

INTERNATIONAL HYDROGRAPHIC  
ORGANIZATION



ORGANISATION HYDROGRAPHIQUE  
INTERNATIONALE

## CHART STANDARDIZATION & PAPER CHART WORKING GROUP (CSPCWG)

[A Working Group of the Hydrographic Services and Standards Committee (HSSC)]

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### CSPCWG Letter: 14/2013

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To CSPCWG Members

Date 24 October 2013

Dear Colleagues,

### **Subject: Revision of S-4 B-500 (Round 3).**

Thank you to the 19 Working Group members who responded to Letter 05/2013. As usual, we have included a consolidated list of the responses, together with my comments, at Annex A. Some HOs and IHB also sent marked up copies with suggestions for improvements to the text. We have used most of these as we considered appropriate and they appear in the new 'Round 3' track change version (Annex B), but we have not attempted to comment on every suggestion.

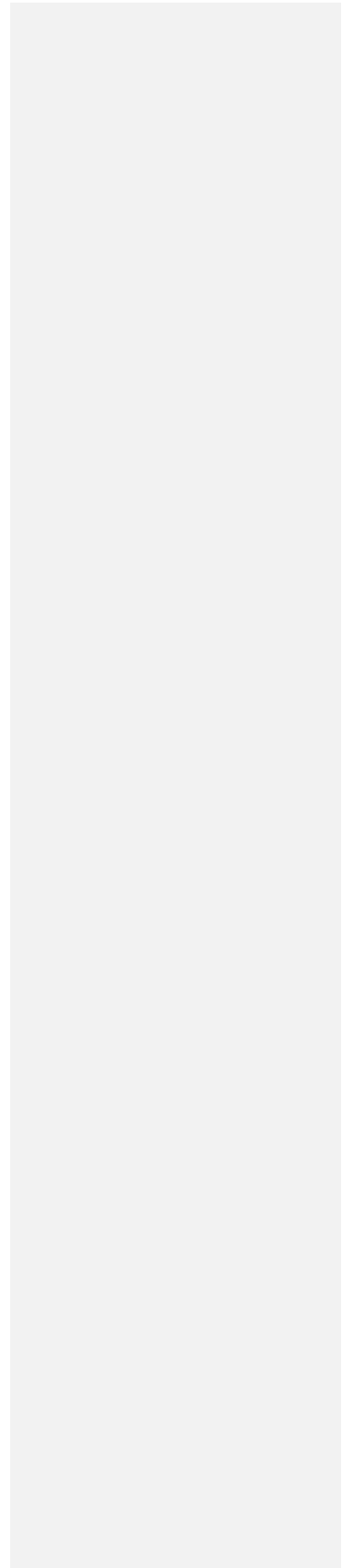
We were grateful to receive more advice from specialists in various HOs on definitions and have also referred to the United Nations Group of Experts on Geographical Names (UNGEGN) Glossary of Terms for the Standardization of Geographical Names ourselves. We have revised definitions where necessary; however, we retained some familiar examples to give any revised definitions a more 'hydrographic flavour'. We also retained some definitions from S-32, as stated. We hope we have achieved a balance between including definitions which are useful for chart producers, without adding an excessive number which may only serve to confuse.

We are aware that this version has been more than usually revised at 'Round 3 stage', so please look carefully at the accompanying Annex B and advise if you have any issues with the proposed changes **by 21 November**. We have not included a response form as we have no particular questions to ask.

Yours sincerely,

Peter G.B. Jones,  
Chairman

Annex A: Consolidated responses to WG Letter 5/2013, with Chairman's comments  
Annex B: Draft revision of S-4 Section B-500 round 3



**CONSOLIDATED RESPONSES TO LETTER 05/2013**  
**DRAFT REVISION OF S-4 SECTION B-500 ROUND 2**

Specification	Question	Yes	No
550.3 answer in one box only	Do you prefer the original version, based almost exactly on Resolution 8/1919, or	DE, DK, ES, FR,	
	Do you prefer the simplified version which follows the original version? <b>Chairman: the majority support the simplified version and no reasons have been given for not doing so.</b>	AU, BR, CA, ESRI, GR, IN, IT, JP, LV, NO, NZ, SE, UA, UK, US(NOAA)	
560.2	Are you content with the two additional graphics and supporting words? <b>Chairman: the majority support the inclusion of these graphics. As they represent national guidance, they have now been attributed.</b>	AU, BR, CA (2), DE, DK, ES, ESRI, FR, GR, IN, IT, JP, LV, NO, NZ, SE, UA, UK(2), US(NOAA)	CA(1), UK(1)
560.4	Are you content with the two additional graphics and supporting words? <b>Chairman: the majority support these graphics. The second has been improved by Italy.</b>	AU, BR, CA, DE, DK, ES, ESRI, FR, GR, IN, IT, JP, LV, NO, NZ, SE, UA, UK, US(NOAA) (2)	US(NOAA) (1)
561 to 563	Are you content with the differentiation between text styles and fonts which we have adopted? <b>Chairman: unanimous!</b>	AU, BR, CA, DE, DK, ES, ESRI, FR, GR, IN, IT, JP, LV, NO, NZ, SE, UA, UK	

Further comments

AUSTRALIA

**B-501:** In the proposed (UNGEGN) new definition for “national language”, there is now a fundamental change in the meaning of the term. I am not sure whether this is a major issue, but the current S-4 definition includes “having official status”, while the new definition states “It may or may not have the status of an official language.”. There is also the addition of “...or in parts of its territory, ...”. As a result of these proposed changes, it is difficult to distinguish between usage of the terms “national language” and “regional language”. Suggest that further discussion is required as to providing a clearer distinction between “national language” and “regional language”.

**Chairman: we have now used the UNGEGN definitions of Official, National and Minority (Regional) languages.**

**B-530:** The first sentence refers specifically to the “integral part” of compound toponyms, and specifies “must”, while the last sentence refers generically to compound toponyms in specifying use of Roman numerals, and specifies “may” which is inconsistent with the first sentence.

Suggest amending the last sentence to read similar to “Roman numerals may also be used **for the non-integral part of** compound toponyms **where it is considered part of the convention of the national language**, eg King George V Land.”

