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FEATURES BEYOND A SINGLE SOVEREIGNTY

MARITIME FEATURES

UNDERSEA FEATURES

Twenty years of evolution in the naming of undersea
features by Canada**

Paper submitted by Canada

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TWENTY YEARS OF EVOLUTION IN THE NAMING OF UNDERSEA FEATURES BY CANADA

The Advisory Committee on Undersea Feature Names (ACUFN) has functioned in Canada since 1967, the same year that the First United Nations Conference on the Standardization of Geographical Names was held in Geneva.

In 1967, the Conference noted the lack of standardization in the naming of **Maritime and Undersea Features**, thus adversely affecting the safety of navigation and the exchange of oceanographic data. In addition, its attention was drawn to undersea features extending across the seafloor which were of interest to two or more countries.

This paper reviews the Advisory Committee's achievements since its beginning and reveals the difficulties encountered when naming new features.

RESPONSIBILITIES

The duties of the Advisory Committee were enlarged in 1984 to include the review and application of names to maritime features beyond the shores of each province and territory and to evaluate maritime generic terminology. Consequently, the name of the Advisory Committee was changed to reflect the new responsibilities, i.e. **The Advisory Committee on Names for Undersea and Maritime Features (ACNUMF)**.

The Advisory Committee recommends to the Canadian Permanent Committee on Geographical Names (CPCGN) the acceptance or rejection of names of undersea features in Canadian waters and in areas of interest to Canada. It establishes and defines suitable terms for undersea features for use in Canada.

STRUCTURE

The Advisory Committee is chaired by the Dominion Hydrographer of the Canadian Hydrographic Service, and his staff provides the required secretarial services. Other members on the Advisory Committee represent federal departments concerned with defence, fisheries, oceanography, marine ecology, marine geology, translation and toponymy. Guidance is also obtained from other specialists in hydrographic charting, marine law and languages.

ACNUMF meets at least once a year to review new names proposals and to assess the suitability of new and established generic terminology.

TERMS OF REFERENCE

The terms of reference of the ACNUMF, as approved in 1982, and amended in 1984, are:

- . recommending to the CPCGN the acceptance or rejection of names of undersea features in Canadian waters and in areas of interest to Canada;
- . establishing suitable generic terminology for undersea features for use by Canada, and defining the terms;
- . determining, on bathymetric charts, the limits or extent to which undersea feature names apply;
- . disseminating the CPCGN decisions on undersea feature names to the scientific community concerned with the ocean floor, to the appropriate provinces and to other agencies and individuals concerned with undersea features;
- . compiling and maintaining a current data base of undersea feature names;
- . publicizing the ACNUMF among scientists concerned with the study of the ocean floor;
- . reviewing the extent of major named Canadian offshore surface water features to enable consistency of application on Canadian maps and charts, and, if necessary, recommending changes to the CPCGN;
- . recommending to the CPCGN on the suitability of new name proposals for major offshore surface water features;
- . reviewing and recommending to the CPCGN on the suitability and appropriateness of maritime generic terminology;
- . reviewing and recommending to the CPCGN as to official language forms of major offshore surface water feature names.

In dealing with maritime features, the most serious problems that the Advisory Committee has had to deal with concerned the outer limits of the Gulf of St. Lawrence and Labrador Sea. These had been demarcated differently on marine charts, topographical maps and IHO Special Publication 23, Limits of Oceans and Seas. There was a need for a

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definitive statement on the official applications of these names. They are as follows:

On the advice of the Advisory Committee, the CPCGN in 1984 approved the outer extent of the Gulf of St. Lawrence (as earlier endorsed by the 12th IHO Conference held in Monaco, April 1982) i.e.:

(CHS 4020) On the northeast: A line from Cape Bauld (51° 38'N - 55° 25'W) in Newfoundland to the eastern extremity of Belle Isle, then to Northeast Ledge (rocks at 52° 02'N - 55° 16'W), and then to the eastern extremity of Cape St. Charles (52° 13'N - 55° 38'W) in Labrador; (CHS 4002) thence a line from Channel Head (47° 34'N - 59° 07'W) in Newfoundland, to Long Point (46° 51'N - 60° 18'W, formerly named Cape Egmont) on Cape Breton Island, Nova Scotia, then to Low Point (46° 16'N - 60° 08'W) in Nova Scotia, and then across the Cape Canso (45° 18'N - 60° 56'W) in Nova Scotia.

Labrador Sea - For Canadian mapping and charting, the outer limits of Labrador Sea should not extend south of Strait of Belle Isle. The limits are as follows:

(CHS 5001) on the east: A line from Cape St. Charles (52° 13'N - 55° 37'W) in Labrador to Kap Farvel (59° 46'N - 43° 55'W) in Greenland.

