



IHB File No. S3/8151/HSSC

CIRCULAR LETTER 31/2013
17 May 2013

HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE (HSSC)
5th Meeting, 5-8 November 2013, Shanghai, China

Reference: CL 102/2012 dated 29 November - *Outcome of the Fourth Meeting of the Hydrographic Services and Standards Committee (HSSC) and Associated IHO Stakeholders' Forum*

Dear Hydrographer,

1. The 5th meeting of the Hydrographic Services and Standards Committee (HSSC-5) will take place from 5 to 8 November 2013, kindly hosted by the Maritime Safety Administration (MSA) of China in Shanghai.
2. This letter provides information on administrative details, the current status of actions arising from HSSC-4 (Taunton, United Kingdom, 25-28 September 2012 – see reference), and sets out a draft agenda and timetable for HSSC-5.
3. Participation in HSSC-5 is open to all IHO Member States, and up to two delegates each representing Observer States and Non-Governmental International Organisations (NGIOs) recognised by the IHO. Registration forms for all delegates intending to participate in HSSC-5 should be submitted to the HSSC Secretariat (adcs@iho.int), copy to China MSA (hydro@msa.gov.cn) **by 31 August 2013**.
4. **HSSC Chair Group meeting**. HSSC-5 will be preceded by an informal meeting of the HSSC Chair Group in the afternoon of Monday, 4 November. In addition to the Chair of HSSC, this meeting will comprise the Chairs of HSSC Working Groups (WGs), the Vice-Chair and the Secretary of HSSC.
5. **Venue and Accommodation**. The meeting will be held at the Seagull On The Bund Hotel, in Shanghai. General and logistical information, such as details of available hotels, visa requirements, and a registration form for HSSC-5, have been posted on the IHO website (http://iho.int/mtg_docs/com_wg/HSSC/HSSC5/HSSC5Docs.htm). Attendees should book their chosen hotel at their earliest convenience.
6. **Actions arising from HSSC-4**. The status of all actions arising from HSSC-4 is summarized in **Annex A**. Some actions are still pending. Those nominated for actions that remain outstanding are kindly requested to take action as necessary and report the status to the HSSC Secretariat (adcs@iho.int) as soon as possible.
7. **Draft Agenda and Timetable for HSSC-5**. A provisional agenda and time table for HSSC-5 is provided in **Annex B**. Associated documents, where known, have been listed. Member States are kindly requested to review the draft agenda and programme and provide any comments or proposals for new or amended subjects to the Secretary, **by 31 August 2013**. If necessary, a revised draft agenda and time table will be prepared and published on the IHO website.

8. **Submission Deadline for HSSC-5 Documents.** Documents intended for consideration at HSSC-5 should be submitted to the HSSC Secretariat in accordance with the “[*Instructions for the Submission of Reports and Proposals for Consideration by HSSC*](#)”, as follows:

	Submission Deadline
Papers in support of Agenda items (including reports from WG chairs and proposals for new work programme items)	No later than 17 September 2013 (7 weeks before commencement of the meeting)
Papers providing comments or proposed amendments to proposals contained in meeting papers <u>Such supplementary submissions should contain a maximum of 4 pages</u>	No later than 15 October 2013 (3 weeks before commencement of the meeting)

Documents received after 15 October 2013 will be treated as information papers only

9. All documents will be placed on the IHO website as and when they are received.
10. The current list of HSSC contacts is provided in **Annex C**. Any changes should be forwarded to the HSSC Secretariat at the earliest opportunity.

On behalf of the Directing Committee
Yours sincerely,



Gilles BESSERO
Director

Copy to:

Accredited Non-Governmental International Organizations
Chairs and Vice-Chairs of HSSC WGs

Annexes:

- A. List of Actions from HSSC-4 and Status Report (English only)
- B. Draft Agenda and Timetable (English only)
- C. HSSC – List of Contacts (English only)