**Chairman: Reworded and clarified.**

**B-530:** The 2<sup>nd</sup> sentence currently reads “Roman numerals may be used for the numbering of paragraphs, sub-paragraphs, and columns, eg in the title and notes, tables and outside the chart border.”. This does not read very well as it implies that the chart title itself can contain paragraphs, sub-paragraphs or columns (as distinct from the entire title block). Suggest that this sentence be amended to read similar to: “Roman numerals may be used for the numbering of paragraphs, sub-paragraphs, and columns, eg

in the title **block** and **cautionary/explanatory** notes, **in** tables, and outside the chart border (**but not the chart number, references to Notices to Mariners numbers, or dates**).” to be consistent with the rest of S-4 (see B-240). Note the exceptions for numbers outside the chart border (these may not be relevant as they are not (except for dates in some cases) “paragraphs, sub-paragraphs, and columns”) – there may be others which we have not included.

**Chairman: Reworded and clarified. I think the only restriction relating to marginalia can be INT numbers. Some nations do use roman numerals in dates and it does not seem to cause problems.**

**B-550.3:** Refer to accompanying AU track-changed version of B-500 for suggested editorial changes to the simplified alternative.

**Chairman: Some adopted, thank you. IHB also raised the inconsistent capitalization in Hydrographic Office. At least for B-500 we have standardized on lower case ‘h’ and ‘o’, except where it is the name of a particular HO. We will address the rest of S-4 at the next opportunity.**

**B-560.4:** While AU agrees with the addition of the new diagram for legends of arcs (with suggested modification by UK), we would additionally suggest amending the word “text” where it has been used in the diagram to “legend”, to be consistent with the accompanying description in the bullet. AU additionally questions the location of this bullet point at B-560.4, which is titled “Names of Linear Features (eg rivers, canals, pipelines) and along area limits”. These are “legends” on sector arcs, and not “names”. AU therefore suggests that this bullet point and the accompanying diagram be re-located to B-560.1.

**Chairman: Thanks to Italy for providing a revised graphic with ‘legend’. However, we consider it still fits best in B-560.4.**

**B-561 to B-563:** Refer to accompanying AU track-changed version of B-500 for suggested minor changes.

**Chairman: Considered and mostly adopted, thank you.**

## CANADA

**560.2:** In Canada, as a cartographic practice, if a point feature can be labelled horizontally, it will appear to the right or the left of the feature, never above or below. If these first 2 options are not available, then the name will be added on a curve, as per the diagram provided by CA.

**Chairman: that is usual UK policy (although we would probably not say ‘never’). We have attributed the graphics as these 3 diagrams are just examples of national practice.**

## FRANCE

### **B-501:**

- The new definition “Descriptive name” should include complete examples like *WEST HOYLE BANK, ROTES KLIFF, LILLE FISKEBANK* as the definition begin by “ a toponym...”
- The examples used to illustrate the definition of “Descriptive term” should be borrowed from the examples used to illustrate the definition of “Descriptive name”, eg: *WEST, ROTES, LILLE*

**Chairman: we have ensured the examples in ‘Descriptive term’ link to those in ‘Composite name’**

The purpose of this paragraph must be to give definition definitions of meanings of the terms relating to toponymy used in this chapter. It is not an annex to the UNGEGN documents. We must keep rules as simple as possible. Adding too many definitions can make the work of the cartographers more complicate. The word “descriptive” is only associated to the word “term”. What is the purpose of the definition for “Descriptive name”?

**Chairman: paragraph removed**

**B-561 to B-563:** Could you confirm the use of the word:

- “fonts” in the first sentence of B-562 (differing fonts on charts)

Chairman: changed to 'text styles'

- "style" at the end of B-563.2?

Chairman: changed to 'font'.

It could be useful to give in brackets examples of text styles and of fonts in the first sentence of B-561 in order to explain these terms particularly for non English natives.

GERMANY

See track change version

Chairman: included as appropriate, thank you.

GREECE

B-550.3: In the new simplified version of B-550.3 the last sentence of d. reads:

*"See B-522.2(I) for special rules applying on International charts"*

I think there is a typo there and the reference should be B-521.2 (I).

Chairman: amended, thank you.

IHB

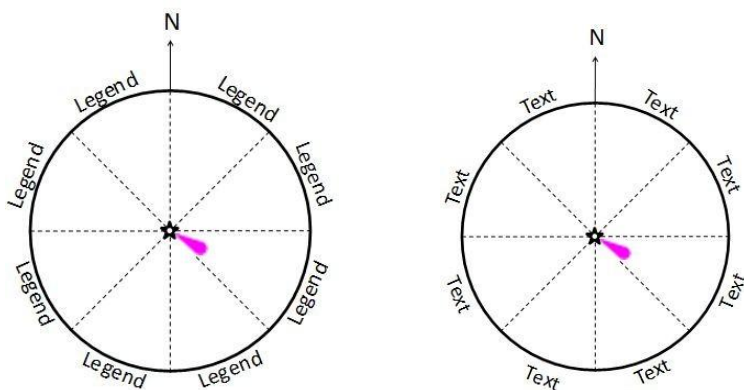
See marked up copy.

Chairman: this included a wide spectrum from fundamental questions to minor editorial corrections. Thank you for your thorough examination, which we have included as appropriate, with responses to your comments in your marked up copy.

ITALY

See Fig. 1, modified as requested.

In Fig. 1A the same image with the word "legend" instead of "text" as suggested by AU.



Chairman: Thank you. The 'legend' version used.

NEW ZEALAND

560.2: We suggest that the first graphic be changed to remove the 2 example lines to the left and right (3 and 4, 1 and 2) be changed to a single line.

Chairman: this is a national example, so we cannot change it, although UK agrees with your practice.

