Distribution : limited

IOC-IHO/GEBCO SCUFN-XIII/3
English only

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

INTERNATIONAL HYDROGRAPHIC ORGANIZATION

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

Halifax, Nova Scotia, Canada
22-25 June 1999

SUMMARY REPORT

Page intentionally left blank

ALPHABETIC INDEX OF UNDERSEA FEATURE NAMES CONSIDERED AT SCUFN XIII AND APPEARING IN THIS REPORT (*=new name approved)

GREAT BARRIER Reef	7
GRIMALDI Seamounts	34
GUINEA Fan	38
GUINEA Fracture Zone	37
GUINEA Terrace *	38
GUINEAN Marginal Plateau	38
GUNNARI Ridge	45
HAKUREI Seamount *	46
HAMMONDSPORT Bank *	41
HEEMSKERCK Fracture Zone *	48
HEISKANEN Knoll *	8
HINTSA Seamount *	49
HIRONDELLE II Seamount *	23
HIRONDELLE Seamount	35
HORSESHOE Seamounts	20 & 30
HOTSPUR Guyot (Seamount)	Annex 5
HUGO DE LACERDA Seamount *	23
HYDRATE Knolls *	50
INDOMED Fracture Zone	54
INDUS Canyon	54 & 56
INFANTE DOM HENRIQUE Hill *	22 & 27
INFANTE DOM PEDRO Hill *	22 & 27
INFANTE SANTO Hill *	22 & 27
IRMINGER Basin	9
ISELIN Trough	9
JANE Seamount *	37
JOÃO DE LISBOA Passage *	22
JOHN HARRISON Ridge *	4
JOSEPH GILBERT Seamount *	11
JOSEPHINE Banks	22
KANE Gap	35
KANE Passage	34
KARASEV Bank *	5
KOEHR Seamount *	2
KOHNEN Seamount *	40

KROPOTKIN	7
KURENTSOV Ridge *	5
KUTUZOV Seamount	13
LA CORUÑA Seamounts *	23
LA CORUÑA Valley *	23
LA ROSE Fracture Zone	48
LABRADOR Basin	9
LAGE Canyon *	23
LAGOS Canyon *	24
LAGOS, Planalto de	24 & 29
LAMJAYBIR Canyon *	33
LAPÉROUSE Fracture Zone	52
L'ASTRONOME Fracture Zone	47
L'ATALANTE Valley *	42
LAZARO CARDEÑAS Canyon *	10
LE GÉOGRAPHE Fracture Zone	47
LE PETIT PRINCE Fracture Zone	47
LE RENARD Fracture Zone	48
LICHTNER Bank	8
LICHTNER Seamount *	40
LIMPO, Mar do	24
LISBOA Canyon *	17 & 24
LOKO Knoll *	38
LOWREENNE Seamounts *	42
MABAHISS Fracture Zone	54
MADAGASCAR Plateau	54
MADEIRA Rise	29
MAHI MAHI Fracture Zone *	51
MANDINGO Canyon *	38
MARGAI Seamount Group	34
MARIE CELESTE Fracture Zone	54
MAROSSZEKY Passage *	2
MAURICE HILL Ridge	54
MAURITIUS Trench	54
McGOWAN Seamount	35

SVENDSEN Ridge	10
SYSOEV Seamount *	12
TADJURA Trough	56
TAGUS Basin	28
TANOÛDÊRT Canyon *	33
TASMAN Escarpment *	43
TASMAN Fracture Zone	43
TEJO Basin *	29
TERROR Fracture Zone	3
THE PAPS Seamount	32
THE SWATCH Trough	54 & 56
THETA Gap	29
THETA Passage *	29
THOR IVERSON Bank *	1
TOBIN Seamount *	51
TOLSTOY Seamount *	13
TOOGEE Ridge *	43
TOOGEE Valley	43
TORE Seamounts *	30
TORE-MADEIRA Ridge	29
TORE-MADEIRA, Dorsal	28 & 29
TREITEL Ridge	9
TROPIC Seamount	32
TUGELA Canyon	56
UMVOTO Rise *	49
VALLE INCLAN Saddle *	30
VASCO DA GAMA Seamounts *	30
VEMA Fracture Zone	56
VEMA Trench	56
VIEHOFF Seamount	12
VIGO Seamount *	30
VILA NOVA, Mar de	31
VITYAZ Fracture Zone	57
VULCAN Shoal	6
WALTERS Shoal	57

Page intentionally left blank

SUMMARY REPORT

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

1. OPENING OF THE MEETING AND ADMINISTRATIVE ARRANGEMENTS

The thirteenth meeting of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN) met at the Bedford Institute of Oceanography, Dartmouth, Nova Scotia, under the Chairmanship of Dr. Robert L. FISHER.

Apologies for absence were received from Dr. Galina AGAPOVA and Dr. Robin K.H. FALCONER.

Mr. Richard MACDOUGALL, Regional Director, Hydrography (Maritimes), and Mr. Ron MACNAB, Geological Survey of Canada, welcomed the participants (see Annex 1).

The Chairman further welcomed Mr. Desmond P.D. SCOTT, as a new member of SCUFN and who volunteered to act as Rapporteur for the meeting. The Secretary, Mr. Michel HUET, presented to the participants the timetable of the meeting, together with all appropriate documentation.

In opening the meeting, the Chairman recalled that SCUFN is the IHO-IOC body which selects the undersea feature names to appear on GEBCO products (e.g. GEBCO Digital Atlas), on 1:1 million sheets of the International Bathymetric Chart projects (e.g. IBCM) and on International (INT) Charts at small scales. To this end, SCUFN reviews all proposals that have been submitted through its secretariat at the IHB. All approved names are contained in a GEBCO Gazetteer database, which is maintained at the IHB.

2. AGENDA FOR THE MEETING

The agenda was adopted (see Annex 2), with three additional items to be taken under "9. Any other Business".

3. MATTERS ARISING FROM PREVIOUS MEETINGS OF THE SUB-COMMITTEE

3.1 Twelfth Meeting of the Sub-Committee (Doc. IOC-IHO/GEBCO SCUFN-XII/3)

3.1.1 Paragraph 3.2

Reference item 9.2 of doc: IOC-IHO/GEBCO SCGN-X/3
ACUF Meetings 243, 245, 248, 249 and 250.

NORSKE Bank	80°25' N 14°00' E		GEBCO 5.17
SORKAPP Bank	76°40' N 15°30' E		GEBCO 5.17
THOR IVERSON Bank	72°50' N 36°00' E		GEBCO 5.17

SJUBBE Bank	79°15' N 09°00' E		GEBCO 5.17
POLAR SEA Bank	75°00'N 15°30' W		GEBCO 5.17
KOEHR Seamount	33°27' N 177°18'W		GEBCO 5.07
MAROSSZEKY Passage	20°23'S 156°06' E		GEBCO 5.10
DOLMAH Seamount	1°00'S 166°50'W		GEBCO 5.10

Mr. Norman CHERKIS confirmed that sufficient evidence for these eight features had been obtained and they were therefore a**ccepted** for inclusion in the GEBCO Gazetteer; to amend spelling of "MAROSSZEKY".

Note: "NORSKE Bank" was wrongly given as South latitude in SCUFN-XII/3 and SCGN-X/3.

3.1.2 Paragraph 3.3

CHARLOTTE Reef	22°20'.1S 171°23'.1E			GEBCO 5.10

No reply has been received from ORSTOM (now IRD - Institut pour la Recherche et le Développement), New Caledonia, and one cannot now be expected.

Action: **The Secretary** to check the other "CHARLOTTE Reef" which is listed in the Gazetteer at 11°45'S, 173°10'E, and determine whether it might be a "Bank" or "Knoll". Only if the generic name of that feature can be changed, can the name "CHARLOTTE Reef" be accepted for the feature in position 22°20'. 1S, 171°23'.1E.

MONTMAGNY Seamount	40°22'N 51°33'W			GEBCO 5.08

Accepted.

This name has been proposed by CANOMA to replace their earlier suggestion, as the name "MINIA Seamount" is already in use elsewhere (see below).

Action: **The Secretary** to encourage CANOMA to change the name of this feature.

Named after the cableship "Montmagny", one of four Canadian vessels that were sent out to recover bodies of "Titanic" victims in 1912.

MINIA Seamount	53°03'N 34°50'W			GEBCO 5.04

Previously **accepted** by SCUFN and already included in the Gazetteer.

Named after the Anglo-American Telegraph Ship "Minia" (1885-1907).

BERKNER Bank	77°00'S 48°00'W	74°18'S 41°00'W		GEBCO 5.18

The Secretary reported that the date and source of this designation has been entered in the Gazetteer. No further action.

3.1.3 Paragraph 3.4

OSBORN Seamount	20°44'.6S 84°14'.9E			GEBCO 5.09

Name proposed by the Australian Hydrographic Office to replace "MORESBY Seamount", already in use.

Accepted.

Named after Captain John H.S. OSBORN (1921-1990), Royal Australian Navy and Hydrographer RAN. He was the first Commanding Officer of the HMAS "Moresby" (1963-1966). He also was a member of the GEBCO Guiding Committee (1974-1976).

3.1.4 Paragaph 3.5

EREBUS Fracture Zone	63°00'S 177°00'E	65°30'S 175°18'W	67°30'S 170°00'W	GEBCO 5.14

"Erebus" was the name of the main ship of Ross Expedition that explored this region in the 1840s.

TERROR Fracture Zone	64°42'S 180°00'	65°00'S 177°30'E	66°30'S 177°18'W	GEBCO 5.14

"Terror" was the name of the second vessel of the Ross Expedition, which explored these waters in the 1840s.

The Secretary reported that Dr. Steven C. CANDE has stated that no additional bathymetric data on the above two features are available at the present time.

SCUFN decision: these excellent names should be inserted in a **reserve section of the GEBCO Gazetteer**.

3.1.4 Paragraph 3.8

(Unnamed) Seamount	18°56'S 169°27'W			GEBCO 5.10

(Unnamed) Seamount	19°31'S 167°36'W			GEBCO 5.10

Features **accepted** but SCUFN is still awaiting name proposals from Dr. FALCONER.

It was suggested that one of them might be named after Rear Admiral G.S. (Steve) RITCHIE, U.K. Hydrographer 1966-1971, and President of the IHB Directing Committee from 1972 to 1982.

Action: **The Secretary** to check with Dr. FALCONER whether the above name is acceptable and to ask him to propose a name for the 2nd Seamount.

3.1.6 Paragraph 3.9

JOHN HARRISON Ridge	40°05'S 43°25'E	44°00'S 42°13'E		GEBCO 5.09

Name proposed by Dr. FISHER and Mr. SCOTT (June 1999).

Accepted.

John HARRISON (1693-1776) was the lone English genius who developed the first marine chronometers, thereby solving the greatest scientific problem of his time, the measurement of longitude at sea, or on land after a sea voyage.

This subsumes and supersedes GOLOLOBOV Bank, so the name GOLOLOBOV for an undersea feature should be inserted in the **reserve section of the GEBCO Gazetteer** whilst awaiting a further proposal from Dr. AGAPOVA.

Action: **The Secretary** to ask Dr. AGAPOVA to identify a feature for the name GOLOLOBOV.

SAMARIN Seamount	34°04'S 20°08'W			GEBCO 5.12

DR. AGAPOVA had confirmed that there was a 1° error in the longitude of this feature, and that 20°08'W is correct.

PRILJUDKO Seamount	57°01'N 34°09'W			GEBCO 5.12

Accepted in view of further clarification by Dr. AGAPOVA.

Named after the late Russian Hydrographer V.P. PRILJUDKO (1928-1983), who worked for many years in the North Atlantic.

Note: this is a reversal of the decision made at SCUFN-XII, June 1997.

KURENTSOV Ridge	53°32'S 140°42'W			GEBCO 5.15

Accepted with revised generic term "Ridge" (formerly proposed as a "Seamount").

Named after the late Russian entomologist, Professor A.I. KURENTSOV (1896-1975), who studied the Pacific region.

SČUKIN Seamount	44°20'S 105°10'W			GEBCO 5.11

To be inserted in the **reserve section** of the GEBCO Gazetteer pending provision of further information by Dr. AGAPOVA.

Action: **The Secretary** to ask Dr. AGAPOVA to provide a formal Proposal Form and further information on this name.

KARASEV Bank	46°07'S 83°55'W			GEBCO 5.11

Accepted.
Note: formerly named "BORIS KARASEV Bank", Ref.: GEBCO SCGN-VII/3, item 3.3.2.

The Bank is an isolated feature on the west slope of "CHILE Rise".

Named after the Russian Biologist Boris E. KARASEV (1932-1978), Doctor of Biological Sciences, who explored the Pacific Ocean.

3.1.7 Paragraph 4.8

EAST SCOTIA Ridge	55°20'S 29°30'W	60°30'S 29°00'W		GEBCO 5.16

Further evidence is still awaited from Dr. R.A. LIVERMORE, British Antarctic Survey.

Named after the nearby Scotia Sea, in the east of which this feature lies.

Action: **The Secretary** to send a copy of the original letter and material to Mr. SCOTT, who will investigate it further.

3.1.8 Paragraph 4.12

STEWART Seamount	8°28'S 16°58'W			GEBCO 5.12

Mr. Trent PALMER (ACUF) reported that the existing "STEWART Seamount" in the South China Sea (17°20'N, 118°50'E) had been accepted from BA Chart 2661a of 1940 and it also appears in the China Sea Pilot Vol.II, 1961. He confirmed that it had

also been named after Dr. Harris B. STEWART, an U.S. senior field oceanographer/agency administrator.

Decision again deferred whilst an attempt will be made to obtain further evidence for the South China Sea feature.

Action: The **Secretary** to investigate whether bathymetric evidence can be obtained for the feature at 17°20'N, 118°50'E.

3.1.9 Paragraph 4.15

BARRACOUTA Shoal (12°36'S - 124°02'E)

ECHUCA Shoal (13°54'S - 123°55'E)

VULCAN Shoal (12°49'S - 124°16'E)

Not accepted for inclusion in the Gazetteer at this stage, but they will be reconsidered when names of IBCWP sheets are submitted in timely fashion before publication. See also paragraph 3.1.11 below. Dr. FISHER confirmed that he has checked these features.

Captain DOYLE (Australian Hydrographic Office) has stated that these features are located within Australia's EEZ and the names have been in use for many years.

3.1.10 Paragraph 4.17

DAISAN-KASIMA Seamount	36°11'N 143°47'E			GEBCO 5.06
DAIYON-KASIMA Seamount	36°20'N 143°48'W			GEBCO 5.06
DAINI-KASIMA Seamount	36°05'N 143°29'E			GEBCO 5.06

Already in GEBCO Gazetteer.

All named after the nearby city of Kasima.

It was noted that SCUFN has accepted the Japanese Romanisation system, and that this differs from that used by ACUF.

3.1.11 Paragraph 4.20

BASSETT-SMITH Shoal (13°18'S - 125°45'E)

DILLON Shoal (11°00'S - 125°35'E)

FAVELL Bank (12°42'S - 126°08'E)

EUGENE McDERMOTT Shoal (13°05'S - 124°35'E)

GALE Bank (12°36'S - 126°05'E)

GOEREE Shoal (12°53'S - 124°20'E)

PENGUIN Trough (13°18'S - 126°05'E)

PENGUIN Shoal (13°06'S - 125°59'E)
See also Paragraph 3.1.9 above.

Not accepted for inclusion in the Gazetteer at this stage, but these names will be reconsidered when IBCWP sheet names are submitted in timely fashion before publication. Captain DOYLE (Australian Hydrographic Office) has stated that "PENGUIN Deeps" is an historical name which has been in use since HMS "Penguin" surveyed the area in 1891, and that a change to "PENGUIN Trough" would not be acceptable.

3.1.12 Paragraph 4.21

GREAT BARRIER Reef	9°23'.6S 144°13'.5E	18°00'S 146°50'E	22°21'.8S 152°43'.2E	GEBCO 5.10

Already in GEBCO Gazetteer. Amend positions as above.

3.1.13 Paragraph 5.1

GORINI Seamount	3°42'.0N 31°49'.5W			GEBCO 5.08 & 5.12

Accepted.

Proposal from Dr. Gleb UDINTSEV in replacement for the name "KROPOTKIN" that he had originally submitted for this feature.

Named after Dr. Marcus GORINI, a leading Brazilian marine geologist who made important contributions to research in the Equatorial Atlantic.

3.1.14 Paragraph 5.2

DA VINCI Bank	77°30'S 34°30W			GEBCO 5.18

Accepted.

Name confirmed by Rear Admiral Giuseppe ANGRISANO, President of the Directing Committee, IHB.

Named after Leonardo DA VINCI (1452-1519), who discovered and described the

principle for sound propagation in water. He also designed a submarine.

HEISKANEN Knoll	67°36'S 8°30W			GEBCO 5.16 & 5.18

Accepted.

Named after the eminent Finnish geodesist Veikko HEISKANEN.

Name agreed by the proposer, Dr. Heinrich HINZE, AWI, Bremerhaven, in replacement for the name "RUNCORN", originally submitted.

