08°38'N – 127°11'E
5. 06°18'N – 127°19'E
6. 04°28'N – 128°20'E

B. **To delete Emden Trench** from the Gazetteer.

C. **To keep Emden Deep** in the Gazetteer; position to be revised (at present: 09°42'N – 126°52'E).

Action 21/11: Secretary (M. HUET) to include Philippine Trench, as accepted, in the GEBCO Gazetteer and to delete Emden Trench.
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Action 21/12: Chairman (H.W. SCHENKE) to revise the position of Emden Deep and determine its depth.
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5.3 Consideration of SCUFN21-05E: Hayes Bank and Houtz Bank

Following rejection by SCUFN-20 (2007) of the proposed names Hayes Bank and Houtz Bank in the Southern Ocean on the grounds that the names proposed did not conform to SCUFN naming criteria, i.e. to not accept names of living persons (the features were however accepted and have been put into the reserve section of the GEBCO Gazetteer), the proposer (Dr. Fred DAVEY, New Zealand) provided a list of numerous papers published by Drs. Robert E. HOUTZ and Dennis E. HAYES in various scientific journals. The Sub-Committee however confirmed its earlier decision to not go against the established rule. A letter would be sent to Dr. DAVEY to explain the non acceptance of these names.

Action 21/13: Chairman (H.W. SCHENKE) to write to Dr. DAVEY to explain the non acceptance of Hayes Bank and Houtz Bank by the Sub-Committee.

6 PROPOSALS ON RECORD OR SUBMITTED DURING INTERSESSIONAL PERIOD

Notes:

- 1) The status of proposed undersea feature names are classified as follows:
 - a. ACCEPTED
 - b. NOT ACCEPTED
 - c. PENDING (The proposed feature name/feature will be put in the reserve section of the GEBCO gazetteer database pending the provision of additional information, e.g. supporting bathymetry or biographic information.)

- 2) The followings are standards routine actions for all proposals:
 - a. All proposers of undersea feature names to arrange for bathymetric data and track control used in support of their proposals, to be provided to the IHO Data Centre for Digital Bathymetry (DCDB).
 - b. Secretary (M. Huet) to provide the GEBCO Bathymetric Editor with the meeting reports, drawing attention to all newly accepted names and the associated supporting bathymetric data.
 - c. Secretary (M. Huet) to include all ACCEPTED feature names in the GEBCO Gazetteer; also to include all PENDING features in the reserve section.

6.1 Proposals by Geological Institute - Russian Academy of Sciences (GINRAS)

Doc: SCUFN20-6.1A Proposals by GINRAS, April 2008

6.1.a Chichagov Seamount

ACCEPTED.

Position: *Lat. 74°23.02'N, Long. 7°07.32'E, N. Atlantic Ocean*
Proposer: *Dr. Galina V. AGAPOVA and Dr. Ksenia O. DOBROLYUBOVA, Geological Institute, Russian Academy of Sciences (marine@ginras.ru)*
Date of Proposal: *April 2008*
Discoverer: *R.V. Nikolay Strakhov*
Date of Discovery: *2007*
Minimum Depth: *1136 m (depth to be confirmed)*
Maximum Depth: *~ 2350 m*
Total Relief: *~ 1200 m*

The seamount is located on the west side of the Knipovich Ridge.

Named after Vasily Yakovlevich Chichagov (1726 –1809), an admiral and Russian polar explorer, who in 1765-1766 reached the latitude 80.5 N while searching for the North-West passage. He carried out hydrographical and meteorological observations and confirmed the direction of the ice drift to the west, while studying a region near Spitsbergen Archipelago in the Greenland Sea.

The Chairman stressed that the sub-committee should look for absolute accuracy for positions. He suggested that, when proposal forms are discussed, grid cell size spacing and vertical resolution as a percentage of the water depth should be added.

Action 21/14: K. DOBROLYUBOVA to provide the correct minimum depth for Chichagov Seamount to the Secretary (M. Huet).

Action 21/15: Chairman (H.W. SCHENKE) to clarify the flow of data with the GEBCO guiding committee at its meeting in May 2008.

6.1.b Dibner Seamount

ACCEPTED

Position: *Lat. 74 °15.52'N, Long. 7°20.20'E, N. Atlantic Ocean*
 Proposer: Dr. Galina V. AGAPOVA and Dr. Ksenia O. DOBROLYUBOVA,
 Geological Institute, Russian Academy of Sciences
marine@ginras.ru
 Date of Proposal: April 2008
 Discoverer: R.V. Nikolay Strakhov
 Date of Discovery: 2007
 Minimum Depth: 990 m
 Maximum Depth: ~ 2900 m
 Total Relief: >1900 m

The seamount is located on the west side of the Knipovich Ridge.

Named after Vitaly Davydovich Dibner (1918 – 2007), a professor and Russian marine geomorphologist and geologist, explorer of the Arctic and World Ocean. From 1948, he studied the islands and straits of Franz-Josef Land, Barents Sea, Norwegian-Greenland basin, Davis Strait and the North Atlantic. He developed methods of geomorphological and geological mapping of polar seas, and morphostructural prognosis of oil and gas structures. He was the author of the first geomorphologic and tectonic maps of the Arctic.

6.1.c Dmitriev Seamount

PENDING. The feature is ACCEPTED for inclusion as a seamount in the reserve section of the Gazetteer. The proposed name is NOT ACCEPTED, since Leonid Vladimirovich Dmitriev (1927 -2005), did not work in this area. He worked in more temperate climates, e.g., South Atlantic Ocean, central Pacific Oceans.

Position: *Lat. 74°13.81'N, Long. 8°01.78'E (NW summit), N. Atlantic Ocean*
Lat. 74°15.48'N, Long. 7°50.05'E (SE summit)
 Proposer: Dr. Galina V. AGAPOVA and Dr. Ksenia O. DOBROLYUBOVA,
 Geological Institute, Russian Academy of Sciences
marine@ginras.ru
 Date of Proposal: April 2008
 Discoverer: R.V. Nikolay Strakhov
 Date of Discovery: 2007
 Minimum Depth: SE summit: 990 m; NW summit: 1247 m
 Maximum Depth: SE summit: ~ 2600 m; NW summit: ~ 2450 m
 Total Relief: SE summit: ~ 1600 m; NW summit: ~ 1200 m

The seamount is located on the west side of the Knipovich Ridge.

Action 21/16: K. DOBROLYUBOVA to propose another name for the Seamount at *Lat. 74°13.81'N, Long. 8°01.78'E* and *Lat. 74°15.48'N, Long. 7°50.05'E*.

6.1.d

Gnom Hill

ACCEPTED as Gnom Knoll.

Position: *Lat. 74°40.38'N, Long. 8°31.65' E, N. Atlantic Ocean*
Proposer: Dr. Galina V. AGAPOVA and Dr. Ksenia O. DOBROLYUBOVA,
Geological Institute, Russian Academy of Sciences
(marine@ginras.ru)
Date of Proposal: April 2008
Discoverer: Not provided
Date of Discovery: Not provided
Minimum Depth: 2721 m
Maximum Depth: ~ 3160 m
Total Relief: > 440 m

This feature is located in the rift valley of the Knipovich ridge.

Named from the shape of the feature, based on contours, dimensions and disposition.

6.2

Proposals by Japan Committee on Undersea Feature Names (JCUFN)

Doc: SCUFN20-6.2A Proposals by JCUFN, April 2008

6.2.a

Bando Abyssal Basin

ACCEPTED as Bando Basin.

Position: *Lat. 34°40'N, Long. 142°05'E, NW. Pacific Ocean*
Lat. 32°50'N, Long. 142°05'E
Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji,
Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
Date of Proposal: April 2008
Discoverer: Japanese survey vessels "Takuyo" and "Shoyo" (multibeam surveys
in Nov. 2001, Feb. 2005, Jul. 2005, Oct. 2006 and Sep. 2007)
Date of Discovery: 1984
Average Depth: ~ 9200 m

Bando Basin is part of the Izu-Ogasawara Trench floor. It occupies the northernmost part of the trench, and has an elongated (~ 180 km in length) and flat-bottomed trough-like basin. This basin is the deepest sedimentary basin in the world, about 3000 m thick. Only this section of the trench is sediment filled, creating the basin.

"Bando" is the ancient name (back to as early as 7th century) of the Kanto Region that is currently known as the greater metropolitan Tokyo area. The basin is close to the Boso Peninsula, which is part of the Kanto Region.

Action 21/17: Y. OHARA to provide additional positions for Bando Basin.

6.2.b

Boso Canyon

ACCEPTED.

