

STANDARDISATION OF MARITIME GEOGRAPHICAL NAMES: The Role of the International Hydrographic Organization

Ing en chef Michel Huet
International Hydrographic Bureau
4, quai Antoine 1^{er}
MC 98011 - Monaco
Principality of Monaco

Abstract

Activities of the International Hydrographic Organization (IHO), as regards maritime geographical names, relate to sea surface features, e.g. oceans or seas, and undersea features, e.g. seamounts or canyons.

Sea surface features are depicted, with their names and limits, in IHO Publication S-23 "Limits of Oceans and Seas". The last edition of S-23 dates back to 1953 and a new edition is under preparation. S-23 is mainly intended for use by marine cartographers. However, it is also recognised as a useful reference for all those, from academia, industry or governments, involved in maritime activities.

Undersea feature naming, meeting the requirements of the IHO and the Intergovernmental Oceanographic Commission (IOC, of UNESCO), is taken care by the GEBCO Sub-Committee on Undersea Feature Names (SCUFN). GEBCO (General Bathymetric Chart of the Oceans) is a joint IHO-IOC ocean-mapping project for the world ocean. SCUFN's mandate includes defining the nomenclature of ocean bottom features, e.g. seamounts, ridges or fracture zones, and attributing names to newly identified, or unnamed, features lying in international waters. Two IHO-IOC publications are related to SCUFN's work: B-6 "Standardisation of Undersea Feature Names" and B-8 "Gazetteer of Undersea Feature Names".

This paper describes the IHO activities in regard to limits of oceans and seas, as well as the IHO-IOC standardisation work on undersea feature naming, emphasizing the IHO role in each case.

1. HISTORICAL BACKGROUND

The International Hydrographic Organization has had an interest in geographical place names from the very beginning of its existence in 1921. This was due to its quest for uniformity in nautical charts and publications, in which different countries used different languages and the need for charts and publications to be understood by international mariners. This is reflected in the IHO Convention, which says that one of the main objectives of the IHO is "*to bring about the greatest possible uniformity in nautical charts and documents*".

Even before the Organization was formed a Resolution was adopted by the International Hydrographic Conference in 1919, whereby it was considered desirable that the limits of enclosed seas should be laid down and it should be stated to what sea or ocean a strait connecting two of them should be reckoned. This matter was subsequently taken up by correspondence, and oceans and seas with their limits were defined. In 1929 a Special Publication No. 23 "The Limits of Oceans and Seas" was published by the IHB.

Additionally, there was considerable concern that names on some charts and hydrographic publications were not written in the Latin alphabet and how names in, for example, Greek, Chinese or Japanese, could be uniformly transliterated. As a result, in 1932, the IHO published official lists of place names and information derived from official sources concerning various national systems of transliteration into the Latin alphabet.

Another area of interest in nomenclature resulted in the need to use consistent terminology for submarine relief. The 7th International Geographical Congress, held in Berlin in 1899 had appointed a committee on the "Nomenclature of Sub-oceanic Features". A list of definitions and terms was subsequently adopted at the 8th International Geographical Congress in 1904. This included terms such as seamount, ridge and canyon. Following a proposal by Italy in 1924, the IHO adopted standard terminology in the various languages for such submarine and topographical features that would be useful in the compilation of Sailing Directions and Charts. An IHO List of Terms and Definitions, in English and French, was drawn up from the one adopted by the 1904 International Geographical Congress.

At the beginning of the XXth century, a group of scientists undertook a worldwide ocean mapping project under the leadership of Prince Albert 1st of Monaco. The project was called GEBCO, for General Bathymetric Chart of the Oceans. It aimed at covering the World Oceans with a series of small scale bathymetric maps. The 1st edition of GEBCO was published in 1903 and the 5th edition in the eighties, followed in the nineties by a digital version called the GEBCO Digital Atlas. After the death of Prince Albert in 1922, the IHB took over the project and ensured its pursuance, later in co-operation with the Intergovernmental Oceanographic Commission (IOC).