LICHTNER Bank

Proposal from Dr. HINZE, AWI, **not accepted** at SCUFN-XII, as the feature (77°00'S - 48°00'W to 74°18'S - 41°00'W) had already been named BERKNER Bank (See § 3.1.2 above). A new feature has been proposed for the name LICHTNER (See § 4.5).

BUNGENSTOCK Plateau	69°30'S 4°00'W	68°24'S 9°00'W		GEBCO 5.16 & 5.18

Accepted.

This feature was accepted at SCUFN-XII but a new and more appropriate name has now been proposed by Dr. H.W. SCHENKE, AWI.

Named after Prof. Dr. Herwald BUNGENSTOCK, German Geologist and Geophysisist, who carried out scientific work in the Red Sea and Pacific Ocean, with RV "Valdivia" and RV "Sonne". He was the initiator of post-war Marine and Polar Research in Germany and an adviser for Polar and Marine Research to the Minister for Research and Technology (1978-1991). He died in July 1998.

3.1.15 Paragraph 5.3

NELLA DAN Trough	49°10'S 152°00'E	48°00'S 154°00'E		GEBCO 5.14

To be inserted in the **reserve section** of the GEBCO Gazetteer, pending provision of further bathymetric evidence.

Action: **The Secretary** to check with Dr. Steven CANDE whether further bathymetric evidence of this feature can be obtained.

Named after the Australian supply vessel "Nella Dan", which collected magnetic profiles across East End of the trough, that confirmed the tectonic origin of this feature.

ISELIN Trough	71°30'S 171°30'W	71°00'S 169°00'W		GEBCO 5.14

To be inserted in the **reserve section** of the GEBCO Gazetteer.

Action: **ACUF Secretary** to check origin of name.

3.1.16 Paragraph 5.6.2

(ACUF 270th Meeting, February 1997).

TREITEL Ridge	65°15'N 6°40'W			GEBCO 5.04 & 5.17

Not accepted for inclusion in the Gazetteer at this stage, owing to its small size. To be inserted in the **reserve section** of the GEBCO Gazetteer. It will be reconsidered when names for IBCAO sheets are submitted in timely fashion before publication.

Mr. Leo TREITEL was a pioneer in acoustic research on the seafloor.

3.1.17 Paragraph 5.6.4

ELTANIN Seamount

The feature, located at 57°37'S - 91°14'W, was accepted by SCUFN-XII, but the name was not considered appropriate and the proposer was invited to suggest another name. See "FREEDEN Seamount" at section 4.5.

3.1.18 Paragraph 5.6.5

IRMINGER Basin	61°00'N 36°00'W			GEBCO 5.04

LABRADOR Basin	55°00'N 47°00'W			GEBCO 5.04

Although it was recognised that the above two features are not true basins, being open to the south, these are traditional names a**lready in GEBCO Gazetteer**, so SCUFN decided to retain them without alteration.

MILNE Bank	43°40'N 38°36'W			GEBCO 5.08

Already in GEBCO Gazetteer.

Response for confirmatory information on the existence of this feature is still awaited from the Norwegian HO.

Action: **The Secretary** to hasten the Norwegian Hydrographic Office.

OLYMPUS Knoll	45°25'N 27°40'W			GEBCO 5.08

Supporting evidence has been supplied by SHOM, in the form of colour 2D and 3D plots, and which confirms that this feature is a Knoll, as in the Gazetteer. No further action.

3.1.19 Paragraph 5.7.1

MOANA WAVE Ridge	32°12'S 176°10'W			GEBCO 5.10

RV "Moana Wave" is the University of Hawaii's research ship, which performed the PacRimEast survey.

SVENDSEN Ridge	32°22'S 176°06'W			GEBCO 5.10

Carl SVENDSEN is a retired U.S. marine survey engineer with AT&T, who surveyed many routes for submarine cable systems.

No new information has been received by SCUFN (or by ACUF) on the above two features. SCUFN noted that both names have been approved by ACUF but considered that there was insufficient evidence, in particular regarding the shape (i.e. generic classification) of the feature.

To be inserted in the **reserve section** of the GEBCO Gazetteer pending provision of further bathymetric evidence.

3.1.20 Paragraph 5.7.3

SAN ANTONIO Canyon	33°41'S 72°17'W			GEBCO 5.11

Accepted. Clearance has been obtained from the Chilean authorities.

Named after the nearby Chilean city of San Antonio.

3.1.21 Paragraph 5.8

LAZARO CARDEÑAS Canyon	17°15'N 101°54'W	17°10'N 101°50'W	17°08'N 101°57'W	17°04'N 101°48'W	17°01'N 101°51'W	GEBCO 5.07

Accepted. No further action.

Named after a former President of Mexico (in the 1940s) who sponsored development in this coastal region.

3.1.22 Paragraph 5.9

ST PAUL Fracture Zone (Indian Ocean)

Action still outstanding: **The Secretary** to write to both Drs. Daniel SCHEIRER and Kevin JOHNSON.

3.1.23 Paragraph 5.10

SUB-ANTARCTIC Escarpment	51°00'S 177°55'E			GEBCO 5.14

Formerly in Gazetteer as "Slope", but amended to "Escarpment" at SCUFN-XII.

SCUFN deplores this name, which is inelegant and inaccurate, and recommends to the New Zealand authorities that a more felicitous name be given to this feature.

Action: **The Secretary** to write to Dr. Ian WRIGHT (NIWA) and Mr. Bruce WALLEN (LINZ).

JOSEPH GILBERT Seamount	42°15'S 164°00'E	43°30'S 164°00'E		GEBCO 5.10

Accepted.

Action: **The Secretary** to write to New Zealand authorities to obtain their agreement to the name of "JOSEPH GILBERT Seamount", to differentiate it from the long known "GILBERT Seamount" in the North Pacific.

Named after Joseph GILBERT, Captain of HMS "Resolution", 1772-1775.

3.1.24 Paragraph 5.11

NADIR Seamount	8°45'N 16°55'W			GEBCO 5.08/5.12

Accepted.

Action still outstanding: **The Secretary** to approach Dr. Jean MASCLE, asking him to submit a formal Proposal Form.

Named after the French research ship N.O. "Nadir".
See also item 4.2.2 below.

3.1.25 Paragraph 9.1

BELLINGSHAUSEN Trough (Position not known)

Action still outstanding: The Secretary to check with Dr. SCHENKE.

3.2 Eleventh meeting of the Sub-Committee (Doc: IOC-IHO/GEBCO SCUFN-XI/3)

3.2.1 Paragraph 4.12

The name "VIEHOFF Seamount" was withdrawn (reversal of the decision taken at SCUFN-XI), to be replaced by :

ORCA Seamount	62°26'S 58°24'W			GEBCO 5.16

Accepted. This decision was taken due to subsequent information received from Dr. Larry LAWVER of UTIG, Austin, Texas, that this feature had already been named. [Ref: O. GONZALEZ-FERRAN (Chile), 1991, from field work done some years earlier.]

Action: **The Secretary** to inform Dr. H-W. SCHENKE, AWI, that the name VIEHOFF now becomes available for another feature.

Named after the Grampus Whales which frequent this area.

3.2.2 Paragraphs 4.3 and 4.4

The Secretary reported on a letter received at the IHB from the Centro de Investigaciones Oceanográficas e Hidrográficas (CIOH), Cartagena, Colombia (CIOH letter 319 DCIOH-SCDI-DIHID-585 of 4 March 1999 refers). In this letter CIOH asked for a number of changes, as regards names already considered and approved at SCUFN-XI and relevant to IBCCA Sheets 1.07 and 1.13. However no bathymetric evidence for the proposed changes was provided. It was agreed that the matter would be considered by correspondence when appropriate supporting material will be available.

Action: **The Secretary** to contact CIOH asking for the provision of supporting bathymetric evidence for the requested changes, then to circulate the proposal with associated material.

3.3 Seventh and eighth meetings of the Sub-Committee (Doc: IOC-IHO/GEBCO SCGN-VII and VIII)

References: IOC-IHO/GEBCO SCGN-VII/3, item 3.1.3
IOC-IHO/GEBCO SCGN-VIII/3, item 4.2
(also IOC-IHO/GEBCO SCGN-IX/3, item 3.10 is relevant)

Names proposed by Dr. Gleb UDINTSEV (June 1999)

SYSOEV Seamount	15°25'S 6°27'W			GEBCO 5.12

Accepted.

Isolated seamount on the eastern flank of the Mid-Atlantic Ridge.

Named after Nikolai SYSOEV, a former Deputy Director of the Shirshov Institute of Oceanology, Russia.

(This name replaces "BAGRATION Seamount", which was originally proposed for this feature, but rejected by GEBCO SCGN).

TOLSTOY Seamount	15°13'S 8°19'W			GEBCO 5.12

Accepted.

Isolated seamount on the eastern flank of the Mid-Atlantic Ridge.

Named after Leo TOLSTOY, the famous novelist.

(This name replaces "KUTUZOV Seamount", which was originally proposed for this feature, but rejected by GEBCO SCGN.)

Note: The latitudes for both features differ slightly in SCGN-VII (15°29' and 15°10'), SCGN-VIII (15°28' and 15°12') and Dr. UDINTSEV's proposal (15°25' and 15°13').

Action: **The Secretary** to 1) check positions of the above two features with Dr. UDINTSEV; and 2) send Dr. CHERKIS full information on the original discussions and reasons for rejection by SCGN.

4. PROPOSALS SUBMITTED IN THE INTER-SESSIONAL PERIOD

4.1 Submitted by Ingénieur Général André ROUBERTOU, Chief Editor IBCEA

INTERNATIONAL BATHYMETRIC CHART OF THE CENTRAL EASTERN ATLANTIC (IBCEA)

4.1.1 Sheet 1.01 - Names in Portuguese.

Note: The names accepted in this section are given in English, for inclusion in the GEBCO Gazetteer. It is foreseen however that they will appear in Portuguese on the published IBCEA Sheet 1.01.

1	ALBACORA Caldera	39°25'N 12°50'W			IBCEA 1.01

Accepted as "Caldera" (instead of "Basin" - Portuguese: Bacia - suggested by the proposer).
Name in Portuguese: Caldeira de ALBACORA.

Named after the Portuguese Hydrographic Survey Ship "Albacora" (1924-1942).

2 ALBUFEIRA, Planalto de

Not accepted. This feature has been subsumed by "BARTOLOMEU DIAS Terrace" (item 14).

3 ALBUQUERQUE, Planalto de

Not accepted. Minor feature.

4 ALMEIDA, Vale de

Not accepted. Minor feature.

5	ALMEIDA CARVALHO Seamounts	40°10'N 14°30'W			IBCEA 1.01

Accepted.
Name in Portuguese: Montes submarinos ALMEIDA CARVALHO.

Named after the Portuguese Hydrographic Survey Ship "Almeida Carvalho" (in commission since 1950).

6	ALVARES CABRAL Seachannel	36°53'N 7°45'W			IBCEA 1.01

Accepted as "Seachannel" (instead of "Trench" - Portuguese: Fossa - suggested by the proposer).
Name in Portuguese: Canal submarino ALVARES CABRAL

Named after the Portuguese explorer (16th Century).

7	ASHTON Seamount	38°00'N 13°20'W			IBCEA 1.01

Already in GEBCO Gazetteer.
Name in Portuguese: Monte submarino ASHTON.

Named after William ASHTON who was Captain of HMS "Challenger" (1951-53).

8	ANDROMEDA Seamount	40°11'N 13°54'W			IBCEA 1.01

Accepted.
Name in Portuguese : Monte submarino ANDROMEDA.

Named after the Portuguese Hydrographic Survey Ship "Andromeda" (in commission

1999).

9	AROSA Canyon	42°23'N 9°25'W			IBCEA 1.01

Accepted.

Named after the nearby ria.

10 ARRIFANA, Mar da

Not accepted.

To be combined with Mar de VILA NOVA (item 90) as "PRÍNCIPES DE AVIS Terrace" (See Item 74a).

11	AURIGA Seamount	40°31'N 13°52'W			IBCEA 1.01

Accepted.
Name in Portuguese: Monte submarino AURIGA.

Named after the Portuguese Hydrographic Survey Ship "Auriga" (in commission 1999).

12	AVEIRO Valley	40°47'N 9°44'W	40°33'N 9°13'W		IBCEA 1.01

Accepted as "Valley" (instead of "Canyon" - Portuguese: Canhão - suggested by the proposer).
Name in Portuguese: Vale de AVEIRO.

Named after the nearby port.

13	BALDAQUE DA SILVA Passage	36°00'N 12°30'W	36°40'N 11°58'W		IBCEA 1.01

Accepted as "Passage" (instead of "Strait" - Portuguese: Estreito - suggested by the proposer).
Name in Portuguese: Passagem BALDAQUE DA SILVA.

Named after the Portuguese Hydrographic Survey Ship "Baldaque da Silva".

14	BARTOLOMEU DIAS Terrace	36°45'N 8°30'W	36°45'N 7°20'W		IBCEA 1.01

Accepted as "Terrace" (instead of "Plateau" - Portuguese: Planalto - suggested by the proposer).
Name in Portuguese: Terraço BARTOLOMEU DIAS.

This feature subsumes: Planalto de Albufeira (item 2) and Planalto de Faro (item 37).

Named after the Portuguese explorer.

15	BEIRAL DE VIANA Escarpment	42°00'N 9°20'W	41°20'N 9°05'W		IBCEA 1.01

Accepted as "Escarpment" (instead of "Plateau" - Portuguese: Planalto - suggested by the proposer).
Name in Portuguese: Escarpa de BEIRAL DE VIANA.

Naming : see J. Gormicho BOAVIDA (1948).

Action: **The Secretary** to query the proposer and/or Portuguese HO about the link between the names BOAVIDA and BEIRAL DE VIANA.

16 BERLENGA, Vale da

Not accepted. Minor feature.

17	BÉRRIO Saddle	41°05'N 11°30'W	41°20'N 9°05'W		IBCEA 1.01

Accepted.
Name in Portuguese: Sela de BÉRRIO.

Named after one of Vasco da GAMA'S Ships (see also items 77, 79 and 88).

18 CACHIMBO, Mar do

Not accepted.

This is an area so named by local fisherman, it is not a feature.

19	CAMÕES Bank	38°48'N 9°45'W			IBCEA 1.01

Accepted as "Bank" (instead of "Seamount" - Portuguese: Montanha - suggested by the proposer).

Name in Portuguese : Banco CAMÕES.

Named after the Portuguese poet CAMÖENS or CAMÕES (Luiz Vaz de) (1524-1580). He travelled through Africa, India and Asia during the Portuguese conquest and wrote a masterpiece entitled "Os Lusiadas" (The Portuguese), which is considered as the national poem of Portugal.

Note: The CAMOENS Seamount in the Indian Ocean (8°18'N - 53°11'W) is named after the same historical figure. Consideration should be given to adjusting the spelling of the name of this Seamount in order to be consistent.

Action: **The Secretary** to check the spelling of this name with the Portuguese Hydrographic Office.

20 CANTO DE ALVA, Regueira de

Not accepted. Minor feature.

21	CARLOS RIBEIRO Passage	36°45'N 10°12'W	37°20'N 10°23'W		IBCEA 1.01

Accepted as "Passage" (instead of "Basin" - Portuguese: Bacia - suggested by the proposer).
Name in Portuguese: Passagem CARLOS RIBEIRO.

Named after a former Director of the Geological Service of Portugal (1835-1908).

22	CARVALHO ARAÚJO Passage	38°55'N 12°00'W	39°25'N 11°15'W		IBCEA 1.01

Accepted as "Passage" (instead of "Strait" - Portuguese: Estreito - suggested by the proposer).
Name in Portuguese: Passagem CARVALHO ARAÚJO.

Named after the Portuguese Hydrographic Survey Ship "Carvalho Araújo" which operated in Angola (1941-1970).

23 CASCAIS, Canhão de

Not accepted. To be subsumed in "LISBOA Canyon". This feature is a minor branch on the north flank of "Canhão de LISBOA" (item 55 below).

Note: This feature and name has been accepted by ACUF.

24	CASTRO Terrace	43°45'N 9°45'W			IBCEA 1.01

Accepted.
Name in Portuguese: Terraço CASTRO.

Named after a "female author from Galicia".

Action: **The Secretary** to ask the Portuguese H.O. for further information about this "female author from Galicia".

25 CHAMPANA, Mar do

Not accepted.

This is an area so named by local fisherman, it is not a feature.

26	CHOFFAT Valley	39°30'N 10°28'W			IBCEA 1.01

Accepted as "Valley" (instead of "Canyon" - Portuguese: Canhão - suggested by the proposer).
Name in Portuguese: Vale CHOFFAT.

Named after the Swiss Geologist Paul CHOFFAT (1849-1919) who worked in Portugal from 1878 until his death.

27 CONDENADOS, Mar dos

Not accepted.

This is an area so named by local fisherman, it is not a feature.

28 COROA DOS AMASSADORES

Not accepted.

Minor feature.

29	DISCOVERERS Hills	37°13'N 9°15'W			IBCEA 1.01

Accepted as "Hills" (instead of "Seamounts" - Portuguese: Montanhas - suggested by the proposer).
Name in Portuguese: Colinas dos DESCOBRIDORES.