See below feedback from the NZ Geographic Board relating to your specific comments:

**B-501 – National Language para:** I think adding a definition of 'official language' would be useful as it's a term that relates to toponymy and it has a more formal status than a 'national

language'. For example NZ has 3 official languages: Māori, English and NZ Sign, and although many ethnic communities might widely use their 'home' language and these (at a stretch) could be called a 'national language' they are not 'official languages' and are less likely to be used to name hydrographic features on official maps or charts produced by NZ. The definition of 'Official Language' is included in the UNGEGN *Glossary of Terms for the Standardization of Geographical Names* (<http://lazarus.elte.hu/cet/modules/toponymy-2012/HtmlModules/Documents/glossary.pdf>):

**Official Language:** a language that has legal status in a particular legally constituted political entity such as a State or part of a State, and that serves as a language of administration.

**Chairman:** we have included the UNGEGN definitions of official, national and minority languages.

**B-501 – Exonym para:** How about 'Hydronym: a toponym (ie the name) applied to a hydrographic feature' - the definition is again taken from the UNGEGN Glossary. And the suggestion by Coleman of 'if any' may therefore not be necessary, however, the examples under Exonym for Atlantic Ocean and Southern Ocean could be moved to Hydronym. Also suggest that these terms be listed alphabetically.

**Chairman:** We have included a reference to 'Hydronym' against 'Toponym'. It does not solve the problem of Antarctica, which we have removed for the time being. We have also added 'Allonym', which would possibly be appropriate, although we have chosen a different example.

As an aside, Professor Naftali Kadmon, prepared a very interesting paper *Endonym or Exonym – is there a Missing Term in Maritime Names?* for the UNGEGN meeting in 2007 (online at: [http://unstats.un.org/unsd/geoinfo/UNGEGN/docs/9th-uncsgn-docs/econf/9th\\_UNCISGN\\_e-conf-98-6-add1.pdf](http://unstats.un.org/unsd/geoinfo/UNGEGN/docs/9th-uncsgn-docs/econf/9th_UNCISGN_e-conf-98-6-add1.pdf)) that the working group may find helpful.

**B520 Note** – perhaps a footnote, with the reference to the UNGEGN technical reference manual for context around this note?

**Chairman:** The note derives from Resolution 8/1919 (as amended 8/1974).

NORWAY

"To be or not to be..."

**B-560.4** **Names of Linear Features (eg rivers, canals, pipelines, ~~area limits~~) and along area limits.**

- Names and legends associated with area limits which run north-south should be oriented so as to be described by legends which can most easily be read from the bottom centre of the sheet: ie if a name must be vertical, it should read from south to north in the western half of the chart, north to south in the eastern half. If curved, some of it may ~~have to~~ be partly inverted if unavoidable. This may be illustrated thus:

**B-561** **TEXT STYLES AND FONTS**

- b) so that international or national charts can be adopted by nations with a minimum of change: it should be easy for printers to match fonts sufficiently closely that chart users will not to be confused by the differences.

**Chairman:** Corrected, than you.

SWEDEN

550.3: The simplified version is much easier for our cartographers to understand. Very well formulated Peter and Andrew.

**Chairman:** Thank you

US(NOAA)

The United States (NOAA) response to CSPCWG Letter 05/2013 is attached in three parts.

- One attachment is the response form that originated as Annex C to CSPCWG Letter 05/2013.
- Another attachment includes comments from Ms. Meredith Westington, Chief Geographer, NOAA, who is a member of the U.S. Board on Geographic Names.
- The third attachment includes comments from Mr. Trent Palmer, also a member of the U.S. BGN. Mr Palmer serves as the liaison between UNGEGN and IHO.

560.4 See comments by Canada. NOAA generally does not label a charted feature on a horizontal orientation immediately above or below the feature. Curved text or text set at an angle, starting or ending near the feature, directs the chart user's eye to the feature.

Chairman: see comment at CA.

See two marked up copies, as stated above.

Chairman: all included as appropriate.

We are grateful to specialists in several HOs who provided good advice on this section.

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Annex B to CSPCWG Letter 14/2013

## PART B

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### SECTION 500

TEXT: LANGUAGE, NUMBERS, ABBREVIATIONS, NAMES, STYLES AND  
FONTS

Commentaire [c1]: IHB suggestion



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| **SECTION 500**-TEXT: LANGUAGE, NUMBERS, ABBREVIATIONS, NAMES, STYLES  
AND FONTS

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SECTION 500 - TEXT: LANGUAGE, NUMBERS, NAMES, ABBREVIATIONS,  
STYLES AND FONTS

**RECORD OF UPDATES**

Specification Number	S-4 Edition or Amendment Number	IHO Circular Letters		Remarks
		Promulgated by	Approved by	
Section 500 Preliminary Edition	--	38/1980	--	Adopted by 1982 Conference, Decision No. 23
Section 500 1988 Edition	--		--	New loose-leaf edition - including editorial updating.
I-521	1/1989	31/1989	52/1989	Amendment to the sentence.
Section B-500 2005 Edition	3.000	41/2005		New format
B-510.4	3.005	82/2007	76/2008	New specification (subsequent paragraphs renumbered)
2010 Edition	4.000	10/2010	49/2010	New section B-600 added
	<b>S-4 Edition/ Revision/ Clarification</b>			
Section B-500	4.x.x	xx/2013	xx/2013	Completely reviewed by CSPCWG; revised and updated.

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**SECTION 500**

TEXT: LANGUAGE, NUMBERS, NAMES, ABBREVIATIONS, STYLES AND FONTS

**B-500 GEOGRAPHICAL NAMES BODIES**

The consistent use of standardized place names is an essential element of effective communication worldwide and is therefore a requirement for nautical charts.

The United Nations established the United Nations Group of Experts on Geographical Names (UNGEGN) in 1959 to promote the standardization of accurate spellings of geographical names worldwide. The United Nations is not a naming body, but through UNGEGN:

- It discusses problems encountered with national standardization of names;
- It prepares draft recommendations for procedures to be followed by individual countries (eg treatment of names in multi-lingual areas);
- It addresses the technical aspects of names standardization.

Individual countries may have naming bodies which govern national application of naming conventions, eg the New Zealand Geographic Board (NZGB), US's Board on Geographic Names (US BGN).

For international authorities with particular relevance to hydrographic names, see B-551.