Position: *Lat. 34°43'N, Long. 140°00'E, NW. Pacific Ocean*
Lat. 34°30'N, Long. 141°05'E

Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
 Date of Proposal: April 2008
 Discoverer: Japanese survey vessel "Takuyo" (multibeam surveys in Nov. 2001, Feb. 2005, Jul. 2005, Oct. 2006 and Sep. 2007).
 Date of Discovery: 1984
 Depth: From 2500 m (western end) to ~ 6500 m (eastern end at Katsuura Basin)

This canyon is one of the many submarine channels that drain into the Sagami Trough as tributary channels. The canyon meanders and extends for ~ 110 km in the WNW-ESE direction. The easternmost end of the canyon flows in Katsuura Basin.

The canyon is closely located to the southeast of the Boso Peninsula, near Tokyo.

Action 21/18: Y. OHARA to provide additional positions for Boso Canyon.

**6.2.c Katsuura Basin
ACCEPTED.**

Position: *Lat. 34°12'N, Long. 141°35'E, NW. Pacific Ocean*
Lat. 34°30'N, Long. 141°15'E
 Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
 Date of Proposal: April 2008
 Discoverer: Japanese survey vessel "Takuyo" (multibeam survey in Nov. 2001, Feb. 2005, July 2005, Oct. 2006 and Sep. 2007).
 Date of Discovery: 1984
 Average Depth: Not provided

This basin is located at the mouth of Boso Canyon. The basin has an oval shape, and the length of its elongated axis is of about 55 km.

Named after the nearby city of Katsuura, a renown fishery town in the Boso Peninsula, near Tokyo.

Action 21/19: Y. OHARA to provide additional positions for Katsuura Basin to describe its geometry as a closed polygon.

**6.2.d Katsuura Canyon
ACCEPTED.**

Position: *Lat. 35°00'N, Long. 140°40'E, NW. Pacific Ocean*
Lat. 34°55'N, Long. 140°35'E
Lat. 34°55'N, Long. 141°05'E
 Proposer: Japanese Committee on Undersea Feature Names
 Date of Proposal: April 2008
 Discoverer: Japanese survey vessel "Takuyo"
 Date of Discovery: Sep. 1987 and Oct. 1987
 Depth: From ~1000 m (western end) to ~6500 m (eastern end at Katsuura Basin)

This canyon is one of the many submarine channels that drain into the Sagami Trough as tributary channels. It is closely located to the southeast of the Boso Peninsula, near Tokyo. The canyon extends for ~ 75 km in the WNW-ESE direction. The easternmost end of the canyon flows in Katsuura Basin.

Named after the nearby city of Katsuura, a renown fishery town in the Boso Peninsula, near Tokyo.

Action 21/20: Y. OHARA to provide additional positions for Katsuura Canyon.

6.2.e Okina Seamount

ACCEPTED, as name for the existing unnamed seamount No. 16 in the reserve section of the Gazetteer.

Position: *Lat.* 25°03'N , *Long.* 133°21'E, NW. Pacific Ocean
Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
Date of Proposal: April 2008
Discoverer: Japanese survey vessel "Takuyo"
Date of Discovery: Dec. 1983, Jan. 1984, May 2001 and Jun. 2001
Minimum Depth: 620 m
Maximum Depth: ~ 3600 m
Total Relief: ~ 3000 m

Okina Seamount is one of the seamounts of the Choju Seamounts. It is located in the middle part of the Minami-Daito Basin, dividing the basin into two halves. It also coalesces with the Daito Ridge to the north. At the base of the seamount, its diameter is about 15 km.

"Okina" means "old man" in Japanese. Okina Seamount is located to the north of Choju Seamounts, with "Choju" meaning "a long life" in Japanese, hence the connection.

6.2.f Mogi Fan

ACCEPTED.

Position: *Lat.* 35°05'N, *Long.* 142°00'E, NW. Pacific Ocean
Lat. 34°15'N, *Long.* 141°47'E
Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
Date of Proposal: April 2008
Discoverer: Japanese survey vessels "Takuyo" and "Shoyo"
Date of Discovery: Nov. 2001, Feb. 2005, July 2005, Oct. 2006 and Sep. 2007
Depth: ~ 9000 m

Mogi Fan is an even-shaped partial cone, with a base of about 18 km in diameter, located next to the Katsuura Basin, in the Izu-Ogasawara Trench floor. It is probably the deepest known fan in the world.

Named after Dr. Akio Mogi who had long worked for the Hydrographic Department of Japan. His research interests were mainly on morphological study of undersea features, including the concerned area (i.e., northern part of the Izu-Ogasawara Trench). This resulted in publication of an atlas of seafloor morphology around Japan (Mogi, 1979). He found in situ deformation of a subducting seamount and demonstrated this is an excellent example of a plate subduction, which had a huge impact on the marine geology/geophysics community (Mogi and Nishizawa, 1980).

Action 21/21: Y. OHARA to provide additional positions for Mogi Fan.

6.2.g Tayama Guyot

ACCEPTED.

Position: *Lat.* 23°37'N, *Long.* 157°18'E, NW. Pacific Ocean
Proposer: Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
Date of Proposal: April 2008
Discoverer: Japanese survey vessel "Takuyo"

Date of Discovery:	Nov. 1998 – May 1999
Minimum Depth:	~ 1400 to 1500 m
Maximum Depth:	~ 5500 m
Total Relief:	~ 4000 m

The guyot is one of the constituents of the “Marcus-Wake Seamount Group” in the Northwest Pacific Ocean. It has a flat-topped summit. Its basal area is about 90×100 km².

Named after Dr. Risaburo Tayama, one of the pioneers on submarine topographical and geological researches in Japan. He worked on bathymetric and geological surveys in Japan and the Western Pacific for more than 20 years. He devoted 12 years to studying coral reef islands in the Western Pacific. His detailed descriptions of geomorphology and geology of coral reefs contributed to a better understanding of how coral reefs develop. He also compiled bathymetric and geomorphological maps of a large region (130°-174°E to 4°S-30°N), depicting this guyot as a seafloor high. The guyot is a drowned coral reef and is linked with his lifework study.

6.2.h Tomoda Guyot

ACCEPTED.

Position:	Lat. 24°25'N, Long. 154°30'E, NW. Pacific Ocean
Proposer:	Japanese Committee on Undersea Feature Names, 5-3-1 Tsukiji, Chuo-ku, Tokyo 104-0045, Japan (ohara@jodc.go.jp)
Date of Proposal:	April 2008
Discoverer:	Japanese survey vessel “Takuyo”
Date of Discovery:	May 1998 – March 1999
Minimum Depth:	800 m
Maximum Depth:	~ 5500 m
Total Relief:	~ 4700 m

This seamount is one of constituents of the Marcus-Wake Seamount Group in the Northwest Pacific Ocean. It has a small flat-topped summit. Its basal area is about 65×40 km².

Named after Dr. Yoshibumi Tomoda. He was a renown Japanese marine geophysicist, who built up the basis of marine geophysical surveys in Japan, especially for gravity and geomagnetic observations. His greatest contributions to marine geosciences are the development of shipboard gravity meters and the compilation of gravity anomalies maps of the Northwest Pacific. The Marcus-Wake Seamount Group, which includes this seamount, was part of his studies.

6.3 Proposals by Brazilian Navy Hydrographic Center (BNHC)

Doc: SCUFN20-6.3A Proposals by BNHC, April 2008

6.3.a Admiral Camera Seamount

ACCEPTED as Almirante Câmara Seamount.

Position:	Lat. 13°08'32"S, Long. 30°52'38"W, SW. Atlantic Ocean
Proposer:	Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)
Date of Proposal:	April 2008
Discoverer:	R.V. Almirante Câmara
Date of Discovery:	1981
Minimum Depth:	2500 m
Maximum Depth:	5500 m
Total Relief:	3000 m

The seamount has a conical shape.

Named after the Brazilian research vessel "Almirante Câmara" that discovered this feature and has conducted many surveys on the Brazilian continental Margin since 1975. Almirante Antonio Alves Câmara Junior was one of the most important persons involved in the establishment of the Brazilian Hydrographic Service.

6.3.b.i Admiral Paulo Moreira Seamount

ACCEPTED as Paulo Moreira Seamount. This is an exception to the Sub-Committee naming criteria, as the given name of Paulo is included to specifically identify the individual.

Position: *Lat. 12°23'59"S, Long. 32°59'00"W, SW. Atlantic Ocean*
Proposer: *Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)*
Date of Proposal: *April 2008*
Discoverer: *Survey Vessel Almirante Câmara*
Date of Discovery: *1981*
Minimum Depth: *2375 m*
Maximum Depth: *4500 m*
Total Relief: *2125 m*

It has an elongated shape, N-S direction with approximately 65 km x 21km on the E-W direction. It has three peaks on a single base.

Named after Vice-Admiral Paulo de Castro Moreira (1919-1983). He founded the Geophysical Department of the Brazilian Hydrographic Service. He became Director of the Naval Research Institute and developed the Institute of Marine Studies, now named "Admiral Paulo Moreira" and dealing with oceanography, marine geology and geophysical, hydrography and acoustic submarine research.