Named in honour of the Portuguese discoverers of the 15th & 16th Centuries.

Action: **The Secretary** to check proposer's concurrence on the above "reason for naming".

See also item 67.

30	DIOGO CÃO Hole	36°40'N 7°40'W			IBCEA 1.01

Accepted as "Hole" (instead of "Trench" - Portuguese: Fossa - suggested by the proposer).
Name in Portuguese: Buraco DIOGO CÃO.

Named after the Portuguese navigator. In 1483, looking for a passage between the Atlantic and the Indian Ocean, he followed the Western Coast of Africa and discovered the mouth of the Congo River.

31	EGAS MONIZ Hills	39°35'N 11°15'W			IBCEA 1.01

Accepted as "Hills" (instead of "Seamounts" - Portuguese: Montes - suggested by the proposer).
Name in Portuguese: Colinas de EGAS MONIZ.

Named after the Portuguese Nobel Prize Winner Antonio EGAS MONIZ (1874-1955), laureate in medical research, 1949.

32 EL FERROL, Canhão de

Not accepted.

Insufficient evidence on draft sheet IBCEA 1.01.

33	ERICEIRA Terrace	38°55'N 9°35'W			IBCEA 1.01

Accepted as "Terrace" (instead of "Sea" - Portuguese: Mar - suggested by the proposer).
Name in Portuguese: Terraço de ERICEIRA.

Named by local fishermen.

34 ESTÊVÃO GOMES, Planalto de

Not accepted.

This is a minor feature, but SCUFN considered that a significant feature should be found for this man who was an early Portuguese explorer.

Action: **The Secretary** to check with the Portuguese H.O. whether an appropriate feature can be identified for this name.

35	ESTREMADURA Promontory	39°25'N 9°30'W (Coast)	38°30'N 11°10'W		IBCEA 1.01

Accepted.
Name in Portuguese: Promontório de ESTREMADURA.

Named after the adjacent Portuguese Province.

36	FARO Canyon	36°22'N 8°48'W	36°20'N 8°00'W	36°25'N 7°35'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão de FARO.

Named after the nearby port.

37 FARO, Planalto de

Not accepted.

This feature exists but has been subsumed by "BARTOLOMEU DIAS Terrace" (item 14).

38	FERNANDES LOPES Seamount	42°28'N 15°06'W			IBCEA 1.01

Accepted.
Name in Portuguese: Monte submarino FERNANDES LOPES.

Named after a Portuguese Hydrographic Engineer.

39	FERRADURA Abyssal Plain	36°00'N 10°45'W			IBCEA 1.01

Accepted.
Name in Portuguese: Planície abissal da FERRADURA.

"FERRADURA" is a translation of "HORSESHOE" from the name of the nearby Seamounts group (see also item 86).

40 FERNÃO MENDES, Planalto de

Not accepted.

Insufficient evidence.

41	FILIPE FOLQUE Spur	39°16'N 13°40'W			IBCEA 1.01

Accepted.
Name in Portuguese: Esporão FILIPE FOLQUE.

Named after a Portuguese Hydrographic Engineer.

42 FLEURY, Terraço

Not accepted.

Minor feature.

43	GIL VICENTE or FREIRE DE ANDRADE Spur	40°00'N 11°05'W	39°44'N 10°08'W		IBCEA 1.01

Accepted as "Spur" (instead of "Seamount" - Portuguese: Monte - suggested by the proposer).
Name in Portuguese: Esporão de GIL VICENTE (or FREIRE DE ANDRADE).

Note: The name was proposed as "FREIRE DE ANDRADE Seamount" ("Monte" in Portuguese) on the proposal form and it appeared as "Crista Gil Vicente" (i.e. GIL VICENTE Ridge) on the draft sheet 1.01. This needs clarification on which name is to be retained.

Actions: **The Secretary** to check with the proposer:
1) which of the above two names should be retained for this feature; and
2) query the origin of the name if GIL VICENTE is adopted.

Mr. Freire de ANDRADE was a Portuguese engineer, professor at University of Lisboa, who wrote a book on canyons in Portugal.

44	GALICIA Escarpment	42°45'N 12°50'W	43°30'N 11°10'W		IBCEA 1.01

Accepted.
Name in Portuguese: Escarpa da GALICIA.

Named after the nearby Spanish Province.

45	GAGO COUTINHO Rise	37°05'N 14°55'W	37°40'N 13°40'W		IBCEA 1.01

Accepted as "Rise" (instead of "Mountain" - Portuguese: Montanha - suggested by

the proposer).
Name in Portuguese: Elevação GAGO COUTINHO.

Note: This feature has several small and one large elevation on it (with amended position): JOSEPHINE Banks: 36°45'W - 14°15'W (Portuguese: Bancos JOSEPHINE).

Named after the famous Portuguese flying boat pilot Carlos Viegos GAGO COUTINHO (1869-1959) who carried out the first crossing of the South Atlantic in 1922.

46	INFANTE DOM HENRIQUE Hill	37°43'N 9°28'W		IBCEA 1.01

Accepted as "Hill" (instead of "Mountain" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Colina INFANTE DOM HENRIQUE.

Named after the INFANTE DOM HENRIQUE, of the 15th Century royal house of Portugal, who later became famous as "Henry the Navigator" (See also item 74a).

47	INFANTE DOM PEDRO Hill	37°51'N 9°24'W		IBCEA 1.01

Accepted as "Hill" (instead of "Mountain" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Colina INFANTE DOM PEDRO.

Named after the INFANTE DOM PEDRO, of the 15th Century royal house of Portugal (See also item 74a).

48	INFANTE SANTO Hill	37°46'N 9°21'W		IBCEA 1.01

Accepted as "Hill" (instead of "Mountain" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Colina INFANTE SANTO.

Named after the INFANTE SANTO, of the 15th Century royal house of Portugal (See also item 74a).

49	JOÃO DE LISBOA Passage	39°20'N 15°20'W	39°50'N 13°55'W		IBCEA 1.01

Accepted as "Passage" (instead of "Strait" - Portuguese: Estreito - suggested by the proposer).
Name in Portuguese: Passagem JOÃO DE LISBOA.

Named after the Portuguese Hydrographic Survey Ship "João de Lisboa".

50	HUGO DE LACERDA Seamount	41°15'N 15°10'W			IBCEA 1.01

Accepted.
Name in Portuguese: Monte submarino HUGO DE LACERDA.

Named after a Portuguese Hydrographic Engineer.

51	LA CORUÑA Valley	43°58'N 9°24'W	43°49'N 9°10'W	43°43'N 8°45'W	IBCEA 1.01

Accepted as "Valley" (instead of "Canyon" - Portuguese: Canhão - suggested by the proposer).
Name in Portuguese: Vale LA CORUÑA.

Named after the nearby Spanish town and port.

52	LA CORUÑA Seamounts	43°57'N 14°20'W			IBCEA 1.01

Accepted as "Seamounts" (instead of "Mountains" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Montes submarinos LA CORUÑA.

Named after the nearby Spanish town and port.

53	LAGE Canyon	43°34'N 10°30'W	43°27'N 9°36'W		IBCEA 1.01

Accepted.
Name in Portuguese: Canhão de LAGE.

Named after the nearby port.

54	HIRONDELLE II Seamount	36°25'N 12°57'W			IBCEA 1.01

Accepted.
Name in Portuguese: Monte submarino HIRONDELLE II.

Named after the research yacht of Prince Albert I of Monaco, which worked in this area.

Notes: a) The name proposed was L'HIRONDELLE. However, the ship's name was HIRONDELLE II, so the prefix L' has been omitted.
b) There is a 1° difference in longitude for this feature with the ACUF

Gazetteer. ACUF was requested to investigate.

Action: **ACUF Secretary** to check the position of this feature.

55	LISBOA Canyon	38°26'N 9°19'W			IBCEA 1.01

Accepted.
Name in Portuguese: Canhão de LISBOA.

Named after the nearby city (See also item 23).

56	LAGOS Canyon	36°03'N 9°25'W	36°32'N 9°05'W	36°36'N 8°53'W	36°42'N 8°42'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão LAGOS.

Named after the nearby Portuguese port.

57 LAGOS, Planalto de

Not accepted.

This feature has been subsumed by "SAGRES Terrace" (See item 81 below).

58 LIMPO, Mar do

Not accepted.

This is an area so named by local fishermen, it is not a feature.

59 MORRACEIROS

Not accepted.

This is an area so named by local fishermen, it is not a feature.

60 MUGÍA, Canhão de

Not accepted.

This feature is a minor irregularity in the upper slope of the huge reentrant (2,000-4,800 m) north-east of GALICIA Bank. SCUFN recommended that this large feature be named:

	FINISTERRE Valley	42°35'N 11°35'W	43°15'N 10°30'W		IBCEA 1.01

Name in Portuguese: Vale de FINISTERRE.

Named after the major and historic cape to its east.

Action: **The Secretary** to seek proposer's agreement on the above recommendation.

61	NAZARÉ Canyon	39°53'N 11°00'W	39°33'N 10°07'W	39°30'N 9°42'W	39°39'N 9°13'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão da NAZARÉ.

Note: This feature is already listed in the ACUF Gazetteer at 39°36'N - 9°20'W.

62	ORTEGAL Terrace	43°55'N 8°30'W			IBCEA 1.01

Accepted as "Terrace" (instead of "Promontory" - Portuguese: Promontório - suggested by the proposer).
Name in Portuguese: Terraço de ORTEGAL.

This feature overlaps the northern border of IBCEA sheet 1.01, so the position given is only nominal from that part of the feature which appears on the sheet.

Name taken from LAUGHTON A.S., 1975, Deep-Sea Research, Vol. 23.

Named after the nearby Cape Ortegal, which is the most northern point of Spain (43°43'N – 7°52'W).

63	DUARTE PACHECO Spur	39°35'N 10°40'W			IBCEA 1.01

Accepted as "Spur" (instead of "Ridge" - Portuguese: Crista - suggested by the proposer).
Name in Portuguese: Esporão DUARTE PACHECO.

Named after *1) Portuguese Cosmographer and Discoverer (XVth Century)*
2) Portuguese Engineer (1899-1943).

64 PAREDÃO

Not accepted.

No characteristic topography.

65	PARDO BAZAN Spur	43°25'N 10°10'W			IBCEA 1.01

Accepted.
Name in Portuguese: Esporão PARDO BAZAN.

Named after the Galician novelist.

66	PEDRO NUNES Seamounts	40°40'N 14°55'W			IBCEA 1.01

Accepted.
Name in Portuguese: Montes submarinos PEDRO NUNES.

Named after the Portuguese Cartographer, at the time of the Renaissance.

67 PÊRO ESCOBAR

Not accepted as a separate feature.

It has been subsumed within Colinas dos DESCOBRIDORES (item 29).

68 PÊRO DA COVILHÃ, Costeiras de

Not accepted.

Minor feature.

69 PINHAL

Not accepted.

No real evidence on IBCEA sheet 1.01.

70	PORTIMÃO Canyon	36°55'N 8°30'W	36°27'N 8°35'W		IBCEA 1.01

Accepted.
Name in Portuguese: Canhão PORTIMÃO.

Named after the nearby Portuguese port.

71 PORTIMÃO, Planalto de

Not accepted.

This feature has been subsumed by "SAGRES Terrace" (see item 81).

72	PORTO Valley	41°18'N 9°48'W	41°18'N 9°06'W		IBCEA 1.01

Accepted as "Valley" (instead of "Canyon" - Portuguese: Canhão - suggested by the proposer).
Name in Portuguese: Vale do PORTO.

Named after the nearby town of Porto.

Note: the name "PORTO Canyon" is already in use for a feature in the Mediterranean (Western Corsica).

73	PORTO Hill	40°43'N 10°03'W			IBCEA 1.01

Accepted as "Hill" (instead of "Mountain" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Colina do PORTO.

Named after the nearby town of Porto.

74	PRÍNCIPES DE AVIS Hills	37°50'N 9°26'W			IBCEA 1.01

Accepted as "Hills" (instead of "Mountains" - Portuguese: Montanhas - suggested by the proposer).
Name in Portuguese: Colinas dos PRÍNCIPES DE AVIS

Named after the ruling family in Portugal in the 15th & 16th Centuries.

74a	PRÍNCIPES DE AVIS Terrace	39°25'N 12°50'W			IBCEA 1.01

Accepted.
Name in Portuguese: Terraço dos PRÍNCIPES DE AVIS

This feature subsumes: Mar de ARRIFANA (item 10) and Mar de VILA NOVA (item 90).

Named after the ruling family in Portugal in the 15th & 16th Centuries.

Note: The following three features are on "PRÍNCIPES DE AVIS Terrace": "INFANTE DOM HENRIQUE Hill", "INFANTE DOM PEDRO Hill" and "INFANTE SANTO Hill".

75 REGUEIRA

Not accepted.

This is not an identifiable feature on IBCEA Sheet 1.01**.**

76	SALVADOR CORREIA Passage	40°00'N 15°05'W	40°35'N 14°15'W		IBCEA 1.01

Accepted as "Passage" (instead of "Strait" - Portuguese: Estreito - suggested by the proposer).
Name in Portuguese: Passagem SALVADOR CORREIA.

Named after three Portuguese Hydrographic Survey Ships.

77	SÃO GABRIEL Valley	40°55'N 11°10'W	41°36'N 11°00'W		IBCEA 1.01

Accepted.
Name in Portuguese: Vale SÃO GABRIEL.

Named after one of Vasco da GAMA's ships. (See also item 17, 79 and 88).

78	SAN PEDRO Canyon	39°57'N 10°35'W	39°50'N 10°00'W	39°44'N 9°37'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão SAN PEDRO.

Action: **The Secretary** to check with the proposer:
1) whether SAN (Spanish) or SÃO (Portuguese) should be used; and
2) origin of the name.

79	SÃO RAFAEL Canyon	40°57'N 11°50'W	41°20'N 11°44'W		IBCEA 1.01

Accepted.
Name in Portuguese: Canhão SÃO RAFAEL.

Named after one of Vasco da GAMA's ships (See also items 17, 77 and 88).

80	SÃO VICENTE Canyon	36°15'N 10°00'W	36°49'N 9°40'W	37°00'N 9°20'W	37°15'N 9°10'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão de SÃO VICENTE.

Note: The position of this name on IBCEA Sheet 1.01 should be improved.

81	SAGRES Terrace	36°45'N 8°35'W	35°50'N 9°20'W		IBCEA 1.01

Accepted as "Terrace" (instead of "Plateau" - Portuguese: Planalto - suggested by the proposer).
Name in Portuguese: Terraço de SAGRES.

This feature subsumes: "Planalto de LAGOS" (item 57) and "Planalto de PORTIMÃO" (item 71).

SAGRES is a major locality in the history of exploration where Henry the Navigator had his "school".

82	SETÚBAL Canyon	38°08'N 10°20'W	38°04'N 9°45'W	38°16'N 9°22'W	38°18'N 8°51'W	IBCEA 1.01

Accepted.
Name in Portuguese: Canhão de SETÚBAL.

Named after the nearby port and bay.

83	TEJO Basin	37°30'N 11°40'W			IBCEA 1.01

Accepted with revised position.
Name in Portuguese: Bacio do TEJO.

Note: Already in GEBCO Gazetteer as "TAGUS Basin", but this entry should now be amended to "TEJO Basin" (with TAGUS mentioned in the remarks column). Amend also position as above.

Named after the nearby river Tejo.

84	THETA Passage	43°30'N 13°00'W			IBCEA 1.01

Accepted as "Passage" (instead of "Strait" - Portuguese: Estreito - suggested by the proposer), with revised position.
Name in Portuguese: Passagem THETA.

Note: Already in GEBCO Gazetteer as "THETA Gap", but this entry should now be amended to "THETA Passage", with position amended as above.

Action: **The Secretary** to query the proposer about origin of this name.

85	TORE Seamounts	38°20'N 13°30'W	39°20'N 13°00'W	39°35'N 11°15'W	IBCEA 1.01

Accepted as "Seamounts" (instead of "Mountains" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Montes submarinos TORE.

Action: **The Secretary** to query the proposer about origin of this name.

86 TORE-MADEIRA, Dorsal

Not accepted.

This name is not supported by the topography although these are large features, but there is no reason for them to be linked. The large assemblage known as "HORSESHOE Seamounts" was so-named because of its general shape.

The "TORE Seamounts" (item 85) and the "MADEIRA Rise" (already in the GEBCO Gazetteer) are not topographically linked to the central segments of the "HORSESHOE Seamounts", so the name "TORE-MADEIRA Ridge" (or Dorsal) cannot be supported.

87	VALLE INCLAN Saddle	42°10'N 10°20'W	43°10'N 10°27'W		IBCEA 1.01

Accepted as "Saddle" (instead of "Valley" - Portuguese: Vale - suggested by the proposer).
Name in Portuguese: Sela de VALLE INCLAN.

Note: The position of the name on IBCEA Sheet 1.01 should be improved.

Named after a Galician author.

88	VASCO DA GAMA Seamounts	41°20'N 11°30'W			IBCEA 1.01

Accepted as "Seamounts" (instead of "Seamount" - Portuguese: Monte - suggested by the proposer).
Name in Portuguese: Montes submarinos VASCO DA GAMA.