**B-501 TERMS AND DEFINITIONS**

The following terms and definitions are consistent with the UNGEGN 'Glossary of Terms' (2002 edition as updated by addendum 2007) or with the Hydrographic Dictionary (S-32) if more appropriate. ~~The following definitions set out the meanings of the terms relating to toponymy used in this chapter:~~

**Toponymy:** the place names or the study of place names of a country or district (S-32) or (a) the study of toponyms in general and of geographical names in particular. (b) The totality of toponyms in a given region (UNGEGN)

**Official language:** A language that has legal status in a particular legally constituted political entity such as a State or part of a State, and that serves as a language of administration. Example: Spanish in Chile.

**National language:** a language in widespread and current use throughout a specific country or in parts of its territory, and often representative of the identity of its speakers. It may or may not have the status of an official language.

~~a language having official status throughout the territory under the jurisdiction of a sovereign state. (A state may have more than one national language.)~~

**Minority (Regional) language:** In a specific region, a language that is different from the official language of State administration and that is spoken by a national minority. It may or may not have official status. Example: Swedish in Finland, a language having official, literary or colloquial status within part of the territory under the jurisdiction of a sovereign state eg Welsh, Breton. (Regional languages may give rise to original forms of toponyms in the areas where they are spoken.)

**Legend (from S-32):** a description, explanation, table of symbols or other information on a chart to improve its understandability and interpretation, eg:

- an amplification of a symbol not complete in itself, eg *Racon, Explosives dumping ground*

**Commentaire [c2]:** HDWG to be informed that S-32 needs review.

**Commentaire [c3]:** Definitions adopted from UNGEGN Glossary.

- a complement to more extensive graphical detail, eg **SEE PLAN**, magnetic variation quoted in a compass rose
- a statement, in the absence of a symbol for the purpose, of information having a locational element, eg *less water rep (1974), Historic Wk.*

The title of a chart was formerly considered part of the legend, but this usage is obsolete.

**Toponym:** a place name. The name applied to a geographic feature, a word or group of words constituting a place name, eg: LONDON, SKAGERRAK, DEUTSCHE BUCHT, ENGLISH CHANNEL, WEST HOYLE BANK, SAINT JOHN'S CHURCH. Note: a toponym applied to a hydrographic feature may be called a 'hydronym'.

**Generic term:** a common noun that describes a feature in terms of its characteristics and not by its proper name. It may form part of a toponym, that term in a legend or toponym which describes the type of geographic feature, eg: CHANNEL, BANK, KLIFF, CHURCH.

**Descriptive term:** a word (usually a common noun, an adjective or a phrase), that designates a feature by its properties, but does not constitute a toponym, eg: airfield, canal, water tower, seasonal (for streams).

~~**Descriptive term:** a term in a legend or toponym used to describe the physical or some other characteristics of a geographic feature, eg: WEST, LILLE, ROTE.~~

**Specific term/element:** The part of a toponym that does not constitute a generic term and that distinguishes it from others of the same feature class. It may include an article and/or other linguistic elements, any part of a legend or toponym other than the generic term, eg: ENGLISH, LILLE FISKE, SAINT JOHN'S, ROTES, WEST HOYLE, CAPE OF (see 'composite name' examples below). ~~(Thus the specific terms of a toponym comprise the descriptive terms, if any, and the proper name or names.)~~

**Simplex toponym name:** a single-word toponym, usually consisting of a specific component only, a toponym containing no generic term, eg: LONDON, THE SOLENT, CASQUETS.

**Compound toponym/Composite name:** a toponym consisting of a specific term and a generic term, or of a specific element consisting of more than one word, which contains a generic term and may also contain one or more descriptive terms, eg: ENGLISH CHANNEL, LILLE FISKEBANK, SAINT JOHN'S CHURCH, ROTES KLIFF, WEST HOYLE BANK, CAPE OF GOOD HOPE.

**Endonym (Original form of a toponym):** Name of a geographical feature in an official or well-established language occurring in that area where the feature is situated a toponym designating a geographic feature situated in the territory under the jurisdiction of a sovereign state, in the form which agrees with the official or current usage of that state, eg: LONDON, ORKNEY ISLANDS, KØBENHAVN.

**Exonym:** Name used in a specific language for a geographical feature situated outside the area where that language is widely spoken, and differing in its form from the respective endonym(s) in the area where the geographical feature is situated a toponym used by one country to designate a geographic feature that lies wholly or partly outside the bounds of its national sovereignty, and which may be situated in territory under the jurisdiction of another state which uses a different original form, eg: ATLANTIC OCEAN, ANTARCTIC, LONDRES, ILES ORCADES, COPENHAGEN. Note: The United Nations recommends minimizing the use of exonyms in international usage.

**Allonym:** Each of two or more toponyms employed in reference to a single topographic feature. Note: in international waters or 'high seas', names are neither endonyms nor exonyms. They are allonyms undefined from a terminological point of view, and they have equal status, eg: Vesterhavet/Nordsee/North Sea.

**Transcription:** A method of phonetic names conversion between different languages, in which the



sounds of a source language are recorded in terms of a specific target language and its particular script, normally without recourse to additional diacritics, eg: Examples: Turkish Ankara → Greek *Αγκαρα*; Russian Щукино → English Shchukino. Transcription is not normally a reversible process.

**Transliteration:** A method of names conversion between different alphabetic scripts and syllabic scripts, in which each character or di-, tri- or tetragraph of the source script is represented in the target script in principle by one character or di-, tri- or tetragraph, or a diacritic, or a combination of these, eg: (with English exonym in parentheses): Владивосток → Vladivostok. Transliteration, as distinct from transcription, aims at (but does not necessarily achieve) complete reversibility, and must be accompanied by a transliteration key.

**B-510 LANGUAGE: GENERAL RULES**

**B-510.1** **Two or more official languages.** ~~Countries~~ States having two or more official languages may adopt double or multiple legends (including toponyms) on charts of their own territory. In charting the same territory, other states may retain the multiple legends or may choose one of the official forms.

**B-510.2** A legend may be translated without retaining the original language version.

**B-510.3** Not currently used.

**B-510.4** **Language on charts.** English is the working language for navigational purposes and for communication at sea (SOLAS Chapter V Regulation 14 refers). See also B-122.