The development of the GEBCO project gave rise to a need for a consistent policy in the naming of undersea features. As information on the bathymetry of the world's oceans improved, more and more features were discovered and defined and it was important that they be named in a consistent and unique manner. This concern is still valid nowadays and there are two points to be considered. One is a consistency in the generic naming of undersea features and the other is to ensure that the proper names used are designated to a single international policy.

Over the years interest in geographical place names has developed, as the need for more detailed maps, charts and written publications describing the oceans grew. The pursuit of this interest has not been without contention in spite of the Organization's mandate to avoid political issues¹. Contention lies both in the naming of the oceans and seas but also in their limits. Typical of this contention has been whether or not to name the large ocean area north of Antarctica the Southern Ocean, the Antarctic Ocean or to consider it simply as an extension of the Pacific, Atlantic and Indian Oceans. This matter was first brought up, within the IHO, by

¹ It is stated in IHO basic documents that the Organization shall have a consultative and purely technical nature and that its activities shall not include matters involving questions of international policy.

the USA in 1932 and it was only in 1999 that the IHO Member States agreed on the name Southern Ocean, with the Northern limit at 60°S. In fact, at present there are more questions on the limits of bodies of water than on the names themselves.

2. INTERNATIONAL POLICY ON GEOGRAPHIC NAMES

Paralleling the developments of Limits of Oceans and Seas, and Lists of Terms and Definitions for undersea features, has been the interest in developing a uniform policy for the handling of geographical names and the international standardization of geographic names. Both these matters have now been resolved and are published as the following two IHO Technical Resolutions:

- A 4.1 Uniform policy for handling geographic names.
- A 4.2 International standardization of geographic names.

These are attached in Annex 1 to this paper. The second of these resolutions recommends that the IHB co-operate with the United Nations Group of Experts on Geographical Names with the object of achieving international standardization of names of maritime and undersea features. This association can be traced back to 1967 when the first UN Conference on the International Standardization of Geographical Names was held. Of particular interest was the following resolution made by that conference:

RESOLUTION 8

"Treatment of Names of Features beyond a Single Sovereignty"

It included the consideration that it is preferable that a common name or application be established, wherever practical, in the interest of international standardization and recommended that the geographical names authorities of the nations concerned attempt to reach agreement on these conflicting names or applications. It further recommended that the UN Permanent Commission on Geographical Names should obtain from the IOC (Intergovernmental Oceanographic Commission), the IHB, and the International Association for Physical Oceanography (IAPO) full particulars of the work already accomplished by these organizations.

However, inspite of the recommendations of the above Resolution 8, that attempts be made to reach agreement on conflicting names, the IHO Member States felt that it was necessary to have an "opt out" clause, should agreement not be possible. This has been reflected in paragraph 6 of IHO Technical Resolution A 4.2 which states: "It is recommended that where two or more countries share a given geographical feature (such as, for example, a bay, a strait, channel or archipelago) under a different name form, *they should endeavour to reach agreement* on fixing a single name for the feature concerned. If they have different official languages and *cannot agree on a common name form, it is recommended that the name forms of the two languages in question should be accepted* for charts and publications unless technical reasons prevent this practice on small scale charts. e.g. English Channel/La Manche".

The UN Group of Experts on Geographical Names hold meetings every two years, the last one in January 2000. An IHO report on activities related to geographical names, prepared at the International Hydrographic Bureau (IHB - Secretariat of the IHO), is presented at each of these meetings.

3. SEA SURFACE NAMES

The third and last edition of SP-23 "Limits of Oceans and Seas" was published as long ago as 1953. Since then, various valiant efforts have been made to produce further editions, including a draft in 1986, which was nearly approved by the Member States. Since then, perhaps aggravated by the feelings of sovereignty caused by the Law of the Sea Conference, it has been difficult to reach agreement even though the non-political need for the publication has been stressed.