LIST OF ACTIONS FROM HSSC-4 AND STATUS REPORT

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (May 2013)
3	Actions from HSSC3	HSSC4/01	IHB to survey Member States again in 2013 regarding their progress in implementing the recently approved Guidelines for Encoding T&P ENC Updates and to communicate the results to MS (former action HSSC3/20).	Report to HSSC5, 17 Sep 2013	Pending
3	Length of coastline	HSSC4/02	Correspondence Group on Definition and Length of Coastline to submit a paper describing a method of calculation of the length of coastline, based on ENCs, to the International Hydrographic Review Editor by the end of January 2013.	Publication in IHR May 2013	Done. See IHR May 2013 .
4.1	Performance Indicators	HSSC4/03	Contributions for the 2012 period to be provided by HSSC WG Chairs (Performance Indicators no 2 and 3) and WEND WG Chair (Performance Indicator no 5) by 31 January 2013.	31 Jan 2013	Done.
4.1	Performance Indicators	HSSC4/04	IHB to include the HSSC Working level Performance Indicators (WPIs) in the IHO monitoring report for 2012.	IHO Annual Report 2012	Done.
4.1	Performance Indicators	HSSC4/05	HSSC5 to revisit the usefulness of the Working level Performance Indicators (WPIs) adopted by HSSC4.	Report to HSSC5, 17 Sep 2013	Pending.
4.3	Technology Updates	HSSC4/06	Secretary to change the title of HSSC agenda item 10 to “review of new developments and other information papers” and move it to after item 7 of the agenda of future HSSC meetings.	HSSC5 (draft agenda)	Done. See Annex B to this CL.
5.1.1	TSMAD Work Plan	HSSC4/07	TSMAD Chair to include in the TSMAD work plan an additional work item to produce a roadmap (using mind map), taking into account the S-101 impact study and showing key tasks that have to be completed in order to implement S-100, and indicating interaction between the tasks and the implications for stakeholders.	TSMAD25, Jan 2013 & TSMAD26, Jun 2013	On-going. Draft circulated by TSMAD Chair. Reviewed at an ad hoc workshop at the IHB. To be further improved and reviewed at TSMAD-26.
5.1.1	Use of Object Catalogue	HSSC4/08	IHB to circulate the draft edition 3.1.0 of S-57 Appendix B1 Annex A <i>Use of the Object Catalogue for ENC</i> (UOC) to Member States for approval.	30 Nov 2012	Done (CL 102/2012). Approved by MS (CL 20/2013).
5.1.2	S-99	HSSC4/09	IHB to circulate the draft edition 1.1.0 of S-99 <i>Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry</i> to Member States for approval.	30 Nov 2012	Done (CL 102/2012). Approved by MS (CL 20/2013).
5.1.3	Ocean Forecasts	HSSC4/10	IHB to approach the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) to elaborate a joint strategy to develop S-100 based multi-disciplinary products in the context of the implementation of the e-navigation strategy.	Report to HSSC5, 17 Sep 2013	On-going.

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (May 2013)
5.1.4	Identifiers for S-100 based P.S.	HSSC4/11	TSMAD to develop, with IHB support and in consultation with the relevant stakeholders, a nomenclature for S-100 based product specifications as part of the GI registry management, and revise S-100, taking into account the following guidance: <ul style="list-style-type: none"> • S-100 to S-199 should be reserved for IHO product specifications; • Non IHO product specifications identifiers should be assigned by the registry manager on a first come first served basis from S-200 onwards. 	Report to HSSC5, 17 Sep 2013	On-going. Discussion initiated at TSMAD-25.
5.1.5	Magnetic Variations	HSSC4/12	IHB to invite Member States to implement Encoding Bulletin 44 dealing with magnetic variations.	30 Nov 2012	Done (CL 102/2012).
5.1.6	Surface Currents	HSSC4/13	IHB to invite Member States to consider participating in the working group on surface current product specifications and inform Canada no later than end of 2012.	30 Nov 2012	Done (CL 102/2012). Membership and officers agreed. SCWG web page created.
5.1.7	S-101 Test Plan Funding	HSSC4/14	TSMAD to draft a statement of requirements for the development of S-101 test plan and submit it to the IHB for tendering.	TSMAD25, Jan 2013 & TSMAD26, Jun 2013	On-going. Draft statement in TSMAD25-4.5.3 rev 1 . Reviewed at an ad hoc workshop at the IHB. To be further improved and reviewed at TSMAD-26.
5.1.7	S-101 Test Plan Funding	HSSC4/15	IHB to prepare and award a contract for the development of S-101 test plan within the allocated IHO budget.	31 March 2013	Pending. Will follow HSSC4/14.
5.1.8	AIS AtoN and ENCs	HSSC4/16	TSMAD to develop an Encoding Bulletin that describes how to encode virtual AIS Aids to Navigation using the New Object (NEWOBJ) feature.	TSMAD25, Jan 2013	Done (EB54 - TSMAD and PB10 – DIPWG).
5.2	DPSWG	HSSC4/17	IHB to invite Member States to nominate experts and candidate office bearers to participate in the work of the DPSWG.	30 Nov 2012	Done (CL 102/2012). No new nomination.
5.2	S-63 Edition 1.0	HSSC4/18	IHB , as scheme administrator, to inform all S-63 accredited OEMs and Data Servers that using S-63 Edition 1.0 beyond 1 January 2014, will result in the termination of their protection scheme agreement in accordance with clause 8.1.2 of the agreement.	31 Dec 2012	Done (IHB Letter dated 14 Dec 2012). Out of some 215 OEMs, only 6 could not be reached. All other OEMs and all DS received the letter. Issue monitored by DPSWG.
5.3.1	DIPWG Work Plan	HSSC4/19	DIPWG Chair to amend the title of work item A.5 in the DIPWG work plan, to read: “Develop new Presentation Library Version 3.5 and coordinate with TSMAD for appropriate changes to S-64”.	DIPWG5, Jun 2013	Done. See DIPWG work plan .