Named after the well-known Portuguese explorer.

89	VIGO Seamount	41°35'N 10°32'W			IBCEA 1.01

Accepted as "Seamount" (instead of "Mountain" - Portuguese: Montanha - suggested by the proposer).
Name in Portuguese: Monte submarino VIGO.

Note: This feature may in fact be a Guyot.

Named after the nearby Spanish city and port of Vigo.

90 VILA NOVA, Mar de

Not accepted.

To be combined with "Mar da ARRIFANA" (item 10) as "PRÍNCIPES DE AVIS Terrace" (See item 74a).

91 ZÉ, Mar de

Not accepted.

This is an area so-named by local fishermen, it is not a feature.

92 CAMÕES Bank. This duplicates item 19.

93	FOCINHO Peak	39°07'N 9°56'W			IBCEA 1.01

Accepted.
Name in Portuguese: Pico FOCINHO.

Action: **The Secretary** to query the proposer about origin of this name.

94	GONÇALVES ZARCO Peak	39°04'N 10°11'W			IBCEA 1.01

Accepted.
Name in Portuguese: Pico GONÇALVES ZARCO.

Named after a Portuguese explorer.

4.2 Submitted by Ingénieur des études et techniques d'armement Olivier PARVILLERS, EPSHOM, Brest, France

INTERNATIONAL BATHYMETRIC CHART OF THE CENTRAL EASTERN ATLANTIC (IBCEA)

4.2.1 Sheet 1.06

The following four features **already appear in the GEBCO Gazetteer** and should be shown on this sheet without alteration:

1	CAPE VERDE Abyssal Plain	23°00'N 24°00'W			IBCEA 1.06

Named after the nearby Cape Verde islands.

2	ENDEAVOUR Bank	25°20'N 19°20'W			IBCEA 1.06

3	SAHARAN Seamounts	25°30'N 20°00'W			IBCEA 1.06

Named after the nearby Sahara Desert.

4	TROPIC Seamount	23°50'N 20°40'W			IBCEA 1.06

Note: From the evidence available this feature may be a "Guyot".

Named after the nearby Tropic of Cancer.

Action: **The Secretary** to check with the proposer whether this feature is a "Seamount" or a "Guyot".

5	THE PAPS Seamount	25°52'N 20°26'W			IBCEA 1.06

Accepted as "THE PAPS Seamount" (instead of "PAPP Seamount" suggested by the proposer).

Already in GEBCO Gazetteer. Position to be amended as above.

Name taken from United Kingdom IOS sheet C6570.

Named from the shape of the feature.

6	CORDERO Canyon	25°53'N 16°22'W	25°32'N 15°50'W		IBCEA 1.06

Accepted.

Name taken from United Kingdom IOS sheet C6570.

Action: **The Secretary** to search for origin of this name.

7	LAMJAYBIR Canyon	25°46'N 16°20'W	25°38'N 16°10'W		IBCEA 1.06

Accepted.

Named from the nearby town of Lamjaybir.

8	NWAYFADH Canyon	25°34'N 16°32'W	25°30'N 16°14'W		IBCEA 1.06

Accepted.

Named from the nearby town of Nwayfadh.

9	CHTOUKANE Canyon	25°15'N 16°43'W	25°05'N 16°14'W		IBCEA 1.06

Accepted.

Named from the nearby town of Chtoukane.

10	CORVEIRO Canyon	22°05'N 19°16'W	21°58'N 17°23'W		IBCEA 1.06

Accepted.

Named from the nearby Cape Corveiro.

11	NOUÂDHIBOU Canyon	21°13'N 18°48'W	20°49'N 17°38'W		IBCEA 1.06

Accepted.

Named from the nearby town and the cape Ras de Nouâdhibou.

12	TANOÛDÊRT Canyon	20°02'N 18°57'W	20°18'N 17°35'W		IBCEA 1.06

Accepted.

Named from the nearby town of Tanoûdêrt.

13	ARGUIN Canyon	20°39'N 20°52'W	19°47'N 17°28'W		IBCEA 1.06

Accepted.

Named from the nearby ARGUIN Bank (item 14).

14	ARGUIN Bank	20°22'N 17°00'W			IBCEA 1.06

Accepted
Name in French: Banc d'ARGUIN

This feature is notorious as a danger to navigation. This is also where the French ship "La Méduse" was wrecked in 1816, that inspired Théodore GÉRICAULT when he painted the famous "Radeau de la Méduse".

Note: This feature classifies as a reef, but the name ARGUIN Bank (in French Banc d'ARGUIN) has been retained as it is a historical name which has been in use for many years.

4.2.2 Sheet 1.08

1	SIERRA LEONE Fracture Zone	6°00''N 37°00'W	7°00''N 27°00'W		GEBCO 5.08 & 5.12

This feature, with the above position, **already appears in GEBCO Gazetteer** and no amendment is required. However it does not lie within IBCEA Sheet 1.08 limits, so the name **should be removed** therefrom.

The following features (2-13) **already appear in GEBCO Gazetteer** and should be shown on this sheet without alteration:

2	NADIR Seamount	8°45'N 16°55'W			IBCEA 1.08

See also § 3.1.24 above.

3	GRIMALDI Seamounts	8°36'N 20°25'W	9°22'N 19°35'W		IBCEA 1.08

4	KANE Passage	9°10'N 19°20'W			IBCEA 1.08

Shown as "KANE Gap" in the Gazetteer – name to be amended.

Action: **The Secretary** to search for origin of this name (It has been suggested that this feature may have been named after a US Navy ship).

5	PRINCESSE ALICE Seamount	8°41'N 20°07'W			IBCEA 1.08
6	PRINCE ALBERT Seamount	8°58'N 19°52'W			IBCEA 1.08
7	HIRONDELLE Seamount	9°04'N 20°20'W			IBCEA 1.08
8	CARTER Seamount	9°03'N 21°14'W			IBCEA 1.08
9	McGOWAN Seamount	8°30'N 20°43'W			IBCEA 1.08
10	FLANAGAN Seamount	8°22'N 21°18'W			IBCEA 1.08
11	SNODGRASS Seamount	7°54'N 20°48'W			IBCEA 1.08
12	REEDJONES Seamount	7°40'N 21°07'W			IBCEA 1.08
13	WEBB Seamount	7°00'N 21°39'W			IBCEA 1.08
14	BATHYMETRISTS Seamounts	7°45'N 21°05'W			IBCEA 1.08

Accepted.

This is the group name for items 8, 9, 10, 11, 12 & 13 above and also items 15, 16, 17 & 18 below.

This name replaces "MARGAI Seamount Group" (shown on bathymetric map at 1:2,350,000 by E.J.W. JONES and C.F. STUART, 1978) which is now inappropriate.

Named after a group of USNOO employees in the Bathymetry Division who have been working on this area.

15	WHITNEY Seamount	9°00'N 21°10'W			IBCEA 1.08

Accepted.

This name replaces "ANNAN Seamount" (shown on bathymetric map at 1:2,350,000 by E.J.W. JONES and C.F. STUART, 1978) for the feature in the above position, as it is an inappropriate name for this group.

Named after Mr. Joseph WHITNEY, USNOO employee in the Bathymetry Division.

Action: **Mr. SCOTT** to approach Dr. John JONES and enquire about origin of the name "ANNAN Seamount", with a view to possibly using this name for another feature.

16	MURCHISON Seamount	7°58'N 21°07'W			IBCEA 1.08

Accepted.

Taken from the ACUF Gazetteer.

Named after Mr. Richard R. MURCHISON, USNOO employee in the Bathymetry Division.

17	CINDY Seamount	7°43'N 21°27'W			IBCEA 1.08

Accepted.

Taken from the ACUF Gazetteer.

Named after Mrs. Cindy MURCHISON, USNOO employee in the Bathymetry Division.

18	REBMAN Seamount	7°22'N 21°16'W			IBCEA 1.08

Accepted.

Taken from the ACUF Gazetteer.

Named after Mr. Jack REBMAN, USNOO employee in the Bathymetry Division.

19	SIERRA LEONE Rise	6°00'N 21°30'W			IBCEA 1.08

Already in GEBCO Gazetteer.

The name on IBCEA 1.08 should be moved to position 5°30'N - 21°30'W to 5°30'N - 20°20'W.

20	SIERRA LEONE Basin	4°45'N 17°00'W			IBCEA 1.08

Already in GEBCO Gazetteer.

The name on IBCEA 1.08 should not be moved.

21 GUINEA Fracture Zone

Not accepted.

No topographic evidence. Remove from IBCEA 1.08.

22	JANE Seamount	8°56'N 18°20'W			IBCEA 1.08

23	PORTER Seamount	8°35'N 18°00'W			IBCEA 1.08

Both names **accepted** but considered to be frivolous

.

Names derived from the Tarzan sagas.

Action: **Mr. SCOTT** to approach Dr. John JONES and query the origin of these names.

24	GAMBIA Basin	13°30'N 28°30'W			IBCEA 1.08

Accepted.

Shown as "GAMBIA Abyssal Plain" in the Gazetteer. The name in the Gazetteer should be amended but the position retained. However, the name on IBCEA Sheet 1.08 should not be moved as this is the eastern extension of the feature.

25	GUINEA Terrace	10°00'N 17°00'W			IBCEA 1.08

Accepted as "GUINEA Terrace" (instead of "GUINEAN Marginal Plateau" suggested by the proposer, Dr. Isabelle NIANG-DIOP).

Shown as "GUINEA Fan" in the Gazetteer - name and position to be amended.

26	BISSAU Knoll	11°37'N 20°03'W			IBCEA 1.08

Accepted as "Knoll" (instead of "Seamount" suggested by the proposer).

27	LOKO Knoll	8°30'N 16°58'W			IBCEA 1.08

Accepted as "Knoll" (instead of "Seamount" suggested by the proposer).

Named by Mr. Etienne CHAUVEAU in a thesis.

Action: **The Secretary** to enquire about origin of this name.

28	MANDINGO Canyon	12°13'N 18°25'W			IBCEA 1.08

Accepted but this name should be removed from IBCEA Sheet 1.08 as it is off the northern border. It will appear on Sheet 1.07.

29	OUALO Canyon	11°48'N 18°00'W			IBCEA 1.08
30	GEBA Canyon	11°28'N 18°15'W			IBCEA 1.08
31	BIJAGÓS Canyon	11°02'N 18°20'W			IBCEA 1.08

Items 29, 30 and 31 were all **accepted**, but the names on IBCEA Sheet 1.08 should be moved eastward to mark the appropriate features.

The above four names are all believed to be local Senegalese tribes. This might be confirmed by an enquiry.

Action: **The Secretary** to approach Dr. Isabelle NIANG-DIOP, Vice-Chairman IBCEA and query the origin of these names.

4.3 Proposal submitted by Dr. Gleb B. UDINTSEV, Vernadsky Institute of Geochemistry, Russian Academy of Sciences, Member of the GEBCO Guiding Committee (June 1999)

ANTON LEONOV Seamount	39°52'S 7°46'E			GEBCO 5.12

Isolated seamount with elevation 1,200m.

Feature accepted, but decision on name postponed until South African authorities have had an opportunity to comment. To be put in **reserve section** of GEBCO Gazetteer.

Anton LEONOV was a long-time navigator of Soviet Research Ships and developer of echo sounders.

Action: **The Secretary** to check South African Authorities' concurrence with this name.

4.4 Proposal submitted by Dr. Galina AGAPOVA, Geological Institute of the Russian Academy of Sciences, Member of the GEBCO Sub-Committee on Undersea Feature Names (SCUFN) (June 1999)

FEDYNSKIY Seamount	21°44'N 118°46'W			GEBCO 5.07

Isolated seamount on the west slope of the East Pacific Rise, with elevation of more than 2,000m.

Accepted.

Named after Professor Vsevolod FEDYNSKIY (1908-1978), geophysicist, who was a specialist on the deep structure of the Earth's crust under both continents and oceans.

4.4.1 Proposal submitted by Dr. Galina AGAPOVA, on behalf of Dr. Alexander V. ZHIVAGO, Shirshov Institute of Oceanology, Russia (June 1999)

AKADEMIK KURCHATOV Fracture Zone	37°00'S 130°30'W	36°40'S 125°10'W	37°30'S 120°30'W	GEBCO 5.11

Transform fracture stretching some 1,670km west from the "EAST PACIFIC Rise".

Accepted.

Note: the co-ordinates provided at SCUFN-XIII give a much shorter feature than that stated by Dr. ZHIVAGO in the proposal form. A revised position has been given above but it needs to be checked by Dr. FISHER.

Named after the Soviet Research Vessel "Akademik Kurchatov", which closely investigated this feature during her 24th cruise, 12 March 1977.

Actions: 1) **Dr. FISHER** to check position of this feature.
2) **Dr. AGAPOVA** to speak to Dr. ZHIVAGO about proving conclusively that this feature extends to the Chilean coast.

4.5 Proposal submitted by Dr. Hans-Werner SCHENKE, Alfred-Wegener-Institut für Polar und Meeresforschung (AWI), Germany, Member of the GEBCO Guiding Committee (June 1999)

KOHNEN Seamount	57°37'S 5°44'E			GEBCO 5.16

Accepted.

Action: **The Secretary** to ask Dr. SCHENKE to submit formal Proposal Form.

LICHTNER Seamount	67°33'S 0°40'W			GEBCO 5.16

Accepted.

Named after Werner LICHTNER (1945-1989), German cartographer, who worked on computer cartography and computer-aided mapping, with focus on marine cartography.

See also § 3.1.14 above.

FREEDEN Seamount	57°37'S 91°14'W			GEBCO 5.15

Accepted.

N*amed after Wilhelm von FREEDEN (1822-1894), German Oceanographer who founded the "Norddentsche Seewarte", the predecessor of the German Hydrographic Office, today BSH. He organized the first two German Polar expeditions, and he has worked on processing and analysing the collected data.*

See also § 3.1.17 above.

4.6 Proposals submitted by Dr. Ray A. BINNS, Chief Research Scientist, CSIRO Exploration and Mining, Australia (February 1998)

PLIBERSEK Seamount	10°34'.6S 153°43'.8E			GEBCO 5.10

Accepted, but Dr. BINNS should be asked to forward a bathymetric plot of the feature. The feature is the highest and north-eastern of a cluster of four presumed off-axis volcanic knolls lying south of the Woodlark Spreading Zone.

Discovered by RV "Moana Wave" and thoroughly investigated by RV "Franklin" (October 1997).

Named after geologist Philip PLIBERSEK (murdered, Port Moresby, October 1997).

SANGUMA Seamount	5°31'.8S 153°54'.1E			GEBCO 5.10

Accepted, but Dr. BINNS should be asked to forward a bathymetric plot of the feature.

Discovered in 1993 and investigated (1997) by RV "Franklin".

"Sanguma" is the Papua-New Guinea pidgin word for "ghost".

Action: **The Secretary** to approach Dr. BINNS, asking for bathymetric plot of the above two features.

4.7 Proposals submitted by Captain Joe DOYLE, Australian Hydrographic Office

4.7.1 Feature in Solomon Sea (August 1997)

HAMMONDSPORT Bank	10°28'S 159°37'E	10°34'S 159°40'E		GEBCO 5.10

Accepted.

Feature sounded over by HMAS "Flinders" with shallow water echo sounder in February 1997. Least depth: 47 m.

Note: ACUF has accepted this feature as a Seamount.

Action: **The Secretary** to inquire about origin of this name.

4.7.2 Features in the Southern Ocean and Tasman Sea (on behalf of Dr. Neville EXON and others, Australian Geological Survey Organization - AGSO) (September 1997)

CASCADE Seamount	43°55'S 150°23'E			GEBCO 5.10

Accepted, but this may be a Guyot

Named after the local Tasmanian brewery.

Action: **The Secretary** to check with Capt. DOYLE whether this feature is a "Seamount" or a "Guyot".

EAST TASMAN Saddle	42°40'S 149°30'E	43°20'S 148°50'E		GEBCO 5.10

Accepted (but SCUFN considers that a much more significant topographic feature is the north-south Valley extending from the East Tasman Saddle at 43°20'S, almost directly south and eastward into the Tasman Sea).

Named from its association with the East Tasman Plateau.

L'ATALANTE Valley	45°00'S 147°00'E	45°35'S 150°00'E		GEBCO 5.10

Accepted as "Valley" (instead of "Depression" suggested by the proposer), as this is not a closed feature.

Named after the French RV "L'Atalante", which ran a key seismic profile across the feature.

LOWREENNE Seamounts	45°02'S 144°40'E	45°25'S 145°05'E	45°55'S 146°00'E	GEBCO 5.10

Accepted as "Seamounts" (instead of "Massif" suggested by the proposer). SCUFN recognises this feature as an extensive elevated shoal area capped with several seamounts, but prefers the term "Seamounts".

Named after an Aboriginal band of south-west tribe, from Low Rocky Point.

NEEDWONNE Ridge	46°00'S 144°50'E	47°15'S 145°10'E		GEBCO 5.10

Accepted. Northerly trending ridge forming westernmost part of western block of South Tasman Rise.
Named after an Aboriginal band of south-west tribe, from Cox Bight.