However, the IHB recently took the matter up again. A new draft fourth edition of S-23 is under development. It is intended to resolve any conflicting issues on a regional basis, i.e. through consultation of the concerned States. It is hoped that the 4th edition of S-23 can be published in 2002.

The new S-23 will be released in digital form and in printed form. The digital form will consist of data bases associating texts and graphics, and from which a book can be produced. As an example, the text describing the limits of the Caribbean Sea, taken from the draft 4th edition of S-23, is given in Annex 2, whereas the associated graphic is shown in Figure 1.



Figure 1. Limits of the Caribbean Sea

From a review of the draft 4th edition of S-23, it has been noted that the generic terms used in this IHO publication are limited to those in the following list: ocean, sea, gulf, bay, bight, strait, estuary, channel and passage.

4. UNDERSEA FEATURE NAMES

During the Ninth Session of the "Joint IOC-IHO Guiding Committee for the GEBCO" in 1983 the IHB was requested to prepare a Gazetteer of the geographical names of undersea features shown on the GEBCO 5th Edition and on the IHO Small-scale International Chart Series (1:2 250 000 and smaller). The IHB developed this Gazetteer and published it in 1988, as IHO-IOC Publication B-8. The Gazetteer provides an alphabetical list of geographical names with their geographical coordinates. The IHB also issued IHO-IOC Publication B-6 "Standardization of Undersea Feature Names", which includes guidelines for the standardization of the names (see Annex 3) and definitions of the terminology for generic features. Several bilingual versions of B-6 have been published, with English in common, including in French, Spanish, Russian, Chinese and Japanese. New editions of Publications B-6 and B-8 are under preparation. Similarly to S-23, the new Gazetteer B-8 will be released in a digital data base form and in printed form.

The IHO Technical Resolution A 4.3 (see Annex 4) "Naming of Undersea Features" asks Member States to encourage marine scientists and other persons in their country wishing to name undersea features to take account of the gazetteer and the guidelines on naming undersea features.

In the Guidelines at Annex 3, it is stated that international concern for naming undersea features is limited to those features entirely or mainly outside waters under the jurisdiction of states. Is this to be taken as the Territorial Waters, the Economic Zone or the Continental Shelf and in either case this must infer that the responsibility for naming within the jurisdiction rests only with the coastal state. Paragraph E of the Guidelines states: *"In the event of conflict, the persons and agencies most directly involved should resolve the matter. When two names have been applied to the same feature, the older name generally should be accepted. When a single name has been applied to two different features, the feature named first generally should retain the name."* It would seem that the guidelines are just that and do not provide an authority.

