INTERNATIONAL HYDROGRAPHIC ORGANIZATION



ORGANISATION HYDROGRAPHIQUE INTERNATIONALE

IHB File N° S1/1001/WP

CIRCULAR LETTER 66/2015 2 September 2015

REPORT ON THE OVERALL STATUS OF THE IHO WORK PROGRAMME MID-YEAR 2015

References:

- A. EIHC-5 Decision No. 3 (PRO. 5 Improving the total cost estimate of the IHO tasks for the definition of a prioritized Work Programme)
- B. IHO Circular Letter 17/2015 dated 24 February Report on the overall status of the IHO Work Programme end of 2014.

Dear Hydrographer,

Background

- 1. Decision No. 3 (see Reference A) of the 5th Extraordinary International Hydrographic Conference (EIHC-5) introduced a six-monthly reporting regime to help assess the progress of the IHO Work Programme. The first status report at the end of 2014 was circulated to Member States in February this year (see Reference B). This Circular Letter provides a report for the next reporting point mid-year 2015.
- 2. In July 2015, the Directing Committee invited the Chairs of Regional Hydrographic Commissions, Committees, Sub-Committees and Working Groups and the Director of the IHO Data Centre for Digital Bathymetry (DCDB) to report on the overall status of their respective work programmes. A reporting template was provided to achieve this.

Outcome at mid-year 2015

3. 26 of 43 Chairs provided a report for the period January to June 2015. This represents a response rate of about 60%, similar to the response rate for the previous reporting period. The following 17 bodies did not provide a report:

Subordinate organs of HSSC: S-66PT

Subordinate organs of IRCC: CBSC, MSDIWG, DCDB

Regional Hydrographic Commissions: NHC, MBSHC, BSHC, USCHC, EAHC,

SEPRHC, SWPHC, NIOHC, RSAHC, SWAtHC,

ARHC.

Inter-organizational bodies: ABLOS, IBSC

4. As directed by EIHC-5, the Directing Committee is providing in Annex A a brief summary of the reports received. The reports themselves are reproduced in Annex B (in English only).

Main areas of concern reported

5. Based on the reports received, it appears that supporting the continuing development of the S-100 framework remains as a particular area of risk to the technical work programme. The recruitment of a permanent Technical Standards Support Officer is being proposed by the Directing Committee in the draft Budget for 2016 to address some of the gaps identified in the support for S-100 and its associated Registry.

6. Based on the limited number of reports received, no significant shortcomings have been identified in the execution of the IRCC work programme.

Feedback

- 7. Four Member States provided comments in response to Reference B: Canada, Chile, Portugal and Suriname. Their responses are provided in Annex C, together with the outcome of their review by the Directing Committee.
- 8. Noting the different views expressed by the four Member States on the usefulness of the biannual reports, the Directing Committee would welcome any further feedback from Member States on this letter or the reporting process <u>not later than 1 November 2015</u>.

Next Reporting Period

9. In accordance with the Conference Decision, the Directing Committee will issue its next request for six-monthly reports in early January 2016.

On behalf of the Directing Committee Yours sincerely,

Robert WARD President

Annexes:

- A. Compilation of the Status Reports from IHO bodies and inter-organizational bodies involving the IHO Mid-year 2015
- B. Status Reports received (in English only).
- C. Responses from Member States to IHO CL 17/2015 and comments by the Directing Committee

Copy (by e-mail):

- Chairs and Vice-Chairs of IHO bodies
- Chairs and Vice-Chairs of inter-organizational bodies involving the IHO

Compilation of the Status Reports from IHO bodies and inter-organizational bodies involving the IHO - Mid-year 2015.

Number of responses

- 1. The Chairs of 26 out of 43 bodies provided reports. The following 17 bodies did not provide a report:
 - subordinate organs of HSSC: S-66PT
 - subordinate organs of IRCC: CBSC, MSDIWG, DCDB
 - Regional Hydrographic Commissions: NHC, MBSHC, BSHC, USCHC, EAHC, SEPRHC, SWPHC, NIOHC, RSAHC, SWAtHC, ARHC.
 - inter-organizational bodies: ABLOS, IBSC.

Status of the Work Programme of the HSSC

- 2. A procedure has been implemented in liaison with the ENC Standards Maintenance Working Group (ENCWG) to monitor and address errors or ambiguities identified through the practical implementation of the new or revised editions of IHO ECDIS-related standards required to support the new edition of IEC Standard 61174 *Electronic Chart Display and Information System (ECDIS) Operational and Performance Requirements, Methods of Testing and Required Test Results*. Close liaison with the ECDIS equipment manufacturers and the shipping industry is required during the one-year transition phase to ensure that any issue arising is dealt with in the most appropriate manner¹.
- 3. The revision of Edition 5.0.0 of S-58 *ENC Validation Checks* (IHO CL 18/2015 refers) is still ongoing; the ENCWG identifies the need to develop a test dataset to accredit ENC production software.
- 4. The development of S-100 and S-100 based product specifications, as well as the operation of the S-100 Registry, continues to rely on a small number of dedicated experts from the Member States and from the industry. This situation is fragile and could undermine the central role of S-100 in the development of the common maritime data structure in support of e-Navigation.
- 5. The Hydrographic Dictionary Working Group (HDWG) reports that lack of participation continues to impede progress in its activities.

Status of the Work Programmes of the Regional Hydrographic Commissions

- 6. Only five out of the 16 regional bodies provided a report.
- 7. The Eastern Atlantic Hydrographic Commission notes the persistent under-development of hydrographic capabilities in the region and a lack of awareness of hydrography by top-level decision makers.