6.3.b Jean Charcot Seamounts

ACCEPTED.

Position: *Lat. 26°06'S, Long. 38°00'W, SW. Atlantic Ocean*
Lat. 27°28'S, Long. 40°00'W
POLYGON Coordinates: *Lat. 26°14'27"S, Long. 039°57'08"W*
Lat. 26°13'37"S, Long. 040°08'03"W
Lat. 27°15'15"S, Long. 039°00'42"W
Lat. 26°59'36"S, Long. 038°18'07"W
Lat. 26°13'25"S, Long. 039°16'08"W
Lat. 26°14'37"S, Long. 039°57'08"W
Proposer: *Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)*
Date of Proposal: *April 2008*
Discoverer: *R.V. Jean Charcot*
Date of Discovery: *1973 (surveyed with multibeam in 1989)*
Minimum Depth: *1000 m*
Maximum Depth: *4500 m*
Total Relief: *3500 m*

This is a cluster of 11 seamounts on the border of Sao Paulo Plateau.

Named after the French research vessel Jean Charcot, from the then French Centre National pour l'Exploitation des Océans (CNEXO), that discovered this group of seamounts. The ship was the first research vessel to be equipped with a multibeam system. The ship was named from Jean Charcot

(1867-1936), a noted French scientific investigator that visited the Arctic and Antarctic several times. He gained support from the French Government and institutions to carry out his expeditions.

6.3.c Rio Grande do Norte Plateau
ACCEPTED.

Position: Lat. 04°47'00"S, Long. 35°00'00"W, SW. Atlantic Ocean
POLYGON Coordinates: Lat. 05°40'30"S, Long. 034°57'52"W
Lat. 05°15'14"S, Long. 034°41'52"W
Lat. 04°45'52"S, Long. 034°51'05"W
Lat. 04°35'48"S, Long. 035°16'50"W
Lat. 04°39'04"S, Long. 035°36'22"W
Lat. 04°55'39"S, Long. 035°03'01"W
Lat. 05°40'30"S, Long. 034°57'52"W
Proposer: Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)
Date of Proposal: April 2008
Discoverer: R.V. Chain
Date of Discovery: 1974
Minimum Depth: 500 m
Maximum Depth: 3600 m
Total Relief: 3100 m

This feature has a semi-elliptical shape with a smooth top relief oriented SW-NE. Depths of the plateau vary from 500 m - 1000 m to 3000 m - 3600 m (outer edge). It has an upper slope of 600m and a lower slope in the range 1000 m - 3600 m.

Named from the nearby Brazilian State of Rio Grande do Norte.

6.3.d Romano Russo Seamount

ACCEPTED. This is another exception to the Sub-Committee naming criteria, as the given name of Romano is included to specifically identify the individual.

Position: Lat. 12°08'05"S, Long. 34°29'58"W, SW. Atlantic Ocean
Proposer: Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)
Date of Proposal: April 2008
Discoverer: R.V. Almirante Câmara (resurveyed with multibeam in 1989 by R.V. Conrad)
Date of Discovery: 1981
Minimum Depth: 1800 m
Maximum Depth: 4400 m
Total Relief: 2600 m

The seamount has an elongate shape with a smooth flat top.

Named after Romano Russo (1949-1999), a marine geophysicist at PETROBRAS – the Brazilian National Oil Company. He participated in the Brazilian continental shelf survey, coordinating the seismic data process and interpretation.

6.3.e Santa Catarina Plateau

PENDING. Feature and name to be put into the reserve section of the gazetteer, pending additional data to be collected by the Brazilian Navy Hydrographic Center.

Position: Lat. 30°37'44"S, Long. 44°20'38"W, SW. Atlantic Ocean
Proposer: Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)
Date of Proposal: April 2008
Discoverer: R.V. Almirante Câmara
Date of Discovery: 1989
Minimum Depth: 3300 m
Maximum Depth: 4000 m
Total Relief: 700 m

This feature is an elliptically-shaped plateau of about 340 km on its major axis (NW-SE) and 150 km on its minor axis with a typical rough surface. There is a depth increase of 500 m on its external / offshore escarpment.

Named from the nearby Brazilian State of Santa Catarina.

Action 21/22: A.A. ALBERONI to provide additional bathymetric data in support of the proposed Santa Catarina Plateau.

**6.3.f Zembruscki Seamount
ACCEPTED.**

Position: Lat. 12°46'07"S, Long. 32°35'30"W, SW. Atlantic Ocean
Proposer: Brazilian Navy Hydrographic Center, Barao de Jaceguay street, Ponta da Armacao, Niteroi, Rio de Janeiro, Brazil, CEP 24.048-900 (ana.angelica@chm.mar.mil.br)
Date of Proposal: April 2008
Discoverer: R.V. Conrad
Date of Discovery: 1989
Minimum Depth: 2080 m
Maximum Depth: > 4500 m
Total Relief: > 2420 m

The seamount has a typical conical shape.

Named after Dr. Sylvio Geraldo Zembruscki, a marine geologist who worked all his life at PETROBRAS – the Brazilian National Oil Company. He carried out extensive marine geophysical research along the Brazilian Continental Margin. He coordinated the REMAC program, the first Brazilian research project on the continental margin. He participated in expeditions in Alaska and was the chief scientist of many expeditions on the Brazilian continental margin.

6.4 Proposals by Korean Committee on Marine Geographical Names (KCMGN)

Doc: SCUFN20-6.4A Proposals by KCMGN, Korea, April 2008

**6.4.a Gageo Reef
ACCEPTED.**

Position: Lat. 33°56'20" N, Long. 124°35'44"E, Yellow Sea
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: Korean R.V. Busan 805 (multibeam survey by R.V. Hwanghaero in 2008)
Date of Discovery: April to September 1991

Minimum Depth: 7.8 m
 Maximum Depth: 75 m
 Total Relief: ~ 67 m

Gageo originates from the name of an island 48 miles west known as Gageo Do (“Do” means “island” in Korean language). Although the official name of the island is nowadays “Soheuksan Do” it was commonly called “Gageo Do” for more than 100 years.

Y. OHARA remarked that this reef had a previous name: ‘Ilhyang Reef’ which was shown on an International chart in 1965 (Spelled as ‘Ilhyangcho’). The relevant charts from UK, Russia, Japan and China also include this name. S.J. CHOO reported that the Korean Committee on Geographical Names changed the name to Gageo in 2006 on the grounds that the latter name is more commonly used in Korea. T. PALMER felt this name change should be brought to the attention of the international maritime community via notice to mariners.

Action 21/23: Secretary (M. HUET) to add to the remarks section of the GEBCO Gazetteer for Gageo Reef: “Prior to 2006, this reef was referred to as *Ilhyang Reef* in nautical charts”.

Action 21/24: H-C. HAN to provide at least one additional position for Gageo Reef.

6.4.b

Galmaegi Hill

ACCEPTED as Galmaegi Reef.

Position: *Lat. 37°47’16”N, Long. 124°22’54”E, Yellow Sea*
 Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
 Date of Proposal: April 2008
 Discoverer: Korean R.V. Hwanghaero
 Date of Discovery: 2006
 Minimum Depth: 30 m
 Maximum Depth: 76 m
 Total Relief: ~ 46 m

This feature is an isolated cluster of elevations, of irregular shapes, rising 20 to 46 meters above the seafloor on the continental shelf west of the Korean peninsula. The largest elevation is about 4.8 km in the N-S direction and 1.4 km in the E-W direction. The feature is located 25 km west of the island of Daechong Do.

“Galmaegi” is the Korean word for “seagull.” The sea-surface area around Galmaegi Reef is often covered with these sea birds, which congregate there because of the great abundance of small fish that swim nearby, where the submerged elevations provide some shelter.

H-C. HAN felt that calling this feature a reef might cause confusion among local people.

Action 21/25: H-C. HAN to provide three additional positions for Galmaegi Reef.

6.4.c

Jeju Valley

ACCEPTED.

Position: *Lat. 33°42’N, Long. 126°31’E, NW. Pacific Ocean*
Lat. 33°01’N, Long. 127°39’E
 Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
 Date of Proposal: April 2008
 Discoverer: Korean R.V. Badaro 1
 Date of Discovery: April to October 2003
 Minimum Depth: 100 m (upper section)

Maximum Depth: 165 m (downslope section)
Total Relief: 20 to 30 m

Jeju Valley is a relatively shallow, wide depression adjacent to the north and eastern sides of Jeju Island. It appears to drain the continental shelf, and it likely did so during the last low-stand of sea level, creating an estuarine environment. The floor of Jeju Valley has a continuous gradient of about 0.05° in the upper section (north of Jeju), and about 0.15° in the down-slope region (east of Jeju). The width of Jeju Valley is about 30 km and the total length is about 150 km.

Jeju Valley lies immediately adjacent to Jeju Island (Jeju Do).