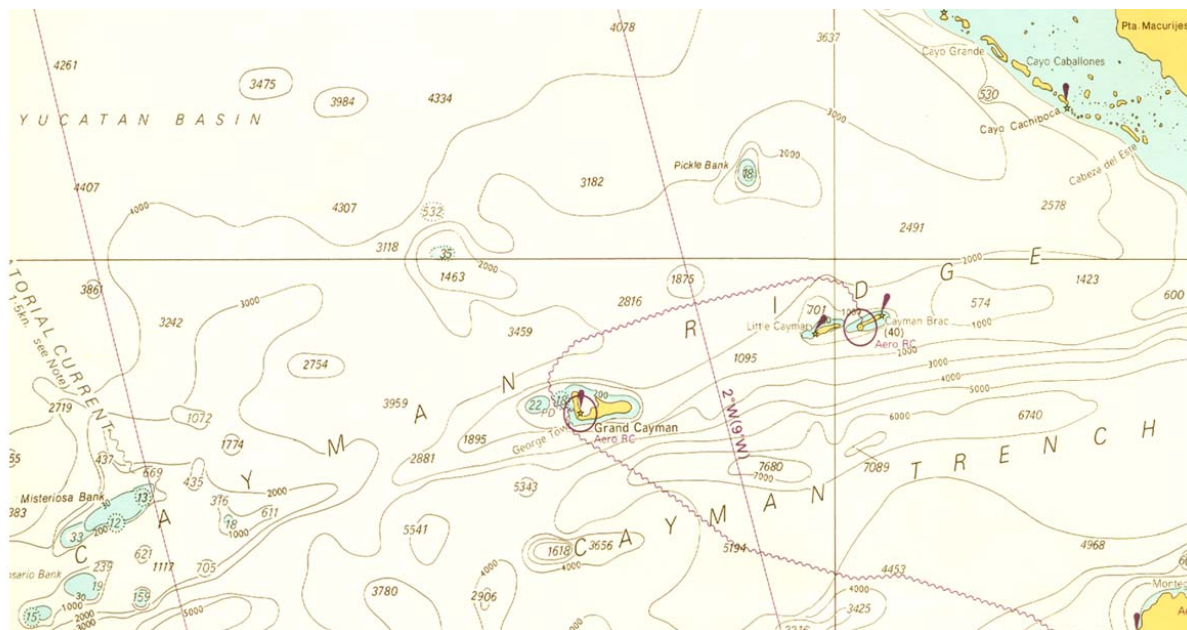


Figure 2. Undersea Feature Names on an INT Chart

Undersea feature naming is monitored by the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), acting on behalf of the IHO and the IOC. SCUFN is responsible for selecting those undersea feature names which will appear on INT Charts at small scales, GEBCO bathymetric maps, the GEBCO Digital Atlas, and bathymetric maps of the International Bathymetric Chart projects (e.g. IBCCA for the Caribbean area). Naming proposals are received at the SCUFN Secretariat at the IHB. They are usually submitted by scientists in oceanographic institutions, by ocean mapping project leaders or by Hydrographic Offices. The proposals are then considered by SCUFN Members, either by correspondence or at formal meetings, and decisions are taken accordingly. Examples of undersea feature names shown on an INT Chart and a bathymetric chart are given in Figures 2 and 3.