Status of the work programme of the IRCC

8. No gaps were reported at the Committee level.

¹ See IHO Circular Letter 65/2015 dated 31 August – Status of IHO ECDIS and ENC Normative References.

Annex B to IHO CL 66/2015

Status Reports received

-	HSSC
-	S-100WG
-	ENCWG
-	NCWG
-	NIPWG
_	DPSWG
-	DQWG
-	TWCWG
_	SCWG
-	HDWG

- IRCC
- WWNWS-SC & S-124CG
- WEND-WG
- IENWG
- NSHCEAtHCMACHCSAIHC
- GEBCO GUIDING COMMITTEE

(+ GEBCO Outreach WG, GEBCO Web Site work)

- GEBCO-SCUFN

HCA

- GEBCO-TSCOM & SCRUM
- FC
- SRWG

Overall status of the work programme of <u>Hydrographic Standards and Services Committee</u> (HSSC)

Compiled by Dr Mathias Jonas - e-mail address: mathias.jonas@bsh.de

Current goals and priorities	Current or expected gaps and needs	Comments
Maintenance of current ECDIS standards: implementation of the new editions of S-52, S-52 Presentation Library, S-58, S-63 and S-64	Software upgrades (OEM, ENC producers, end-users) and feedback in case of implementation problems	Continued need to inform shipping industry and OEM of standard changes and how they affect ECDIS performance.
and 5-04	Coordination with IEC and IMO	New IMO Circular ECDIS guidance for good practice confirms the need for software maintenance for ECDISes at sea. This will become applicable to new systems when new editions of IEC and IHO standards come into force by end of 2015. New editions of IHO standards are available. Their publicationis pending to IEC's planned release of the new edition of IEC61174
	Requirement for a test data set compiled for testing of new version of S-58-Ed. 5.1.0	Funding or in kind support required for testing before publication.
Development of S-100 and S-100 based product specifications	Due to IT reasons reengineering of the registry structure and the register interface required	All S-100 dependent WGs are affected NOAA and ROK work on proposal
	Delayed creation of edition 2.0 of S-63 for S-10x data products.	Resources constraints but contingency measures underway
	Delays in drafting the S-100 interoperability Guidebook	Lack of test material, ie. S-100 based data products other than ENCs – postponed to 2016
Re-structuring of HSSC Working Groups	HDWG: ongoing discussion about the scope, the working arrangements and the expected output	Member States view and commitment via HSSC required

Overall status of the work programme of the **S-100 Working Group** (*acronym of the IHO body or inter-organizational body involving the IHO*)

Compiled by Julia Powell - e-mail address: <u>Julia.Powell@noaa.gov</u>

Current goals and priorities	Current or expected gaps and needs	Comments
Repair S-100 Register Functionality – the existing S-100 Register has several broken interfaces so no proposals can be made.	Encountered issues with connecting to the IHO Clone Server to make repairs to broken webpages on the IHO Registry.	Fixing the existing functionality to the S-100 Register is only a stop-gap solution. The S-100WG chair is working with ROK to develop a new interface to the S-100 register. This way forward will be reported on at HSSC7.
The feature Catalogue Builder(FCB) connecting to S-100 Register	The FCB can not connect to the IHO registry because of deficiency between S-100 edition 2.0.0 and IHO data table. Need to update the registry.	The FCB would connect to KHOA's S-100 registry in order to test operation of feature catalogue by various domain owners. Interim solution will be reported on at HSSC7.
Prepare a New Edition of S-102	S-102 still needs to establish both a feature and portrayal catalogue for machine readability. It also needs to propose the encoding that will be used for this product to S-100 edition 2.1.0	
Develop an S-100 Interoperability Guidebook	Currently, there is not enough information and the test bed is not mature enough to prepare this item of work.	This item will be tentatively scheduled for 2016
	In addition, it may be difficult to resource this properly	

Overall status of the work programme of : Electronic Navigational Chart WG (ENC WG)

Compiled by: Thomas Mellor e-mail address: Thomas.Mellor@ukho.gov.uk

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
S-52 Presentation Library minor revision to clarify a number of issues identified during OEM ECDIS implementation	More communication with OEMs required we need them to report in any discrepancies so the standard can be amended	IHO must make more use of marketing and social media to engage with the shipping industry and inform them of any IHO activities that will affect them.
		There is a compelling need for the IHO to continue to inform the shipping industry of standard changes and how this affects ENC display. The IHO must engage with all stakeholders to ensure the changes to ECDIS required by the new editions of IHO standards are fully understood.
S-64 minor revision to clarify a number of issues identified during OEM testing of the Presentation Library	More communication with OEMs required need them to report in any discrepancies	
S-58 - 5.1.0 revision currently underway	There is a requirement for a test dataset to be created for accrediting the software manufacture process	IHO should consider ways to fund the testing of standards before they are published.
S-65 review to ensure alignment with the WEND Principles.	Task not under way	

Overall status of the work programme of the Nautical Cartography Working Group (NCWG)

Compiled by **Jeff Wootton** - e-mail address: <u>jeff.wootton@defence.gov.au</u>