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (May 2013)
5.3.1	Portrayal Modelling	HSSC4/20	DIPWG Chair to send a note to OEMs to clarify the objectives of a side meeting on portrayal modelling issues, to be held in conjunction with the ECDIS anomalies workshop (London, UK, 15-16 October 2012).	8 Oct 2012	Done.
5.3.1	Portrayal & PL Issues	HSSC4/21	UK (Mr Jonathan PRITCHARD) to provide the DIPWG Chair with all the feedback and information gained from ECDIS anomalies analysis, concerning portrayal and Presentation Library issues. If there is an issue that needs immediate action, DIPWG to issue a portrayal bulletin.	31 Dec 2012	Done. Impact to be reviewed at DIPWG-5.
5.3.1	DIPWG Work	HSSC4/22	DIPWG Chair to liaise with the IHB to agree how best to expedite the work of DIPWG (especially the S-100 portrayal model work) by facilitating the attendance of key persons to focus group meetings.	31 Dec 2012	Done.
5.3.2	Contracting out Portrayal & PL enhancements	HSSC4/23	DIPWG to draft a statement of requirements for each of the following tasks and submit them to the IHB for tendering: a. correction of errors in the hydrographic portrayal register; b. updating the digital presentation files; and c. creation of an S-100 portrayal catalogue builder.	31 Dec 2012	Done. SOW dated 7 May 2013.
5.3.2	Contracting out Portrayal & PL enhancements	HSSC4/24	IHB to prepare and award a contract for the following tasks, in using the PL fund and/or other available resources: a. correction of errors in the hydrographic portrayal register; b. updating the digital presentation files; and c. creation of an S-100 portrayal catalogue builder.	31 Mar 2013	On-going. Progress report at DIPWG-5.
5.3.3	S-100 & S-101 Master Plan	HSSC4/25	TSMAD and DIPWG Chairs to produce, by the end of January 2013, a "master plan" document for the development of S-100 and S-101, in accordance with the life cycle diagram included in resolution 2/2007, incorporating sequencing with DQWG and DPSWG, and scheming the implications for stakeholders.	31 January 2013	Pending. 1 st draft for mid-June by IHB & HSSC Chair. Revised draft to be submitted to HSSC-5.
5.4	SNPWG Master Plan	HSSC4/26	SNPWG to prepare a master plan for developing electronic nautical publications, with priority assigned to defining data models and product contents in order to coordinate the scheduling of deliverables with the implementation of S-101.	Report to HSSC5	Pending. Item is on the agenda of SNPWG-16.
5.4	Nautical Publications related P.S.	HSSC4/27	SNPWG to provide an estimate of the number of potential product specifications related with nautical publications.	Report to HSSC5	Pending. Item on the agenda of SNPWG-16.
5.5	CSPCWG ToR	HSSC4/28	IHB to amend Clause 2 of the CSPCWG terms of reference, to read (changes underlined): "This WG is a subsidiary of the Hydrographic Services and Standards Committee (HSSC). Its work is subject to HSSC approval. <u>In respect of the current cycle of revision of S-4 and in the interests of procedural efficiency, the WG has authority to reach decisions on the maintenance and updating of this document for which it is responsible</u> and to seek direct endorsement of its proposals by IHO Member States via the IHB. This does not include matters that may have a strategic or financial implication for Member States or other interested stakeholders."	30 Nov 2012	Done. See CSPCWG TORs .