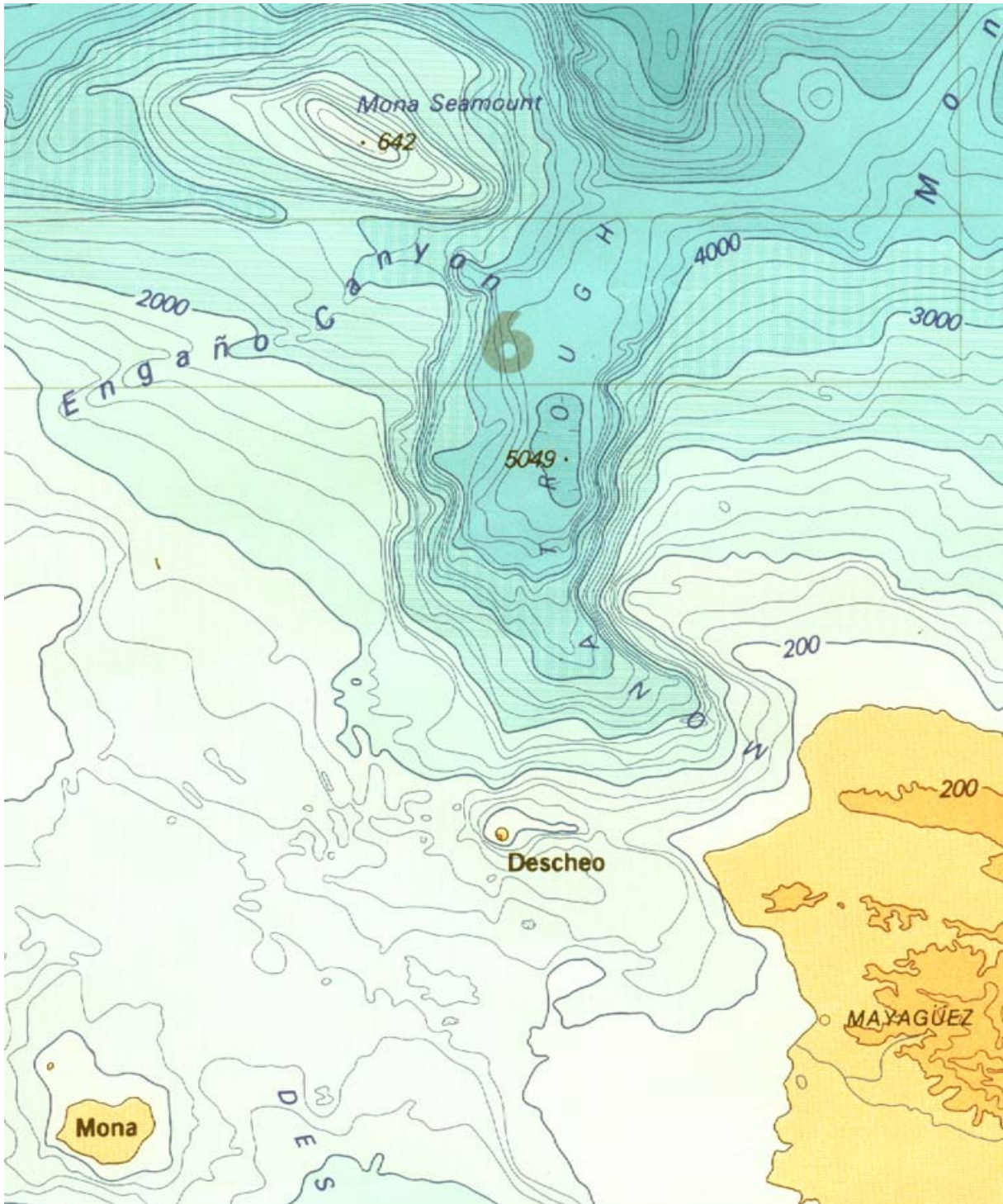


Figure 3. Undersea Feature Names on a Bathymetric Map

In the Guidelines at Annex 3, Paragraph 5 states that names of living persons should be limited to those who have made an outstanding or fundamental contribution to ocean sciences. However, it has been noted in recent years that names were frequently given to undersea features in international waters by national bodies, after living persons who did not appear to meet the above criteria. As a result, SCUFN expressed its concern over such practices at its 1997 Meeting through the following statement: *"The Sub-Committee viewed with concern the frequent en bloc proposal and acceptance by national authorities of many names of persons*

having marginal qualifications or barely demonstrated relationship to oceanic exploration or development. One particular facet of this concern is directly related to the increasing submission of proposals for the names of living agency employees, or contractors, upon retirement. Such a practice, if it spreads internationally, could overwhelm or skew the orderly processes of seafloor nomenclature. The Sub-Committee considers that there is a need to be very selective, and recommends this approach to national authorities". It is hoped that this recommendation will halt such incorrect practices.

Finally, it should be noted that the generic terminology for undersea features has assumed considerable political importance in recent years, not only because of the need to be consistent, but in the interpretation of the Law of the Sea Convention in such articles where this terminology is used. Article 76 on the Continental Shelf is particularly noted in this respect.

5. CONCLUSIONS

This paper highlights the importance to the International Hydrographic Organization of having consistent policies for the assignment of place names. In spite of this and its mandate to avoid involvement in questions of international policy, the Organization frequently finds itself drawn into political issues when discussing place names. Undoubtedly the greater level of exploitation of the oceans in recent years has aggravated this situation but the IHO must strive to consider only the technical issues. However even such a seemingly innocent task as trying to agree on unique and consistent nomenclature in the interest of maritime safety inevitably leads to contention between states concerned about the sovereignty of their adjacent offshore waters.

Acknowledgement:

This paper has been largely inspired by a presentation given by Mr Adam KERR at Seoul University, Republic of Korea, in June 1997, and which was entitled "*The International Hydrographic Organization and its Involvement with Geographic Place Names*". At that time, Mr KERR was Director of the International Hydrographic Bureau.