Current goals and priorities	Current or expected gaps and needs	Comments
(A) Maintain and extend Publication S-4 'Chart Specifications of the IHO & Regulations of the IHO for INT Charts' (IHO Task 2.3.2) and (E) Maintenance of S-4 supplementary publications INT 1, 2 & 3 (IHO Task 2.3.2)	Issue with requirement to conform to IHO Resolution 2/2007 for S-4 and coordination of publication of associated (IHO adopted) national INT1 publications (DE, FR, ES).	Paper to be presented to HSSC7.
Consideration of the 'future of the paper chart' (Task A16).	Discussion Paper presented at NCWG1. NCWG1 Action 54 - Chair to begin process for setting up a NCWG Correspondence Group on the future of paper charts and consequences to the work of NCWG, so that a proposal can be submitted to HSSC7.	Draft ToR's for Correspondence Group (Project Team?) in preparation by NCWG Chair for submission to HSSC7.
Consider standardization issues related with additional information overlay services and provide recommendations as appropriate (S-4 – Task A22).	Refer HSSC6-05.5D rev1. Discussed at NCWG1. This task is in part associated with recommendation (iii) of the paper to HSSC6. Agreed by the WG that this recommendation was outside the remit of the NCWG, and more appropriately belonged with the WENDWG.	Refer to WENDWG5 Actions 01 and 02. NCWG Chair will include a summary of NCWG1 discussions related to the UKHO AIO Service in the NCWG report to HSSC7.

Develop guidelines for preparation & maintenance of small / medium scale ENC schemes (S-11 Part A – Task B3).	Draft document prepared by NSEHWG. This draft has been reviewed and amended by the NCWG Chair and Secretary, and is currently subject to review of the NCWG membership and INT Chart Coordinators (ICCWGs).	
Develop new section V for INT1 for 'data quality' (INT1 – Task E9).	Preliminary discussions held at AU, however progress delayed due to AU resource strain.	Progress report delivered at NCWG1. Intent is for draft to be presented at NCWG2

All other Tasks in the Work Plan are in hand (no gaps or additional needs) or Planned.

Overall status of the work programme of **the NIPWG** Compiled by Jens Schröder-Fürstenberg- e-mail address: jens.schroeder-fuerstenberg@bsh.de

Principalgoals orpriorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Populate the NPUBS domain of the FCD Register (work item F.7)	[NEED] improvement of the registry handling	The registry is not able to support the upload of attribute types such as complex attributes, functions such as "sandbox" or "bulk upload" are missing
Develop S-122–Marine Protected Area Product Specification (work item F 8.1)	[GAP] portrayal and data quality parts missing [NEED] harmonization with S-101 data model, feature catalogue builder	Portrayal part is under consideration by the involved WGs, quality model was forwarded to the DQWG for further consideration. The harmonization discussion between the S-100WG/S-101 Project Team and NIPWG is ongoing, the feature catalogue builder is not available
Draft Data Capture and Encoding Guides for Marine Protected Area Product Specification (work item J.2.1.1)	[NEED] harmonization with S-101 data model	Both the S-101 and the S-122 data models should be harmonized to the widest possible extent.
Establish and monitor, in liaison with the S-100WG, the project teams required to specify and develop nautical information layers for use in ECDIS (IHO Task 2.6.2)	[NEED] specification of the intended operation of/between different product specifications	Further progress of the nautical information layer development/specification is limited by currently existing lack of understanding of how layers (different product specifications) will operate within S-100
Develop high level specifications for a combined Marine Service Portfolio (MSP) covering the provision of hydrographic services to mariners in accordance with the IMO e-navigation strategy implementation plan	[GAP] MSP specification	MSPs in their current status of development have not been accepted by the IMO. Further improvements and clarifications are requested and should be provided by 2016.

Develop a test and implementation plan for the development of the MSP "hydrographic services" (Work item H)	1 2 2	MSPs in their current status of development have not been accepted by the IMO. Further improvements and clarifications are requested and should be provided by 2016.
		A MSP named "hydrographic services" doesn't exist at the time when this report was been compiled.

Overall status of the work programme of ...DPSWG......(acronym of the IHO body or inter-organizational body involving the IHO)

Compiled by ...Jonathan Pritchard. (name of the compiler of the report) - e-mail address: ...jonathan.pritchard@ukho.gov.uk......

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Creation of edition 2.0 of S-63 for S-10x data products	Input to document creation has been difficult to obtain due to resource constraints.	A lot of input gathered over the last few DPSWG meetings has been compiled into a skeleton document which needs to be filled out. DPSWG chair has collated input from group members to date but more work is required and currently there is no detailed plan to achieve the goal of a "draft" during 2015. This situation may have changed by HSSC however. A drafting group later in 2015 is a contingency measure to try and focus group efforts on turning concepts into concrete documentation.
Support to data protection scheme administrators and end users (including ECDIS OEMs)	On track	A reactive function for the DPSWG group. A mixture of simple queries and issues of policy which are progressed with IHB staff.
Input into other IHO work groups on S-63 2.0 structure.	On track	The basic structure of the S-63 2.0 scheme and the division of responsibilities is largely defined and needs to be presented to the IHO S-100 WG along with detailed updates to existing documentation and suggestions. This will be accomplished for the next S-100WG meeting. Closer cooperation with S-100 WG has not been possible to date due to resource constraints

REPORT mid-2015

Overall status of the work programme of DQWG

Compiled by Mr. Antti CASTRÉN - e-mail address: ...antti.castren@fta.fi

Principalgoals orpriorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Finalizing the data model for data quality in S-101	-	
Finalising the logic tree which drives the composite bathymetric data quality indicator in S-101	-	Three tier model suggested earlier has been replaced by 5+2 tier model to better differentiate between varying data quality.
Identifying the data quality related elements in other S-1xx product specifications	-	
Reviewing data quality definitions within ISO and S-100 as well as S-100 based product specifications		