The XVth International Hydrographic Conference (1997) decided that:

‘each Hydrographic Office which does not issue charts in the English language should give all legends on charts affecting its territorial waters in its national language and in English.’ (Decision 9)

Consequent to this decision, English language versions of all notes should be included on all non-English charts. Navigationally significant legends should also be given in English, or if more convenient, listed in a glossary (key) on the chart. English language versions of notes and legends are particularly appropriate on charts used for international shipping. See also B-241 and B-242.4.

**B-510.5** **Language on adopted charts.** Printer nations may translate any elements of adopted charts into their own national language, in whole or in part, or add to those elements such translations, explanations, annotations, etc. as they may deem appropriate. However, toponyms and international abbreviations should not be translated. Printer nations may add alternative forms to those of the producer nation.

**B-510.6** **Glossaries.** If desired, printer nations may add partial glossaries to adopted charts in order to permit their user to understand the generic terms appearing in legends and compound toponyms on that chart without recourse to glossaries in associated publications or dictionaries.

**Commentaire [c4]:** WG letter 05&07/2007 and IHO CL 82/07 and 76/08 refer

**B-520 TRANSLITERATION, ALPHABET, PUNCTUATION**

If the national language in which a toponym is normally expressed does not use the same alphabet or script as that of the ~~publisher-producer~~ nation, the toponym may be rendered into the latter's language by means of a transliteration or transcription system. Various different transliteration systems exist, including UNGEGN, ISO 9:1995 and regional systems such as Russia's ГОСТ (transliterated GOST) and BGN/PCGN (US Board on Geographic Names/UK Permanent Committee on Geographical Names). Hydrographic offices may be subject to national government requirements on which system is used for charts.

Note (from Resolution 8/1919 as amended 1974): 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.

**B-521(I) USE OF THE ROMAN ALPHABET ON INTERNATIONAL CHARTS**

The following rules are intended to standardize and simplify the Roman alphabet used on international charts as much as possible, for the benefit of printer nations and users. In the case of nations which do not use the Roman alphabet, alternative forms of toponyms (transliterated using the Roman alphabet) and legends (translated into English, in accordance with B-510.4) should be shown, in addition to showing them in the national alphabet.

**B-521.1(I)** The Roman alphabet used on international charts comprises the 26 letters of the basic Roman alphabet, augmented if necessary by the special letters, or the letters modified by diacritical marks, particular to certain languages. The use of special (non-Roman) letters should be avoided where possible, for example if the language concerned allows the substitution either of groups of letters of the basic Roman alphabet or of letters of the basic Roman alphabet modified by diacritical marks.

**B-521.2(I)** Accents and diacritical marks **must** normally be retained, unless the rules of the language permit them to be dispensed with. A letter of the basic Roman alphabet with diacritical mark should always be used in preference to a special (non-Roman) letter.

**B-521.3(I)** The standard alphabetical order, eg as used in glossaries (see B-510.6), should be derived from the usual order of the basic 26-letter Roman alphabet. The order of words in an alphabetical list **must** be unaffected by the presence of accents or diacritical marks. Special (non-Roman) letters may be placed after the basic alphabet, or incorporated into appropriate places in the basic order, according to usual national practice.

**B-522 PUNCTUATION AND OTHER MARKS**

Punctuation (eg in cautionary notes) should conform to the conventions of the language being used.

Non-alphanumeric symbols representing units (eg: °, ', ") and other universally recognized marks (eg: &, +, @, ©, §) may be used on charts. Uncommon or special marks having meanings particular to charts should be explained in national versions of INT1 (eg: ≠, #).

**B-530 NUMBERS**

All numbers should normally be in Arabic numerals, except:

- those forming an integral part of composite names, which must be spelled in full, eg Les Sept îles, *Three Kings*.
- Roman numerals which are part of composite names in the convention of the national language, eg King George V Land.
- Roman numerals may be used for the numbering of paragraphs, sub-paragraphs, and columns (eg in the title block and related notes, in tables) and outside the chart border (except INT numbers, see B-251.1(D)).

**B-531 WHOLE NUMBERS, FRACTIONS AND DECIMALS**

**B-531.1** Whole numbers consisting of more than 4 digits should be divided into groups of 3, separated by a small space, eg: 20 000, 150 000, 1 000 000.

Note: ISO specifies that such groups of digits should never be separated by a comma or point, as these are reserved for use as the decimal sign.

**B-531.2** Fractional values should be expressed in decimal form.

~~The decimal part~~ **B-531** ~~————~~ **FRACTIONS AND DECIMALS**

~~Fractional values should be expressed in decimal form.~~

~~The decimal part~~ of a sounding or drying height should be indicated by a subscript figure, with no decimal separator. Where other decimal parts are shown, eg bearings, positions, tidal heights, dredged depths, the decimal separator should be used according to national practice (comma, decimal point or full stop – comma is the preferred ISO sign).

The natural scale should be expressed as a ratio, eg 1:200 000 (see B-241.4).

**B-540 ABBREVIATIONS**

**B-540.1 International abbreviations** are listed at B-122.1. For those terms for which an international abbreviation exists, full words and differing national abbreviations should not normally be used, except in toponyms. However, full words may be used in the chart title, tables and notes.

**B-540.2 Abbreviations** should not be used within compound toponyms except where necessary, eg because of lack of space. Where such abbreviations are necessary, national abbreviations may be used irrespective of the existence of a corresponding agreed international abbreviation.

**B-540.3 Abbreviations and the use of full stops.** International abbreviations should not be terminated by full stops, except where forming the generic part of a toponym or for separating seabed qualities (see B-425.9) and light descriptions (see B-471.9). Abbreviations of national generic terms in toponyms should be terminated by full stops in order to indicate clearly to chart users, especially those speaking languages other than that used on the chart, that the abbreviation is not a full (unfamiliar) word. Full stops should also be used for other national abbreviations.

**B-550** **TOPONYMS: GENERAL RULES ~~FOR GEOGRAPHICAL NAMES~~**

**B-550.1** **Toponyms: Principle of selection.** A toponym should serve an identifying or a reference function for the chart user. It may also be required to identify features mentioned in other nautical publications.