NINENE Trough	46°05'S 145°00'E	47°25'S 145°15'E		GEBCO 5.10

Accepted as "Trough" (instead of "Basin" suggested by proposer). This small trough lies immediately east of "NEEDWONNE Ridge".

Named after an Aboriginal band of south-west tribe, from Port Davey.

SOUTH TASMAN Saddle	45°00'S 146°45'E	44°55'S 147°05'E		GEBCO 5.10

Accepted.

Named from its association with the "SOUTH TASMAN Rise".

TASMAN Escarpment	44°45'S 144°30'E	47°25'S 145°30'E	49°20'S 146°20'E	GEBCO 5.10

Accepted. Continuation northward of "TASMAN Fracture Zone", between Australia and Antarctica.

Named after the famous Dutch explorer Abel Janszoon TASMAN (1603-1699), who discovered Tasmania and New Zealand in 1642.

Note: A narrow well-defined ridge diverges from the Escarpment at about 47°15'S. It deserves a name.

Action: **The Secretary** to invite the Australian authorities to submit a proposal for this additional feature.

TOOGEE Ridge	43°25'S 144°10'E	44°32'S 145°12'E		GEBCO 5.10

Accepted. This feature is a well-defined NE/SW trending ridge, south-west of Tasmania.

Named after an Aboriginal tribe of south-west Tasmania.

TOOGEE Valley

This feature (44°58'S – 146°10'E to 43°50'S – 144°20'E) is topographically a "Valley" lying between Toogee Ridge and the Lowreenne Seamounts complex. However, it is **not accepted** for inclusion in the GEBCO Gazetteer, as it is too minor a feature.

4.7.3 Features within the Australian EEZ, near Heard Island (June 1998)

The five features below were **accepted.**

PIKE Bank	51°15'S 71°50'E			GEBCO 5.13

A submarine bank on the Kerguelen Plateau about 113 nautical miles north-west from Heard Island. PIKE Bank has been mapped by various survey vessels including the "Eltanin", "Cape Pillar", "Professor Mesyutsev" and the RSV "Aurora Australis".

Named after the species Pike glassfish, which commonly occurs on this bank.

DISCOVERY Bank	51°15'S 72°50'E			GEBCO 5.13

A submarine bank on the Kerguelen Plateau 108 nautical miles north-west from Heard Island. The bank is about 200 metres deep. The position has been fixed by echo sounding and GPS and it has been mapped by various survey vessels including the "Eltanin", "Cape Pillar", "Professor Mesyutsev" and the RSV "Aurora Australis".

Named after RRS "Discovery" which undertook important bathymetric charting and oceanographic work in this vicinity on the first BANZARE voyage in 1929-1930.

CORAL Bank	52°00'S 71°25'E			GEBCO 5.13

A submarine bank on the Kerguelen Plateau 89 nautical miles north-west from Heard Island. The bank is about 200 metres deep. The position has been fixed by echo sounding and GPS and it has been mapped by various survey vessels including the "Eltanin", "Cape Pillar", "Professor Mesyutsev" and the RSV "Aurora Australis".

Named after the many samples of spectacular large red gorgonian "soft corals" that have been collected from this bank during recent fisheries research.

SHELL Bank	51°40'S 76°20'E			GEBCO 5.13

A submarine bank on the Kerguelen Plateau 126 nautical miles north-east from Heard Island. The bank is about 200 metres deep. The position has been fixed by echo sounding and GPS and it has been mapped by various survey vessels including the "Eltanin", "Cape Pillar", "Professor Mesyutsev" and the RSV "Aurora Australis".

Of all the five outlying submarine banks in the Heard Island region, this is the only one which has sediment consisting of fine white shell grit. The others have sediment of fine black volcanic sand.

Note: The position of "Shell Bank" given above has been taken from the feature marked with that name on the 1:1M Heard Island bathymetric map accompanying

the submission (RANHS letter AH 97/147 dated 29 June 1998, Appendix 1). The position given in this letter (57°35'S - 75°50'E is quite different and does not lie within the limits of the map. A check should be made to determine which is correct.

Action: **The Secretary** to query Capt. DOYLE about the correct position of this feature.

AURORA Bank	52°28'S 72°00'E			GEBCO 5.13

A submarine bank on the Kerguelen Plateau 55 nautical miles north-west from Heard Island. The bank is about 200 metres deep. The position has been fixed by echo sounding and GPS and it has been mapped by various survey vessels including the "Eltanin", "Cape Pillar", "Professor Mesyutsev" and the RSV "Aurora Australis".

Named after the research ship RSV "Aurora Australis" which did a great deal of work on the fisheries, marine biology, oceanography and bathymetry of the Heard Island plateau during 1990-1993. The name also recognizes the marine scientific work of SY "Aurora" on the Australian Antarctic Expedition and Shackleton's 1914 expedition.

GUNNARI Ridge	52°33'S 75°05'E			GEBCO 5.13

Not accepted.

The topographic evidence supplied here, or available from other sources, does not justify this feature being classified as a "Ridge".

4.8 Proposals submitted by Dr. Kunio YASHIMA, Japan Hydrographic Department and Member of GEBCO-SCUFN, as Member of the Japan Committee on Undersea Feature Names (June 1999)

SURUGA Trough	35°03'N 138°40'E	34°28'N 138°32'E	34°20'N 138°28'E	GEBCO 5.06

Accepted. This feature is a long depression located at the boundary between the Philippine Sea and Eurasia Plates.

Discovered by Hydrographic Survey Vessel "Meiyo" in 1974.

Named after the historical name of a local province.

ZENISU Ridge	32°58'N 137°40'E	33°40'S 138°28'E	34°40'S 139°30'E	GEBCO 5.06

Accepted. This feature is a long narrow elevation with steep sides, bounded on the north by "NANKAI Trough" and on the south by "SIKOKU Basin".

Discovered by Hydrographic Survey Vessel "Meiyo" in 1974.

Named after a shoal at the northern end of the ridge and a nearby "ZENISU OKI Seamount".

Note: The seamount mentioned above was shown on the map accompanying this feature as "ZENISU OKI", whereas it is recorded in one word "ZENISUOKI" in the Gazetteer – name to be amended to "ZENISU OKI".

NISI-SITITO Trough	33°30'N 139°00'E	32°55'N 138°55'E	32°30'N 138°50'E	GEBCO 5.06

Not accepted for inclusion in the Gazetteer at this stage, owing to its small size. To be inserted in the **reserve section** of the GEBCO Gazetteer and will be reconsidered when names for IBCWP sheets at scale 1/1M are submitted in timely fashion before publication.

Discovered by Hydrographic Survey Vessel "Syoyo" in 1983.

The name translates as West Sitito Trough, being located to the west of the Izu Sitito islands.

4.8.1 Proposals submitted by Dr. Kunio YASHIMA, on behalf of Takemi ISHIHARA, Geological Survey of Japan (June 1999)

HAKUREI Seamount	62°52'.9S 140°49'.6E			GEBCO 5.14 & 5.18

Accepted. Least depth 2,796m with surrounding depths of over 4,000m. Four smaller seamounts or knolls exist close to the north of this main feature.

It is shown but not named on the GEBCO sheets.

Named after RV "Hakurei-maru", which carried out a detailed survey of the feature.

4.8.2 Proposals submitted by Dr. Kunio YASHIMA, on behalf of Seizo NAKAO, Geological Survey of Japan

PORPOISE Canyon	64°50'S 131°40'E	64°20'S 131°00'E	63°40'S 130°20'E	GEBCO 5.14 & 5.18

Accepted. This is one of the biggest canyons in the Wilkes Land Continental Margin. It is shown but not named on the GEBCO sheets.

A detailed survey was carried out by RV "Hakurei-maru".

Named after nearby Porpoise Bay.

4.9 Proposals submitted by Dr. Louis GÉLI, IFREMER, France

There has been a great deal of correspondence about this submission, and Drs GÉLI and FISHER met in December 1998 to discuss this issue. However, no agreement has yet been reached.

SCUFN's recommendation is as follows:

SAINT-ÉXUPÉRY Guyot	62°28'S 153°03'W			GEBCO 5.15

Accepted as "Guyot" (instead of the proposed "LE PETIT PRINCE Seamount"), subject to the agreement of Dr. GÉLI and colleagues.

Named after Antoine de SAINT-ÉXUPÉRY (1900-1944), French writer and aviator. His life was a permanent search for the human soul, and his writings, mostly related to his experience as an aircraft pilot, influenced and inspired many young people, not only in France. He died in an air fight in World War II.

SCUFN believes that precedence should be given to the real historical person, i.e. SAINT-ÉXUPÉRY, and that therefore the major feature, the above seamount (guyot), should be named after SAINT-ÉXUPÉRY. The feature selected to commemorate him should not be one in a list, the remainder of which are named after fictional characters (see below).

SAINT-ÉXUPÉRY Fracture Zone	62°15'S 155°25'W			GEBCO 5.14 & 5.15

LE PETIT PRINCE Fracture Zone	62°50'S 151°00'W			GEBCO 5.14 & 5.15

"Le Petit Prince" is one of Antoine de SAINT-ÉXUPÉRY most famous books. The book "Le Petit Prince", a wonderful travel in a world of poetry, innocence and spirit, is a source of dream for every child from France.

L'ASTRONOME Fracture Zone	59°35'S 150°51'W			GEBCO 5.14 & 5.15

"L'Astronome" is a character of "Le Petit Prince", one of Antoine de SAINT-ÉXUPÉRY most famous books. The parable with "L'Astronome" expresses the fact that science without wisdom and human concern leads to the ruin of the soul.

LE GÉOGRAPHE Fracture Zone	57°30'S 147°35'W			GEBCO 5.14 & 5.15

"Le Géographe" is a character of "Le Petit Prince", one of Antoine de SAINT-ÉXUPÉRY most famous books. The parable with "Le Géographe" symbolizes the imperious necessity of being closed to human concerns when exploring the earth.

LE RENARD Fracture Zone	62°42'S 158°30'W			GEBCO 5.14 & 5.15

"Le Renard" is a character of "Le Petit Prince", one of Antoine de SAINT-ÉXUPÉRY most famous books. Le Renard (the fox in French) is the companion of the Small Prince. It symbolizes friendship.

LA ROSE Fracture Zone	62°32'S 161°45'W			GEBCO 5.14 & 5.15

"La Rose" is a character of "Le Petit Prince", one of Antoine de SAINT-ÉXUPÉRY most famous books. La Rose (the rose) symbolizes the gracious fragility of women. The parable with La Rose represents the necessity of taking care of your love in order to keep it alive.

The Group considers that there is insufficient evidence for the above six fracture zones, and that more bathymetric and other geophysical evidence is needed. To be put in the **reserve section** of the GEBCO Gazetteer.

It was also noted that "ANTIPODES Fracture Zone" (50°00'S - 176°00'W to 70°00'S - 125°00'W; see IOC-IHO/GEBCO SCUFN-XII/3, item 5.3) passes through this area and most likely coincides with one of the features identified by Dr. GÉLI and his colleagues.

4.10 Proposals submitted by Dr. James R. COCHRAN, Lamont-Doherty Earth Observatory, Palisades, New York, USA (June 1999)

SCUFN welcomes the proposal of James COCHRAN, and finds it particularly apt that eight of the Fracture Zones he and his colleagues have investigated on the South-east Indian Ridge, south-west of Australia, should be named after ships involved in the exploration of the South-eastern Indian Ocean.

SCUFN, however, suggests that the following two features, which are topographically very distinct, be named after the vessels of Abel TASMAN (1642):

ZEEHAHN Fracture Zone	50°24'.2S 113°53'.7E	49°51'.0S 114°22'.0E		GEBCO 5.09

Accepted, subject to the concurrence of Dr. COCHRAN.

HEEMSKERCK Fracture Zone	50°02'.8S 115°31'.3E	49°17'.2S 116°32'.7E		GEBCO 5.09

Accepted, subject to the concurrence of Dr. COCHRAN.

SCUFN awaits proposals for names for the other six features listed in Dr. COCHRAN's submission and reproduced below, and will also attempt to identify additional

potential names for Dr. COCHRAN's consideration.

1.	From	42°08'.4S - 88°06'.5E	to	41°41'.5S - 88°42'.1E
2. a)	From	45°20'.8S - 96°24'.2E	to	45°57'.6S - 95°41'.1E
b)	From	46°14'.4S - 96°14'.7E	to	46°35'.4S - 96°00'.0E
3.	From	48°12'.2S - 99°20'.0E	to	47°10'.4S - 100°18'.3E
4.	From	48°00'.8S - 102°37'.9E	to	47°42'.6S - 102°53'.1E
5. a)	From	48°25'.9S - 105°16'.0E	to	48°38'.2S - 105°02'.6E
b)	From	48°46'.0S - 105°16'.0E	to	48°55'.2S - 105°07'.2E
6.	From	49°17'.5S - 106°05'.8E	to	48°18'.3S - 107°02'.1E

Actions: 1) **The Secretary** to check Dr. COCHRAN's concurrence on the above two names.
2) **The Chairman** to approach Dr. COCHRAN as regards naming the six remaining fracture zones.

4.11 Proposals submitted by Professor Chris HARTNADY, Department of Geological Sciences, University of Cape Town, South Africa (June 1999)

Following lengthy correspondence, telephone calls and fax messages relating to the selection of names for the following two features, it was finally agreed that, owing to the close proximity of "XHOSA Seamount", the two following unnamed seamounts would also be given South African tribal names:

HINTSA Seamount	47°18'S 10°55'E			GEBCO 5.16

Accepted. Least depth <1,500m, in surrounding water depths of over 4,500m.

Named after a Xhosa tribal chief.

SANDILE Seamount	47°35'S 11°12'E			GEBCO 5.16

Accepted. Least depth <1,000m, in surrounding water depths of over 4,500m.

Named after a great Xhosa tribal chief.

UMVOTO Rise	47°03'S 10°40'E	47°45'S 11°21'E		GEBCO 5.16

Accepted. Whereas "XHOSA Seamount" stands alone, "HINTSA and SANDILE Seamounts" (above) stand on this short rise.

Named after a Xhosa woman's "respect" or "avoidance" name for "Water".

Note: The positions of these features have been taken off the plots provided by Prof. HARTNADY (presumably in Mercator projection) and the above latitude values may therefore be inaccurate.

Action: **The Secretary** to check positions of the above three features with Prof. HARTNADY.

4.12 Proposal submitted by Dr. John SCLATER and Dr. Andrew GOODWILLIE, Scripps Institution of Oceanography, together with colleagues worldwide (March 1998)

All members of SCUFN present wished to be associated with the citation supporting this proposal: "He is the foremost living deep-sea marine hydrographer, perhaps the foremost of all times."

BOB FISHER Ridge	35°30'S 44°30'E	44°00'S 40°30'E		GEBCO 5.09

Accepted.

Named after Dr. Robert L. FISHER, SIO, the most active contributor to GEBCO over the years, currently through his recontouring of the whole of the greater Indian Ocean, from 10°W to 165°E and south to Antarctica, and also his erudite leadership as Chairman of GEBCO-SCUFN.

5. CONSIDERATION OF MINUTES OF ACUF MEETINGS HELD SINCE SCUFN-XII

Meeting 272 (September 1997): No further action needed.

Meeting 273 (January 1998):

HYDRATE Knolls	44°30'N 125°03'W	44°43'N 125°15'W		GEBCO 5.07

Accepted. (from SEABEAM plot).

Note: ACUF has accepted this feature as a Ridge.

Meeting 274 (April 1998):

SCUFN invited member Dr. Kunio YASHIMA to inspect plots of the 81 seamount names (including 38 from Japanese Chart 6602) examined by ACUF, and to provide advice on what its decisions on each should be.

Action: **Dr. YASHIMA** to check those 81 seamount names.

Meeting 275 (July 1998):

TOBIN Seamount	47°36'N 156°16'W			GEBCO 5.03

Accepted.

Named after Rear Admiral Paul Edward TOBIN, retiring Oceanographer of the US Navy.

MOAI Seamount	27°06'S 109°42'W			GEBCO 5.11

Accepted.

This feature is close west of Easter Island and it has been named after the unique island stone figures.

PUKAO Seamount	26°57'S 110°20'W			GEBCO 5.11

Accepted.

Action: **The Secretary** to query the Hawaii Institute of Geophysics about origin of this name.

Meeting 276 (September 1998):

MAHI MAHI Fracture Zone	12°48'S 143°45'W			GEBCO 5.11

Provisionally accepted, but more evidence needed. There is a large amount of data available from this area, so more extensive bathymetric coverage should be requested.

Action: **The Secretary** to ask the proposer (Dr. Mitchell LYLE, Centre for Geophysical Investigation of the Shallow Subsurface, Boise State University) for more bathymetric evidence.

Mahi Mahi are pelagic fish common to the region.

DALTON Knoll	49°23'N 156°32'W			GEBCO 5.03

Accepted.

Named after Hon. John H. DALTON, recently retired Secretary of the US Navy.

Meeting 277 (December 1998):

LAPÉROUSE Fracture Zone	25°00'S 170°00W			GEBCO 5.10

The group noted that there is a feature with this name in the ACUF Gazetteer, but this is not listed in the GEBCO database.