Principal goals or priorities for your group (from draft TWCWG Work Plan)	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Work Item D.1. Develop and maintain a standard for the transmission of real-time tidal data (Dynamic Water Level Data Product Specification – S112). Work Item F.1. Develop and maintain a product specification for dynamic application of tides in ECDIS	None identified None identified	As a fundamental element of the S-112 Product Specification, during TWLWG7 a draft Tidal Height Product Specification was presented by Australia and numerous amendments applied, guided by the Chair of S-100WG. A revised draft has been circulated to MS for comment. Further development of Tidal Zone feature attributes to be undertaken.
Work Item M.1. Develop and maintain material for course on Tides and Currents. (In support of CBSC requests [Capacity Building]).	None identified	Course material (PowerPoint slides) developed by South Africa were reviewed during TWLWG7 and a list of delegates identified to make suggested changes to core elements of the course material. In progress to be fed back to SA in order to be incorporated into the course documentation.

Overall status of the work programme ofSCWG(acronym of the IHO body or inter-organizational body involving the IHO)
Compiled byKurt Hess

Principal goals or priorities for your group (from draft TWCWG Work Plan)	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
E. Develop, maintain and extend a Product Specification for the transmission and portrayal of navigationally significant current surface data (S-111 - IHO Task 2.13.3)		Currents team may request that the draft Product Specification be formally reviewed by HSSC and/or S-100WG in late 2015 or early 2016

Overall status of the work programme of HDWG

Compiled by ...Jean Laporte..... - e-mail address: ...<u>jlaporte@shom.fr</u> Cc <u>JLaporte@argans.co.uk</u>

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
1. Revise the HDWG TORs and Business rules	IHO/HSSC and Member States formal approval	Draft new TORs has been prepared for more than six months, based on the following principles:
		- Unique HD reference for each term, expression and definition, in one and only one of the IHO official languages.
		- HD translation into any other language limited to the terms and expressions, not the definitions.
		- Translation of definitions in other languages left to the discretion and responsibility of MS.
		- Re-introduction of index numbers and table of cross-comparisons to facilitate consultation.
		- The HD should not be a S-100 registry or owned by any other WG.
		- Etc.

2. Organise a limited face to face meeting and revive the moribund WG	 IHO and relevant Member States formal approval. Travel funds Human resources and participation limited eventually to one member per major language group (En, Fr, Sp, 中文). 	 Although composed nominally of 12 members or more, the WG never meets, members do not know one another and never log in the forum (last entry: June 2014). The existing WG might as well be disbanded and started again from scratch so as to reflect as best as possible the main language groups and IHO Working Groups. A minimum commitment should be sought from participating WG members and eventually reflected in timesheets.
3. Proceed with the revision of the HD, starting with a rehearsal limited to the first 500 existing terms and expressions.	 Task left untouched because of lack of HR. The idea of a rehearsal is to learn to work together again before going into active production. 	Although the Chairman and Secretary have processed the new entries submitted to the WG, none of the reviews mentioned in the 2015-2016, Task A3, of the Work Plan have even started, due to the lack of commitment and HR.
4. Upgrade the on-line Wiki	 The on-line Wiki should only provide access to the unique IHO reference and links between languages & alphabetical indexes. IHO should not engage in the production or maintenance of national Wiki, which should be left at the discretion of Member States or language sub-groups. 	 Work on the improved on-line Wiki should only be considered when the new TORs have been approved. In the meantime, the existing Wiki should be maintained. It has been noted that in practice, HD users still consult their hard copies.

Overall status of the work programme of IRCC

Compiled by Edward Hosken (on behalf of Tom Karsten) Edward.hosken@ukho.gov.uk

Current Goals and Priorities	Current or expected gaps and needs	Comments
Hold annual meeting of IRCC	None	IRCC7 held June 2015 IRCC8 planned for May 2016
HOs CATZOC information to be included in C-55	Some HOs have not yet responded	CL52 issued in July 2015
Report to IRCC on the status of the RHC procedures for selecting their respective representatives to the Council	None	Reports due to IRCC8
Update IHO Publication C-16 - based on the inputs provided by Member States concerning government rights of access to bathymetric data collected for commercial or scientific purposes	CL planned for July 2015	CL requesting MS input not yet issued
Establish Crowd Source Bathymetry WG	None	Inaugural group meeting planned for Oct 2015 (CL42 refers)

Overall status of the work programme of: WWNWS-SC

Compiled by: Peter Doherty – Chairman WWNWS-SC- e-mail address: peter.m.doherty@nga.mil

Current goals and priorities	Current or expected gaps and needs	Comments
Maritime Safety Information Training Course	Travel expense for 2 Instructors, anticipated via CB funding.	2 courses per year, 2 instructors per course
Maritime Safety Information Document Review Work Group	None expected.	WG supports review and standardization of IMO, WMO, IHO common MSI documents. Chairman supports through IMO NCSR. Conclusion of IHO/WMO MoU expected to increase WMO participation.
S-124 Working Group	None at this time. WG has the right mix of National MSI authorities and Industry Partners.	WG contributes to the modernization of GMDSS via e-navigation. Longer term engagement of MS in S-124 development considered fragile and could retard S delivery. Harmonization with IALA enavigation initiative considered vital.
Review of the Iridium proposal as a GMDSS Satellite Service Provider	None expected.	Review of Iridium proposal and various documentation via WWNWS-SC meetings interaction with IMO and WMO For a. Longer term challenges for NAVAREA coordinators' service delivery via two satellite providers to be considered and exposed with IMO.