**B-550.2** **Consistency of toponyms.** Chart producers **must** ensure agreement on **toponyms toponymy among/across** charts of different scales and between charts and other nautical publications.

**B-550.3** To ensure consistency of toponyms appearing on official charts, the following general rules apply (condensed from Resolution 8/1919):

- a) On its charts of its own territory, a national hydrographic office must show land and sea names as prescribed by the most authoritative source, in its own official script.
- b) Where names are in Roman script, other hydrographic offices should show names (including generic parts of names) in agreement with the charts and publications of the national hydrographic office of the country having sovereignty, including all diacritical marks.
- c) Where the names shown on the charts of the national hydrographic office of the country having sovereignty are not in Roman script, other hydrographic offices should transliterate or transcribe the names according to the rules of their national government; see B-520.
- d) Exceptionally to the above general rules, a hydrographic office may apply its conventional national usage to names of:
  - countries
  - major territorial divisions and boundary features (eg mountain ranges, deserts extending through more than one sovereign state)
  - oceans
  - water areas which are not confined within one nation's territorial waters.

See [B-521\(D\)](#) for special rules applying on International charts.

**B-550.4** **Alternative and obsolete forms.** If a nation is charting an area in which the original toponyms are not in that nation's own language, it may add to an original form an exonym or former name if it considers that, without the addition, confusion could occur. The alternative form should be shown in a font and/or ~~point-text~~ size which is both different from and subordinate to that of the original toponym.

**B-550.5** **Distinction between descriptive terms and toponyms.** On charts of foreign coasts, toponyms should not be translated, in accordance with B-550.3b-c. Descriptive terms should be translated, if they are not the generic part of a toponym, but it is not always easy to distinguish which legends are toponyms and which are descriptive terms. The use made of the information by the mariner may provide a guide:

- If the requirement is to know the function of a feature for navigational purposes, eg *Puerto pesquero*, it is a descriptive term and should be translated.
- If it is required for reference, eg *Vorhafen*, it requires a distinctive designation and should be treated as a toponym and not translated. However, a translation of the generic term may be included in a glossary on the chart (see B-510.6), in the index of abbreviations in the national version of INT1 or in an associated publication.

Descriptive terms should be reduced to a minimum by the use of symbols wherever possible, eg, **use of symbol F10 instead of descriptive term 'Fishing Harbour'**.

**B-551 TOPONYMS: REFERENCES AND AUTHORITIES; INTERNATIONAL AND NATIONAL****B-551.1 International references.**

a. The most important international reference for limits (but not names) of sea areas is:

- **IHO S-23 ‘Limits of Oceans and Seas’**. This names and defines the exact limits of the world’s oceans, seas and major gulfs and straits, for the convenience of hydrographic offices when compiling charts and nautical publications. Generic terms are in English only. How those areas are named on a nation’s cartographic products will depend on the national policy of each country; see B-552.1(I).

b. The most important international references for names of undersea features are:

~~• **IHO B-1 ‘General Bathymetric Chart of the Oceans (GEBCO)’**. A series of eighteen separate sheets covering the world and one World sheet. The most recently printed copy of the latest edition should be used.~~

- **IHO B-6 ‘Standardization of Undersea Feature Names’**. This IHO-IOC publication has been published through collaboration between the Joint IHO-IOC Guiding Committee for GEBCO and the United Nations Group of Experts on Geographical Names. It is intended to ensure maximum international standardization of the names of undersea features, and includes in particular Guidelines for naming features, a name proposal form and a list of terms and definitions.

- **IHO B-8 ‘Gazetteer of Geographical Names of Undersea Features’**. Gazetteer of Geographical Names of Undersea Features shown on the GEBCO sheets, on the small scale international (INT) chart series, on the sheets of the Regional International Bathymetric Chart projects or of significance to charts at small scale. Proposals for new names should be checked first against any published gazetteers and then submitted for clearance, either to the appropriate national authority or, where no such authority exists, to the IHB or IOC for consideration by the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), which may advise on any potentially confusing duplication of names.

- **IHO B-9 ‘GEBCO Digital Atlas’**. The GEBCO Digital Atlas (GDA) contains, amongst other data sets, the GEBCO gazetteer of undersea feature names.

The IHO website should be consulted for the date of the most recent edition of the publications detailed above. Go to [http://www.iho.int/iho\\_pubs/IHO\\_Download.htm](http://www.iho.int/iho_pubs/IHO_Download.htm) . See also ‘Data and products’ at [www.gebco.net](http://www.gebco.net).

**B-551.2 Routing measures.** For the naming of routing measures (as specified in IMO publication Ships’ Routing) which may not conform to official names, see B-435f.

**B-551.3 National authorities.** Most nations have set up a permanent or semi-permanent body responsible for determining toponymy ~~on~~ for national mapping and charting. It is particularly important that nations ensure that toponyms on charts of their own territory are in accord with forms authorized by these bodies.

**B-551.4 Non-national waters.** The national bodies will give advice on the existence of official toponymy in other states and may be able to specify maps or other official publications or sources of toponyms for topographic and major sea features. It is possible in such cases, or if no national geographic names body exists, that there will be no official forms of toponyms of undersea and minor sea features. If so, charts of the area will probably have been produced by other hydrographic offices (which may have made hydrographic surveys in the past) and they should be used or adapted until official forms of toponymy are assigned to such features.

**B-552 TOPONYMS: INTERNATIONAL CHARTS**

**Commentaire [c5]:** B-1 no longer valid as reference for undersea feature names. Replaced with IHO B-9 ‘GEBCO Digital Atlas’ - as advised by IHB.

**B-552.1(I) General.** Agreed international forms **must** be used for the names of topographic features of continental or international extent and the names of oceans, seas, arms of the sea and major gulfs. If such forms do not exist, the form in common maritime use by the producer nation should be used. Alternative names may be added if the printer nation considers it useful to do so.

**B-552.2(I) Countries.** Names of sovereign states should be given in the original form (**ie the endonym**, see B-501) subject to the provisions of B-520 (Transliteration). The name used by the printer nation (**ie the exonym**) may be added, if required, underneath, unbracketed and in a **text style** and/or **point** size which is subordinate to the original form.