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (May 2013)
5.6.2	Change to the Use of Object Catalogue	HSSC4/29	TSMAD to apply to S-57 Appendix B.1 Annex A (Use of the Object Catalogue for ENC), the changes identified in section 8 of HSSC4-05.6B and dealing with reflecting the impact of extreme events through CATZOC.	TSMAD25	Pending
5.6.3	Training on the quality aspects of the practical use of ENCs	HSSC4/30	DQWG to review, in liaison with training institutions, the adequacy of existing HOs' publications on the quality aspects of the practical use of ENCs.	Report to HSSC5	Pending. Item on the agenda of DQWG7.
5.6.3	Training on the quality aspects of the practical use of ENCs	HSSC4/31	IHB to investigate how to interface with STW for improving training on the quality aspects of the practical use of ENCs.	Report to HSSC5	Pending
5.7.3	"Introduction to MSDI" Training Course	HSSC4/32	MSDIWG to consider, within its work plan, the development of content for an "introduction to MSDI" training course.	MSDIWG4, 31 Jan - 01 Feb 2013	Pending. Item inserted in MSDIWG work plan.
5.8	TWLWG coordination with other organizations	HSSC4/33	TWLWG to report at HSSC5 on the coordination of its work plan with the relevant activities conducted under the auspices of other organizations, such as IOC.	Report to HSSC5, 17 Sep 2013	Pending. Item on the agenda of TWLWG5.
5.9	HDWG Membership	HSSC4/34	IHB to invite Member States to provide experts to HDWG and report, in liaison with HDWG, to HSSC5 on the options for continuing the maintenance of the Hydrographic Dictionary (S-32).	30 Nov 2012 and 17 Sep 2013	On-going (CL 102/2012). Membership and officers agreed.
5.9	Definitions of Altitude, Elevation and Height	HSSC4/35	HDWG to review the approved definitions of Altitude, Elevation and Height, in light of HSSC4-05.9B.	Report to HSSC5, 17 Sep 2013	Pending.
8.1	Stakeholders' Forum	HSSC4/36	IHB to report to the Forum participants its views on the issues raised in the poll.	31 Dec 2012	Done. See report .
8.1	Stakeholders' Forums	HSSC4/37	IHB to reconsider the format for future Stakeholders' Forum events, to improve interest and interaction with stakeholders.	Report to HSSC5, 17 Sep 2013	Pending.
9	HSSC Work Plan	HSSC4/38	IHB , in liaison with the working group chairs, to revise the draft HSSC work plan (HSSC4-09A) for distribution with the meeting minutes.	30 Nov 2012	Done. See HSSC WP 2013-2014 - VI .
9	Implementation of S-100 based products and services	HSSC4/39	IHB , in liaison with HSSC chair, to develop an outline of the regulatory process associated with the implementation of S-100 based products and services.	Report to HSSC5, 17 Sep 2013	On-going.
9	e-Navigation	HSSC4/40	Secretary to add an item on e-navigation in the draft agenda of HSSC5.	HSSC5 (draft agenda)	Done. See Annex B to this CL.
12	Date & location of 2013 meeting	HSSC4/41	Member States to consider hosting HSSC5 and inform the IHB of possible venues before 1 st February 2013	31 Jan 2013	Done (CL 102/2012). HSSC5 to be hosted by China MSA in Shanghai, 5-8 November 2013.

5TH MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE
Seagull On The Bund Hotel, Shanghai, China, 5-8 November 2013

DRAFT AGENDA AND TIMETABLE

Note: Presenters of papers in parentheses ().