Overall status of the work programme of ... WEND Working Group (acronym of the IHO body or inter-organizational body involving the IHO)

Compiled by ... Mark Halliwell (for Capt Jamie McMichael-Phillips... (name of the compiler of the report) - e-mail address: mark.halliwell@ukho.gov.uk

Current goals and priorities	Current or expected gaps and needs	Comments
1 Pilot project using OEM tools to resolve ENC	None	Ongoing.
overlapping issues.		Singapore/EAHC leading.
2 Develop scenarios and test cases on ECDIS with	None	Ongoing.
overlapping ENCs.		IC-ENC tasked.
3 Develop policy on overlapping data and	None	Ongoing.
production responsibilities.		RENCs Manager and RENC Chair tasked.
4 Report on RENC Harmonization issues and	None	Ongoing.
progress made.	TVOIC	RENCs tasked.
5 Provide a joint RENC paper on the benefits for	None	Planned.
ENC Producer Nations either to join a RENC or to	None	RENCs tasked.
		REIVES tasked.
distribute their ENCs through a RENC.	NT .	DI I
6 Create a documents repository on the IHO	None	Planned.
WENDWG webpage to provide greater		IHB tasked.
organization and access by RHCs to best practices		
in ENC coverage and management.		
7 Monitor ENC Producers who distribute their	None	Ongoing.
ENCs through a RENC.		RENCs and IHB tasked.
8 Monitor global ENC Coverage.	None	Ongoing.
o Wonton global Live Coverage.		UK tasked.
9 Using risk assessment methodologies, identify	None	Planned.
and consider ENC Gaps.		RHCs and IHB tasked.

10 Provide and update the List of Ports (and moorings) database.	None	Planned. UK, RHCs and IHB tasked.
11 Provide relevant SPIs and WPIs on ENC adequate Coverage and ENC Producers.	None	Ongoing. Chair (supported by UK), RENCs and IHB tasked.
12 Continue the development of the IHO ENC Catalogue.		Ongoing. IHB tasked.
13 Deliver the RENC ENC Catalogue and Overlap Checker to RHCs and IHB.		Ongoing. RENC (PRIMAR) and IHB tasked.
14 Provide support to CBSC on request for compelling requirements in the scope of the WENDWG activities.		Planned. RHCs tasked.
15 Identify articles in WEND Principles and Guidelines that are considered not fully implemented.		Planned. FR, and correspondence group.
16 Identify barriers that prevent these articles to be implemented.		Planned. FR, and correspondence group.
17 Make proposals for corrective actions.		Planned. FR, and correspondence group.
18 If no action identified, assess long term consequences.		Planned. FR, and correspondence group.
19 Provide systematic advanced notices of AIO to ENC Producers in case of safety issues and seek agreement and report on progress made on the information flow.		Planned. UK, All.

20 Provide AIO benefits/risks evaluation,	Planned.
description of information flow, views from	UK, All and Chair.
NCWG and final recommendations.	

Overall status of the work programme of **IHO-EC network WG** (acronym of the IHO body or inter-organizational body involving the IHO) Compiled by Laurent Kerléguer (name of the compiler of the report) - e-mail address: laurent.kerleguer@shom.fr

Principal goals or priorities for your group	Current or expected gaps and needs that may	Any amplifying comments
	prevent completion of tasks on time	
To monitor the outcome of the EC call for tender		The tender of the 19 partners' consortium leaded
"Coastal mapping"		by SHOM and including 12 HOs has been
		selected.
To prepare the position of European HOs about the future phase of EMODNet, the long term marine data initiative from the European Commission To improve cooperation with the European Commission, by promoting amongst its entities and with decision makers the role of the hydrographic offices in development of EU maritime policies.		After consulting European HOs of the RHC concerned, IENWG HOs have defined a common strategy relative to the future EMODNET 3 call for tender. SHOM and BSH have represented IENWG at the European Parliament Intergroup "Sea, rivers, islands, coastal areas" on the 2 nd of July in Brussels. They have promoted the skills of HOs on all the chain of value from data acquisition to standard authoritative data and products.
To monitor European directives, calls for tenders and proposals, projects, events, etc, potentially impacting HOs and to define actions to be conducted in accordance		IENWG has taken action to review working paper IHB, IENWG-WP2015/01, 23 April 2015 on the EU Directive on Marine Equipment and how it could foster the requirement that software-based equipment such as ECDIS be updated to the latest version of the relevant standards. HOs of EU/EEA to make aware the relevant administration in the Member States to which they belong

Overall status of the work programme of NSHC

 $Compiled \ by \ Leendert \ Dorst, \ Hydrographic \ Service \ of \ the \ Royal \ Netherlands \ Navy - e-mail \ address: \ LL. Dorst@mindef.nl$

Principal goals and priorities	Current or expected gaps and needs	Comments
shared European contacts and projects	none	in cooperation with other European RHCs in the IENWG
shared progress to reach an up to date bathymetric coverage of the North Sea	limited survey capacity; lack of a basin-wide risk assessment	1. resurvey strategies for dynamic areas and emerging survey methods (LIDAR, SDB, CSB) are taken into account
		2. merger of BE/FR/NL/UK Dover Straight Survey Strategy WG and NSHC Resurvey WG will strengthen this task
shared experiences relating to Marine Spatial Data Infrastructures	none	through establishing a BSHC/NSHC MSDI Working Group
shared progress on the establishment of vertical reference frames	lack of an international initiative to establish a consistent set of references for the entire North Sea area	1. includes national Chart Datums, references suitable for the coastal zone, and Ellipsoidally Referenced Surveying
		2. task is coordinated by the NSHC Tidal WG
		3. the current situation will be described by the Coastal Mapping project of the European Commission (DG Mare), action item "assess consistency of the existing vertical datums"