**B-552.3(I) Features marking or containing boundaries.** If adjacent states do not agree on the names of features (eg headlands, rivers) which mark an international boundary, **or which contain an international boundary** (eg bay, strait), both forms should be given, in the same **text style** and **point** size.



**B-560 TOPONYMS AND LEGENDS: CARTOGRAPHIC PRINCIPLES**

In the context of this section, 'names' is used to include toponyms, descriptive terms and abbreviations.

The selection of names to be shown on a chart is an integral part of its design. Position, font, size, style, spacing and placement of names are also important to ensure optimum clarity.

A chart must carry all significant names according to its scale. Names should be included on the chart only if they have some significance for the mariner. Names may be used to emphasise features, but irrelevant names may interfere with, or distract from, the reading of essential information.

The insertion of names on charts should follow a number of well-established cartographic 'rules', most of which are consistent with other chart or map producing organizations. These rules are listed below, adapted to the specific case of nautical charts; if followed, they will significantly improve the clarity of the chart for the benefit of the user.

**B-560.1 Placement and arrangement.**

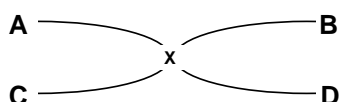
- Each name must clearly refer to the relevant object; ambiguity must be avoided. Therefore a name must not be separated from the object to which it relates and must not **be placed between two objects in such a way that it is unclear** ~~appear indefinitely between two objects~~ to which it ~~might~~ refers.
- Letters must be evenly spaced. Spacing, if unduly wide, **is-could make a legend** difficult to read as a unit because of other detail; against a blank background, there is almost no limit to the spacing, **but as a general guide it should not be more than 5 times the height of the letters.**
- Interletter spaces are measured between the adjacent edges of letters, not between their centres.
- Where names or descriptions consist of more than one word in line, the spaces between words must be consistent and should be approximately three times the space between consecutive letters of a word.
- Care must be taken when placing names on water areas to ensure that channels, estuaries, harbour entrances, etc, are not obstructed by names. In most cases, it is better to place names of towns, headlands, etc, on the land rather than on the water.
- Where possible, place the names of islands, lakes, **large** shoal **areas**, etc, on the features concerned rather than adjacent to them.
- Names and legends should be placed so that they do not break meridians and parallels unnecessarily or clash with detail in other colours.
- Names should not break the coastline unless unavoidable.

Examples of many of the rules governing the placement and arrangement of names are to be found on INT3 'Use of Symbols and Abbreviations'.

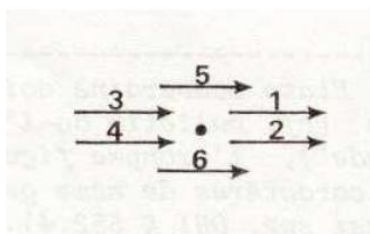
**B-560.2 Straight or curved names.**

- For maximum clarity, horizontal, straight names are usually preferred.
- Curved names tending to the horizontal are more readable than oblique straight names, except along linear features, see B-560.4.
- Curved coastal names should meet the coast nearly at right-angles. Where curved names are used, the curve must become more nearly horizontal as it moves away from the point named.

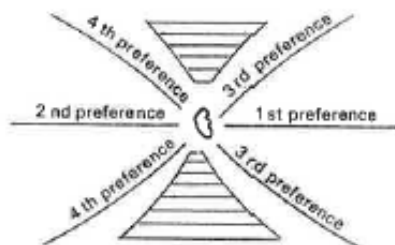
- Where the trend of the coast changes, adjacent curved names should be either parallel with each other, or gradually diverge.
- It is useful for a national hydrographic office to provide preference guidance to its compilers, while recognizing that other factors may dictate positioning, eg B-560.3 bullet 2 below. Here are some examples:
  - UK. In the absence of other considerations curves B and C above are preferred in the western part of the chart, A and D in the eastern part (for ease of reading from the centre of the lower border).



○ France. The diagram below provides preference for horizontal straight names:



○ Canada. The diagram below covers straight and curved names:



**B-560.3 Point names and area names where the name cannot be fitted within the area.**

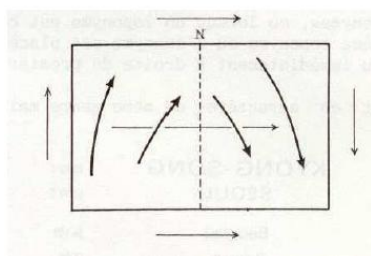
- Ambiguity must be avoided by placing names close to the symbols or areas they describe, without obscuring them.
- Land names should, if possible, be placed on the landward side of symbols so that lines drawn from seaward will reach the symbols first.
- Names of towns, islands and headlands should, if possible, be placed on the land. If they have to be placed on the sea, headland names must not obscure depths or other important detail close in to the headlands.
- At sea, channel buoy and beacon descriptions should, if possible, be clear of the fairway, and must leave space for flares where buoys or beacons are lit.
- A name or legend describing a point symbol should, if possible, start immediately right of, or end immediately left of, the symbol. If a name cannot be placed immediately right or left of

the symbol, the name may be placed above the symbol or, providing no detail is obscured, below it.

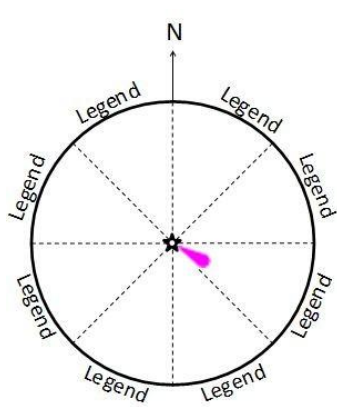
- Names and legends should be placed clear of radio circles, where that can be done without ambiguity.
- Consideration should be given to placing long names (consisting of more than two words) in two or more lines if they refer to a small feature. Names in two or more lines, such as the description of a light float, should be aligned vertically, justified on the side nearer the symbol or feature. The alignment of names of island groups, etc, occupying more than one line may, however, reflect the trend of the group rather than be left- or right- justified.