Y. OHARA reported that Jeju valley is one of the channels in a group of channels called Nishi-Goto Shelf Channels, name which is included in the ACUF Gazetteer.

Action 21/26: H-C. HAN to provide additional positions for Jeju Valley.

**6.4.d Jugam Seamount Chain
ACCEPTED as Jugam Ridge.**

Position: *Lat. 38°10'N, Long. 131°11'E, NW. Pacific Ocean*
Lat. 38°26'N, Long. 131°43'E
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: Korean R.V. Haeyang 2000
Date of Discovery: 1997
Minimum Depth: 879 m, 952 m, 1171 m and 1245 m (four summits)
Maximum Depth: 1500 m
Total Relief: ~ 650 m

Jugam Ridge is located in the middle part of Ulleung Plateau. The feature is an elongated seamount chain in the NE-SW Direction. The summit has an irregular topographic relief with 4 seamounts. General shape is a linear alignment of 4 discrete seamounts.

Jugam is the name of the nearest village on northernmost Ulleung Do, an island close to this feature.

**6.4.e Sae Hills
ACCEPTED as Saeteok Bank.**

Positions: *Lat. 37°39'28"N, Long. 124°28'17"E, Yellow Sea*
Lat. 37°38'33"N, Long. 124°28'39"E
Lat. 37°39'50"N, Long. 124°29'11"E
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: R.V. Hwanghaero
Date of Discovery: September 2006
Minimum Depth: 61 m, 61 m and 59 m (three peaks)
Maximum Depth: ~ 78 m
Total Relief: ~ 17 m

Saeteok Bank consists of a cluster of three isolated peaks in the Yellow Sea, west of the Korean Peninsula. The bank is an important fishing place in the yellow sea, locally known by fishermen as "Saeteok" (Sae Hills).

The name "Saeteok" refers to the fact that the underlying peaks have recently been found by local fishermen. "Sae" and "teok" are the Korean words for "new" and "hills", respectively.

6.4.f Ulsan Canyon

ACCEPTED as Ulsan Seachannel.

Position: *Lat. 35°15'57"N, Long. 129°50'14"E, NW. Pacific Ocean*
Lat. 35°27'25"N, Long. 129°59'06"E
Lat. 35°38'47"N, Long. 130°10'35"E
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: Korean R.V. Haeyang 2000
Date of Discovery: April to November 1996
Depth: from less than 150 m to over 740 m

Ulsan Seachannel is located about 55 km to the east of Ulsan harbour, starting from the coast of the Korean peninsula. The estuarine appearance of the feature on the continental shelf gradually becomes a relatively narrow depression with steep sides and a substantial gradient as the feature traces down the continental slope into Ulleung Basin. The seachannel was most likely formed by headward erosion of the continental slope by turbidity currents transporting terrestrially-derived sediments from the Korean peninsula. Its width is approximately 5 km and its total length is approximately 50 km.

Ulsan Canyon is located 55 km east of Ulsan Hang (Ulsan harbor).

6.4.g Usan Ridge

ACCEPTED.

Position: *Lat. 37°52'N, Long. 131°09'E, NW. Pacific Ocean*
Lat. 38°02'N, Long. 131°24'E
Lat. 38°01'N, Long. 131°43'E
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: Korean R.V. Haeyang 2000
Date of Discovery: April to November 1996
Minimum Depth: 554 m
Maximum Depth: 1500 to 1800 m
Total Relief: 950 to 1200 m

Usan Ridge is an elongated feature on the southern part of Ulleung Plateau. The feature lies East-West, with a summit of irregular topographic relief.

Usan is the ancient name of Ulleung Do (Ulleung Island), prior to the 5th Century of the Common Era.

Action 21/27: H-C. HAN to provide additional positions describing the linear extent along the summits of Usan Ridge.

6.4.h Wangdol Reef

ACCEPTED.

Position: *Lat. 36°43'09"N, Long. 129°43'55"E, NW. Pacific Ocean*
Proposer: Korea Committee on Marine Geographical Names, 1-17, 7-ga Hang-dong, Jung-gu, Incheon, 400-800, Republic of Korea (info@nori.go.kr)
Date of Proposal: April 2008
Discoverer: Korean R.V. Busan 802 (multibeam survey by Korean R.V. Donghero in August to September 2007)

Date of Discovery: April to November 1985
Minimum Depth: 5.3 m
Maximum Depth: ~ 100 m
Total Relief: ~ 95 m

The feature is located on the northern part of Hupo Bank, about 25 km east of Hupo Hang (Hupo Harbour) on the east coast of the Korean peninsula. The reef is a hazard to surface navigation.

Wangdol means "great stone" in Korean language. Wangdolcho ("cho" means reef) was initially named in the first edition of the Korea Coast Pilot in 1990. Since that time, Wangdol Reef has been in use on charts and in the literature of both the scientific and hydrographic communities.

6.5 Proposal by Institute of Volcanology and Seismology, Far East Branch, Russian Academy of Sciences

Doc: SCUFN20-6.5A Proposals by the Russian Academy of Sciences, Russia, April 2008

6.5.a Grigor'ev Seamount

NOT ACCEPTED. The feature appears to be in the territorial sea of Russia. The feature is ~5km from Ostrov Atlasov. It is, therefore, not within the purview of SCUFN. It may be included in a *national* (aka Russian Federation) database for inclusion on INT charts; however, SCUFN's responsibility is limited to those features entirely or mainly (more than 50%) outside the external limits of the territorial sea, not exceeding 12 nautical miles from the baselines, in agreement with the United Nations Convention on the Law of the Sea. To be referred back to the Russian national naming authority.

Position: Lat. 50°57'N, Long. 155°26'E, NW. Pacific Ocean
Proposer: RASHIDOV V.A., Institute Volcanology and Seismology Far Eastern Russian Academy of Sciences, 9 Piip Boulevard, Petropavlovsk - Kamchatsky 68 3006, Russia
Date of Proposal: April 2008
Discoverer: Russian R.V. Vityaz (Detailed survey by Russian R.V. Vulkanolog from 1989 to 1991)
Date of Discovery: 1955
Minimum Depth: 59 m
Maximum Depth: ~ 860 m
Total Relief: > 800 m

This seamount (Volcano), with a flat summit, is located near the Alaid Is. Dimensions of its base are 12.5 x 15 km.

Discussion ensued, regarding features inside the territorial limits. It was agreed that the Sub Committee may, on a case-by-case basis, consider submissions from national organizations regarding features which are less than 50% in international waters IF these features are considered to be in the interests of GEBCO. B-6 will NOT be modified.

It was noted that, due to its least depth of 59 meters, this feature would better qualify as a bank.

Iosif Fedorovich Grigor'ev (1890–1949) was a Russian academic geologist. From 1946-1949, he was the director of the Geological Institute Academy of Science. He elaborated a method of "mineragraphic" studying of ore and proposed a classification for ore structure. The name was originally proposed by Professor P.L. Bezrukov of Moscow Institute of Oceanology in 1955.

<p>Action 21/28: K. DOBROLYUBOVA to refer the proposal for Grigor'ev Seamount back to RASHIDOV V.A. with the recommendation to submit the proposal to the Russian committee on undersea feature names. A proposal can then be resubmitted to SCUFN for inclusion in the GEBCO Gazetteer.</p>

6.6 Proposal by Walter REYNOSO-PERALTA, GEBCO/Nippon Foundation Training Program Alumni, Argentina

Doc: SCUFN20-6.6A Proposal by Walter REYNOSO-PERALTA, SHN, Argentina, May 2008

6.6.a Nippon Foundation Seamounts

PENDING. The proposal did not meet the SCUFN naming criteria. The feature was accepted for inclusion in the reserve section of the GEBCO Gazetteer.

Position: Lat. 13°27' 06"N, Long. 119°50'31"W, N. Pacific Ocean
 Lat. 13°40'21"N, Long. 120°21'46"W
 Lat. 13°41'43"N, Long. 120°40'20"W

Proposer: Walter REYNOSO-PERALTA, GEBCO/Nippon Foundation Training Program Alumni, SHN, Chacabuco 361 P 10 "D" Buenos Aires 1069, Argentina (wreyper@yahoo.com.ar)

Date of Proposal: May 2008

Discoverer: US R.V. Thomas Washington (Cruise RAIT03WT; University of California, Scripps Institution of Oceanography)

Date of Discovery: April 1988

This feature consists in a group of 3 aligned seamounts located in international waters:

Seamount 1: Conical seamount with a flat top with a radius of 4 km. The base has an approximate radius of 17 km.

Minimum Depth: 650 m
Maximum Depth: 1700 m
Total Relief: 2350 m
Surrounding depths: between 3500 and 4000 m.
Steepness: ~ 6°

Seamount 2: Conical seamount with two peaks separated by 4 km. Base is approximately circular with an average radius of 9 km.

