

**12<sup>th</sup> CHRIS MEETING**  
**Valparaiso, Chile, 23-25 October 2000**

**REPORT ON S44 WG ACTIVITIES, IN RELATION TO CHRIS**  
*(by Michel Huet, IHB)*

1. On 30 March 1999, following a request from the S-44 WG (i.e. those who developed specifications for hydrographic surveys) the IHB issued Circular Letter 16/1999 on the following subject:

**STANDARD EXCHANGE FORMAT FOR HYDROGRAPHIC DATA**

The text of this CL, signed by RAdm Neil Guy, is recalled below.

*"During the last decade the IHO has been developing a standard exchange format for hydrographic data which resulted in the present edition of IHO Publication S-57 entitled "IHO Transfer Standard for Digital Hydrographic Data". Actually, the current S-57 Object Catalogue essentially describes chart features and Edition 3.0 of S-57 contains only an ENC Product Specification.*

*Many Hydrographic Offices already have considerable data holdings in a variety of formats, which might be useful for numerous applications other than navigation, e.g. fishing operations, coastal zone management, etc. The main problem seems to be that there is no standard format in which these data can be provided to customers. A standard exchange format might therefore help to create new markets and thus income for HOs. During a recent IBCCA meeting it was proposed to use S-57 to exchange bathymetric data.*

*As S-57 has been designed to exchange any kind of hydrographic data and taking into consideration the considerable know-how acquired by the IHO CHRIS Committee in developing S-57, it is proposed to proceed in three phases as follows:*

- A. *Member States indicate which type of data should be covered under the term "hydrographic data", e.g. bathymetry, tides, gravity, bottom structure, side-scan sonar images, etc.*
- B. *The IHO Working Group on Standards for Hydrographic Surveys (S-44), which has not yet been disbanded, be tasked to:*
  1. *Develop from Member States' responses a detailed list of all "HYDRO" parameters and features which are likely to be exchanged, with appropriate definitions.*
  2. *Identify in this list those features and parameters which should form a "HYDRO" product.*

C. CHRIS be then tasked to:

1. Identify features/parameters already addressed in S-57 Edition 3.0 (following-up of above B.1); eventually develop new attributes and/or attribute values.
2. Create new objects, attributes and attribute values, as necessary, and make any appropriate adaptation to S-57, e.g. for exchanging side-scan sonar images as raster files.
3. Develop a "HYDRO" Product Specification (following-up of above B.2).

*It is noted that the above plan of actions would avoid creating new subsidiary bodies while making the best use of S-57, as features already addressed by the IHO Transfer Standard could be re-used to the maximum extent possible."*

By filling in a questionnaire, Member States were asked to approve the proposed action plan and to indicate which type of data should, in their view, be covered under the term "hydrographic data" (e.g. bathymetry, tides, bottom structure, gravity, side-scan sonar images, ...).

2. As a result 34 Member States provided responses. A large majority (32) approved the action plan suggested by the IHB (USA and Chile had objections). Also, a number of "hydrographic" features were proposed. Subsequently, all responses were forwarded to the S-44 WG Members with a view to establishing a list of the required "hydrographic" features, as comprehensively as possible. The text of the accompanying IHB letter, dated 12 October 1999, is reproduced below.

*"Under cover of CL 16/1999 (copy enclosed) the IHB proposed to enhance IHO Publication S-57 so that this standard could also be used to exchange hydrographic data. Thirty-four Member States responded (copies of responses enclosed) and 32 agreed with the IHB proposal; the USA voted against, Chile voted against the second part of the proposal. Thus, the majority required to proceed has been obtained.*

*According to the proposal (para. B of the CL) the S-44 WG should now commence to compile a list of parameters and features of hydrographic data which are likely to be exchanged, with appropriate definitions, and identify those items which should form a "HYDRO" product. Please note that it is not required to define data formats as e.g. in GF3 and MGD77. By the way, discussions held during meetings of GEBCO bodies clearly indicate that these formats, although widely used, are somewhat obsolete but used because nothing better is available.*

*The responses of MS indicate which type of data should be considered, but, nevertheless, you should feel free to add anything, which, in your opinion, should be included. Developing your list, you should consult S-57, if you are not familiar with this publication, and/or discuss with your in-house S-57 experts."*

Although some additional features were proposed by S-44 WG Members, in response to the above letter, no single and exhaustive list of "hydrographic" features was produced. It is proposed that the IHB finalise this list, in co-operation with the S-44 WG, and that the matter be further pursued by correspondence, with CHRIS Members being kept informed. Ultimately, the final list should be submitted to TSMAD for consideration and implementation, i.e. all "hydrographic" features would be expressed by means of S-57 objects, attributes and attribute values.