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Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Continue to engage coastal states of the region to apply to IHO membership.	Ongoing	Republic of Congo has sent to IHB a Letter of application to IHO membership on 22.05.2015.
Cooperation with a regional organizations in the region	Ongoing	A draft of memorandum of understanding between MOWCA and IHO prepared by France and MOWCA, was submitted on 25.05.2015 to IHB for approbation by IHO MSs (Sent by IHB to IHO MSs on 05.06.2015).
Raising the awareness of the importance of hydrography in the Region and promoting capacity building.	Deficiency of awareness of political deciders in the region on the importance of hydrography for the governance of their maritime space by increasing maritime co-activities, which leads to a lack of funding and government support.	For example: - Technical visit to Liberia depending on the future evolution of Liberia's sanitary conditions. -To suggest to consider including special session on hydrographic capacity as an agenda item for discussion at 38th Annual Council Port Management Association of West and Central Africa (PMAWCA) in june 2015, (A letter from Chair of EAtHC was sent to PMAWCA to attend to 38th Annual Council, without answer).
Monitoring and improving the status of nautical information, surveys, and charting, developing and implementing INT chart and ENC schemes.	-The need to enhance the data available in the region, for the benefit of national planning or for other applications, such as marine disasters prevention.	

-Lack of feedback regarding NAVAREA II Points of Contacts, and no points of contact at all for some coastal StatesPorts non-covered by large scale ENCs.	
A few coastal States have national hydrographic organizations. They mainly consist in hydrographic cells under the main port authority.	

Overall status of the work programme of MACHC

 $Compiled \ by \ Leendert \ Dorst, \ Hydrographic \ Service \ of \ the \ Royal \ Netherlands \ Navy - e-mail \ address: \ LL. Dorst@mindef.nl$

Principal goals and priorities	Current or expected gaps and needs	Comments
increase membership and regional cooperation	developments on the use of Spanish needed	membership is growing. The IHO/OECS regional cooperation has the potential to become an important driver for further progress.
shared progress to reach an up to date bathymetric coverage of the MACHC area	limited survey capacity; lack of a basin-wide risk assessment	emerging survey methods (LIDAR, SDB, CSB) are taken into account developments on risk assessment methodologies are followed closely
achieve full ENC coverage	none	 coordinated by the MACHC Integrated Charting Committee. of the 799 current and planned ENCs required to meet WEND principles for adequate ENC coverage, 685 are currently published and available (86%)
ensure all coastal states reach CB Phase 1 status.	none	 coordinated by the MACHC CB Committee. The requirement to deliver capacity building activities in Spanish is being met. Annual Hydrographic Awareness Seminars are organized in conjunction with MACHC meetings to raise awareness in the region.
establish a regional marine SDI through the Marine Environmental Infrastructure Programme (MEIP) of MACHC.	none	coordinated by the MACHC MEIP WG.

Overall status of the work programme ofSAIHC............(acronym of the IHO body or inter-organizational body involving the IHO)

Compiled by ...Captain Abri Kampfer. (name of the compiler of the report) - e-mail address: ...hydrosan@iafrica.com

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Promote technical co-operation in the domain of hydrographic surveying, marine cartography, and nautical information within the Region	Majority of Associate Member States in region have still not achieved Phase 1 hydrographic development	Shortcomings have been identified during technical visits within the region and are being addressed through the SAIHC Capacity Building Strategy. National reports presented at the SAIHC Conference allow the opportunity for Associate Member States to provide feedback on progress and request specific support. Next ICCWG and SAIHC Conference scheduled to be held in Darees-Salaam from 21 to 23 September 2014.
Stimulate all countries within the Region to widen hydrographic activity in the area and to encourage them to seek technical advice and assistance from the IHB in establishing and strengthening their hydrographic capabilities in order to promote safe navigation and create an environment within which economic development may take place.	Lack of funding and government support. High level interaction required to inform decision makers at the political levels of Government to create awareness and garner support for in-country officials.	Visits by IHB President identified as a SAIHC Capacity Building priority. CBSC 13 approved a SAIHC requirement for a High level visit to Tanzania by IHB President and SAIHC Chair for 2016.

Facilitate the exchange of information concerning surveys, research or scientific and technical developments, to aid in the planning and organisation of hydrographic activities	The lack of functioning hydrographic offices and National Hydrographic Committees create some difficulty to obtain information.	SAIHC Conference and SAIHC ICCWG are used to communicate the requirements and obtain information from delegates. Between scheduled conferences there is only communication with INT Chart producers and no feedback from Associate Member countries
Conduct Capacity Building projects as approved by CBSC	One training event transferred from 2014 to February 2015.	The transferred project was successfully executed in February 2015. Final planning are underway for the execution of two projects before the end of the year, which will be a Technical Aspects of Maritime Boundaries and Baselines Workshop in Fish Hoek, South Africa and a Phase 1 Skills Course, planned to be held in the Comoros.

Overall status of the work programme of	HCA	(acronym of the IHO body or inter-organizational body involving the IHO)
Compiled byJohn Haumann	(name	of the compiler of the report) - e-mail address:john.j.haumann@nga.mil

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
Improved Data sharing		-US provided ortho-rectified commercial imagery to improve geodetic control in Argentine produced data. -New Zealand provided survey data for US chart of McMurdo Station
Improved navigation data over Antarctica	Lack of survey assets working in Antarctic waters	Crowd sourcing initiatives partnering with IAATO vessels

GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO) Project

Overall status of the work programme ofGEBCO Guiding Committee......

