Second session 4 February 1976
MINUTES

1. Attendance

The following attended the meeting:

Mr. G.N. EWING - Chairman
Professor B.C. HEEZEN - Member
Monsieur M. ROUBERTOU - Member
Commodore D.C. KAPOOR - Member/Secretary
Mr. Terence C. CARTER - Observer-DMA(HC)
Dr. B.D. LONCARAVIC - Observer-Atlantic Geoscience Center
Mr. D. MONAHAH - Observer-Canadian Hydrographic Service

2. Arrangements for the session

The Chairman briefed the members on the administrative arrangements made for the session.

3. Adoption of the Agenda

The Agenda was adopted (see Annex I).

4. Adoption of the Minutes of the First Session

The sub-committee adopted the Minutes of the first session (13-14 March 1975) and took note of the contents of paragraph 8 of the Report of the GEBCO Guiding Committee (second session - April 1975).

5. Policy for handling Geographical Names on GEBCO Sheets

The sub-committee examined the policy laid down in IHO resolutions T.R. A.14 and A.17 for handling geographical names together with the relevant specifications for International Charts.
As a general policy it was agreed that for names of countries, capital cities, mountain ranges and major rivers, these would be in exact agreement with the form prescribed by the most authoritative national source having sovereignty. However, in those cases where the national names differ substantially from the normal English usage, the English version would be shown alongside in parenthesis, e.g.

MISR (EGYPT) PRATHET THAI (THAILAND) TARABULUS (TRIPOLI)

The sub-committee suggested that the lists of names appearing in the "Bulletin d'information de l'Institut Géographique National" may be used as a guide with additional information taken from national maps/charts and from the "International Map of the World on the Millionth Scale".

It was further decided that for major bodies of water the English names would be used. In the case of isolated islands and island groups, cartographic discretion would be used and, if appropriate, the generic term may be suppressed.

6. Definition of Undersea Terms

During initial discussions on this item it was agreed that the definitions being developed by the sub-committee were intended primarily for guidance within the GEBCO programme. However, the sub-committee, taking note of Resolutions Nos. 8 and 26, (Annex II) adopted by the first and second United Nations Conferences on the Standardization of Geographic Names, felt that, in conformity with these two resolutions, the work accomplished in the development of definitions would be of special interest to the United Nations Group of Experts in that it represents a contribution by the joint IHO/IOC sub-committee towards the work of this U.N. Group.

The sub-committee also felt that the list of definitions should be given wide publicity through various journals and professional bulletins in order to invite comments from interested scientists, oceanographers and hydrographers.

In developing the list at Annex III the sub-committee made a detailed examination of the following sources of information:

- The original text circulated by the Chairman under letter MSD 6430-4BCI) of 3 June 1975
- List of Terms and Definitions approved by USBGN Advisory Committee on Undersea Features, January 1976
- List of Comments furnished by French Scientists, resume prepared by M. ROUBERTOU
- Definitions historically used by various authorities as listed in IHB Circular Letter 10, 1963.
- Maritime geoscience literature (various sources)
- Hydrographic Dictionary
- Glossaries of geological terms.

The listing of terms and definitions is accompanied by an introductory statement which sets out the salient features and provides some background information.
The sub-committee, recognizing that with increased ocean charting activity, new features will continue to be discovered that are not adequately defined in the present list, recommends that the list be periodically updated in keeping with new knowledge.

Procedure for handling names

The sub-committee recommends that for all future GEBCO sheets the scientific co-ordinators be invited to supply lists of proposed names for undersea features. These to be supplemented, as necessary, by the compilation staff. However, in order to facilitate proper co-ordination it is considered highly desirable that the scientific coordinator should visit the compilation centre during the final compilation stage. The subcommittee, therefore, recommends that provision be made for adequate travel funds for this purpose.

