

**5TH MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE
Shanghai, China, 5-8 November 2013**

**Paper for Consideration by HSSC
IMO activities affecting HSSC**

Submitted by:	IHB
Executive Summary:	This paper summarizes recent discussions and decisions taken by IMO that may be relevant to the work of HSSC.
Related Documents:	HSSC Work Programme. IHO CL 91/2012 dated 6 November - <i>3rd update report on IHO actions concerning ECDIS software issues.</i> IHO CL 103/2012 dated 3 December - <i>Report of the 91st session of the IMO Maritime Safety Committee.</i> IHO CL 29/2013 dated 22 April - <i>Proposed agreement between the IHO and the IMO - Progress Report.</i> IHO CL 40/2013 dated 25 June - <i>Report of the 92nd session of the IMO Maritime Safety Committee.</i> HSSC5-07.1A - <i>Report on e-navigation development affecting HSSC.</i>
Related Projects:	Maintenance of IHO Publications related to ENC and ECDIS.

Introduction

1. The principal IMO activities since HCCS4 that may affect the work of HSSC arose from the 91st and 92nd sessions of the Maritime Safety Committee (MSC 91 - November 2012, MSC 92 - June 2013) and the 59th session of the IMO Sub Committee on Safety of Navigation (NAV 59) that met in September 2013. The IHO, as an accredited observer to the IMO was formally represented by the IHB at these meetings. A number of representatives drawn from hydrographic offices also formed part of various national delegations. Additionally, the 3rd IHO workshop of technical experts on resolving operating anomalies in ECDIS was held at the IMO in October 2012.

2. While the history of cooperation between the IHO and the IMO is long and successful, there is no current formal recognition of this continuing partnership. Following discussions between the Secretary-General of IMO and the IHB Directing Committee in late 2012, it was agreed to restate in a formal written agreement the long-standing relationship and cooperation between the two organizations and provide a clear framework for future cooperation. A draft agreement of cooperation has been prepared and approved by IHO Member States. It provides for cross participation in the various organs of both organizations, mutual assistance and consultation within the scope of their activities. At its 110th session (July 2013), the IMO Council approved the draft agreement and passed it to the Assembly for consideration and final approval at its next regular session (25 November - 4 December 2013).

3. IMO current activities relevant to HSSC cover three main subjects:

- E-navigation;
- ECDIS matters;
- AIS Aids to Navigation.

E-navigation issues affecting HSSC are discussed in paper HSSC5-07.1A. This paper addresses the other two subjects and reports on the re-structuring of IMO sub-committees.

AIS Aids to Navigation

4. As reported to HSSC-2, the IHO submitted a paper to NAV 56 in 2010 suggesting that “policy” for the use of virtual aids to navigation (AtoN) should be developed before considering what detailed symbology should be used. This task was assigned to an IMO Correspondence Group (CG) coordinated by Japan (Cdr Hideki Noguchi, Japan Coast Guard). The CG reported back to NAV 59 in September 2013 with its recommendations and final proposals. NAV59 set up a Drafting Group which provided a consolidated final draft policy to the sub-committee. NAV endorsed it and passed it to the MSC for adoption at its 93rd session in May 2014.

5. The portrayal of AIS AtoN associated with the draft policy has been developed by the CG in coordination with IHO. It is considered by the IHO to be sufficiently different from IHO chart symbols and other navigation related symbols to differentiate charted AtoN objects from AIS AtoN. However, taking into account that there is still potential for conflict between the static charted AtoN display and AIS AtoN display, especially if the data are in conflict, the draft policy acknowledges that close coordination between the AtoN authority and the relevant charting authorities is essential. It is recommended that national HOs liaise closely with their national AtoN authority to minimize the risk of confusion for the mariners.

6. Once the draft policy has been approved by MSC specification, B-489 in IHO Publication S-4 - *Regulations of the IHO for International Charts and Chart Specifications of the IHO* will require revision.

ECDIS Matters

7. At its 91st session, MSC reviewed the progress in addressing ECDIS operating anomalies. On the basis of a UK proposal, the Committee agreed to include in the 2012-2013 biennial agenda of the NAV Sub-Committee and provisional agenda for NAV 59, an output on “Consideration of ECDIS matters related to the implementation of the carriage requirements in SOLAS regulations V/19.2.10 and V/19.2.11”, with a target completion year of 2014.

8. Accordingly, the IHO submitted to NAV 59 a paper reporting on the actions taken by the IHO since NAV 58 (July 2012) to monitor and address ECDIS issues related to the implementation of SOLAS carriage requirements. The IHO paper addressed three areas:

- the feedback from mariners based on the IHO check dataset;
- the outcome of meetings with stakeholders;
- the activities of IHO Committees and Working Groups, including the monitoring of ENC coverage by the WEND working group.

The Sub-committee noted that no major new issue had been identified since NAV 58 and that progress in resolving the outstanding issues with ECDIS operating anomalies was well underway with the active involvement of all key stakeholders. The IHO reiterated that it continues to welcome feedback from the stakeholders on ECDIS operation as well as on Electronic Navigational Chart coverage.