Minimum Depth: 1150 m
Maximum Depth: 1100 m
Total Relief: 2250 m
Surrounding depths: between 3500 and 4000 m.
Steepness: ~ 3°

Seamount 3: Conical seamount with an extension from center to base of approximately 10 km.

Minimum Depth: 850 m
Maximum Depth: 1500 m
Total Relief: 2350 m
Surrounding depths: between 3500 and 4000 m.
Steepness: ~ 4°

This feature came from a review of the unnamed seamounts in the central Pacific Ocean (see Minutes of SCUFN20, § 5.1.2). Nippon Foundation is a funding organization and this name does not meet any of the naming criteria, as described in B-6. It was felt that the world community would look at this as a decision made on the basis of Nippon Foundation contribution to GEBCO. The Sub-Committee agreed that another name should be proposed for the feature.

The Nippon Foundation is a grant making organization that supports innovative initiatives to bring about positive changes into our world. Thus, NF understood the societal importance of the ocean mapping and supports GEBCO to create a new generation of experts on ocean mapping, spreading out its contribution to the capacity building to development countries, and assisting to establish a global network on ocean mapping.

Action 21/29: W. REYNOSO PERALTA / J.L. FRIAS to check whether the feature proposed as Nippon Foundation Seamounts has been named already, e.g. by Dr. Peter LONSDALE. If not, to look for an alternative name, possibly in connection with the nearby State of Mexico.

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

7.1 Harmonization of GEBSCO and ACUF Gazetteers

Doc: SCUFN20-7.1A ACUF Comments on June 2007 GEBSCO SCUFN Gazetteer (T. Palmer)

The secretary (M. HUET) reported that T. PALMER, ACUF secretary, has carried out a detailed review of the June 2007 GEBSCO Gazetteer, comparing with the ACUF Gazetteer, and he has provided numerous comments / suggestions for changes to the GEBSCO Gazetteer, mainly of editorial nature. It was considered that reviewing Doc. SCUFN21-7.1A should be a housekeeping task for the secretary.

Action 21/30: Secretary (M. HUET) to review and comment on the list from ACUF, as in Doc. SCUFN21-7.1A, and propose any necessary actions to the Sub-Committee.

7.2 Review of Reports of ACUF Meetings since July 2007

Doc: SCUFN20-7.2A Reports of ACUF Meetings and Proposals

T. PALMER, as ACUF secretary, reviewed how ACUF has traditionally cooperated with SCUFN, emphasizing the differences between the two groups. ACUF is part of the US Board on Geographic Names and they only make recommendations to the BGN; they do not have approval authority. Most of the names considered at the five ACUF meetings which were held during the past year, came from SCUFN. ACUF has put out a statement on commemorative naming on their website (<http://earth-info.nga.mil/gns/html/acuf/acuf.html>).

7.2.a ACUF Meeting 323, 25 May 2007

No new names were considered for inclusion in the GEBSCO Gazetteer.

7.2.b ACUF Meeting 324, 12 October 2007

No new names were considered for inclusion in the GEBSCO Gazetteer.

7.2.c ACUF Meeting 325, 7 December 2007

7.2.c.i Demer Canyon

NOT ACCEPTED. David A. DEMER is still alive and insufficient bathymetric data was provided in support of this proposal. Further, the name would honor the proposer!

Position: *Lat. 62.45°S, Long. 61.20°W, Southern Ocean*

Proposer: Dr. David A. DEMER, NOAA Southwest Fisheries Science Center, 8604 La Jolla Shores Drive, La Jolla, CA, 92037, USA

Date of Proposal: December 2007

Discoverer: US R.V. Ernest

Date of Discovery: February 2000

Depths: ~ 100 m to 500 m

7.2.c.ii Jenkins Canyon

NOT ACCEPTED. Capt Adam JENKINS is still alive and insufficient bathymetric data was provided in support of this proposal.

Position: *Lat. 62.45°S, Long. 60.50°W, Southern Ocean*

Proposer: Dr. David A. DEMER, NOAA Southwest Fisheries Science Center,
8604 La Jolla Shores Drive, La Jolla, CA, 92037, USA
Date of Proposal: December 2007
Discoverer: US R.V. Ernest
Date of Discovery: February 2000
Depths: ~ 100 m to 500 m

Noting that the above two names had been “accepted” by ACUF, the chairman (H.W. SCHENKE) expressed concern that such insufficient data was used to justify the approval of undersea feature names; also that names approved by ACUF might automatically go into the SCAR Composite Gazetteer of Antarctica. N. CHERKIS clarified that ACUF is only a standardization body for US government maps. ACUF does not even speak for the US scientific community.

7.2.d **ACUF Meeting 326, 5 February 2008**

7.2.d.i **Malahoff Seamount**

PENDING. The specific name is not accepted, as Dr. Alexander MALAHOFF is still alive, but the feature is accepted for inclusion in the reserve section of the Gazetteer.

Position: *Lat. 18°12’N, Long. 157°27’W, Pacific Ocean*
Proposer: Dr. John R. SMITH Jr., Hawaii Undersea Research Laboratory, 1000
Pope Rd., MSB 303, Honolulu, HI 96822, USA
Date of Proposal: February 2008
Discoverer: US R.V. Kilo Moana
Date of Discovery: July 2007
Minimum Depth: 1600 m
Maximum Depth: 4400 m
Total Relief: 2800 m

The seamount is about 20 km in diameter at its base. Once again, the Sub-Committee regretted that this proposal had been “accepted” by ACUF.

7.2.d.ii **GPL Walker Seamount**

ACCEPTED as George Walker Seamount, to distinguish from the existing Walker Seamount in the GEBCO Gazetteer at 55°07’N, 140°20’W.

Position: *Lat. 18°06’N, Long. 158°13’E, Pacific Ocean*
Proposer: Dr. John R. SMITH Jr., Hawaii Undersea Research Laboratory, 1000
Pope Rd., MSB 303, Honolulu, HI 96822, USA
Date of Proposal: February 2008
Discoverer: Not provided
Date of Discovery: Not provided
Minimum Depth: 2900 m
Maximum Depth: 4400 m
Total Relief: 1500 m

The seamount is about 14 km in diameter at its base. It was noted that ACUF had accepted this feature as Walker Seamount. Further noting that same Walker Seamount as in the GEBCO Gazetteer, i.e. at 55°07’N, 140°20’W, also appeared in the “SBN Seamount Catalog at Earthref.org”, it was agreed to contact this SIO project to see which of the seamounts listed in their catalogue have been named.

Named after Dr. George P.L. Walker, world renowned volcanologist, 1926-2005. George Walker studied and lived near many of the most volcanically active regions in the world throughout his lifetime. He did not specialize in marine studies, but was a significant contributor to the field of Hawaiian volcanology and many of his ideas certainly touched on aspects of magmatic reaction with seawater.

Action 21/31: Secretary (M. HUET) to note in the remarks section of the GEBCO Gazetteer for
--

George Walker Seamount: "Accepted by ACUF as Walker Seamount".
Action 21/32: W. REYNOSO-PERALTA to contact the "SBN Seamount Catalog at Earthref.org" SIO project, and check which of the seamounts listed in this catalogue have been named.

7.2.e **ACUF Meeting 327, 1 April 2008**
No new names were considered for inclusion in the GEBSCO Gazetteer.

7.3 **Harmonization of SCUFN and ACUF UFN Proposal Forms**
Doc: SCUFN21-07.3A Existing SCUFN and ACUF UFN Proposal Forms

With a view to improving the existing GEBSCO undersea feature name form, the Sub-Committee undertook to compare/review the GEBSCO and ACUF names proposal forms, also taking into consideration the field descriptions for the name proposal form that NGDC developed for the geospatially enabled gazetteer. In particular, it was agreed that the proposer should identify the geometry of the features (point, linear, areal). For areal features, he would indicate that the polygon is closed by repeating the first and last coordinates.

As a result, a new GEBSCO UFN form was agreed (see Annex E)¹.

8 **LIAISON WITH THE UN GROUP OF EXPERTS ON GEOGRAPHICAL NAMES (UNGEGN)**
Doc: SCUFN21-08A Report on UNGEGN-24, New York, USA, 20-31 August 2007 (T. Palmer)

T. Palmer reported briefly on the 24th UNGEGN meeting, where he presented the IHO report on geographical naming matters, prepared by the IHB and *inter alia* reporting on SCUFN activities. There were no comments

9. **GAZETTEER OF UNDERSEA FEATURE NAMES**
9.1 **Web-based Map Interface for Undersea Feature Name Gazetteer**
Doc: SCUFN21-09.1A Report on the work carried out at the British Oceanographic Data Centre (BODC) with the GEBSCO Gazetteer of Undersea Feature Names

The GEBSCO Gazetteer is an integral part of the GEBSCO Digital Atlas (GDA) which is maintained at BODC. As part of this maintenance work BODC (P. WEATHERALL) has created a database to hold the gazetteer data from which it is planned to generate the following outputs:

- Updating the version of the GEBSCO gazetteer that is used in the GDA;
- Providing the gazetteer data set as a web feature service;
- Making the gazetteer data set available to users in more GIS-friendly formats such as Shapefile and Keyhole Markup Language (KML)

During the database creation BODC has carried out quality control checks on the gazetteer data set and investigated if additional points are needed to help define the shape and extent of some features.