**B-560.4 Names of Linear Features (eg rivers, canals, pipelines) and along area limits.**

- Names are generally better placed above **linear** features rather than under (as most English words have fewer descenders than ascenders in lower-case).
- For rivers, name a section where it bends least and is as horizontal as possible. Very exceptionally, a double curve may be acceptable for winding rivers.
- Names and legends associated with lines representing **area** limits must be parallel to the line and within the area which the limit defines rather than outside it.
- Names and legends associated with **area** limits which run north-south should be **oriented so as to be** most easily read from the bottom centre of the **sheetchart**: ie if a name must be vertical, it should read from south to north in the western half of the chart, north to south in the eastern half. If curved, some of it may **have to** be partly inverted, **but only if unavoidable**. This may be illustrated thus:



- Legends on arcs of light-sectors should be **outside** the arcs, **rightway** reading from the **bottom** of the chart, in accordance with the following diagram.



Where the arc is too narrow to contain the text along the arc, **text** should be rotated at right angles to the arc.

**Commentaire [c6]:** Revised graphic supplied by IT

**B-560.5 Area names which can be fitted within the areas concerned.**

- Area names must reflect the extent of the area but must not be so fragmented or open-spaced that the letters or words are difficult to associate.
- The reading of important fine detail within the area must not be obscured.
- There should always be a close relationship between text point-size, weight and spacing.
- Names should cross the centre of the area.
- If names are divided into more than one line, each line should consist of whole words.
- Lines should appear to be linked together; if there are three or more lines, the spaces between them must be equal.

~~It is usually best for the lines to be centrally aligned rather than oblique.~~

- Where an area does not have charted limits:
  - The name should be spread along the longer axis of the area to show its extent.
  - The name of a mountain range or ocean ridge should follow the trend of the crest-line, although offset to allow portrayal.
  - The name of a bank should indicate the overall mass of the bank, not necessarily be confined by the shoalest contour. It may be preferable to offset the name of a bank to display a clear sounding pattern.
  - Exceptionally, names may be repeated over a large area with uncharted limits in order to suggest the extent.
- Where limits are charted:
  - The name should extend for more than half the length of the area.
  - A space should be left at each end of a name or legend of at least 1.5 times the inter-letter space; longer spaces at the ends are acceptable to avoid unduly wide spacing (see B-560.1).
  - The name of a strait takes the coastlines as its limits.
  - The name of a channel takes either coastlines or the banks which confine it as its limits.

**Commentaire [c7]:** Deleted line – consider concept too difficult to explain and not always true; it is a matter for design judgment.

**B-561 TEXT STYLES AND FONTS**

The choice of text styles (eg upright, sloping, light, bold) and fonts (eg Arial, Times) (~~text styles or designs~~) is an integral aspect of nautical chart standardization and the creation of a homogeneous set of international charts. However, to require full standardization of text styles and fonts would be contrary to the overall principles followed in the IHO specification, ie use of the terms ‘should’ or ‘may’ where it is unlikely that variations from the recommended practice will be misleading, see B-110.

A certain degree of standardization is however required:

- a) To achieve a reasonable level of compatibility between the charts of different nations, so that users moving from one to another will perceive no practical difference.
- b) So that international or national charts can be adopted by nations with a minimum of change: it should be easy for printers to match fonts sufficiently closely that chart users will not be confused by the differences.

**B-562 TEXT STYLES: GENERAL RULES**

Except for the title, explanatory and cautionary ~~textual~~ notes and marginalia (see B-563.3), the use of differing ~~fonts~~ text styles on charts should satisfy the following general rules:

- a) A distinction should be made between geographic names referring to land features (including islets, above-water rocks, fixed marks, etc) and those referring to water features (whether on land or part of the sea).
- b) A distinction should be made between those legends, words and abbreviations which relate to general or 'background' geographic information and those which relate to significant navigational information. The latter should be shown prominently while the former should be subordinated.

**B-562.1 Distinction between land and water names and legends**

Names and legends referring to land features should be in an upright (Roman alphabet) style and those relating to water features in a style sloping to the right (*italic*). For features, eg pontoons, locks, which are difficult to define as either 'land' or 'water', see specifications for the appropriate feature (for these examples: B-324 Landing and Launching places and B-326 Docks).

**B-562.2 Distinction between general geographic and navigationally significant names and legends** should be achieved by making use of either different weights and sizes within a single font family (all based on the same design), or of different families, eg serif and sans-serif fonts, see B-563-4.

**B-562.3 Prominence of navigational information.** ~~Font-Text~~ weights and sizes must be selected according to the relative importance of the various names and legends to be shown, whether general geographic or navigational. However it is important to ensure that navigational information predominates. Certain classes of features should, irrespective of their relative importance, be shown consistently in a particular size and weight of lettering. This applies particularly to such features as light descriptions and legends describing landmarks.

**B-563 CHOICE OF FONT**

The choice of font should be limited to a few, common families. If a single font style is used it should be a sans-serif family (~~see B-563.1~~), and if two font styles are used they should comprise one sans-serif and one serif family (~~see B-563.3~~).

To assist chart adoption by printer nations, fonts should be selected from those which are universally available, eg Univers (sans-serif), Times (serif). Note: The font that currently (2013) contains the broadest range of Unicode compliant encodings is Arial Unicode MS.

**B-563.1 Use of sans-serif fonts.** If a single, sans-serif font is used, navigationally significant features, eg landmarks, summit names and heights, aids to navigation, underwater hazards, should be differentiated by the use of bold ~~style~~. See also B-340.

**B-563.2 Use of serifed fonts.** If a serifed font is used (in addition to the sans-serif font), its use should be restricted to the more important geographic names which are not navigationally significant features (see B-563.1). Minor non-navigation names and legends should be in a light sans-serif style font.

**B-563.3 Title.** The choice of font used for the title, explanatory and cautionary notes and marginalia is left to national discretion, subject to being universally available (see above).

**B-564 COLOUR**

Notes, legends, words, and abbreviations should be in the same colour as the items to which they refer. See B-140 for further guidance on the use of colour.

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