9. A separate submission on ECDIS operation was presented by Denmark and BIMCO on the outcome of a survey conducted to obtain information on the use of ECDIS. Although 900 ship-owners representing about 16 000 ships were contacted, less than 650 ships responded. This is a broadly similar number of responses to that received by the IHB to the IHO check data set (1 083 reports as of 16 Sept. 2013). The survey indicated that most ECDIS systems appeared to function without anomalies but confirmed the existence of anomalies in some systems. The way the questionnaire was designed makes it difficult to determine if the issues stem from ECDIS hardware malfunctioning, ECDIS software anomalies or interface problems with sensors or instruments. The comments indicate a need to improve user-friendliness and user-interfaces on some systems. It is worth noting that only 30% of the responses indicate that ECDIS is being used as a stand-alone system. The large majority of reports indicated that ECDIS was being used together with paper charts.

10. China reported orally about a survey of ECDIS issues on board Chinese ships. 620 questionnaires were distributed. 36.6 per cent of respondents reported no ECDIS software anomalies. The survey also indicated that ECDIS users were very concerned about the user-friendliness of the operating interface of the ECDIS system.

11. Ukraine presented a submission to NAV 59 proposing the modernization of ECDIS for operation with VHF DSC (Digital Selective Calling). Ukraine proposed that if an integration of VHF DSC and ECDIS was implemented, it would provide an essential simplification for handling radiocommunications and the reliable identification of vessels in relation to current navigating conditions. The proposal would require the current IMO ECDIS Performance Standards to be reviewed. Various views were expressed on this proposal, including concern about using VHF communications as a collision avoidance tool. NAV noted that the proposal merited a thorough technical review and invited Ukraine to submit a proposal to the MSC for an unplanned output for consideration by NCSR 1.

12. Two main concerns from stakeholders are worth highlighting from the submissions and discussions related to ECDIS operation:

- the request from ship-owners and ECDIS manufacturers to have suitable time periods and intervals for the development, implementation and installation of software updates associated with new standards;
- the current practical difficulties for mariners and Port State Control to ensure that an ECDIS is up to date in relation to the applicable IHO standards. A simple and easy-to-use IHO “proof of conformance” would be welcome.

13. Two additional unplanned outputs related to ECDIS matters were considered by NAV 59: the consolidation of ECDIS-related IMO circulars and the development of an explanatory footnote to SOLAS regulation V/27, which requires that nautical charts and nautical publications be “adequate” and “up to date”. The footnote is intended to clarify those terms when ECDIS is used to meet the chart carriage requirements.

14. The draft consolidated ECDIS “Guidance for good practice” co-sponsored by the IHO and presented to NAV59 had been developed on the assumption that existing circulars would be retained, thereby avoiding the need to revise all cross-references. After considerable discussion, NAV requested Member Governments to review the draft, in order to meet an objective of placing all guidance related to ECDIS issues in a single new circular, and revoking existing circulars. Subsequent informal discussions with some of the co-sponsors suggested incorporating the draft guidance as it stands into IHO documentation. One option could be to include the guidance in a new edition of IHO Publication S-66 - *Facts about Electronic Charts and Carriage Requirements* (see HSSC5-07.2B).

15. The Sub-committee considered a draft explanatory footnote to SOLAS Regulation V/27 co-sponsored by the IHO. The purpose of the footnote was to clarify the circumstances when an ECDIS software update should be required to be applied to an existing ECDIS. The Sub-Committee could not agree as to whether the proposed footnote was appropriate or whether there was a need to amend SOLAS regulation V/18.4 on exemptions from compliance with current performance standards or to revise SN.1/Circ.266 on the maintenance of ECDIS software. IMO Member States were invited to reconsider the issue.

16. Both of the unplanned outputs have a target completion year of 2014. Unless the first session of the new Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) in July 2014 (NCSR 1) agrees on revised proposals, the Maritime Safety Committee will have to reconsider the issues at its 94th session (17-21 November 2014).

IMO Review and Reform Initiative

17. Under the review and reform initiative proposed by the Secretary-General of IMO to cope with budget constraints, MSC 92 endorsed a new sub-committee configuration from 2014. Subject to the approval of the budgetary and programme implications by the IMO Assembly, the restructured

subsidiary IMO bodies reporting to the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC) will have the following titles:

- The Sub-Committees on Ship Design and Equipment, Fire Protection and Stability and Load Lines and on Fishing Vessel Safety will merge to become the Sub-Committee on Ship Systems and Equipment (SSE) and the Sub-Committee on Ship Design and Construction (SDC);
- The Sub-Committees on Safety of Navigation and on Radiocommunications and Search and Rescue will merge to become the Sub-Committee on Navigation, Communications, Search and Rescue (NCSR);
- The Sub-Committee on Bulk Liquids and Gases will be renamed the Sub-Committee on Pollution Prevention and Response (PPR);
- The Sub-Committee on Dangerous Goods, Solid Cargoes and Containers will be renamed the Sub-Committee on Carriage of Cargoes and Containers (CCC);
- The Sub-Committee on Flag State Implementation will be renamed the Sub-Committee on Implementation of IMO Instruments (III);
- The Sub-Committee on Standards of Training and Watchkeeping will be renamed the Sub-Committee on Human Element, Training and Watchkeeping (HTW).

18. The first session of NCSR had been tentatively scheduled to be held from 30 June to 4 July 2014. It is anticipated that three working groups will be established during the session dealing respectively with:

- ships' routing;
- search and rescue; and
- technical matters.

It is planned that during the sessions of NCSR e-navigation issues will be referred to the working group dealing with technical matters (technical working group) rather than to a specific working group. Although the technical working group will also have to consider GMDSS modernization issues, NAV 59 recommended that the GMDSS modernization and e-navigation continue to be handled as separate items.

Action Required of HSSC

19. The HSSC is invited to:
- a. **Note** this report,
 - b. **Take any actions** considered necessary.