Status of sheets 5.04 and 5.12

Mr. MONAHAN and Prof. HEEZEN gave the sub-committee a brief resume of the progress of work on sheets 5.04 and 5.12 respectively.
ANNEX I

GEBCO SUB-COMMITTEE ON GEOGRAPHICAL NAMES
AND NOMENCLATURE OF OCEAN BOTTOM FEATURES

Second Session 3-5 February 1976
Canadian Hydrographic Service, Ottawa

AGENDA

1. Arrangements for the Session, documentation, etc.

2. Adoption of the Agenda.

3. Adoption of the minutes of the first session held at Dartmouth, 13-14 March 1975.


5. Discussion of "Definitions of Undersea Terms" prepared by the Canadian Permanent Committee on Geographic Names.


8. Any other business.
8. Treatment of names of features beyond a single sovereignty

A. GENERAL

The Conference,

Recognizing that some features common to, or extending across the frontiers of, two or more nations have more than one name applied to them,

Further recognizing that the names of some features of this kind have different applications or extent,

1. Considers that it is preferable that a common name or a common application be established, wherever practicable, in the interest of international standardization;

2. Recommends that the geographical names authorities of the nations concerned attempt to reach agreement on these conflicting names or applications.

B. MARITIME AND UNDERSEA FEATURES

The Conference,

Having discussed some of the problems arising from a lack of international standardization of names of maritime and undersea features,

Recognizing the necessity for international standardization of names in and under ocean areas to promote the safety of navigation and to facilitate the exchange of scientific oceanographic data,

Noting that valuable initial steps have been taken towards standardization of both the nomenclature of hydrographic and undersea features and the geographical names of some of these features by the Intergovernmental Oceanographic Commission (IOC), the International Hydrographic Bureau (IHB), the International Association of Physical Oceanography (IAPO), and member nations,

1. Recommends that the proposed United Nations Permanent Committee of Experts on Geographical Names should:

(a) Obtain from the Intergovernmental Oceanographic Commission (IOC), the International Hydrographic Bureau (IHB) and the International Association of Physical Oceanography (IAPO), full particulars of the work already accomplished by those organizations;

(b) Establish means for the collection, approval and distribution by the United Nations of both a list of agreed terms and definitions for nomenclature of maritime and undersea features and an initial list of recommended geographical names for features requiring names;

(c) Develop procedures for international standardization of naming new undersea features as they are discovered, defined and identified in the future;

(d) Continue to consult with and, as appropriate, to use the facilities of IOC, IHB, IAPO and other relevant bodies to further United Nations objectives in international standardization of names of maritime and undersea features;

2. Further recommends that copies of this resolution be forwarded immediately to IOC, IHB and IAPO.

26. Standardization of names of undersea features beyond a single sovereignty

The Conference,

Recognizing the importance of the international standardization of names of undersea features beyond a single sovereignty,

Recognizing further the absence nowadays of a definite system and procedure for naming such features,

Recommends that the United Nations Group of Experts on Geographical Names, in co-operation with the appropriate national and international organizations and, in particular, with the International Hydrographic Organization, draw up a system for naming undersea features beyond a single sovereignty and propose it as a basis for preparing an international convention on the subject.

II

The Conference,

Noting that problems of terminology of undersea features inhibit international standardization of geographical names employing these terms,

Noting further the discussions on terminology of undersea features that are in progress among various countries and with the oceanography profession,

Recommends that the United Nations Group of Experts on Geographical Names, in co-operation with interested national names authorities and international organizations, attempt to standardize the definitions of undersea feature terms and definitions and to promote their acceptance and use by names authorities.
The International Oceanographic Commission (IOC) and International Hydrographic Organization (IHO) Guiding Committee on General Bathymetric Charts of the Oceans (GEBCO) in 1974 appointed a subcommittee on Geographical Names and Nomenclature of Ocean Bottom Features. The purpose of this subcommittee is to advise on names and nomenclature to be used on the 1:10,000,000 series of charts covering the world's oceans and major inland seas.

This subcommittee has made an exhaustive study of the many lists of definitions of undersea feature terms presently found in historically used by National Board of Geographic Names, International and Intergovernmental organizations, marine geoscience and hydrographic literature and widely recognized glossaries of geological terms.