Ingénieur en Chef Michel Huet was born in Lorient, France on 6 May 1949. He followed the regular courses in the French State School for training armament engineers in Brest, from 1968 to 1972, specialising in computer sciences. He spent 17 years at the French Hydrographic Office (SHOM), at the main establishment of SHOM in Brest and aboard survey ships (Bay of Biscay, Caribbean and Southeast Pacific). His activities, throughout his career, related to computer-assisted cartography, electronics, physical oceanography and hydrography. In 1989 the IHB Directing Committee appointed him as Professional Assistant for Cartography. At the IHB, he has mainly been involved in the development of standards in the field of electronic marine cartography.

IHO TECHNICAL RESOLUTIONS A 4.1 AND A 4.2

A 4.1 Uniform policy for handling Geographical Names

1.- With the purpose of obtaining approximate uniformity in the geographical names appearing on the nautical documents of maritime countries, it is recommended that each national hydrographic office:

- (a) On its charts and other nautical documents of its own coasts, show names that are in exact agreement with the forms prescribed by the most authoritative source. Each country will thus provide complete and authoritative name coverage in its own official script, whether Roman or non-Roman, for the use of all other national hydrographic offices that issue charts on various scales, and other nautical documents, for the same area.
- (b) On its charts and other nautical documents of foreign coasts where the Roman alphabet is officially used by the sovereign country, show names that are in exact agreement with the most authoritative usage of the country having sovereignty. These names should be obtained directly from new and revised editions of the nautical charts and other documents of the country having sovereignty or confirmed by correspondence with that country. Where such names as officially written use accents or diacritical signs, these should be retained, even, and indeed particularly, when names are printed in capital letters.
- (c) On its charts and other nautical documents of foreign coasts where the script of the sovereign country is other than the Roman alphabet, show names that are obtained by applying the various international systems for romanization approved by the United Nations to the names appearing on the most authoritative sources of the country having sovereignty or confirmed by correspondence with that country.

Note: Among countries where the Roman alphabet is official, international uniformity in transcription systems would be advantageous to the various national governments. It is accordingly recommended that national Hydrographic Offices place before their governments the desirability of obtaining uniformity and urge the continuation of efforts for effective agreements through the United Nations.

- (d) On its charts and other nautical documents of all foreign coasts, use for the generic part of complex geographical names the word (in its Roman-alphabet form) used by the country having sovereignty. e.g. Falsterborev. By following this practice, the geographic generic term will not be translated but will appear, in its Roman-alphabet form, on the charts of all nations.
- (e) On all its charts and other nautical documents, apply its conventional national usage to names of countries, major territorial divisions and boundary features, and to the oceans and international subdivisions thereof. The names used internationally may also be shown but in a subordinate manner. This system will be applied until an international convention by the United Nations on standardization of internationally recognized names has been adopted.

A 4.2 International standardization of Geographical Names

1.- It is resolved that the IHB should maintain continuous contact with the United Nations Organization, and specifically with the United Nations Group of Experts on Geographical Names, for all studies or actions relating to geographical names involving or affecting hydrographic publications. The Bureau should insure that actions previously taken on hydrographic matters, with respect to names, within the IHO are brought to the attention of appropriate United Nations Conferences or working groups. The Bureau also promulgate to Member States information on all significant developments on this subject as they occur.

2.- It is recommended that, since national standardization of geographical names is an essential preliminary to international standardization, Hydrographic Offices encourage and support the establishment of national names authorities, following the principles and procedures recommended by the resolutions on this subject adopted by the United Nations Conferences on Geographical Names.

3.- It is recommended that the IHB Co-operate with the United Nations Group of Experts on Geographical Names with the object of achieving international standardization of names of maritime and undersea features.