RELATIONSHIPS

Domestic: Decisions on undersea and maritime feature names are made in close consultation with the geographical names officials of each province and territory concerned.

International: A similar rapport is maintained with the Advisory Committee on Undersea Feature Names of the United States Geographic Board and with the Language Commission in Greenland. The Canadian Committee makes every possible effort to conform to the recommendations of the United Nations Group of Experts on Geographical Names. The work of ACNUMF is reported once every second year at the meetings of the United Nations Group of Experts on the Standardization of Geographical Names.

ACHIEVEMENTS

1. New Names

The Advisory Committee has dealt with approximately 170 new names

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since it submitted its report to the Fourth United Nations Conference on the Standardization of Geographical Names in 1982.

Because of possible inconsistency in naming major features off the Canadian coasts, and because some of these may be segmentally named without being thoroughly investigated, some forward planning has enabled the identification of Canada's offshore features, i.e. all the major physiographic features of the Arctic, Pacific and Atlantic offshores have been named. They are:

- Beaufort Shelf, Beaufort Slope, Beaufort Rise;
- Banks Shelf, Banks Slope, Banks Rise;
- Queen Elizabeth Shelf, Queen Elizabeth Slope, Queen Elizabeth Rise;
- Queen Charlotte Shelf, Queen Charlotte Slope;
- Vancouver Island Shelf, Vancouver Island Slope;
- Scotian Shelf, Scotian Slope, Scotian Rise;
- Newfoundland Shelf, Northeast Newfoundland Shelf, Northeast Newfoundland Slope, Northeast Newfoundland Rise, Southeast Newfoundland Rise;
- Southeast Grand Banks Slope, Southeast Grand Banks Rise;
- Southwest Grand Banks Slope, Southwest Grand Banks Rise;
- Labrador Shelf, Labrador Slope, Labrador Rise.

2. Gazetteer

The first edition of the **Gazetteer of Undersea Feature Names** was published in 1983 and the second edition in 1987. The volume contains an alphabetical listing of all approved names with a column identifying the nature of each feature. Another column refers to the chart or the map where each name might be found, while another one provides the geographic coordinates. Following is a sample of a page of the gazetteer:

Name/Nom	Feature/ Entité	Chart or Map/ Carte	Position ° ' ° '
Grand Bank	Bank/Banc	4548	49 42N 54 43W
Grand Banks see/voir Grand Banks of Newfoundland, The see/voir Grands Bancs de Terre-Neuve, Les	Banks/Bancs		45 30N 52 30W
Grand Banks of Newfoundland, The see also/voir aussi Grands Bancs de Terre-Neuve, Les	Banks/Bancs	4016	45 30N 52 30W

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For subsequent editions, it is anticipated that detail on the origin and use of each name and additional descriptive notes on the size and relative location of each feature will be included.

3. Data Base

A computerized data base of approved undersea feature names as well as unapproved variant names referenced to the approved names is currently maintained. Since the publication of the *Gazetteer of Undersea Feature Names 1983*, there have been nearly 300 entries made to the data base. Following is a prototype of name information contained in our records:

Name Nom	Feature Entité	Position Latitude/Longitude
Tuzo Wilson Seamounts	Seamounts Monts sous-marins	51°26'N 130°55'W

SORT Name: TUZOWILSONSEAMOUNTS

Status of Name: Approved name

Approval Chart: 3744

Approval Date: 27-Jul-1977

Approval Report:

Last Modified: 12-May-1987 10:26

Approval Source:

Meeting Date : 13-Apr-1977

Record Created : 27-Jul-1982

Last Modified By : JOLICOEUR

Description:

The Tuzo Wilson Seamounts are two features located at the foot of the continental slope, some 30 miles S of Cape St. James, Queen Charlotte Islands, B.C. They were recognized and surveyed in 1972 by R.L. Chase and D.L. Tiffin. In 1973, fresh volcanic rock was recovered when dredging the features. The seamounts appear to be sited over a mantle hotspot, the only one so far discovered near Canada.

Origin:

1- After J.T. Wilson, an originator of the hotspot hypothesis and an international leader in the field of geophysics.

2- Chase, Tiffin and Murray, 1975

3- Chase, 1977

(Meetings 16-1 and 27-242)

Chart References:	Chart Ref in Gazetteer:
3000	No
3744	Yes
1941A	No

4. Terms and Definitions

In 1979, the respective undersea names working groups of the UN and of the IOC/IHO reached an agreement on a set of guidelines, the name

proposal form and the list of terms and definitions. Canada had participated actively with other interested countries, since the Third UN Conference in 1977, to attain the internationally acceptable list of undersea generic terms and definitions.