Compiled by ...Shin Tani & David Clark......e-mail address: ...Shin Tani <soarhigh@mac.com> and David.M.Clark@noaa.gov

2015 IHO WP #/Current goals and priorities	Current or expected gaps and needs	Comments
A. Organize and conduct GGC XXXII meeting	None	Meeting to be held in Kuala Lumpur, Malaysia, Oct 5, 2015 - Oct 9, 2015
D1. Encourage the contribution of bathymetric data to the IHO DCDB	Need to encourage MS to send bathymetric data, especially shallow water data to IHO DCDB.	GGC Chair attended IRCC7 in Mexico, June 1-3, 2015
D3. Promote data contribution through GEBCO participation in RHCs meetings	GGC needs to be invited from all the RHC meetings.	EAHC, NIOHC, SEPRHC have been invited and participated, SAIHC will be participated.
F. Develop the on-line function of B-4	No Progress. Discussed at GGC KL	Investigate feasibility.
G1. Contribute to outreach and education about ocean mapping	Draft being made. Will be discussed at GGC KL	10 year celebration Nippon Foundation Training Program in Monaco is postponed to 2016

GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO) Project

Overall status of the work programme ofGEBCO Outreach Working Group	
Compiled byPauline Weatherall, e-mail address:paw@bodc.ac.uk	

2015 IHO WP #/Current goals and priorities	Current or expected gaps and needs	Comments
G2. Increase membership and involvement in the GEBCO Outreach Working Group	None	The membership of the WG has been extended from 4 members to 12 : http://www.gebco.net/about_us/committees_and_groups/
G2 Further develop a roadmap and plan for Outreach activities, including effective use of Outreach budget Investigate and develop outreach material and products		A road map was outlined at the GEBCO Guiding Committee meeting in June 2014: http://www.gebco.net/about_us/meetings_and_minutes/documents/ggc_gebco_outreach_roadmap.pdf Outreach_colleagues have developed a draft outline for web page content aimed for High School and college students – this has been passed to the Outreach WG for comment.
G3. Printing of GEBCO World Map in MS		No update to report at present from Outreach WG.
I. Develop short course and course material on compiling digital bathymetric models (DBMs) to be included in GEBCO from a heterogeneous bathymetric source database		No update to report at present

REPORT TEMPLATE GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO) Project

2015 IHO WP #/Current goals and priorities	Current or expected gaps and needs	Comments
H. Ongoing, maintenance and update of GEBCO's web site (www.gebco.net), hosted at the British Oceanographic Data Centre (BODC)		GEBCO's web site is updated when required to include news items; meeting information and any ad hoc required additions/changes. Recent news items include: http://www.gebco.net/about_us/news_and_events/

GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO) Project

Overall status of the work programme ofGEBCO/SCUFN

Compiled byHans Werner Schenke, Lisa Taylor, e-mail address: hans-werner.schenke@awi.de or hwschenke@t-online.de; Lisa.A.Taylor@noaa.gov

Current goals and priorities	Current or expected gaps and needs	Comments
SCUFN-27 Meeting 16-20 June 2014	SCUFN-27 Summary Report to be approved at SCUFN-28.	Summary Report completed (see IHO website) Action Items from SCUF-27 under work by SCUFN-Members
SCUFN-28 Meeting 12 – 16 Oct 2015	none	Organize/prepare the Meeting by DHN, Brazil 12 – 16 Oct 2015 in Rio de Janeiro /Niteroi, Brazil
Preview of submitted name proposals by SCUFN-Members during intersessional period	none	Development and test of websites www.scufnsubmission.org and www.scufnreview.org underway
Final Implementation of the on-line GEBCO Gazetteer www.ngdc.noaa.gov/gazetteer/	Need for improvement and corrections of the online Gazetteer content, s.a. feature geometry, coordinates, and meta data	Under work by IHB and IHO-DCDB
Completion of the generic term website www.genericterm.org and replenishment of new terms	Improvement of the graphic examples and adding additional generic terms	Contributions and input requested from SCUFN Members and Generic Term Group

GENERAL BATHYMETRIC CHART OF THE OCEANS (GEBCO) Project

Overall status of the work programme of SCRUM/TSCOM

Compiled by ...Martin Jakobsson, Karen Marks... e-mail address: ...Martin.Jakobsson@ geo.su.se, and Karen.Marks@noaa.gov.....

2015 IHO WP #/Current goals and priorities	Current or expected gaps and needs	Comments
B. Joint TSCOM/SCRUM Meeting Dec. 2014	Completed	Held at Mtn. View, CA Dec. 2014
B. Joint TSCOM/SCRUM Meeting Oct. 2015	None, In preparation	Kuala Lumpur, Malaysia Oct. 2015
C. GEBCO Data Store development	On hold until host funding can be allocated	Host and developer NOAA NGDC Voluntary, Data Store prototype in preparation
G2. Release article for GEBCO_2014	none	Manuscript submitted to AGU Earth and Space Science Journal completed, submitted and in press: Weatherall, P., Marks, K.M., Jakobsson, M., Schmitt, T., Tani, S., Arndt, JE., Rovere, M., Chayes, D., Ferrini, V., Wigley, R., 2015. A New Digital Bathymetric Model of the World's Oceans. Earth and Space Science, Doi: 10.1002/2015EA000107