4.- It is further recommended that co-operation should, in particular, be extended in the under-mentioned activities of the United Nations Group of Experts:

- (a) Study of existing national and international practices concerning the delineation and naming of oceans and seas, including their integral sub-divisions, beyond the limits of national jurisdiction, with a view to recommending improvements in current nomenclatural practices and procedures.
- (b) Drawing up a system for naming undersea features beyond a single sovereignty and proposing it as a basis for preparing an international convention on the subject.
- (c) Standardizing the definitions of undersea feature "terms and definitions" in order to promote their acceptance and use by names authorities.
- (d) Developing procedures for international standardization of naming new undersea features as they are discovered, defined and identified in the future.

5.- It is recommended that when Hydrographic Offices produce gazetteers or geographical dictionaries, these publications be standardized as far as possible in accordance with resolutions on the subject adopted by the United Nations.

6.- It is recommended that where two or more countries share a given geographical feature (such as, for example, a bay, a strait, channel or archipelago) under a different name form, they should endeavour to reach agreement on fixing a single name for the feature concerned. If they have different official languages and cannot agree on a common name form, it is recommended that the name forms of each of the languages in question should be accepted for charts and publications unless technical reasons prevent this practice on small scale charts. e.g. English Channel/La Manche.

LIMITS OF THE CARIBBEAN SEA

(taken from the draft 4th edition of S-23, English version, May 2001)

The limits of the Caribbean Sea, situated between the northern coast of South America, the eastern coast of Central America and the islands of the West Indies, are the following:

On the North:

A line joining Cabo¹ Catoche Faro² (21°36'N - 87°05'W), on the northeastern coast of Yucatan in Mexico, eastward to Cabo San Antonio Faro (21°52'N - 84°57'W), the western extremity of Cuba (*the common limit with the Gulf of Mexico, see I.12*);

thence from Cabo San Antonio Faro eastward, through Cuba, to Punta³ Caleta. (20°04'N - 74°18'W), on the southeastern coast of this island;

thence a line joining Punto Caleta southeastward to Pointe⁴ des Perles (19°39'N - 73°25'W), on the northwestern coast of Haiti;

thence from Pointe des Perles eastward, through Haiti and Dominican Republic, to Cabo Engaño (18°37'N - 68°20'W), the eastern extremity of the Dominican Republic;

thence a line joining Cabo Engaño eastward to Punta Borinquen (18°29'N - 67°10'W), on the northwestern coast of Puerto Rico;

and thence from Punta Borinquen eastward, through this island, to Punta Chiquita (18°23'N - 65°39'W), on the northeastern coast thereof.

On the East:

A line joining Punta Chiquita, on the northeastern coast of Puerto Rico, northward, along the meridian of 65°39'W, to the 200 metre contour line at approximate position 18°30'N - 65°39'W;

thence from this position eastward and southward to Punta Galera (10°50'N - 60°55'W), the northeastern extremity of Trinidad Island - in such a way that all islands, shoals and narrow waters between Puerto Rico and Trinidad Island are included in the Caribbean Sea;

thence from Punta Galera southward, through Trinidad Island, to Punta Galeota (10°08'N - 61°00'W), the southeastern extremity of this island;

and thence a line joining Punta Galeota southward to Punta Baja (9°31'N - 60°58'W), on the eastern coast of Venezuela.

On the South and the West:

From Punta Baja, in Venezuela, westward and northward, along the northern coast of South America and the eastern coast of Central America, to Cabo Catoche Faro (21°36'N - 87°05'W), on the northeastern coast of Yucatan, in Mexico.