The list which follows is comprised of terms, that are defined as closely as possible to correspond to their usage in the cited references taken from literature of ocean science, hydrography and exploration. In forming the definitions, it was realized that modern investigations at sea have the advantage of using very advanced instrumentation and technology that enables a more precise description of certain features than was previously possible, for this reason a reference to genesis occurs in a limited number of the terms. There has also been an attempt to limit the usage to precise physical dimensions in the definition of features. In preference, words that indicate relative sizes such as extensive, large, limited and small have been used. In addition, the definitions are based almost exclusively on a geomorphological description of the features themselves rather than making use of their navigational connotation.

The subcommittee recognizes that as ocean mapping continues, features will be discovered that are not adequately defined in this list and therefore new terms will have to be added. In the same sense, the committee is aware that many named features such as "Cap", "Deep" and "Swell" have widely accepted historical usage. However, the committee has not attempted to define them because the description of these particular features is included among the present definitions.

Contained in the list of definitions, and marked by an asterisk, are a number of synomous and descriptive terms commonly used in literature. The underlined terms are defined and suggested for depiction on maps. The sub-committee has also noted that many of the terms will appear on maps or charts prefixed by appropriate geographic names.

The subcommittee expresses the hope that the list will be given wide publicity among the hydrographic and oceanographic communities through various professional journals with a view to soliciting comments from a broad cross-section of scientists engaged in ocean research.
ABYSSAL PLAIN
PLAIN.

A titat, gently 42oping on neatty tevet 'Legion.

e.g. Biscay Abyssal Plain

ARCHIPELAGIC APRON
APRON

A gentle ,slope with a genenatty ismooth 4at4ace o6 the 'sea paAtieutaAty ound around groups o1 -stand and ,sectount,s.

e.g. Marquesas Archipelagic Apron

*Paralell Names Commonly used in Literature
Defined Names for Depiction on Maps and Charts
**BANK**

An area of positive relief over which the depth of water is relatively shallow, but normally sufficient for safe surface navigation.

e.g. Georges Bank
Ref. See Shoal

**BASIN**

A depression more or less equidimensional in plan and of variable extent.

e.g. Brazil Basin
Ref. MAURY, M.F., 1854. Bathymetrical Map of the North Atlantic Basin with contour lines drawn in at 1,000, 2,000, 3,000 and 4,000 fathoms.

This term (in French) appears in the first edition of GEBCO.
CANYON

SUBMARINE CANYON

A relatively narrow, deep depression with steep sides, the bottom of which has a continuous slope.

e.g. Hudson Canyon

CHANNEL

DEEP SEA CHANNEL

SEA CHANNEL

An elongated depression formed or modified as the result of scouring by ancient or present erosional processes.

e.g.
Ref.
*BORDERLAND

CONTINENTAL BORDERLAND

A region adjacent to a continental, normally occupied by or bordering a shelf, that is highly irregular with depths well in excess of those typical of a shelf.

Region - California


CONTINENTAL MARGIN

The zone separating the emergent continent from the deep sea bottom generally consisting of the shelf, shore and rise.
CONTINENTAL RISE

A gentle slope rising from the oceanic depths towards the foot of the continental slope.


CONTINENTAL SHELF
*SHELF
*ISLAND SHELF
*INSULAR 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 marked increase of towards oceanic depths,

e.g. Scotian Shelf


Murray uses the term earlier than this, however. See MURRAY, Sir John, 1899. Present Condition of the Floor of the Ocean; Evolution of the Continental and Oceanic Areas. Rept. of Brit. Assoc. Advancement of Sci., 1899, p 789-802
CONTINENTAL SLOPE
*SLOPE
*ISLAND SLOPE

The descending slope seaward from the shelf edge to the beginning of a continental rise on the point where there is a general reduction in slope.

e.g.
Ref. Same as Continental Shelf

CORDILLERA

An entire mountainous system, including all the subordinate interior plateaus and basins.

