CHRIS/11/13.4B

11th CHRIS MEETING
IHB, Monaco, 16-18 November 1999

IHB File S3/1310

12 October 1999

STANDARD EXCHANGE FORMAT FOR HYDROGRAPHIC DATA

TO: All members S-44 WG

Dear Colleagues,

Under cover of CL 16/1999 (copy enclosed) the IHB proposed to enhance IHO Publication S-57 in order that this Standard may 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 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. Attention is drawn to the fact that it is not required to define data formats as e.g. in GF3 and MGD77. Discussions which were held during meetings of the GEBCO bodies clearly indicate that these formats, although widely used, are somewhat obsolete but used because nothing better is available.

The responses of MS have indicated the type of data to be considered, but you should nevertheless feel free to add anything, which, in your opinion, should be included in developing your list. You should consult the S-57 Object Catalogue (Appendix A of S-57) and if you are not familiar with this publication, you could discuss the matter with your in-house S-57 experts.

The Bureau would appreciate receiving your first draft **by 31 December 1999**, preferably by e-mail sent to pah@ihb.mc.

On behalf of the Directing Committee
Yours sincerely,

Rear Admiral Neil GUY
Director

Encl: Copies of all replies to CL 16/1999
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Annex A to CL 16/1999

QUESTIONNAIRE ON STANDARD EXCHANGE FORMAT FOR HYDROGRAPHIC DATA
(to be returned to the Bureau before 15 May 1999)

Country: United States of America (Coordinated response from NOAA, NIMA and U.S. Navy)

1. I propose that the following type of data should be covered under the term "hydrographic data" (e.g. bathymetry, tides, bottom structure, gravity, side-scan sonar images, …)

As discussed in the CL, most of the cited data types are of interest to the scientific community. However, there are at least two standard formats for exchange of some of this data – GF3 and MGD77, both of which are cited in IHO Publication B-7. IOC sponsors GF3 and also supports the use of MGD77 used by the IHO Center for Digital Bathymetry (NOAA's National Geophysical Data Center) for bathymetry, magnetics and gravity. It is questionable whether or not an IHO developed standard for these data types (as a part of a complex S-57 standard) would be accepted within the scientific community. Rather than task the S-44 Working Group with looking into such an issue, it would be more appropriate to have the IOC/IHO GEBCO Sub-Committee on Digital Bathymetry address this issue.

Consideration of standard formats for tides and side scan sonar do not seem very practical. While computation of tides is complex, tide data as a product is rather simplistic , i.e. time and height. If this issue needs to be addressed it would be more appropriate to consider it within either the Tides Committee or the Marine Information Objects Working Group. Any attempt to develop a standard for side scan sonar data could become a very complex undertaking. The data is fundamentally raster data once processed which is not particularly difficult to work with. However, if there is consideration for developing a standard to address such topics as swath coverage or the underlying data capture and processing, particularly target metrics, the task would be very complex. We would note that efforts to develop a multibeam survey standard have not proven fruitful! This task should not be attempted.

2. I agree with the proposed action plan, i.e.

- that the IHO WG on Standards for Hydrographic Surveys (S-44) be tasked to define "HYDRO" features and to identify those which should form a "HYDRO" product.

	YES	**XX**	**NO**

Comments: Given the above response questioning the potential use of S-57, the United States does not agree with this proposed actions.

- that the IHO CHRIS Committee be subsequently tasked to amend or extend S-57 and to develop a "HYDRO" Product Specification, as necessary.

	YES	**XX**	**NO**

Comments: The CHRIS Committee need not be tasked to amend or extend S-57 and to develop a “HYDRO” Product Specification for the above data. If GEBCO or the Tides Committee come forward with recommendations, they may be handled on a case by case basis.

The United States recommends that the Directing Committee return to the practice of putting major issue discussion before putting them to a vote so other countries may consider the opinions of their fellow States prior to voting. It is recognized that this slows the process significantly but in instances like this time. A next edition of S-57 will not occur until almost the year 2003.