Action: **ACUF Secretary** invited to investigate this entry and provide SCUFN with the supporting evidence which led to its acceptance.

Meeting 278 (April 1999): No further action needed

6. GEBCO GAZETTEER OF UNDERSEA FEATURE NAMES - PUBLICATION B-8

6.1 The following amendments to entries **already in GEBCO Gazetteer**, submitted by Dr. Robert L. FISHER (consequent upon his work in the Greater Indian Ocean, 26°N-36°S, 20°-70°E), were **accepted** (**positions to be amended** as indicated):

AMIRANTE Banks	4°45'S 53°21'E	8°40'S 53°20'E		GEBCO 5.09 IBCWIO 1.05

In Gazetteer as "Bank", **amend** to read "Banks".

AMIRANTE Trench	9°10'S 53°30'E	6°10'S 52°21'E		GEBCO 5.09 IBCWIO 1.05

ANDREW Guyot	6°45'N 50°30'E			GEBCO 5.05 IBCWIO 1.01

In Gazetteer as "Tablemount", **amend** to read "Guyot".

ANTON BRUUN Rise	8°51'S 51°20'E	8°48'S 51°45'E	8°47'S 52°00'E	GEBCO 5.09 IBCWIO 1.08

In Gazetteer as "Ridge", **amend** to read "Rise".

Named after Dr. Anton BRUUN, the eminent Danish marine scientist who was the first Chairman of the IOC (elected 27 October 1961, died 13 December 1961).

ARGO Fracture Zone	11°30'S 69°30'E	16°00'S 63°00'E		GEBCO 5.09 IBCWIO 1.09

ASQUITH Rise	8°45'S 47°10'E			GEBCO 5.09 IBCWIO 1.07

Named after the Earl of Oxford and Asquith, Governor of the Seychelles at the time of the International Indian Ocean Expedition.

In Gazetteer as "Bank", **amend** to read "Rise" (formerly known as "WILKES Rise").

BARDIN Seamount	13°30'S 53°30'E			GEBCO 5.09 IBCWIO 1.08

CARLSBERG Ridge	10°00'N 57°00'E	2°00'N 66°30'E		GEBCO 5.05

CENTRAL INDIAN Ridge	1°00'S 67°30'E	25°30'S 70°00'E		GEBCO 5.09 IBCWIO 1.03

CHAIN Ridge	3°20'N 52°00'E	7°40'N 55°30'E		GEBCO 5.05 IBCWIO 1.06 & 1.09

Discrete south-west segment of OWEN Fracture Zone.

COMORO Basin	13°30'S 44°00'E			GEBCO 5.09 IBCWIO 1.03

DAVID Spur	6°24'N 50°15'E			GEBCO 5.05 IBCWIO 1.01

In Gazetteer as "Seaknoll", **amend** to read "Spur".

DAVIE Ridge	14°30'S 41°35'E	19°00'S 41°50'E		GEBCO 5.09 IBCWIO 1.10

EAST SHEBA Ridge	14°40'N 52°15'E	14°35'N 53°30'E	14°50'N 55°00'E	14°20'N 57°00'E	GEBCO 5.05

Sinuous mid-ocean ridge.

FARQUHAR Ridge	11°10'S 50°00'E	9°10'S 51°50'E		GEBCO 5.09 IBCWIO 1.08

FORTUNE Bank	7°18'S 56°54'E			GEBCO 5.09 IBCWIO 1.05
GAUSS Fracture Zone	40°00'S 52°15'E	36°00'S 54°00'E	31°00'S 55°00'E	GEBCO 5.09 IBCWIO 1.18
GAZELLE Fracture Zone	39°00'S 52°45'E	35°00'S 53°35'E	32°00'S 54°00'E	GEBCO 5.09 IBCWIO 1.18
INDOMED Fracture Zone	42°30'S 45°30'E	35°00'S 47°00'E		GEBCO 5.09
INDUS Canyon	23°38'N 67°25'E	22°57'N 66°51'E		GEBCO 5.05

Insert this new entry in Gazetteer to replace "THE SWATCH Trough" (see below):

MABAHISS Fracture Zone	1°00'S 70°00'E	2°30'S 68°00'E	3°00'S 67°30'E	GEBCO 5.09 IBCWIO 1.06

Named after the Egyptian Research Ship RV "Mabahiss".

MADAGASCAR Plateau	27°00'S 46°00'E	34°00'S 45°00'E		GEBCO 5.09 IBCWIO 1.17

In Gazetteer as "Ridge", **amend** to read "Plateau".

MARIE CELESTE Fracture Zone	18°45'S 63°00'E	17°30'S 66°00'E	15°35'S 68°30'E	GEBCO 5.09
MAURICE HILL Ridge	1°40'S 53°05'E	4°20'S 53°28'E		GEBCO 5.09 IBCWIO 1.05
MAURITIUS Trench	24°40'S 54°20'E	21°00'S 57°50'E		GEBCO 5.09 IBCWIO 1.15
MOZAMBIQUE Basin	25°30'S 40°00'E	40°00'S 36°00'E		GEBCO 5.09 IBCWIO 1.17

MOZAMBIQUE Plateau	27°00'S 36°00'E	35°00'S 34°00'E		GEBCO 5.09 IBCWIO 1.16

MOZAMBIQUE Escarpment	23°40'S 37°20'E	35°00'S 35°30'E	41°00'S 33°00'E	GEBCO 5.09 IBCWIO 1.13 & 1.16

In Gazetteer as "Scarp", **amend** to read "Escarpment".

MURRAY Ridge	20°45'N 61°00'E	24°00'N 64°35'E		GEBCO 5.05

This feature is (arguably) a north-east extension of "OWEN Fracture Zone" (see below).

Note: it is the second east-trending ridge south of "DE COVILHAO Trough".

McLEOD Bank	9°57'S 50°15'E			GEBCO 5.09 IBCWIO 1.08

NATAL Valley	28°50'S 35°00'E	34°00'S 32°00'E		GEBCO 5.09 IBCWIO 1.16

NOVARA Fracture Zone	28°00'S 58°50'E	32°00'S 58°20'E	36°00'S 57°54'E	GEBCO 5.09 IBCWIO 1.18

Named after the Austrian Research Vessel "Novara" (1858-59).

OMAN Basin (23°30'N - 61°00'E)

This is not a "Basin", although it is semi-enclosed - **delete** from Gazetteer.

OWEN Fracture Zone	3°20'N 52°00'E	10°00'N 56°50'E	19°40'N 60°45'E	GEBCO 5.05 IBCWIO 1.01

Note: It includes "CHAIN Ridge", but not "MURRAY Ridge".

PROVIDENCE Bank	9°30'S 51°03'E			GEBCO 5.09 IBCWIO 1.08

In Gazetteer as "Reef", **amend** to read "Bank".

RÉUNION Trench	24°48'S 54°00'E	23°15'S 52°07'E	22°15'S 52°30'E	GEBCO 5.09 IBCWIO 1.15

Named after the nearby "La Réunion" island.

REVELLE Rise	6°50'S 49°10'E			GEBCO 5.09 IBCWIO 1.05

RODRIGUES Ridge	19°09'S 60°40'E	19°40'S 63°00'E	19°36'S 64°35'E	GEBCO 5.09 IBCWIO 1.12

Note spelling of name. Action should be taken to amend the GEBCO and INT charts, where it is shown as "RODRIGUEZ".

SADKO Seamount (12°20'N - 61°15'E)

No indication on latest contouring - this feature, which was formerly named "MGU Seamount" was approved at SCGN-VI, subject at that time to a further check (including submission of "Undersea Name Proposal forms") by Dr. Galina AGAPOVA.

Action: **Dr. AGAPOVA** to be invited to reexamine the original evidence for this feature.

SEALARK Fracture Zone	2°30'S 69°30'E	3°40'S 68°35'E	7°00'S 65°00'E	GEBCO 5.09 IBCWIO 1.06

SOMALI Plain (5°00'N - 52°30'E)

Designation unjustified from latest contouring - **delete** from Gazetteer.

TADJURA Trough	11°40'N 42°48'E	12°06'N 44°00'E	12°00'N 45°00'E	GEBCO 5.05

"THE SWATCH Trough": (see "INDUS Canyon" above) "The Swatch of No Ground" is an obsolete pre-echo-sounding term. This entry should be **deleted** from the Gazetteer on the understanding that it is replaced by "INDUS Canyon".

TUGELA Canyon	29°30'S 31°45'E	30°30'S 32°42'E		GEBCO 5.09 IBCWIO 1.16

VEMA Trench	12°05'S 63°00'E	9°00'S 67°20'E	8°00'S 68°30'E	GEBCO 5.09 IBCWIO 1.09

Add under Remarks: "This feature is in fact a Fracture Zone but the name "VEMA Fracture Zone" is already in use (11°00'N - 46°00'W to 10°30'N - 38°30'W), so this

traditional name has been retained."

VITYAZ Fracture Zone	8°00'S 65°25'E	6°09'S 68°00'E	5°23'S 68°40'E	4°30'S 69°35'E	GEBCO 5.09 IBCWIO 1.06

Shown as "VITIAZ" in the Gazetteer - **amend** to read "VITYAZ".

Named after the renowned Russian Scientific Research Vessels "Vityaz".

WALTERS Shoal (33°12'S - 43°50'E)

In Gazetteer as "Shoals", **amend** to read "Shoal".

WEST SHEBA Ridge	13°00'N 49°00'E	13°15'N 50°00'E	13°10'N 51°06'E	GEBCO 5.05

WORMLEY Seamount	13°45'S 57°57'E			GEBCO 5.09 IBCWIO 1.08

Named after the English village where the Institute of Oceanographic Sciences Deacon Laboratory was situated.

ZAMBEZI Canyon	18°53'S 37°35'E	18°35'S 39°21'E		GEBCO 5.09 IBCWIO 1.10

Add under Remarks: "This feature continues as a well-developed seachannel from 19°30'S - 41°15'E to 21°15'S - 41°40'E to 24°00'S - 41°15'E".

6.2 A draft GEBCO Gazetteer (June 1999), IOC-IHO Publication B-8, was distributed to participants in the meeting as a book. It was produced at the IHB from the Gazetteer database. Attendees were invited to check this draft and report on any corrections to the Secretary. It was agreed that the GEBCO Gazetteer would be posted on the IHO and GEBCO Web-sites, as a text file, when the newly agreed entries and the reported corrections have been entered into the Gazetteer database at the IHB.

7. STANDARDIZATION OF UNDERSEA FEATURE NAMES (GUIDELINES, PROPOSAL FORM, TERMINOLOGY) - PUBLICATION B-6

The Sub-Committee considered the three terms and definitions which had not been conclusively agreed at SCUFN-XII, together with comments received since that meeting, and reached the following decisions:

BORDERLAND

Amend definition to read:
"A region adjacent to a continent, normally occupied by or bordering a SHELF, and

sometimes emerging as islands, that is irregular or blocky in plan or profile, with depths well in excess of those typical of a SHELF".

Add additional reference: D-NAG Arctic Volume L, 1998.

MOUNTAINS

This term is considered obsolete and should be removed from the list. Only four features are listed in the Gazetteer with this term:

ANAXIMANDER Mountains	35°30'N - 30°00'E.
BARONIE Mountains	40°42'N - 10°14'E.
PTOLEMY Mountains	34°30'N - 24°35'E.
QUIRRA Mountains	39°30'N - 10°18'E.

All are in the Mediterranean Sea and appear on the International Bathymetric Chart of the Mediterranean (IBCM). Prof. John HALL confirmed that the generic names of these features could and should be changed to others more appropriate, and these could then be shown on the IBCM 2nd Edition, now in preparation.

SEAMOUNT CHAIN

Amend definition to read:
"A linear or arcuate alignment of discrete seamounts with their bases clearly separated. See also SEAMOUNT(S)."

In addition it was agreed that the entry SEAMOUNT should be replaced by SEAMOUNT(S) to allow for the situation where there is a group of SEAMOUNTS not in linear or arcuate alignment, e.g. DISCOVERY Seamounts at 43°S - 3°W.

An updated list of all GEBCO terms and definitions for undersea feature naming is attached as Annex 3. This list takes into consideration the decisions by the GEBCO Guiding Committee meeting on the following week, namely 1) to include two new terms in the list: "CALDERA" and "PROMONTORY", and 2) that the term "PASSAGE" would take precedence over "GAP".

The Sub-Committee wished to place on record its appreciation of the acceptance by the IHO Working Group on the Hydrographic Dictionary to consider SCUFN as the arbiter of all undersea terms and definitions.

8. REPORT TO THE GEBCO GUIDING COMMITTEE

The Chairman was requested to make a verbal report to the GEBCO Guiding Committee, as it was not possible to produce a final written report in the time available.

9. ANY OTHER BUSINESS

9.1 Relations with SCAR/WGGGI

The Secretary reported that co-operation is maintained with the SCAR Working Group on Geodesy and Geographic Information (WGGGI). This WG has produced a composite Gazetteer of all Antarctic place names (land and sea - south of 60°S), from various national/international gazetteers. A copy of the GEBCO Gazetteer database (portion South of 60°S) is provided to WGGGI after each SCUFN meeting. This allows SCAR to address the marine side of their Gazetteer.

9.2 Naming of Undersea Features in Japan

Mr. Kunio YASHIMA, Member of SCUFN, presented a paper on the present status and problems in the "Naming of Undersea Features in Japan" (see Annex 4). He reported on the activities of the Japanese Committee on Undersea Feature Names, which works on standardizing undersea feature names and on selecting those names to be shown on hydrographic publications of the Japan Hydrographic Department.

9.3 Naming of Undersea Features in Brazil

Mr. Marco Antonio de C. OLIVEIRA, Member of SCUFN, presented a paper reviewing names of submarine features in the Brazilian continental margin and adjacent seas, and proposing several changes as regards undersea feature naming in waters adjacent to Brazil (see Annex 5). It was agreed that the matter would be handled by correspondence.

Actions:
1) **Mr. Marco Antonio de C. OLIVEIRA** to provide the Secretary with supporting bathymetric evidence for the proposed changes.
2) **The Secretary** to circulate the proposals and associated material.

10. CLOSURE OF THE MEETING

There being no other points to discuss, the meeting adjourned at 18:00 on 25 June 1999.

_____

Page intentionally left blank

LIST OF PARTICIPANTS

Members

Dr. Robert L. FISHER (Chairman)
Geosciences Research Division
Scripps Institution of Oceanography
La Jolla, Calfornia 92093-0215
UNITED STATES OF AMERICA
Fax: +1 (619) 534-0784
Tel: +1 (619) 534-3597
Time Zone: -8 (Summer -7)

Ing. en Chef Michel HUET (Secretary)
International Hydrographic Bureau
4, Quai Antoine 1er
B.P. 445 - MC 98011 Monaco Cedex
PRINCIPALITY OF MONACO
Fax: +377 93 10 81 40
Tel: +377 93 10 81 04
E-mail: pac@ihb.mc
Time Zone: +1 (Summer +2)

Mr. Marco Antonio de Carvalho OLIVEIRA
Diretoria de Hidrografía e Navegação
Rua Barão de Jaceguay
S/No Ponta de Armação
CEP - 24048-900
Niterói, RJ
BRAZIL
Fax: +55 (21) 620 0073
Tel: +55 (21) 613-8249
E-mail: gebco@dhn.mar.mil.br
Time Zone: -3 (Summer -2)

Dr. Kunio YASHIMA
Hydrographic Department of Maritime Safety Agency
3-1, Tsukiji 5-Chome, Chuo-ku
Tokyo 104
JAPAN
Fax: +81 (3) 3541-0723
Tel: +81 (3) 3541-3815
E-mail: yashima@cue.jhd.go.jp
kunio-yashima@kaiho.motnet.go.jp
Time Zone: +9

Mr. Desmond P.D. SCOTT
Cumbers
Mill Lane
Sidlesham, Chichester
West Sussex PO20 7LX
UNITED KINGDOM
Fax: +44 (1243) 641 222
Tel: +44 (1243) 641 222
E-mail: desmond.scott@messages.co.uk
Time Zone: UT (Summer +1)

Rear Admiral Neil GUY
Director
International Hydrographic Bureau
4, Quai Antoine 1er
B.P. 445 - MC 98011 Monaco Cedex
PRINCIPALITY OF MONACO
Fax: +377 93 10 81 40
Tel: +377 93 10 81 01
E-mail: dir1@ihb.mc
Time Zone: +1 (Summer +2)

Advisers to SCUFN (ex-officio)

Mr. Trent PALMER
Secretary ACUF (until August 1999)
US Board on Geographic Names
National Imagery and Mapping Agency (NIMA)
Stop D-61
Bethesda, Maryland 20816-5003
UNITED STATES OF AMERICA
Fax: +1 (301) 227 5515
Tel: +1 (301) 227 3050
E-mail: palmert@nima.mil
Time Zone: -3 (Summer -2)

Mr. Marcus ALLSUP
Secretary ACUF (from August 1999)
US Board on Geographic Names
National Imagery and Mapping Agency (NIMA)
Stop D-61
Bethesda, Maryland 20816-5003
UNITED STATES OF AMERICA
Fax: +1 (301) 227 5515
Tel: +1 (301) 227 3050
E-mail: allsupm@nima.mil
Time Zone: -3 (Summer -2)

By invitation

Dr. Gleb B. UDINTSEV
Member of GEBCO Guiding Committee
Vernadsky Institute of Geochemistry
Russian Academy of Sciences
19 Kosygin Street, Moscow 117975
RUSSIAN FEDERATION
Fax: +7 (095) 938-2054
Tel: +7 (095) 137-8648
E-mail: elkor@geokhi.msk.su
Home tel: +7 (095) 977-5125
Time Zone: +3

Dr. John K. HALL
Marine Geology, Mapping and Tectonics Division
Geological Survey of Istrael
30 Malchei Israel Street
Jerusalem 95501
ISRAEL
Fax: +972 (2) 534 6590 or (2) 538 0688
Tel: +972 (2) 534 6455 or (2) 531 4257
E-mail: john.hall@mail.gsi.gov.il
Time Zone: +2 (Summer +3)

Mr. Norman Z. CHERKIS
Senior Oceanogapher/Bathymetrist
Neptune Sciences, Inc.
12310 Pinecrest Road
Reston, VA 20191-1636
UNITED STATES OF AMERICA
Fax: +1 (703) 620-390
Tel: +1 (703) 620-5858
E-mail: cherkis@neptunesci.com
Time Zone: -5 (Summer -4)

Mr. Luiz Gonzagua CAMPOS
Head of Cartography Division
(Brazilian Hydrographic Service)
Diretoria de Hidrografía e Navagação
Rua Barão de Jaceguay
S/No Ponta de Armação
CEP - 24048-900
Niterói, RJ
BRAZIL
Fax: +55 (21) 620 0073
E-mail: DHN22@dhn.mar.mil.br
Time Zone: -3 (Summer -2)

AGENDA

1. Opening of the Meeting and Administrative Arrangements.
2. Agenda for the Meeting.
3. Matters arising from previous meetings of the Sub-Committee.
4. Proposals submitted in the Inter-sessional Period.
5. Consideration of Minutes of ACUF Meetings held since SCUFN-XII.
6. GEBCO Gazetteer of Undersea Feature Names - Publication B-8.
7. Standardization of Undersea Feature Names (Guidelines, Proposal Form, Terminology) - Publication B-6.
8. Report to the GEBCO Guiding Committee.
9. Any other Business.
10. Closure of the meeting.

