

**18<sup>th</sup> CHRIS MEETING**  
**Cairns, Australia, 25-29 September 2006**

**Paper for Consideration by CHRIS 18**

**STATUS OF IHO CHARTS INT 1, INT 2 AND INT 3**

**Submitted by:** CSPCWG (Chairman – Peter Jones, UK)

**Executive Summary:**

To pursue Ref A in order to seek guidance from CHRIS on the appropriate status of INT1, INT2 & INT3 and the practicalities of their maintenance.

**Reference Documents:**

- A. CSPCWG2 Action 8: *Prepare a paper ...on the status of INT 1, 2, 3, for presentation to CHRIS 18 (Sept 2006).*
- B. M-4: extract relating to these publications (Annex A).
- C. P-4: extract relating to these publications (Annex B).

**Related Projects:** Ongoing revision of M-4 by CSPCWG.

**Introduction / Background:**

1. At CSPCWG2 (Oct 05), a discussion on the status of INT 1, 2 and 3 arose out of:
  - Charges levied by a producer HO for the supply of reproduction material (repmat) to a MS;
  - Whether the documents could be made available on the IHO website;
  - ‘Ownership’ of the documents, in particular whether:
    - they conform to the normal regulations applying to International charts published by a MS (M-4 Part A); or
    - these publications are owned by, and published on behalf of, IHO.
  - Whether the documents simply supplement and illustrate M-4 or stand alone as independent, unconnected publications.
  - Whether, as part of IHO Chart Specifications, revisions of the documents should be subject to full MS review and approval (as is M-4).
2. Currently, the production status of the three items are as follows:
  - INT 1 - the official language versions (English, French and Spanish) are produced respectively by Germany, France and Spain.
  - INT 2 - is produced in a bilingual version (English / French) by Netherlands.
  - INT 3 – is produced in English only by UK.

In all cases, the documents include additional details necessary to fulfil the national needs of the producing HO. For example: a) the official English language version of INT 1 also includes German text and German national symbols; b) INT 3 includes examples of UK’s national symbols. However, for

INT 1 which is primarily a document for chart users, the producer HO must note that their official language version may be used by *any* chart user conversant in the language or by other MS HOs (e.g. when adopting MS charts). This means that they need to fulfil a truly international role and not just one for their own nationals or within their own areas of national chart coverage.

3. M-4 (Ref B at Annex A) states that the three official language versions of INT 1 are *published by the IHO* (paragraph B151.1). INT 2 and INT 3 are stated to be *produced by* NL and UK (paragraphs B-152 and B-153 respectively).
4. Details printed in the individual documents are as follows:
  - INT 1
    - English (& German) language version is produced by Germany (Edition 2005); copyright BSH and *All rights reserved*. Both BSH and IHO seals are prominent.
    - French language version is produced by France (Edition 2002); copyright SHOM and *Tous droits reserves*. Both SHOM and IHO seals are prominent.
    - Spanish language version is produced by Spain (Edition 2002); copyright Spanish Ministry of Defence, with prohibition on reproduction. Spanish and IHO seals are prominent.
  - INT 2 (Edition 1990) states that it is published by the Netherlands Hydrographic Service on behalf of the IHO. There are no copyright statements and only an IHO seal. The Dutch language is not included.
  - INT 3 (Edition 2005) states that it is published by the UK Hydrographic Office for the IHO. Both UK and IHO seals are included. The chart also contains copyright legends and statements, but these may be regarded as examples of format rather than relating to the INT 3 product itself. (INT 3 also carries the UK chart number D6067 and is so included in its chart catalogue.)

#### **Analysis / Discussion:**

5. Alternative views on the status of these documents are:

Firstly:

- Each document is produced under the normal INT chart regulations specified in M-4 Part A
- Additionally, a limited quantity is made available by the producer nation to IHB for record purposes, issue to MS (and possibly sale by IHB).
- Ownership of the document remains with the producer nation.
- Therefore:
  - Requests from HOs to the producer nation for reproformat (analogue or digital) follow INT chart regulations, in particular M-4 A-500 and A-600.
  - Financial arrangements must be agreed bilaterally (A-601.1).
  - It is up to the producer to what extent, if at all, they allow their publication to be presented on the IHO website.
  - Revisions of the documents are undertaken by the producer nation, seeking advice as necessary, but are not subject to formal review (e.g. of content, accuracy) and approval by MS. (This mirrors the status of any other paper INT Chart.)