¹ Cabo = Cape (Spanish)

² Faro = Light (Spanish)

³ Punta = Point (Spanish)

⁴ Pointe = Point (French)

Annex 3**GUIDELINES FOR THE STANDARDIZATION
OF UNDERSEA FEATURE NAMES**

I. GENERAL

- A.** International concern for naming undersea features is limited to those features entirely or mainly (more than 50%) outside waters under the jurisdiction of States.
- B.** "Undersea feature" is a part of the ocean floor or seabed that has measurable relief or is delimited by relief.
- C.** Names used for many years may be accepted even though they do not conform to normal principles of nomenclature.
- D.** Names approved by national names authorities in waters beyond national limits (i.e. international waters) should be accepted by other States if the names have been applied in conformance with internationally accepted principles. Names applied within the territorial limits of a State should be recognized by other States.
- E.** In the event of a conflict, the persons and agencies involved should resolve the matter. Where two names have been applied to the same feature, the older name generally should be accepted. Where a single name has been applied to two different features, the feature named first generally should retain the name.
- F.** Names not in the writing system of the country applying the names on maps or other documents should be transliterated according to the system adopted by the national authority applying the names.
- G.** In international programme, it should be the policy to use forms of names applied by national authorities having responsibility for the pertinent area.
- H.** States may utilize their preferred versions of exonyms.

II. PRINCIPLES FOR NAMING FEATURES**A. Specific terms**

1. Short and simple terms (or names) are preferable.
2. The principal concern in naming is to provide effective, conveniently usable, and appropriate reference; commemoration of persons or ships is a secondary consideration.
3. The first choice of a specific term, where feasible, should be one associated with a geographical features; e.g.: Aleutian Ridge, Aleutian Trench, Peru-Chile Trench, Barrow Canyon.

4. Specific terms for other features can be used to commemorate ships or other vehicles, expeditions or scientific institutes involved in the discovery of the feature, or to honour the memory of famous persons. Where a ship name is used, it should be that of the discovering ship, or if that has been previously used for a similar feature, it should be the name of the ship verifying the feature, e.g.: San Pablo Seamount, Atlantis II Seamounts.
5. If names of living persons are used (surnames are preferable), they should be limited to those who have made an outstanding or fundamental contribution to ocean sciences.
6. Groups of like features may be named collectively for specific categories of historical persons, mythical features, stars, constellations, fish, birds, animals, etc. Examples are as follows:

Musicians Seamounts	Bach Seamount Brahms Seamount Schubert Seamount
Electricians Seamounts	Volta Seamount Ampere Seamount Galvani Seamount
Ursa Minor Ridge and Trough Province	Suhail Ridge Kochab Ridge Polaris Trough

7. Descriptive names are acceptable, particularly when they refer to distinguishing characteristics (i.e. Hook Ridge, Horseshoe Seamount).
8. Names of well-known or large features that are applied to other features should have the same spelling.
9. Specific elements of names should not be translated from the language of the nation providing the accepted name.

B. Generic terms

1. Generic terms should be selected from the following list of definitions to reflect physiographic descriptions of features.
 2. Generic terms applied to features appearing on charts or other products should be in the language of the nation issuing the products. In those cases where terms have achieved international accuracy in a national form, that form should be retained.
 3. It should be recognized that as ocean mapping continues, features will be discovered for which existing terminology is not adequate. New terms required to describe those features should conform to these Guidelines.
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IHO TECHNICAL RESOLUTION A 4.3

A 4.3 Naming of Undersea Features

1.- It is agreed that Member States should strongly encourage marine scientists and other persons in their country wishing to name undersea feature to:

- a) check their proposals with published Gazetteers of Undersea Feature Names, including the IHO/IOC Publication B-8, "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 and its supplements of Geographical Names included on larger scale Regional International Bathymetric Chart Series;
- b) take into account the guidelines in the IHO/IOC Publication B-6 "Standardization of Undersea Feature Names", including the use of the Undersea Feature Name Proposal Form contained therein;
- c) submit all proposed new names for clearance either to their appropriate national authority or, where no such national authority exists, to the IHB or IOC for consideration by the GEBCO Sub-Committee on Undersea Feature Names, which may advise on any potential confusing duplication of names.

2.- It is agreed that Member States invite publishers of ocean maps and editors of scientific journals in their country to require compilers and authors to provide written evidence of such clearance before accepting for publication any maps or scientific articles containing new names for undersea features.