Page intentionally left blank

LIST OF UNDERSEA FEATURE TERMS AND DEFINITIONS

Notes:

1. The following revised list of terms and definitions was developed during GEBCO SCUFN-XII in June 1997 and then submitted to the GEBCO Guiding Committee (GEBCO-XVI). Most of the proposed amendments were accepted but consensus could not then be reached on the following three terms: Borderland, Mountains and Seamount Chain, and it was left that the issues would be resolved intersessionally by correspondence. Comments and/or suggestions for changes were subsequently expressed by Tony LAUGHTON, Desmond SCOTT; Kunio YASHIMA, Marco Antonio de C. OLIVEIRA, Michel HUET, Hans-Werner SCHENKE, Patrick SOUQIÈRE and Alexis HADJANTONIOU. These have been taken into consideration by SCUFN-XIII, June 1999, in the final list below which was adopted by GEBCO-XVII.

2. At the subsequent GEBCO Guiding Committee Meeting, June 1999, it was agreed to add two new terms to the list: "CALDERA" and "PROMONTORY". They have been included, with their definitions, in the list below. The Guiding Committee also decided that "PASSAGE" would take precedence over "GAP".

3. Terms written in capitals, in the definitions, are themselves defined elsewhere in the list.

ABYSSAL HILLS	A tract of small elevations on the deep seafloor.
ABYSSAL PLAIN	An extensive, flat, gently sloping or nearly level region at abyssal depths.
APRON	A gently dipping surface, underlain primarily by sediment, at the base of any steeper slope.
ARCHIPELAGIC APRON	A gentle slope with a generally smooth surface of the sea floor, characteristically found around groups of islands or SEAMOUNTS.
BANK	An elevation of the sea floor, over which the depth of water is relatively shallow, but sufficient for safe surface navigation.
BASIN	A depression in the sea floor, more or less equidimensional in plan and of variable extent.
BORDERLAND	A region adjacent to a continent, normally occupied by or bordering a SHELF and sometimes emerging as islands, that is irregular or blocky in plan or profile, with depths well in excess of those typical of a SHELF.
CALDERA	A collapsed or partially-collapsed SEAMOUNT, commonly of annular shape.

CANYON	A relatively narrow, deep depression with steep sides, the bottom of which generally deepens continuously, developed characteristically on some CONTINENTAL SLOPES.
CONE	See FAN.
CONTINENTAL MARGIN	The zone, generally consisting of SHELF, SLOPE and CONTINENTAL RISE, separating the continent from the deep sea floor or ABYSSAL PLAIN. Occasionally a TRENCH may be present in place of a CONTINENTAL RISE.
CONTINENTAL RISE	A gentle slope rising from the oceanic depths towards the foot of a CONTINENTAL SLOPE.
CONTINENTAL SHELF	See SHELF.
CONTINENTAL SLOPE	See SLOPE.
ESCARPMENT	An elongated, characteristically linear, steep slope separating horizontal or gently sloping sectors of the sea floor in non-SHELF areas. Also abbreviated to SCARP.
FAN	A relatively smooth, fan-like, depositional feature normally sloping away from the outer termination of a CANYON or canyon system. Also called CONE.
FRACTURE ZONE	An extensive linear zone of irregular topography, mountainous or faulted, characterized by steep-sided or asymmetrical RIDGES, clefts, TROUGHS or ESCARPMENTS.
GAP	See PASSAGE.
GUYOT	A SEAMOUNT having a comparatively smooth flat top. Also called TABLEMOUNT. See also SEAMOUNT(S).
HILL(S)	An isolated (or group of) elevation(s), smaller than a SEAMOUNT. See also ABYSSAL HILLS and KNOLL.
HOLE	A small local depression, often steep sided, in the sea floor.
KNOLL	An elevation somewhat smaller than a SEAMOUNT and of rounded profile, characteristically isolated or as a cluster on the sea floor. See also HILL(S).
LEVEE	A depositional natural embankment bordering a CANYON, VALLEY or SEACHANNEL on the ocean floor.
MEDIAN VALLEY	The axial depression of the MID-OCEANIC RIDGE system.
MID-OCEANIC RIDGE	See RIDGE (c) and RISE (b).
MOAT	An annular depression that may not be continuous, located at the base of many SEAMOUNTS, oceanic islands and other

isolated elevations.

PASSAGE		A narrow break in a RIDGE or a RISE. Also called GAP.
PEAK		A prominent elevation either pointed or of a very limited extent across the summit.
PINNACLE		Any high tower or spire-shaped pillar of rock, or coral, alone or cresting a summit.
PLATEAU		A flat or nearly flat elevation of considerable areal extent, dropping off abruptly on one or more sides.
PROMONTORY		A major SPUR-like protrusion of the CONTINENTAL SLOPE extending to the deep seafloor. Characteristically, the crest deepens seaward.
PROVINCE		A region identifiable by a number of shared physiographic characteristics that are markedly in contrast with those in the surrounding areas.
REEF		A mass of rock or other indurated material lying at or near the sea surface that may constitute a hazard to surface navigation.
RIDGE	(a)	An elongated narrow elevation of varying complexity having steep sides.
	(b)	An elongated narrow elevation, often separating ocean BASINS.
	(c)	The linked major mid-oceanic mountain systems of global extent. Also called MID-OCEANIC RIDGE.
RISE	(a)	A broad elevation that rises gently and generally smoothly from the sea floor.
	(b)	The linked major mid-oceanic mountain systems of global extent. Also called MID-OCEANIC RIDGE.
SADDLE		A broad pass or col, resembling in shape a riding saddle, in a RIDGE or between contiguous elevations.
SCARP		See ESCARPMENT.
SEA VALLEY		See VALLEY.
SEACHANNEL		A continuously sloping elongated discrete depression found in FANS or ABYSSAL PLAINS and customarily bordered by LEVEES on one or both sides.
SEAMOUNT(S)		A discrete (or group of) large isolated elevation(s), greater than 1,000m in relief above the sea floor, characteristically of conical form. See also GUYOT.
SEAMOUNT CHAIN		A linear or arcuate alignment of discrete SEAMOUNTS, with their bases clearly separated. See also SEAMOUNT(S).

SHELF	A zone adjacent to a continent (or around an island) and extending from the low water line to a depth at which there is usually a marked increase of slope towards oceanic depths.
SHELF BREAK	See SHELF-EDGE.
SHELF-EDGE	The line along which there is marked increase of slope at the seaward margin of a CONTINENTAL (or island) SHELF. Also called SHELF BREAK.
SHOAL	An offshore hazard to surface navigation with substantially less clearance than the surrounding area and composed of unconsolidated material.
SILL	A sea floor barrier of relatively shallow depth restricting water movement between BASINS.
SLOPE	The deepening sea floor out from the SHELF-EDGE to the upper limit of the CONTINENTAL RISE, or the point where there is a general decrease in steepness.
SPUR	A subordinate elevation or RIDGE protruding from a larger feature, such as a PLATEAU or island foundation.
SUBMARINE VALLEY	See VALLEY.
TABLEMOUNT	See GUYOT.
TERRACE	A relatively flat horizontal or gently inclined surface, sometimes long and narrow, which is bounded by a steeper ascending slope on one side and by a steeper descending slope on the opposite side.
TRENCH	A long narrow, characteristically very deep and asymmetrical depression of the sea floor, with relatively steep sides.
TROUGH	A long depression of the sea floor, characteristically flat bottomed and steep sided, and normally shallower than a TRENCH.
VALLEY	A relatively shallow, wide depression, the bottom of which usually has a continuous gradient. This term is generally not used for features that have CANYON-like characteristics for a significant portion of their extent. Also called SUBMARINE VALLEY or SEA VALLEY.

NAMING OF UNDERSEA FEATURES IN JAPAN (June 1999)

by Dr. Kunio YASHIMA
Hydrographic Department, Japan Maritime Safety Agency

1. HISTORY

The history of naming undersea features in adjacent seas of Japan seems to have been started by fishermen who named good fishing grounds such as banks and shoals on each occasion. In modern ages, as hydrographic surveys for nautical charting and bathymetric surveys for producing the "Basic Maps of the Sea" had been conducted actively, more and more new undersea features were discovered. With advancement of exploitation and development of the Ocean, it had been apparent that naming of undersea features without being based on an integrated standard may cause confusion among users.

In this condition, Hydrographic Department of Japan (JHD) established the Committee on Undersea Feature Names in 1966 with a view to standardizing geographical names. This paper describes the present status and problems in the naming of undersea features in adjacent seas of Japan.

2. COMMITTEE ON UNDERSEA FEATURE NAMES

Aiming at standardization of the geographical names of undersea features adjacent seas of Japan, the Committee on Undersea Feature Names was established in 1966, comprising organizations and institutes related to the ocean. This committee originated in a domestic working group which had worked in line with the GEBCO Sub-Committee on Proper Geographic Names for Ocean Bottom Features, which was established in 1964 for producing of the GEBCO Edition 4 under GEBCO Committee. More specifically, the Sub-Committee had a task of naming major undersea features in the world such as trenches, basins and ridges to be incorporated in the GEBCO Edition 4, while the Japanese W.G. was established to support the work of Dr. MATSUZAKI (Chief Hydrographer of JHD), Chairman of the Sub-Committee.

This Committee on Undersea Feature Names is not the organization based on the law like the US Board on Geographic Names, but a private advisory organ of the Chief Hydrographer of the JHD. Aiming at deciding undersea feature names to be shown on the Hydrographic publications of the JHD, the Committee on Undersea Feature Names has its secretariat in the JHD and has played the role satisfactory in standardizing naming criteria of undersea feature in adjacent seas of Japan.

Twenty-four meetings of the Committee have been held almost every year since 1966. The present members of the Committee are listed in the Table 1.

3. NOMENCLATURE AND RESULTS

The process of naming of undersea features is as follows:

(1) Proposers of undersea feature names process materials according to the proposition form and submit to the secretariat at the JHD.

(2) The secretariat forwards the materials to members of the Committee on Undersea Feature Names in preparation for the meeting in which the proposed names should be considered.

(3) The naming criteria are referred to the international standards including the Guidelines For the Standardization of Undersea Feature Names related IHO Technical Resolutions, etc. Items for consideration include adequacy of generic terms and specific terms (proper noun) of the undersea features.

(4) As a result of consideration, a judgement of approval, reservation or rejection is made.

(5) The approved names are promulgated through the Notices to Mariners, then used on Hydrographic publications such as nautical charts and the "Basic Maps of the Sea" in various scales.

Table 2 shows approximately 1,100 geographical names of undersea features adopted so far by the Committee.

4. FUTURE OBJECTIVES

In recent years, precise seabottom surveys, e.g. multi-beam surveys and deep-sea side scan sonar surveys, have actively been conducted by organizations and institutes including the JHD, Geological Survey of Japan (GSJ), Japan Marine Science and Technology Center (JAMSTEC) and the Ocean Research Institute of the University of Tokyo, by which a number of undersea features have been discovered. With this progress, the Committee on Undersea Feature Names has worked well domestically in naming and standardizing of them. However, it has not always been sufficient in notification of the new names to the world; a further effort should be made toward proposition to the GEBCO Sub-Committee on Undersea Feature Names.

On the naming criteria, as Japan has decided to change practice from avoiding the names of persons to adopt a person's name aggressively based on certain standards, it should be considered to adopting the names of researchers and personnel concerned who have contributed to ocean sciences.

Table 1
Composition of Committee on Undersea Feature Names

Organization and Institution	Hydrographic Department, Japan Maritime Safety Agency Marine Geology Department, Geological Survey of Japan Research and Development Department, Fishery Agency Climate and Marine Department, Meteorological Agency Japan Marine Science and Technology Center (JAMSTEC) Ocean Research Institute, University of Tokyo
Academic circles	Japan Cartographer's Association Japan Geological Society Japan Oceanographer's Society
Men of learning and experience	Dr. Noriyuki Nasu (Professor Emeritus, University of Tokyo) Dr. Yoshibumi Tomoda (Professor Emeritus, University of Tokyo)
Secretariat	Hydrographic Department, Japan Maritime Safety Agency

Table 2
Approved Undersea Feature Names in Japan (1966-1998)

Generic term	Number	Generic term	Number
Bank, Shoal, Reef	202	Ridge Group	1
Bank Chain	2	Rise	4
Basin	45	Saddle	5
Caldera	1	Seachannel	3
Caldron	19	Seamount	294
Escarpment	18	Seamount Chain	8
Fan	3	Seamount Group	4
Fracture Zone	1	Shelf Channel	1
Gap	1	Shelf Channel Group	3
Graven	6	Spur	53
Hole	6	Submarine Canyon	151
Knoll	199	Submarine Canyon Group	13
Knoll Chain	4	Terrace	1
Knoll Group	5	Trench	2
Plateau	5	Trough	32
Province	1	Others	4
Ridge	21		
		Total	**1118**

Page intentionally left blank

A REVIEW OF THE NAMES OF SUBMARINE FEATURES IN THE BRAZILIAN CONTINENTAL MARGIN AND ADJACENT AREAS

by MSc. Marco Antonio de C. Oliveira

The analysis of the names of submarine features in cartographic documents of different origins, usually reveals some incoherences. The most common situation is the occurrence of *different denominations for a same feature*; or the opposite, when *different feature* have *same denomination*; or, also, *a pertinent name, but presenting an incongruity in the classification of the feature*. The standardization in the process of denomination of submarine features, with a view to avoid that problem, is an old concern of the Marine Geologists and Geophysics.

With that vision, a "Task Group on Nomenclature of Brazilian Submarine Features" was created in 1998 and composed of representatives of:

DHN (Hydrography Service – Brazilian Navy) – *MSc. Marco Antonio de C. Oliveira;*
PETROBRÁS (National Oil Company) – *Dr. Koji Jinno;*
UFRJ (Federal University of Rio de Janeiro) – *Dr. Dieter Muehe* and
UFF (Fluminense Federal University) – *Dr. Marcus A. Gorini* and *Dr. Jorge J. Palma.*

The initial activities of that group referred to the work "Toponímia Submarina Brasileira" of Dr. Koji Jinno (PETROBRÁS, 1998), whose corresponding maps are presented enclosed (see figures 1, 2 and 3). The author identified several inconsistencies in the names of features, based on the comparison of maps and technical documents from REMAC "Global Reconnaissance of the Brazilian Continental Margin", beginning in 1972), DNPM ("National Department of Mineral Production"), NRL ("Naval Research Laboratory"), LEPLAC ("Survey of Brazilian Continental Shelf"), and the GEBCO Gazetteer. He emphasized the problems generated by the lack of standardization in that process. As a result of the work of this group, new names and definitions for Brazilian submarine features are being submitted to the GEBCO Subcommittee on Undersea Feature Names (SCUFN).