Monday 4 Nov	HSSC CHAIR GROUP
1400 - ~1730	HSSC Chair Group Meeting (Chair and Vice-Chair of HSSC, Chairs of HSSC Working Groups (WGs), Secretary of HSSC)
Tuesday 5 Nov	HSSC-5
0900	<p>1. Opening and Administrative Arrangements</p> <p><i>Docs: HSSC5-01A List of Documents (IHB)</i> <i>HSSC5-01B List of Participants (IHB)</i> <i>HSSC5-01C HSSC – List of Contacts (IHB)</i> <i>HSSC5-01D TORs for HSSC and related Working Groups (IHB)</i></p>
0915	<p>2. Approval of Agenda</p> <p><i>Docs: HSSC5-02A Agenda and Timetable (IHB)</i></p>
0930	<p>3. Matters arising from Minutes of 4th HSSC Meeting</p> <p><i>Docs: HSSC5-03A Minutes of HSSC-4 (IHB)</i> <i>HSSC5-03B Status of Actions List from HSSC-4 (IHB)</i></p>
1030	Group Photo followed by Coffee Break
1100	<p>4. HSSC Administration</p> <p>4.1 Implementation of Programme Performance Indicators <i>Docs: HSSC5-04.1A Programme Performance Indicators for HSSC (IHB)</i></p>
	5. Reports by HSSC Working Groups
1145	<p>5.1 Transfer Standard Maintenance and Application Development (TSMAD) <i>Docs: HSSC5-05.1A Report and Recommendations of TSMAD (TSMAD Chair)</i></p>
1230	Lunch
1400	<p>5.1 Transfer Standard Maintenance and Application Development (TSMAD) (continued) <i>Docs:</i></p>
1530	Coffee Break
1600	<p>5.1 Transfer Standard Maintenance and Application Development (TSMAD) (continued) <i>Docs:</i></p>

1630	break into drafting groups (if required)
1730	END OF DAY ONE
Wednesday 6 Nov	HSSC-5 (continues)
	5. Reports by HSSC Working Groups (continued)
0900	5.2 Data Protection Scheme (DPSWG) <i>Docs: HSSC5-05.2A Report and Recommendations of DPSWG (DPSWG Chair)</i>
1030	Coffee Break
1100	5.3 Digital Information Portrayal (DIPWG) <i>Docs: HSSC5-05.3A Report and Recommendations of DIPWG (DIPWG Chair)</i>
1230	Lunch
1400	5. Reports by HSSC Working Groups (continued)
	5.4 Standardization of Nautical Publications (SNPWG) <i>Docs: HSSC5-05.4A Report and Recommendations of SNPWG (SNPWG Chair)</i>
1445	5.5 Chart Specifications and Paper Charts (CSPCWG) <i>Docs: HSSC5-05.5A Report and Recommendations of CSPCWG (CSPCWG Chair)</i>
1530	Coffee Break
1600	break into drafting groups (if required)
1730	END OF DAY TWO
1900-2100	Welcome Dinner offered by China MSA
Thursday 7 Nov	HSSC-5 (continues)
0900	consider work of drafting group(s) (if required)
	5. Reports by HSSC Working Groups (continued)
0945	5.6 Data Quality (DQWG) <i>Docs: HSSC5-05.6A Report and Recommendations of DQWG (DQWG Chair)</i>
1030	Coffee Break
1100	5.7 Marine Spatial Data Infrastructure (MSDIWG) <i>Docs: HSSC5-05.7A Report and Recommendations of MSDIWG (MSDIWG Chair) HSSC5-05.7B IHO Participation in the UN Committee of Experts on Global Geospatial Information Management (IHB)</i>
1145	5.8 Tidal and Water Level (TWLWG) <i>Docs: HSSC5-05.8A Report and Recommendations of TWLWG (TWLWG Chair)</i>

1210	5.9 Hydrographic Dictionary (HDWG) <i>Docs: HSSC5-05.9A Report and Recommendations of HDWG (HDWG Chair)</i>
1230	Lunch
1400	5.10 Surface Current (SCWG) <i>Docs: HSSC5-05.10A Report and Recommendations of SCWG (SCWG Chair)</i>
1420	6. Inter-Organizational Bodies 6.1 IHO-IAG Advisory Board on the Law Of the Sea (ABLOS) <i>Docs: HSSC5-06.1A Status Report on ABLOS activities (ABLOS Chair)</i>
1440	7. Decisions of other bodies affecting HSSC 7.1 E-navigation developments <i>Docs: HSSC5-07.1A Report on e-navigation development affecting HSSC (HSSC Chair)</i>
1515	7.2 IMO <i>Docs: HSSC5-07.2A Report on IMO activities affecting HSSC (IHB)</i>
1530	Coffee Break
1600	END OF DAY TWO
1600 - ~1830	Chair Group Meeting <i>Preparation of List of Actions</i>
Friday 8 Nov	HSSC-5 (continues)
0900	7.3 IEC <i>Docs: HSSC5-07.3A IEC Activities affecting HSSC (IEC)</i>
0915	7.4 Inland ENC Harmonization Group (IEHG) <i>Docs: HSSC5-07.4A Status Report on Inland ENC Development and Standardization (IEHG co-Chair)</i>
0930	7.5 CIRM <i>Docs: HSSC5-07.5A CIRM Activities affecting HSSC (CIRM)</i>
0945	7.6 IALA <i>Docs: HSSC5-07.6A IALA Activities affecting HSSC (IALA)</i>
1000	7.7 OGP <i>Docs: HSSC5-07.7A OGP Activities affecting HSSC (OGP)</i>
1015	7.8 IRCC <i>Docs: HSSC5-07.8A Outcome of the 5th IRCC Meeting (IRCC Chair)</i>
1030	Coffee Break