To continue the work of improving these terms, the validity of certain generic terms and their definitions presently in use were scrutinized for clarification by the Advisory Committee in 1986. A difficulty encountered was in differentiating morphologically a "valley" from a "trough" when naming these types of features.

To help overcome this difficulty, the following definitions are proposed by the Advisory Committee:

Trough - An elongated depression of the seafloor characteristically flat-bottomed and steep-sided and normally shallower than a trench. (A trough is not normally characterized by a continuous longitudinal gradient.)

Valley (or Seavalley) - A relatively shallow, wide depression, the bottom of which has usually a continuous gradient. (This term is generally not used for features that have canyon-like characteristics for a significant portion of their extent. It is commonly applied to features with a fluvial, estuarine or suspension current origin, some of which may be 'drowned' features related to earlier lower sea levels.)

Marginal Trough - A distinctive depression occurring on some continental shelves extending parallel to the coast and characteristically separating a relatively narrow inner shelf from a broader outer shelf, which may be cut by transverse depressions. (Marginal troughs may be located near an abrupt and often faulted junction of harder, older such units, with softer, younger ones, and may have been accentuated by glacial deepening action. Marginal troughs should not be confused with "marginal trenches" or "deeps" which are essentially deeper features of orogenic origin fronting island arcs or major mountain ranges especially along subduction zones.)

It should be noted that in Canada, the generic terms "Channel" and "Trench" will no longer apply for new naming of undersea features. "Channel" is considered a surface water feature and "Trench" is not a feature found in waters adjacent to Canada. Similar features can be better described as "Trough" or "Valley".

5. Language Policy

The Advisory Committee proposed in 1983 "that names of undersea features are to be approved in the language in which they are

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submitted, subject to the local usage and/or the native language of the people of the adjacent areas." Other than the 42 names already approved in both official languages, all other names will be shown on Canadian bathymetric charts in the approved single form.

For prose texts, the generic term of an undersea feature name may be translated into the other official language according to the approved equivalent term endorsed by the ACNUMF.

Using dual names for the same feature on the same chart (Sable Island Bank/Banc de l'Île de Sable) has been frequently discussed. To avoid a clutter of names on charts, the Advisory Committee has suggested that a legend in the margin of the charts could show the other version of the name, resulting in one name only for each feature appearing on the face of the chart. Normally, the one name appearing on the face of the chart would be the one that was first submitted or approved.

ISSUES

1. Liaison

International conferences are always concerned with the international standardization of geographical names. Unapproved forms have been used in the past because of the lack of official names and the non existence of a gazetteer.

Countries adjacent to Canada usually accept the recommendations of ACNUMF, but occasionally approve variant forms of names for features, which ACNUMF believe Canada should have exclusive jurisdiction to rule upon. There is a need, therefore, to clarify the extent of undersea territories over which Canada should be able to make decisions on names and terminology.

Countries should be encouraged to publish lists of their newly approved names of geographical entities within a reasonable time to ensure that bathymetric charts are kept up-to-date. Problems have arisen because of insufficient dissemination of names decisions to interested countries.

2. Dual Names

Difficulties have arisen lately by the introduction of second language forms of names, pertaining mainly to the bilingual or multilingual character of the adjacent provincial jurisdiction.

In dealing with maritime feature naming, other language forms are found in scientific papers or on international charts. Scientists from many nations or countries are involved in the study of the

seafloor in oceans adjacent to Canada.

Since Canada recognizes two official languages, any official document requires one or the other version of the name for the feature. Presently, there are close to 42 double versions accepted and listed in the gazetteer, for example, **Southeast Shoal/Le Platier; Whale Bank/Banc de la Baleine; Scotian Shelf/Plate-forme Néo-Écossaise.** These names are forms originating from various published sources.

While most Canadian names originate from the name of a person, there are still quite a few that have obscure origins, are of a descriptive nature or have been recently created. Extensive study and research is needed before approving a second language version of an approved undersea feature name.

As a member of the International Hydrographic Organization, the Canadian Hydrographic Service has agreed to use names that are in agreement with the forms prescribed by the most authoritative source. Each member nation should provide complete names coverage on its charts for use of all other national hydrographic offices issuing charts and other nautical documents of the same area. Similarly, Canadian charts embracing foreign areas should show names approved by the countries having sovereignty.

The selection of names for features in waters beyond any country's sovereignty is made by consulting with the IHB through its Convenor.

Such international agreements should help achieve the aim of the UN to standardize geographical names.