When the existing names have been corrected, the following phase will be the naming of new features on the Brazilian submarine relief.

Besides the unquestionable importance of the work carried out by the above group, the identification of inadequacies in the classification of submarine features, almost systematically, should be emphasized. An example is the common use of nautical classifications instead of the appropriate geomorphological classifications. A typical case is the use of the term "BANK", widely known to Mariners and which is applied in an indiscriminate way to various geomorphological features, as it is the case for "ABROLHOS Bank" which should be changed to "ABROLHOS Shelf". Another example is the use of more than one name for a same feature, as in the case of RECIFE Plateau and PERNAMBUCO Plateau.

Bibliography:

International Hydrographic Organization / Intergovernmental Oceanographic Commission (IHO/IOC), 1997.
GAZETTEER of Geographical Names of Undersea Features Shown (or which might be added) on the GEBCO and on the IHO Small Scale International Chart Series. *125 p., 2nd ed. (draft). International Hydrographic Bureau, Monaco.*
Jinno, K., 1998. ***Toponímia Submarina Brasileira****. PETROBRÁS/ E&P/ GEREX/ GECON. (Company Report). 15 p., Rio de Janeiro, Brazil.*

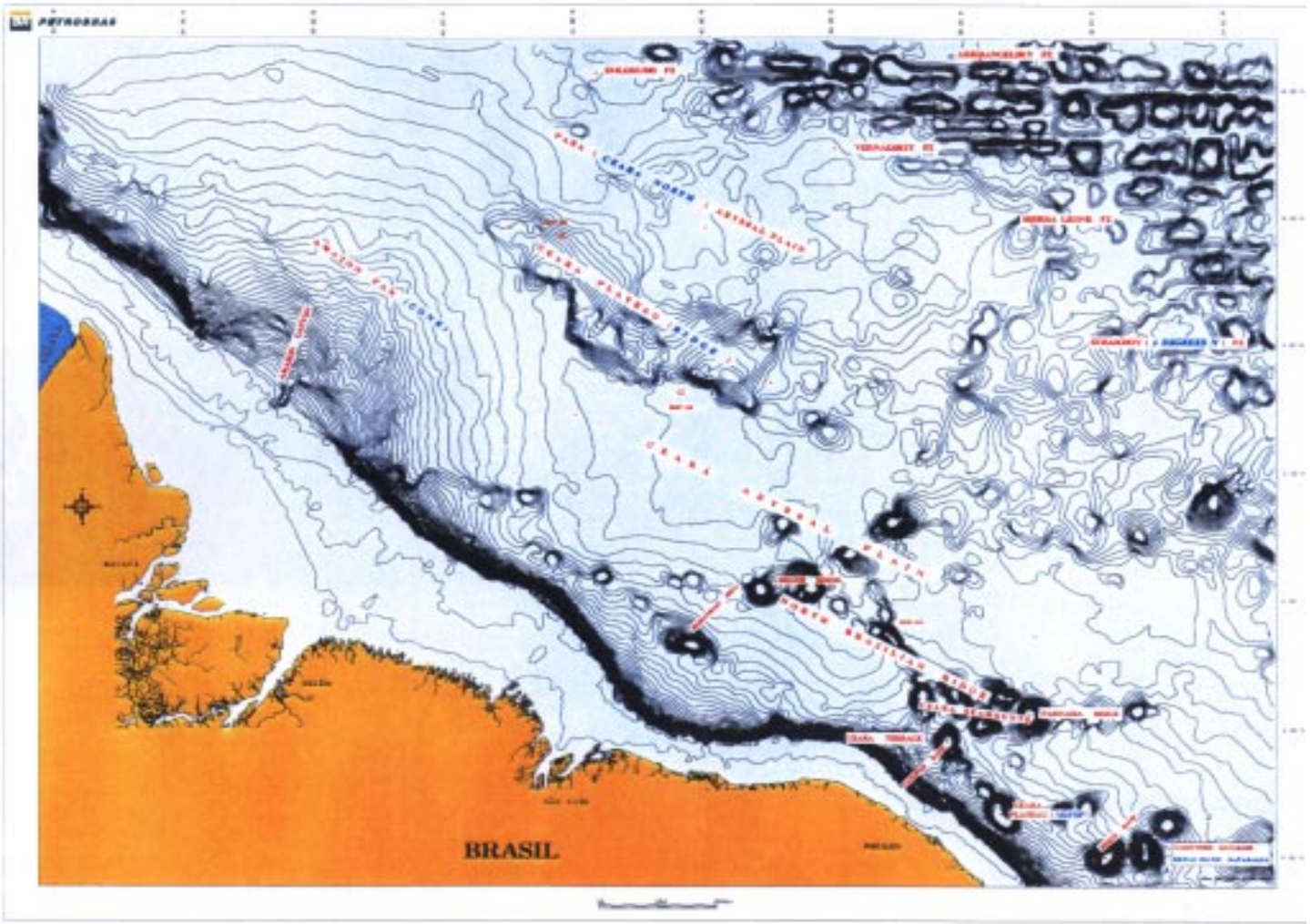

Figure 1- Northern Brazil continental margin undersea features

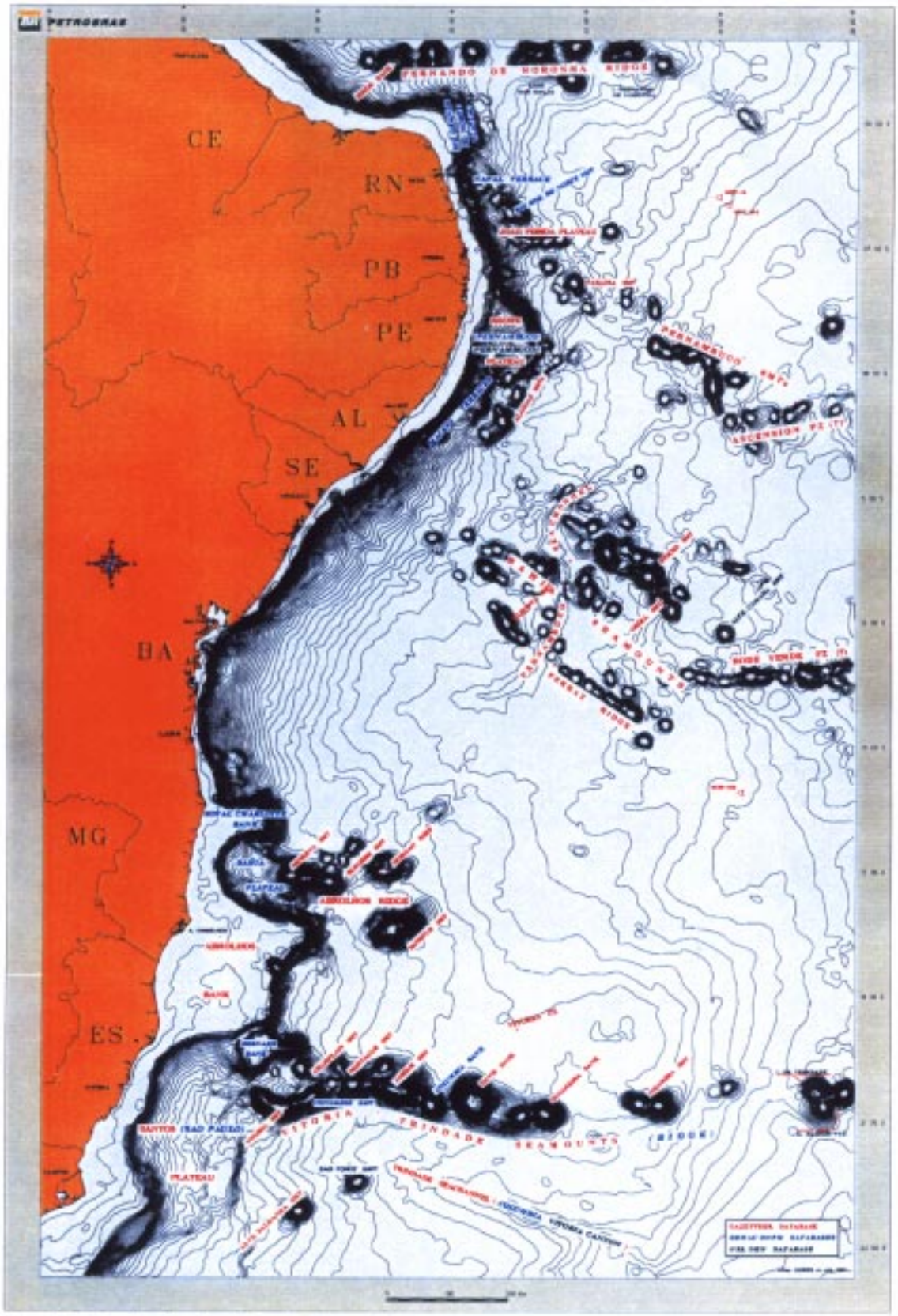

Figure 2.- Eastern Brazil continental margin undersea features

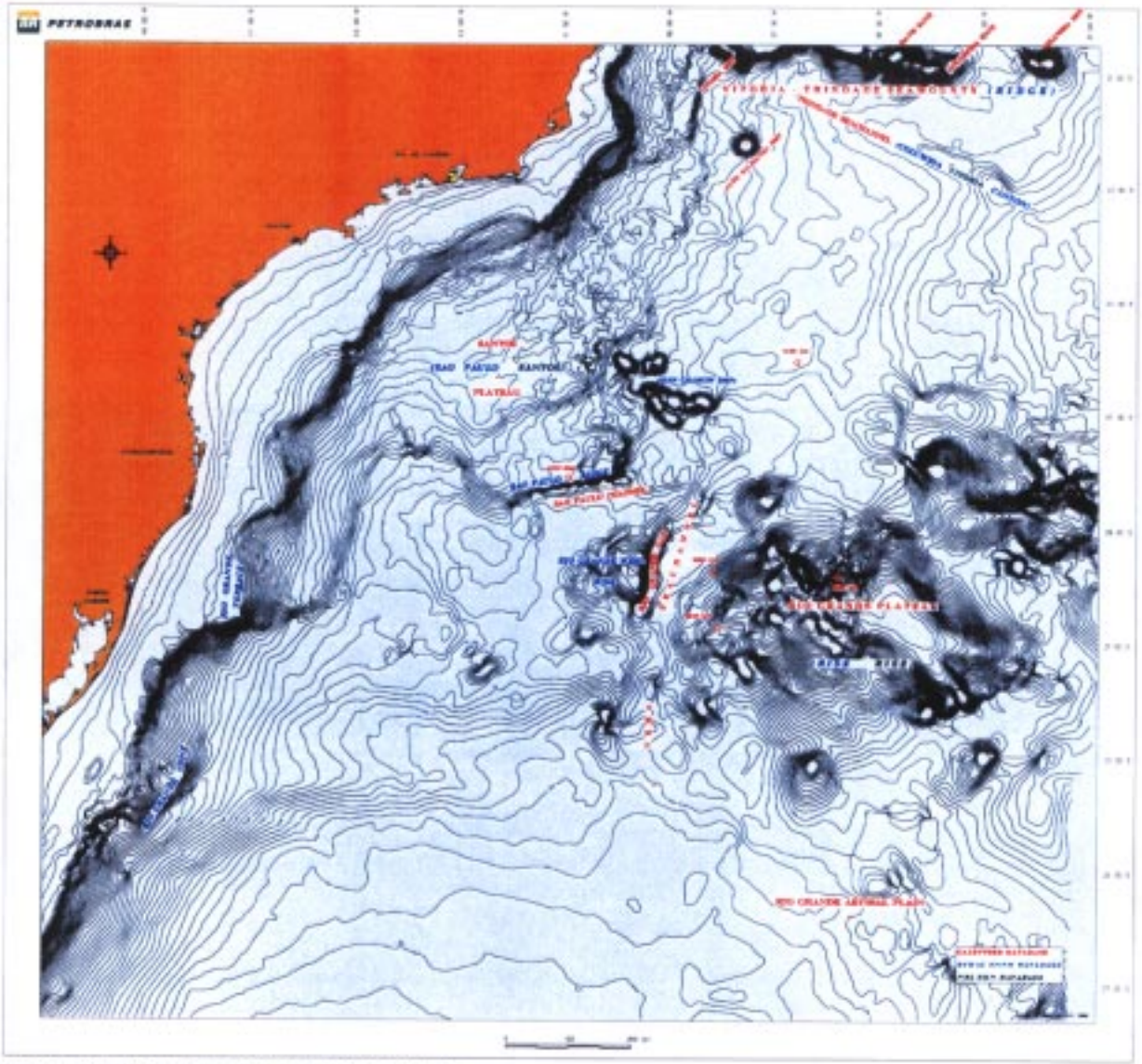

Figure 3.- Southern Brazil continental margin undersea features

CHANGES PROPOSED TO THE GEBCO GAZETTEER
(Waters adjacent to Brazil)
By Mr. Marco Antonio de C. Oliveira

GAZETTEER	REPLACE WITH	COMMENTS
ABROLHOS Bank	**ABROLHOS Shelf**	This feature is a great and characteristic section of the Brazilian Shelf
AMAZON Canyons	**AMAZON Canyon (singular)**	The Amazon Cone has only one "big canyon".
AMAZON Fan	**AMAZON Cone**	Despite the same meaning of both words, most Brazilian documents and maps adopt the term "Cone".
CHAMPLAIN Seamount	**CHAMPLAIN Guyot**	All these features belong to the "Vitória–Trindade Alignment" (Known by "Vitória–Trindade Seamounts" in the Gazetteer), where most of all have its tops cut off in specific depths.
DAVIS Bank	**DAVIS Guyot**	
DOGARESSA Bank	**DOGARESSA Guyot**	
ALMIRANTE SALDANHA Seamount	**ALMIRANTE SALDANHA Guyot**	This feature is in SW of "Vitória-Trindade Seamounts" with same characteristics (tops cut off in specific depths).
BRASILIAN Abysssal Plain	**BRAZILIAN Abysssal Plain**	Only adopt the correct phonetic translation
NORTH BRASILIAN Ridge	**NORTH BRAZILIAN Ridge**	Only adopt the correct phonetic translation
HOTSPUR Seamount	**HOTSPUR Guyot**	This feature is in the North of "Vitória-Trindade Seamounts", near the "Abrolhos Shelf", with same characteristics (tops cut off in specific depths).
RECIFE Plateau	**PERNAMBUCO Plateau**	"Pernambuco"(name of the State) is the oldest name of this plateau, since the sixties.

Page intentionally left blank

LIST OF ACRONYMS

ACUF	Advisory Committee on Undersea Features (to the BGN)
AGSO	Australian Geological Survey Organization
AWI	Alfred-Wegener-Institut für Polar - und Meeresforshung (Germany)
BGN	Board on Geographic Names (USA)
BSH	Bundesamt für Seeschiffahrt und Hydrographie (Germany)
CANOMA	Canadian Permanent Committee on Geographical Names
CIOH	Centro de Investigaciones Oceanografícas e Hidrografícas (Colombia)
CSIRO	Commonwealth Science and Industry Research Organisation (Australia)
D-NAG	A publications series of the Geological Society of America
EEZ	Exclusive Economic Zone
GEBCO	General Bathymetric Chart of the Oceans (IOC/IHO)
GPS	Global Positioning System
HO	Hydrogaphic Office
IASC	International Arctic Scientific Committee
IBCAO	International Bathymetric Chart of the Arctic Ocean (IOC/IASC/IHO)
IBCCA	International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IOC)
IBCEA	International Bathymetric Chart of the Central Eastern Atlantic (IOC)
IBCM	International Bathymetric Chart of the Mediterranean and its Geological-Geophysical Series (IOC)
IBCWIO	International Bathymetric Chart of the Western Indian Ocean (IOC)
IBCWP	International Bathymetric Chart of the Western Pacific (IOC)
IFREMER	Institut français pour l'exploration de la mer (France)
IHB	International Hydrographic Bureau (IHO)
IHO	International Hydrographic Organization
INT (Charts)	International (Charts) (IHO)
IOC	Intergovernmental Oceanographic Commission (of UNESCO)
IOS	Institute of Oceanographic Sciences (United Kingdom)

IRD	Institut pour la recherche et le développement (France)
JHD	Japan Hydrographic Department
LINZ	Land Information New Zealand
NIWA	National Institute of Water and Atmospheric Research Ltd (New Zealand)
ORSTOM	Office pour la Recherche Scientifique et Technique Outre-Mer (France) (now IRD)
RAN HS	Royal Australian Navy Hydrographic Service
SCAR	Scientific Committee on Antarctic Research
SCDB	Sub-Committee on Digital Bathymetry (of GEBCO).
SCGN	Sub-Committee on Geographical Names and Nomenclature of Ocean Bottom Features (now SCUFN)
SCUFN	Sub-Committee on Undersea Feature Names (of GEBCO)
SHOM	Service Hydrographique et Océanographique de la Marine (France)
SIO	Scripps Institution of Oceanography (USA)
UKHO	United Kingdom Hydrographic Office
UTIG	University of Texas, Institute for Geophysics
USNOO	United States Naval Oceanographic Office (USA)
WGGGI	Working Group on Geodesy and Geographic Information (of SCAR)

_____