1100	<p>8. Review of new developments and other information papers</p> <p><i>Docs: HSSC5-08A Status Report on IHO Publications on Standards and Specifications (IHB)</i></p>
1115	<p>9. Liaison with External Stakeholders</p> <p><i>Docs:</i></p>
1130	<p>10. Review and Endorsement of HSSC Work Plan and List of Actions</p> <p><i>Docs: HSSC5-10A Draft HSSC Work Plan (IHB)</i></p>
1200	<p>11. Review of HSSC input to EIHC-5</p>
1215	<p>12. Date & Location of the next meetings</p> <p>HSSC-6: Tentative date: early November 2014. Offer from Chile for hosting HSSC-6 was expressed at HSSC-4.</p> <p>HSSC-7: Tentative date: early November 2015. MS are invited to propose venues. Fall-back venue: IHB, Monaco.</p> <p>HSSC-8: Tentative date: early November 2016. MS are invited to propose venues. Fall-back venue: IHB, Monaco.</p>
1225	<p>13. Closure of the Meeting</p>
1230	<p>END OF MEETING</p>
Afternoon	<p>Technical visit organized by China MSA</p>

HSSC – LIST OF CONTACTS
(as at May 2013)

Member States	Name	Email
Argentina	Fabian Alejandro VETERE	fveter@hidro.gov.ar
Australia	Mike PRINCE (HSSC Vice-Chair) Jeff WOOTTON (CSPCWG Vice-Chair)	international.relations@hydro.gov.au jeff.wootton@defence.gov.au
Brazil	José Guilherme THOMY Augusto Medeiros de ALBUQUERQUE	thomy@chm.mar.mil.br medeiros.albuquerque@dhn.mar.mil.br
Canada	Sean HINDS Louis MALTAIS (SCWG Vice-Chair)	HindsS@DFO-MPO.GC.CA Louis.maltais@dfo-mpo.gc.ca
Chile	Patricio CARRASCO	pcarrasco@shoa.cl
China	ZHENG Hepping	hydro@msa.gov.cn
Cuba	J.C. MARANTE Cabrera	onhg@geocuba.cu
Denmark	Jens Peter HARTMAN (MSDIWG Chair)	jepha@kms.dk
Ecuador	Patricio GOYES Arroyo Carlos ZAPATA Cortez	direccion@inocar.mil.ec hidrografia@inocar.mil.ec
Estonia	Tõnis SIILANARUSK	tonis.siilanmarusk@vta.ee
Finland	Juha KORHONEN	Juha.Korhonen@liikennevirasto.fi
France	Laurent LOUVART Yves LE FRANC Jean LAPORTE (HDWG Chair) Gwenaële JAN (TWLWG Chair)	louart@shom.fr yves.le.franc@shom.fr jean.laporte@shom.fr gwenaele.jan@shom.fr
Germany	Mathias JONAS (HSSC Chair) Jens SCHRÖDER-FÜRSTENBERG (SNPWG CHAIR)	mathias.jonas@bsh.de Jens.Schroeder-Fuerstenberg@bsh.de
Greece	Alexis HADJANTONIOU	dcd_hnhs@navy.mil.gr
India	Shri Rajesh KUMAR	inho-navy@nic.in
Indonesia	Capt ROSYID	diysor_99@yahoo.com infohid@dishidros.go.id
Italy	Rosario LA PIRA Carlo MARCHI	rosario.lapira@marina.difesa.it carlo.marchi@marina.difesa.it
Japan	Arata SENGOKU	ico@jodc.go.jp
Korea, Rep. of	Director, Nautical Charts Division	infokhoa@korea.kr
Mexico	Raúl MARTÍNEZ Sánchez	asunext.hidro@gmail.com
Netherlands	Jan SCHAAP René van GEESBERGEN Leendert DORST (DQWG Vice-Chair) Ellen VOS (MSDIWG Vice-Chair)	j.schaap2@mindef.nl r.v.geesbergen@mindef.nl LL.Dorst@mindef.nl em.vos@mindef.nl
New Zealand	Adam GREENLAND	agreenland@linz.govt.nz
Norway	Ole B KVAMME	Ole.Kvamme@statkart.no
Peru	Roberto PÉREZ Medina	rperez@dhn.mil.pe
Poland	Henryk NITNER	h.nitner@mw.mil.pl
Portugal	António Martins PINHEIRO	martins.pinheiro@hidrografico.pt
Russian Federation	Capt EGOROV	main@gunio.ru
Singapore	Parry OEI	parry@mpa.gov.sg