As a result, BODC has made a number of proposals on how this work can be taken forward, in collaboration with SCUFN, the IHB, the US NGDC and the SCAR Composite Gazetteer of Antarctica (CGA). The quality checks carried out at BODC have revealed that:

- The GEBSCO Gazetteer contains a number of errors which need to be fixed (missing hemisphere information; co-ordinate format problems; miscellaneous co-ordinate information problems; duplicate feature names; possible co-ordinate position errors; features with co-ordinates in the wrong order for plotting; text field formatting checks; incorrect chart references)

¹ This form was subsequently included in IHO-IOC publication B-6, 4th edition (see section 4.1).

- At least 183 features may need additional points to define their shape.

It was agreed to form a sub-group to address the above issues, as well as the proposed changes in section 9.2. The GDA and/or ETOPO2 would be used to check the coordinates. The first task of the subgroup will be to assign each generic term a specific geometry. T. PALMER suggested that a primary and secondary geometry could be assigned to a given feature, e.g., a seamount could have a primary geometry of a point and a secondary geometry as a polygon.

L. TAYLOR volunteered to be the sub-group chairperson. Sub-group members to include K. DOBROLYUBOVA, H.H. SUNG, J.L. FRIAS, H-C. HAN, M. HUET, H.W. SCHENKE, W. REYNOSO-PERALTA and N. CHERKIS.

Action 21/33: The “geometry” sub-group, under L. TAYLOR leadership, to review the BODC and AWI proposals, as in SCUFN21-09.1A, 09.2A and 09.2B, and make proposals to improve definition of feature shapes.

Action 21/34: Secretary (M. HUET) to fix the problems identified in Annex I to SCUFN-09.1A.

9.2 Harmonization of the GEBCO and SCAR CGA Gazetteers

Doc.	SCUFN21-09.2A	<i>Comparison between the GEBCO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) - Proposals for changes to the GEBCO Gazetteer (Part 1)</i>
	SCUFN21-09.2B	<i>Comparison between the GEBCO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) - Proposals for changes to the GEBCO Gazetteer (Part 2)</i>

AWI (R. KROCKER) carried out a detailed comparison of the GEBCO Gazetteer and the SCAR Composite Gazetteer of Antarctica (CGA). As a result, he made a number of proposals for changes to the GEBCO Gazetteer.

See Action 21/34.

9.3 Undersea Feature Topology

This topic was covered in sections 9.1 and 9.2. See Action 21/34.

10. ANY OTHER BUSINESS

10.1 Unnamed seamounts in the Central Pacific Ocean

Doc: SCUFN20-10.1A *Review of Unnamed Seamounts in the Central Pacific Ocean*

W. REYNOSO-PERALTA gave a brief presentation on his work reviewing the list of unnamed seamounts in the Central Pacific Ocean. A group of 73 seamounts in the Pacific Ocean were identified as potentially unnamed, following a review conducted at the IHB, based on the GDA (Doc. SCUFN19-10.1A refers). W. REYNOSO-PERALTA concluded that evidence of most of those seamounts was found and their existence confirmed. He noted a slight difference in positioning between the GDA and the grid used by GeoMapApp (TOPO_V9). Preliminary results are shown in a table annexed to SCUFN20-10.1A. Those seamounts which are actually shown in the GDA have been marked as “OK” and their respective coordinates in TOPO_V9 provided. A few seamounts have already been named (re: gazetteer “kmz”). Also, some of the seamounts listed in Doc. SCUFN19-10.1A have very close coordinates.

Action 21/35: W. REYNOSO-PERALTA to continue and complete his review of the unnamed seamounts in the Pacific Ocean, and make proposals to the Sub-Committee.

10.2 Glossary of World Bathymetric Terms

Doc: SCUFN21-10.2A A Glossary of World Bathymetric Terms – Expanded

This document contains a glossary of world bathymetric terms (generic terms) and their English language equivalents, for a number of languages. This publication is available at the GEOnet Names Server (GNS) website (<http://earth-info.nga.mil/gns/html/index.html>). Doc. SCUFN21-10.2A was not discussed during the meeting.

10.3 Proposals from Dr. F. DAVEY in the Southern Ocean

Doc: SCUFN19-10.4C Proposal for Julia Seamount, from Dr. F. Davey, NZ, May 2006

SCUFN19-10.4D Proposal for Marion Seamount, from Dr. F. Davey, NZ, May 2006

Late proposals were received from Dr Fred DAVEY, Institute of Geological and Nuclear Sciences, New Zealand, to name two seamounts in the Southern Ocean, in replacement of the previously proposed Julia and Marion (which were not accepted – See Report of SCUFN20). As these were only new proposed names to correct previously submitted proposals, the sub-committee agreed to consider the alternative names. It was confirmed that the one month delay before SCUFN meetings to submit proposals would continue to be applied, although with some flexibility if the deadline falls on a week-end.

10.3.a. Tangaroa Seamount.

ACCEPTED, in replacement of the previously proposed Julia Seamount.

Position: Lat. 69°25'S, Long. 178°40'W, Southern Ocean, Ross Sea
Proposer: F.J. DAVEY, Institute of Geological and Nuclear Sciences, P.O. Box 30368, Lower Hutt, New Zealand (F.Davey@gns.cri.nz)
Date of Proposal: May 2006
Discoverer: Not provided (New Zealand R.V. Tangaroa surveyed the top of the seamount in 2008)
Date of Discovery: Before 2000
Minimum Depth: 1610 m
Maximum Depth: 3910 m
Total Relief: 2300 m

The seamount is about 40 km in diameter.

R.V. Tangaroa (New Zealand) surveyed this feature in 2008.

10.3.b. Palmer Seamount.

ACCEPTED as Nathaniel B. Palmer Seamount, after the discovering ship and to distinguish from the existing Palmer Seamount in the Atlantic Ocean (18°38' N, 156°35' W). It replaces the previously proposed Marion Seamount.

Position: Lat. 69°55'S, Long. 176°10'E, Southern Ocean, Ross Sea
Proposer: F.J. DAVEY, Institute of Geological and Nuclear Sciences, P.O. Box 30368, Lower Hutt, New Zealand (F.Davey@gns.cri.nz)
Date of Proposal: May 2006
Discoverer: Not provided (US R.V. Nathaniel B. Palmer surveyed this feature in 2007)
Date of Discovery: Before 2000
Minimum Depth: 595 m
Maximum Depth: 3395 m
Total Relief: 2800 m

The seamount is about 30 km in diameter.

R.V. Nathaniel B. Palmer (USA) surveyed this feature in 2007.

11. SITE AND DATES FOR THE NEXT MEETING

The sub-committee agreed to have the next SCUFN meeting in Brest, France, where the other GEBCO meetings, i.e. Guiding Committee and TSCOM, will take place at the invitation of the French Hydrographic Office (SHOM). Dates for the GEBCO meetings would be decided at a later stage.

12. CONCLUSION

In his concluding remarks, the chairman (H.W. SCHENKE) expressed his warm thanks to Prof. Sung Jae CHOO and his team of support for such a great job of organizing the meeting. He thanked the sub-committee members and observers for the productive discussions and their willingness to consider all points of view. He stressed the importance of continuing to work hard both during the meetings and intersessionally. He also thanked the SCUFN secretary, M. HUET, for his continued commitment to the work of the sub-committee and L. TAYLOR and N. CHERKIS for their efforts as rapporteurs. He acknowledged NORI for their hospitality and for hosting the meeting. On behalf of all meeting participants, M. HUET congratulated and thanked the chairman for conducting a successful meeting (*Applause*).

There being no further items to discuss, the chairman closed the meeting at 5:35 on 23 May 2008.