Secondly:

- Each document is produced by the volunteer MS HO on behalf of IHO
  - IHO are the *de facto* publishers and 'owners'. Therefore, content is subject to formal review and approval by MS (as for M-4, but unlike paper INT charts).
  - In accordance with:
    - P-4 (Ref C at Annex B), as implied, in that no acknowledgement is given to the producer nation.
    - M-4 B-151.1 (Ref B at Annex A), as implied, in statements relating to the three versions of INT 1 (but not similarly stated for INT 2 and INT 3).
  - However, in practice:
    - copyright is claimed by the producer nations of all three official language versions of INT 1 (that is, the opposite to the above guidance occurs)
    - INT 2 and INT 3 are stated to be produced on behalf of IHB or IHO.
6. As recognised at CSPCWG2, ideally a three-language version of INT 1, containing only internationally agreed and well-defined symbols and abbreviations, should be published by IHO. Similarly, all the symbols in this IHO-published INT 1 should be identical to the symbols in M-4. A single symbol set with associated text descriptions in the three languages is envisaged (an INT 1 subWG of CSPCWG is being established which may be able to look at the potential of such a development). Currently however, M-4 contains mainly UK symbols, while the three versions of INT 1 contain German, French and Spanish versions of the symbols, with the inevitable slight differences. A similar issue applies with INT 2 (which contains NL-style borders and scales) and INT 3 (which contains UK-style symbols – although, due to provenance, these agree with M-4 symbols).
7. Additionally, and whilst continually seeking improvements in standardization, it needs to be acknowledged that:
- there is very significant investment by HOs in paper charts (as guidance and symbols have been variously developed and interpreted by HOs over time);
  - there are resource and prioritisation issues where, despite slight symbology differences, there is no impact on safety of navigation (that is, circumstances where it is clear there is no danger that the chart user might be confused).
8. To achieve the perceived ideal, resource would need to be found to prepare and publish a three-language INT 1, and also for IHB to produce (or at least own) the actual symbols needed to populate INT 1, INT 2 and INT 3 (and M-4). Unless or until a HO is prepared to resource such production costs on behalf of IHO, or IHB as a Secretariat is able to produce such a document (and library of symbols) itself, the ideal unification may remain theoretical. For practical purposes, IHO remains dependant on the goodwill of the volunteer HO producers of the subject documents; this utilises their national publications as official IHO versions, whilst ownership remains with the producer.
9. Further, for INT 1, it is important to note that this publication is primarily for the (paper and raster) chart user to understand the symbols contained in charts and not for HOs. They may also be sold by the producer HO to offset production costs.

10. The status of INT 2 and INT 3 is different from INT 1, as there is only one official version of each document, and these state that they are produced *on behalf of* IHB/IHO. Essentially, they are primary guidance documents for HO chart producers. However, the issues of the use of national symbols and the dependence on the goodwill of the producer HOs remain.
11. To date, it is understood that these documents have been seen as integral supplements to M-4, illustrating and symbolising examples drawn from the textual descriptions contained in M-4. Many national documents pre-date M-4, either as publications for the information of the chart user (e.g. symbol sheets / booklets) or in the form of guidance instructions for chart compiler staff. However, ever since IHO first produced M-4, the subject documents have had a firm connection with the 'parent' M-4 document (e.g. column in INT 1 to cross reference the symbol to the text guidance paragraph; inclusion as rear cover inserts to the hard copy M-4 folder). But as the volunteer HOs have maintained their respective documents in differing timeframes, leading to some inevitable minor inconsistencies, this intimate linkage with M-4 has been a little undermined.
12. 'Equivalent' documentation relating to ENC construction, maintenance and symbology has a different provenance. (It is understood that practical usage of 'ECDIS Chart 1' in the user community is very limited.) Whether firmer links should be established between these standard reference products (i.e. those supporting ENC and paper), with potential impacts on consideration of their status, remains an open question. However, in respect of paper charts, it is clear that both text guidance and symbol 'keys' (including abbreviations and terms) are required to provide sufficient information to conduct the business of chart compilation and data interpretation; thus, they need to retain an intimate link.

#### **Conclusions:**

13. Although ideally these publications would be produced, published and owned by IHB on behalf of all IHO MS, it is understood that resources are not readily available for this purpose. For all practical purposes, the ownership of these documents remains with the producer HOs, who are also the publishers (i.e. in accordance with the 'first view' detailed at paragraph 5 above). The resources and goodwill provided by the volunteer HOs, enabling these documents to be used as official IHO publications, is critical to their continued maintenance and development.
14. In order to facilitate the continuing efforts to enhance the consistency between the subject documents and M-4, it is important to maintain the integral linkages between all these publications. CSPCWG, on behalf of IHO, will continue to guide and advise the volunteer producer nations in the maintenance and standards (e.g. content, accuracy) of these documents but will not subject them to a full MS formal review and approval process. In pursuance of this aim, a subWG of CSPCWG has recently been formed to enhance collaboration in the maintenance of INT 1.

#### **Recommendations:**

15. The existing situation, where individual publications produced by national HOs are regarded as IHO supplementary documents, works well enough for IHO MS' needs, despite slight flaws. This status should continue as long as the national HOs are prepared to offer this service to the IHO.
16. The wording of M-4 and P-4 should be adjusted to reflect this status more exactly.

17. The subject documents should continue to be seen as supplementary to M-4 and not as independent entities. CSPCWG will act as advisor to the producer nations but will not subject the documents to a formal MS approval regime.
18. If and when digital web-based versions emerge, the status of the subject documents should be reviewed again.