South Africa	Abri KAMPFER	hydrosan@iafrica.com
Spain	José Manuel MILLÁN GAMBOA	ihmesp@fn.mde.es
Sweden	Ralf LINDGREN	Ralf.Lindgren@Sjofartsverket.se
Turkey	Bülent GÜRSES	bgurses@shodb.gov.tr
UK	Chris SMITH Peter JONES (CSPCWG Chair) Barrie GREENSLADE (TSMAD Chair) Chris HOWLETT (DQWG Chair) Jonathan PRITCHARD (DPSWG Chair) John BROWN (ABLOS Vice-Chair) Thomas MELLOR (DIPWG Vice-Chair) Christopher JONES (TWLWG Vice-Chair)	chris.smith@ukho.gov.uk peter.jones@ukho.gov.uk barrie.greenslade@ukho.gov.uk chris.howlett@ukho.gov.uk jonathan.pritchard@ukho.gov.uk john.brown@ukho.gov.uk thomas.mellor@ukho.gov.uk christopher.jones@ukho.gov.uk
USA	Jim MCGAUGHRAN David ENABNIT Colby HARMON (DIPWG Chair) James BRAUD Kurt HESS (SCWG Chair) Julia POWEL (TSMAD Vice-Chair) Thomas LOEPER (SNPWG Vice-Chair)	james.mcgaughran@nga.mil dave.enabnit@noaa.gov colby.harmon@noaa.gov james.braud@navy.mil kurt.hess@noaa.gov julia.powell@noaa.gov thomas.loeper@noaa.gov
IHB	Name	Email
	Gilles BESSERO (Secretary) Michel HUET (Asst. Secretary)	gilles.bessero@iho.int michel.huet@iho.int
Observers	Name	Email
CIRM	Michael BERGMANN Michael RAMBAUT Tor A. SVANES	michael.bergmann@jeppesen.com secgen@cirm.org tor.svanes@navtor.com
CLIA	Paul BEGGS	pbeggs@princesscruises.com
CNITA	Willem AMELS	willem@datema.nl
DGIWG	<i>no name provided</i>	mail@dgiwg.org
GEBCO	Walter SMITH	walter.smith@noaa.gov
IAG	Sunil BISNATH (ABLOS Chair)	sbisanath@yorku.ca
IALA	Lee ALEXANDER	lee.alexander@unh.edu
IC - ENC	James HARPER Richard FOWLE	james.harper@ic-enc.org Richard.fowle@ic-enc.org
ICS	John MURRAY	John.Murray@marisec.org
IEC/TC80	Andy NORRIS Kim FISHER	andy@drandynorris.co.uk kpfisher@btinternet.com
IEHG	Denise LADUE Lee ALEXANDER	Denise.R.LaDue@usace.army.mil lee.alexander@unh.edu
IMO Secretariat	Gurpreet SINGHOTA	gsinghota@imo.org
IMPA	Albrecht KRAMER	auf.kramer@online.de
OGP	Palle JENSEN	palle.jensen@maerskoil.com
PRIMAR	Robert SANDVIK	robert.sandvik@primar.org
RTCA	Michael BERGMANN	michael.bergmann@jeppesen.com
RTCM	Fred GANJON Rafael PONCE	fganjon@starpower.net rponce@esri.com
UN (DOALOS)	Robert SANDEV	sandev@un.org