Annex A to SCUFN-21 Report

LIST OF DOCUMENTS

	Report of SCUFN-20
SCUFN21-01A rev.5	List of Meeting Documents
SCUFN21-01B rev.5	List of Participants
SCUFN21-01C	Members and Observers of SCUFN
SCUFN21-02A rev.6	Agenda
SCUFN21-03A	New Terms of Reference and Rules of Procedures for SCUFN, and Current Status
SCUFN21-04.1A	Draft new edition of B-6 (English/French)
SCUFN21-04.1B	Draft new edition of B-6 (English/Japanese)
SCUFN21-04.1C	Draft new edition of B-6 (English/Spanish)
SCUFN21-04.1D	Draft new edition of B-6 (English/Russian)
SCUFN21-04.1E	Draft new edition of B-6 (English/Korean)
SCUFN21-04.2A	Report from SCUFN Sub-Group on Revision of B-6 (Terminology Section)
SCUFN21-05A	List of Actions from SCUFN-20 and Status
SCUFN21-05B	Vaughan Williams Seamount – Replacement proposal (Mann-Borgese)
SCUFN21-05C	Proposal for East Adare Ridge
SCUFN21-05D	Comments from Dr. R.L. Fisher on SCUFN-19 and SCUFN-20 Reports
SCUFN21-05E	Publications by Robert E. Houtz and Dennis E. Hayes
SCUFN21-06.1A	Proposals by Geological Institute - Russian Academy of Sciences (GINRAS), April 2008
SCUFN21-06.2A	Proposals by Japan Committee on Undersea Feature Names (JCUFN), April 2008
SCUFN21-06.3A	Proposals by Brazilian Navy Hydrographic Center, April 2008

SCUFN21-06.4A	Proposals by Korean Committee on Marine Geographical Names (KCMGN), April 2008
SCUFN21-06.5A	Proposal by Institute of Volcanology and Seismology, Far East Branch, Russian Academy of Sciences, April 2008
SCUFN21-06.6A	Proposal by Walter Reynoso Peralta, SHN, Argentina, May 2008
SCUFN21-07.1A	Harmonization of GEBCO and ACUF Gazetteers
SCUFN21-07.2A	Reports of ACUF Meetings
SCUFN21-07.3A	Existing SCUFN and ACUF UFN Proposal Forms
SCUFN21-08A	Report on UNGEGN-24
SCUFN21-09.1A	Report on the work carried out at the British Oceanographic Data Centre (BODC) with the GEBCO Gazetteer of U.F.N.
SCUFN21-09.2A	Comparison between the GEBCO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) – Proposals for changes to the GEBCO Gazetteer (Part 1)
SCUFN21-09.2B	Comparison between the GEBCO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) – Proposals for changes to the GEBCO Gazetteer (Part 2)
SCUFN21-10.1A	Review of Unnamed Seamounts in the Central Pacific Ocean
SCUFN21-10.2A	A Glossary of World Bathymetric Terms - Expanded

Annex B to SCUFN-21 Report

LIST OF PARTICIPANTS

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AGENDA

1. **Opening and Administrative Arrangements**
Docs: SCUFN21-01A *List of Documents*
SCUFN21-01B *List of Participants*
SCUFN21-01C *SCUFN Membership and Observers List*
2. **Approval of Agenda**
Doc: SCUFN21-02A *Agenda*
3. **SCUFN Terms of Reference and Rules of Procedures**
Doc: SCUFN21-03A *New Terms of Reference and Rules of Procedures for SCUFN, and Current Status*
4. **Standardization of Undersea Feature Names: IHO-IOC Publication B-6**
 - 4.1 Publication B-6 in additional languages.
Docs: SCUFN21-04.1A *Draft new edition of B-6 (English/French)*
SCUFN21-04.1B *Draft new edition of B-6 (English/Japanese)*
SCUFN21-04.1C *Draft new edition of B-6 (English/Spanish)*
SCUFN21-04.1D *Draft new edition of B-6 (English/Russian)*
SCUFN21-04.1E *Draft new edition of B-6 (English/Korean)*
 - 4.2 Revision of B-6 (Terminology Section)
Doc: SCUFN21-04.2A *Report from SCUFN Sub-Group on Revision of B-6 (Terminology Section)*
5. **Matters remaining from Previous Meeting**
Docs: SCUFN21-05A *List of Actions from SCUFN-20 and Status*
SCUFN21-05B *Vaughan Williams Seamount – Replacement proposal (Mann-Borgese)*
SCUFN21-05C *Proposal for East Adare Ridge*
SCUFN21-05D *Comments from Dr. R.L. Fisher on SCUFN-19 and SCUFN-20 Reports*
SCUFN21-05E *Publications by Robert E. Houtz and Dennis E. Hayes*
6. **Proposals Submitted during Intersessional Period**
 - 6.1 Geological Institute - Russian Academy of Sciences (GINRAS)
Doc: SCUFN21-06.1A *Proposals by GINRAS, Russia, April 2008*
 - 6.2 Japan Committee on Undersea Feature Names (JCUFN)
Doc: SCUFN21-06.2A *Proposals by JCUFN, Japan, April 2008*
 - 6.3 Brazilian Navy Hydrographic Center (BNHC)
Doc: SCUFN21-06.3A *Proposals by BNHC, April 2008*
 - 6.4 Korean Committee on Marine Geographical Names (KCMGN)
Doc: SCUFN21-06.4A *Proposals by KCMGN, Rep of Korea, April 2008*
 - 6.5 Institute of Volcanology and Seismology, Far East Branch, Russian Academy of Sciences
Doc: SCUFN21-06.5A *Proposal by IVS-FE-RAS, Russia, April 2008*
 - 6.6 Walter Reynoso Peralta, DHN, Argentina
Doc: SCUFN21-06.6A *Proposal by Walter Reynoso Peralta, SHN, Argentina, May 2008*
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
Doc: SCUFN21-07.1A *Harmonization of GEBCO and ACUF Gazetteers*
 - 7.2 Review of Reports of ACUF Meetings since July 2007

- Doc: SCUFN21-07.2A *Reports of ACUF Meetings*
7.3 Harmonization of SCUFN and ACUF UFN Proposal Forms
Doc: SCUFN21-07.3A *Existing SCUFN and ACUF UFN Proposal Forms*

8. Liaison with the UN Group of Experts on Geographical Names (UNGEGN)

- Doc: SCUFN21-08A *Report on UNGEGN-24*

9. Gazetteer of Undersea Feature Names

- 9.1 Web-based Map Interface for Undersea Feature Name Gazetteer
Doc: SCUFN21-09.1A *Report on the work carried out at the British Oceanographic Data Centre (BODC) with the GEBICO Gazetteer of U.F.N.*
- 9.2 Harmonization of the GEBICO and SCAR CGA Gazetteers
Docs: SCUFN21-09.2A *Comparison between the GEBICO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) – Proposals for changes to the GEBICO Gazetteer (Part 1)*
SCUFN21-09.2B *Comparison between the GEBICO Gazetteer and the SCAR Composite Gazetteer on Antarctica (CGA) – Proposals for changes to the GEBICO Gazetteer (Part 2)*
- 9.3 Undersea Feature Topology
Doc: SCUFN21-09.3A *Topology of Undersea Features (Point, Line and Polygon)*

10. Any Other Business

- 10.1 Unnamed seamounts in the Central Pacific Ocean
Doc: SCUFN21-10.1A *Review of Unnamed Seamounts in the Central Pacific Ocean*
- 10.2 Glossary of World Bathymetric Terms
Doc: SCUFN21-10.2A *A Glossary of World Bathymetric Terms – Expanded*
- 10.3 Proposals from Dr. F. Davey in the Southern Ocean