G2. GEBCO Science Day/AGU Special Session	Completed	Highly successful Fall 2014 AGU Meeting Special Session held as GEBCO Science Day
G3. GEBCO World Map	Completed. Available for download from the GEBCO webpage.	Map with gazetteer features names, no seas, is made available for download from the GEBCO web page. MS are able to download and print. New version of the World Map based on the GEBCO_2014 map will be the next update
D2. IBCAO Printed Map	First draft completed in June and circulated among the IBCAO EB. Comments have been received and the map has been updated. The is estimated to be ready for final distribution in Sept 2015.	A map for printing of the Arctic Ocean is currently being prepared within IBCAO A final PDF based on most recent IBCAO Version 3.0 is planned to be ready during the summer of 2015.
D2. Initiation of regional mapping project: IBCAO-Greenland	The initiation process had begun	There are several marine research expeditions involving bathymetric mapping of Greenland's continental shelf planned for nearest years to come. SCRUM is currently looking into to start a regional project within IBCAO with a specific focus on Greenland: "IBCAO-Greenland
D2. Initiation of regional mapping project: IBCAO-Svalbard	The initiation process had begun	SCRUM is currently looking into to start a regional project within IBCAO with a specific focus on the waters around Svalbard: "IBCAO-Svalbard"

Overall status of the work programme of .	Finance Committee (FC)(acronym of the IHO body or inter-organizational body involving the IHO)
Compiled byAndrew Millard	(name of the compiler of the report) - e-mail address: Andrew.millard:ukho.gov.uk

Principal goals or priorities for your group	Current or expected gaps and needs that may prevent completion of tasks on time	Any amplifying comments
 Maintain oversight of the IHB financial performance against the approved budget: Ensure appropriate effort is made to collect members contributions Ensure costs of running the IHB are within the limits set by the budget. Ensure funds are used for the purposes approved by member states Identify and manage any financial risks that the IHB may be subject to Ensure processes are adequate to minimize the occurrence of fraud being committed against the IHB, either from external or internal parties. Ensure any recommendations arising from the auditors are acted upon 	None None	FC meets twice a year. Last meeting we approved the Annual Report. I am happy that the Governing Body is maintaining sound financial controls and is operating within budget and within its terms. Efforts to collect outstanding monies due from member states continue with some inevitable challenges but overall we are ahead of expectations at this time of the year.

Principal goals or priorities for your group	Current or expected gaps and needs that may	Any amplifying comments
	prevent completion of tasks on time	
In accordance with ToR of the SRWG:		
Review proposed revised draft regulation	There has been a delay in providing the draft	
Review implementation plan	regulations for the SRWG to review. An update I	
Review proposed job descriptions for directors	received on 21 July from Robert Ward suggests	
under new structure	they will now be available during September 2015.	
	I have alerted the rest of the SRWG and we will	
	endeavor to turn round our comments quickly.	

MEMBER STATES' RESPONSES TO CL 17/2015 AND COMMENTS BY THE DIRECTING COMMITTEE

CANADA

Canada would like to thank the IHB for this detailed report.

Canada, as a member of the United States - Canada Hydrographic Commission (USCHC) and the Arctic Regional Hydrographic Commission (ARHC) will work with fellow Member States to ensure the reporting requirements, including deadlines are respected.

On the general subject of reporting and responses (e.g. to Circular Letters), a suggestion from the United States is for a calendar (separate or incorporated into the Meeting Calendar) on the IHO website which indicates when various reports and responses are due. If this is logistically possible and not too stressfull on IHB resources, Canada believes this would be helpful for Member States.

Comment by the Directing Committee:

IHO deadlines are now included in the IHO Calendar of Events posted on the IHO web site.

CHILE

- 1. We concur with the analysis conducted by the DC and we agree with the areas identified as priorities for the IHO, based on the very few responses received.
- 2. Trying to find out an interpretation of the low level of responses, we are of the idea that HOs and their staff are working with a high level of pressure allowing not much time to conduct additional assessment processes. In fact, existing operational workload does not facilitate the inclusion of extra administrative work. Moreover, it is not clear at all, the need of assessments conducted each six months, and worst, it is not evident the usefulness of it.
- 3. Decision N°3 is the result of the deliberations had when considering PRO5, the object of which was "Improving the total cost estimate of the IHO tasks for the definition of a prioritized Work Programme", and it seems very unlikely that the process followed goes in that direction.
- 4. We would like to propose to finish this six months assessment and concentrate on the assessment required for the preparation of the Annual Report, following guidance that the IHB can prepare and provide, based on the experience gathered in this first additional reporting process. Such process could include an easy to follow format that it is proposed to include the necessary information to assess the achievement of the tasks; the difficulties found in their completion and the estimated cost incurred. We are of the opinion that these information might constitute valuable parameters to consider in the preparation of the following WPs.

Comment by the Directing Committee:

Considering the positive views of Canada and Portugal on the usefulness of the reports and noting that Decision No. 3 provides for the re-consideration of the issue "in the context of the 2018 - 2021 Work Programme and Budget", the proposal by Chile to discontinue reporting may be premature.

PORTUGAL

The Portuguese Hydrographic Institute congratulates IHO and all Member States for the decision of a six-monthly reporting based regime considering that this allows the Member States to be updated with the status of their respective work programme.

The Portuguese Hydrographic Institute considers important that all Commissions, Committees, Sub-Committees and Working Groups submit their respective report to allow Member States to monitor closely the evolution of the work programme and the difficulties encountered by each working group.

Comment by the Directing Committee:

See the Directing Committee's comment on the response from Chile.

SURINAME

Suriname has no comments on the letter, neither the reporting process.