**Justification and Impacts:**

19. These include:

- Continued maintenance of subject documents with no change to current practice.
- Continued maintenance of subject documents with no additional effort or resources (providing volunteer HOs continue to support).
- Managed by CSPCWG (& its subWG for INT 1).
- 'Medium' priority in pursuance of enhanced standardization in charting.
- Related to the current revision of M-4 and, as required, the development of new symbology for charts.
- Although the documents themselves are not subject to full MS review, new symbology continues to be given full visibility through IHO CLs.

**Action Required of CHRIS18:**

20. CHRIS 18 is invited to endorse the above recommendations.

**EXTRACT FROM M-4****B-150 ASSOCIATED PUBLICATIONS**

A number of other publications are supplementary to these Specifications. They are available from the IHB. They include INT 1, INT 2 and INT 3, the content of which are detailed in the following paragraphs. For the latest edition dates, and details of publications related to digital charts, see P-4, Catalogue of IHO Publications.

**B-151 INT 1 — SYMBOLS, ABBREVIATIONS, TERMS USED ON CHARTS**

INT 1 provides the chart user with a key to symbols and abbreviations used on paper charts compiled in accordance with the Chart Specifications of the IHO. Although INT 1 may be used by cartographers as a quick reference, these Specifications must be used for detailed guidance. Cross references to the relevant specifications in M-4 Part B are included in the right-hand column of INT 1.

**B-151.1** Each Hydrographic Office's list of symbols and abbreviations must be arranged according to Chart INT 1, which follows the system used in M-4 'Chart Specifications of the IHO'. Three official language versions of INT 1 are published by the IHO:

- English - produced by Germany
- French - produced by France
- Spanish - produced by Spain

The reference numbering in national symbols and abbreviations lists must correspond to that used in the official Chart INT 1, with letters used for any additional national items. The lettered entries for national symbols may be placed in the list in an appropriate position or collated at the end of each section or sub-section. One column should be used to show those symbols and abbreviations that have been internationally agreed, with a second column showing national symbols where different, or where no internationally-agreed symbol yet exists.

All numbered items included in INT 1 should be shown in each nation's standard list, including in their proper place those terms for which the nation concerned has no symbol or abbreviation. This will enable a navigator who possesses a standard booklet, written in a familiar language, to interpret foreign standard booklets.

An index of all abbreviations used should be given in alphabetical order as in INT 1 Section V, with cross references showing the section and number.

The list of symbols and abbreviations is most conveniently published in the form of a booklet, although a sheet format may be used.

The list of symbols and abbreviations should be kept up to date by means of Notices to Mariners, particularly for the introduction of new symbols.

Technical Resolution K1.1 resolves that the IHB must compile a list of the sheets of chart symbols and abbreviations produced by the various nations and distribute this list to Member States. Until 1992, the list constituted a separate publication (MP-008). From 1993-1999, it was published in the IH Bulletin at the beginning of each year. From 2004, it has been published as M-15, 'List of Booklets on Chart Symbols and

Abbreviations Published by Various Maritime Nations', posted on the IHO website and amended from time to time.

**B-152 INT 2 — BORDERS, GRADUATION, GRIDS AND LINEAR SCALES**

INT 2 shows specimens of the various patterns of border graduation and linear scales. INT 2 is produced by The Netherlands.

**B-153 INT 3 — USE OF SYMBOLS AND ABBREVIATIONS**

INT 3 is a standard reference chart of a fictitious area with as many examples as possible of the use of these Specifications (M-4 Part B and Part C). INT 3 is produced by UK.

**EXTRACT FROM P-4 (ABOUT M-4)*****CATALOGUE OF THE IHO PUBLICATIONS  
PUBLISHED BY THE INTERNATIONAL HYDROGRAPHIC BUREAU***

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**M-4 REGULATIONS OF THE IHO FOR INTERNATIONAL (INT) CHARTS  
AND CHART SPECIFICATIONS OF THE IHO**

Gives chart specifications of the IHO for compiling nautical charts, together with agreed symbols and abbreviations adopted for general use by Member States.

Provides also Regulations for INT Charts. Produced in 3 parts as shown below.

**Part A** - Regulation of the IHO for International (INT) Charts

**Part B** - IHO Specifications for Medium- and Large-Scale Charts (larger than 1:2M)

**Part C** - IHO Specifications for Small-Scale Charts (1:2M and smaller)

Originally published in 1988. Regularly maintained. Current version updated to...

English, French and Spanish versions.

**Ref: M-4** 100 Euro

IHO Website, CD-Rom, Printed (Loose-leaf with hard binder)

M-4 is supplemented by 3 publications INT 1, INT 2 and INT 3, which are described below. Each supplement (INT 1, INT 2 or INT 3) separately: 20 Euro

**Chart INT 1 - Symbols, Abbreviations and Terms used on Charts**

Provides the chart user with a key to symbols, abbreviations and terms used on charts compiled in accordance with the "Chart Specifications of the IHO". English, French and Spanish versions.

**Chart INT 2 - Borders, Graduations, Grids and Linear Scales**

Shows specimens of the various patterns of border graduation and linear scales. Bilingual English/French.

**Chart INT 3 - Use of Symbols and Abbreviations**

A standard reference chart of a fictitious area with as many examples as possible of the use of these Specifications. English only.

IHO Website, CD-Rom, Printed