e.g. Alpha Cordillera
Ref.
ESCARPMENT
*SCARP
*SEA SCARP

An elongated and comparatively steep slope separating flat or gently sloping areas.

e.g. Mendocino Escarpment

FAN or CONE
*DEEP SEA FAN
*DEEP SEA CONE
*SUBMARINE FAN
*SUBMARINE CONE

A gently sloping, fan shaped feature, normally located near the lower termination of a canyon.

e.g. Ganges Cone, Delgada Fan
FRACTURE ZONE

An extensive linear zone of irregular topography of the sea floor, characterized by steep-sided or asymmetrical ridges, troughs or escarpments.

e.g. Murray Fracture Zone

GAP
*PASS
*ABYSSAL GAP

A narrow break in a ridge or rise of separating two abyssal plains.

e.g. Theta Cap, Flemish Pass
*GUYOT OR TABLEMOUNT

TABLEMOUNT

A seamount having a comparatively smooth, flat top.


*KNOLL or HILL

*SEA KNOLL

*ABYSAL HILL

A relatively small elevation of a rounded shape.

LEVEE

An embarkment bordering one or both sides of a canyon, valley or channel.

e.g.
Ref. BUFFINGTON, Edwin C., 1952. Submarine "Natural Levees". Journ. Geol., V.60, p 473-479

MEDIAN RIFT
*RIFT
RIFT VALLEY

The central cleft of the mid-oceanic ridge system.

e.g.
MOAT  
*SEA MOAT

An annular depression that may not be continuous, located at the base of many seamounts, islands and other isolated elevations.

PEAK

A prominent elevation either pointed or of very limited extent across the summit.
PINGO

A more or less conical mound of fine unconsolidated material generally containing an ice core.

e.g.

PINNACLE

Any high tower or spire-shaped pillar of rock, alone or cresting a summit.
PLATEAU

A flat of nearly flat area of considerable extent across the summit which is at a relatively high level, dropping off abruptly on one or more sides to much lower topography.

e.g. Blake Plateau

PROVINCE

A region composed of a group of similar physiographic features whose characteristics are markedly in contrast with surrounding areas.
**REEF**

A range or ridge of rocks laying at or near the sea surface.

**RIDGE**

A long, narrow elevation with steep sides.

RISE

A long, broad elevation that rises gently and generally smoothly from the sea floor.

e.g. Fast Pacific Rise
Ref. Maury (IBID) mapped the "Dolphin Rise", which later was found by Challenger to be the Mid-Atlantic Ridge.

SADDLE

A low part in a ridge or between contiguous seamounts resembling in shape a saddle.

e.g. Hawke Saddle (Labrador Shelf)
SEAMOUNT

An isolated or comparatively isolated elevation of conical form and of limited extent across the summit.

e.g.

Sir John Murray (Ibid, 1899) makes reference to "numerous volcanic cones" on the sea floor.

SEAMOUNT CHAIN or SEAMOUNT RANGE

Several seamounts in a line.

e.g. Kelvin Seamounts
Several closely spaced seamounts not in a line.

e.g.

A line along which there is a marked increase of slope at the outer margin of a shelf.

e.g.
Ref.
SHOAL

An offshore hazard to surface navigation composed of unconsolidated material.

e.g. Georges Shoal
Ref. ... that but this blow
      Might be the be-all and end-all here
      But here, upon this bank and shoal of time
      We'd jump the life to come"

      Shakespeare, W. (1608) MacBeth, I, vii, i

SILL

A submarine ridge or rise separating basins from one another or from the adjacent sea floor.

e.g.
Ref.
**TERRACE or BENCH**

*DEEP SEA 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, deep depression of the sea floor, with relatively steep sides.

e.g. South Sandwich Trench

TROUGH

A long depression of the sea floor normally wider and shallower than a trench.

e.g.

VALLEY

*SUBMARINE VALLEY

A relatively shallow, wide depression with gentle slopes, the bottom of which has a continuous gradient. This term is not generally used for features that have canyon-like characteristics for a significant portion of their extent.

e.g.
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