11. Site and Dates for the Next Meeting

12. Conclusion

ACTION ITEMS ARISING FROM SCUFN-21

Agenda Item	Action	Details	Responsible
4.1 & 4.2	21/1	Monitor the approval of the 4 th edition of B-6 (English/French) by the GEBCO Guiding Committee, then by IHO/IOC, and its publication.	Chairman (H.W. Schenke) / Secretary (M. Huet)
4.1 & 4.2	21/2	Monitor the production of the following language versions of the 4 th edition of B-6: English/Spanish, English/Russian, English/Japanese and English/Korean.	Secretary (M. Huet)
4.2	21/3	Submit a documented proposal on "Sand Ridge", as proposed new generic term, to SCUFN-22.	Rep of Korea (Dr Han / Prof. Sung)
5.1.1.6	21/4	Include the name Mann-Borgese Seamount in the GEBCO Gazetteer, in replacement of Vaughan Williams Seamount.	Secretary (M. Huet)
5.1.1.8	21/5	Include the new East Adare Ridge in the GEBCO Gazetteer and amend the existing Adare Ridge and Adare Trough, as accepted.	Secretary (M. Huet)
5.1.1.22	21/6	Provide track control for Gordin Guyot, Skornyakova Guyot, Vulkanolog Guyot, and Zatonky Guyot.	K. Dobrolyubova
5.1.2.2	21/7	Define the extent of the Japanese Guyots and provide the coordinates and a shape file.	Y. Ohara
5.1.2.2	21/8	Remove the existing comments in the remarks section of the GEBCO Gazetteer for Japanese Guyots.	Secretary (M. Huet)
5.1.2.4	21/9	Remove from the GEBCO Gazetteer any information relating to Geisha Guyots, keeping only the name and the comment "See Japanese Guyots" in the Remarks section.	Secretary (M. Huet)
5.1.5	21/10	Include Thomas Washington Guyot, Winterer Guyot and Stout Guyot in the Reserve Section of the GEBCO Gazetteer.	Secretary (M. Huet)
5.2	21/11	Include Philippine Trench, as accepted, in the GEBCO Gazetteer and to delete Emden Trench.	Secretary (M. Huet)
5.2	21/12	Revise the position of Emden Deep and determine its depth.	Chairman (H.W. Schenke)
5.3	21/13	Write to Dr. Davey to explain the non acceptance of Hayes Bank and Houtz Bank by the Sub-Committee.	Chairman (H.W. Schenke)
6.1.a	21/14	Provide the correct minimum depth for Chichagov Seamount to the Secretary (M. Huet).	K. Dobrolyubova
6.1.a	21/15	Clarify the flow of data with the GEBCO guiding committee at its meeting in May 2008.	Chairman (H.W. Schenke)
6.1.c	21/16	Propose another name for the Seamount at <i>Lat.</i> 74°13.81'N, <i>Long.</i> 8°01.78'E and <i>Lat.</i> 74°15.48'N, <i>Long.</i> 7°50.05'E.	K. Dobrolyubova
6.2.a	21/17	Provide additional positions for Bando Basin.	Y. Ohara
6.2.b	21/18	Provide additional positions for Boso Canyon.	Y. Ohara
6.2.c	21/19	Provide additional positions for Katsuura Basin to describe its geometry as a closed polygon.	Y. Ohara
6.2.d	21/20	Provide additional positions for Katsuura Canyon.	Y. Ohara
6.2.f	21/21	Provide additional positions for Mogi Fan.	Y. Ohara
6.3.e	21/22	Provide additional bathymetric data in support of the proposed Santa Catarina Plateau.	A.A. Alberoni

Agenda Item	Action	Details	Responsible
6.4.a	21/23	Add to the remarks section of the GEBCO Gazetteer for Gageo Reef: "Prior to 2006, this reef was referred to as <i>Ilhyang Reef</i> in nautical charts".	Secretary (M. Huet)
6.4.a	21/24	Provide at least one additional position for Gageo Reef.	H-C. Han
6.4.b	21/25	Provide three additional positions for Galmaegi Reef.	H-C. Han
6.4.c	21/26	Provide additional positions for Jeju Valley.	H-C. Han
6.4.g	21/27	Provide additional positions describing the linear extent along the summits of Usan Ridge.	H-C. Han
6.5.a	21/28	Refer the proposal for Grigor'ev Seamount back to Rashidov V.A. with the recommendation to submit the proposal to the Russian committee on undersea feature names. A proposal can then be resubmitted to SCUFN for inclusion in the GEBCO Gazetteer.	K. Dobrolyubova
6.6.a	21/29	Check whether the feature proposed as Nippon Foundation Seamounts has been named already, e.g. by Dr. Peter Lonsdale. If not, to look for an alternative name, possibly in connection with the nearby State of Mexico.	W. Reynoso Peralta / J.L. Frias
7.1	21/30	Review and comment on the list from ACUF, as in Doc. SCUFN21-7.1A, and propose any necessary actions to the Sub-Committee.	Secretary (M. HUET)
7.2.d.ii	21/31	Note in the remarks section of the GEBCO Gazetteer for George Walker Seamount: "Accepted by ACUF as Walker Seamount".	Secretary (M. Huet)
7.2.d.ii	21/32	Contact the "SBN Seamount Catalog at Earthref.org" SIO project, and check which of the seamounts listed in this catalogue have been named.	W. Reynoso-Peralta
9.1 & 9.2	21/33	Review the BODC and AWI proposals, as in SCUFN21-09.1A, 09.2A and 09.2B, and make proposals to improve definition of feature shapes.	"geometry" sub-group (Leader: L. Taylor)
9.1	21/34	Fix the problems identified in Annex I to SCUFN-09.1A.	Secretary (M. Huet)
10.1	21/35	Continue and complete his review of the unnamed seamounts in the Pacific Ocean, and make proposals to the Sub-Committee.	W. Reynoso-Peralta

INTERNATIONAL HYDROGRAPHIC
ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (of UNESCO)

UNDERSEA FEATURE NAME PROPOSAL

(Sea NOTE overleaf)

Note: The boxes will expand as you fill the form.

Name Proposed:	Ocean or Sea:
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Geometry that best defines the feature (Yes/No) :						
Point	Line	Polygon	Multiple points	Multiple lines*	Multiple polygons*	Combination of geometries*

* Geometry should be clearly distinguished when providing the coordinates below.

	Lat. (e.g. 63°32.6'N)	Long. (e.g. 046°21.3'W)
Coordinates:		

Feature Description:	Maximum Depth:	Steepness :
	Minimum Depth :	Shape :
	Total Relief :	Dimension/Size :

Associated Features:

Chart/Map References:	Shown Named on Map/Chart:
	Shown Unnamed on Map/Chart:
	Within Area of Map/Chart:

Reason for Choice of Name (if a person, state how associated with the feature to be named):
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Discovery Facts:	Discovery Date:
	Discoverer (Individual, Ship):

Supporting Survey Data, including Track Controls:	Date of Survey:
	Survey Ship:
	Sounding Equipment:
	Type of Navigation:
	Estimated Horizontal Accuracy (nm):
	Survey Track Spacing:
Supporting material can be submitted as Annex in analog or digital form.	

Proposer(s):	Name(s):
	Date:
	E-mail:
	Organization and Address:
	Concurrer (name, e-mail, organization and address):

Remarks:

NOTE : This form should be forwarded, when completed :

- a) **If the undersea feature is located inside the external limit of the territorial sea :-**
to your "National Authority for Approval of Undersea Feature Names" (see page 2-9) or, if this does not exist or is not known, either to the IHB or to the IOC (see addresses below);
- b) **If at least 50 % of the undersea feature is located outside the external limits of the territorial sea :-**
to the IHB or to the IOC, at the following addresses :

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

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

LIST OF ACRONYMS

ACUF	Advisory Committee on Undersea Features (to the US BGN)
AWI	Alfred-Wegener-Institut für Polar und Meeresforschung (Germany)
B-6	IHO-IOC Publication “Standardization of Undersea Feature Names”
BGN	Board on Geographic Names (USA)
BODC	British Oceanographic Data Centre
C&GS	Coast & Geodetic Survey (NOAA)
DCDB	Data Centre for Digital Bathymetry (IHO)
DHN	Diretoria de Hidrografia e Navegação (Brazil)
ELU	Eötvös Loránd University (Hungary)
ETOPO2	Earth Topography on a 2-minute grid (NGDC)
EWU	EWHA Womans University (Rep. of Korea)
GBE	GEBCO Bathymetric Editor
GDA	GEBO Digital Atlas
GEBCO	General Bathymetric Chart of the Oceans (IOC/IHO)
GINRAS	Geological Institute of the Russian Academy of Sciences
GIS	Geographic Information System
HO	Hydrographic Office
HTML	HyperText Markup Language
IBCAO	International Bathymetric Chart of the Arctic Ocean (IOC-IHO-IASC)
IGNS	Institute of Geological & Nuclear Sciences (New Zealand)
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
JHA	Japan Hydrographic Association
JHOD	Japan Hydrographic and Oceanographic Department
KCMGN	Korean Committee on Marine Geographical Names
KHU	Kyunghee University (Rep. of Korea)
KIGAM	Korea Institute of Geoscience & Mineral Resources
KML	Keyhole Markup Language
NGA	National Geospatial-intelligence Agency (USA)
NGDC	National Geophysical Data Center (USA)
NHO	National Hydrographic Office (India)
NOAA	National Oceanic and Atmospheric Administration (USA)
NORI	National Oceanographic Research Institute (Rep. of Korea)
NSF	National Sciences Foundation (USA)
RoP	Rules of Procedure
R.V.	Research Vessel
SC-AGI	Standing Committee on Antarctic Geographic Information (SCAR)
SCAR	Scientific Committee on Antarctic Research

SCDB	Sub-Committee on Digital Bathymetry (of GEBCO; now TSCOM)
SCUFN	Sub-Committee on Undersea Feature Names (of GEBCO)
SHN	Servicio de Hidrografía Naval (Argentina)
SOEST	School of Ocean and Earth Science and Technology (USA)
ToR	Terms of Reference
TSCOM	Technical Sub-Committee on Ocean Mapping (of GEBCO)
UN	United Nations
UNGEEN	UN Group of Experts on Geographical Names

- MLTMA: Ministry of Land, Transport and Maritime Affairs (Rep. of Korea)
- OCS: Office of Coast Survey (USA)
- NGA: National Geospatial-intelligence Agency (USA)
- NORI: National Oceanographic Research Institute (Rep. of Korea)
- NGDC: National Geophysical Data Center (USA)
- SHN: Servicio de Hidrografía Naval (Argentina)