

North Sea Hydrographic Commission (NSHC) report to IRCC8-2016

Submitted by the Hydrographic Service of the Royal Netherlands Navy, 8 February 2016

1. chair and vice-chair:

chair: Marc van der Donck (NL) from September 2014

vice-chair: Declan Black (IE) from June 2014

2. membership:

BE, DE, DK, FR, IE, IS, NL, NO, SE, UK

3. meetings:

32nd Conference: Dublin (IE), 21-23 June 2016

4. Working Groups:

- North Sea ENC Harmonization Working Group (NSEHWG, chaired by UK) and Region D International Chart Coordination Working Group (ICCWG, chaired by UK)
- BSHC/NSHC Baltic Sea and North Sea MSDI Working Group (BSNSMSDIWG, chaired by DK):
At BSHC20 it was decided to expand the BSHC MSDIWG to also include MS from the NSHC and as a consequence the name was changed to Baltic Sea and North Sea MSDIWG.
- Resurvey Working Group (RWG, chaired by NL), including the former Dover Strait Survey Policy Working Group (DSSPWG of BE, FR, NL, UK):
NSHC agreed by correspondence to transfer the work of the Dover Strait Survey Policy Agreement to the RWG.
- Tidal Working Group (TWG, rotating chair, currently NL)

5. Status of relevant IRCC actions

In order to identify the NSHC actions to be taken, they are marked with a colour code.

- Open action items: These action items focus on concrete deliverables.
- Continuous action items: These action items are standing activities/responsibilities not inherent to the responsibilities of the Working Groups (Terms of reference).
- Completed or closed action items: These action items do not need individual review at Commission level. Either they are completed, taken over by events, or do not require further action as they are inherent to the responsibilities of the Working Groups (Terms of Reference).

legend
open action item (white)
continuous action item (light grey)
completed or closed action item (light green)

Action identifier	IRCC action description¹	IRCC status	Actions taken by NHSC
IRCC7/01	Pending applications for IHO membership	permanent	Not applicable, all relevant HOs are a member.
IRCC7/02	Ratification of the IHO Convention by pending applicants	permanent	Not applicable, all MS have ratified. (BE has in September 2015 submitted the approval at the embassy of Monaco in Paris. BE is waiting on a receipt by the depositary of Monaco.)
IRCC7/03	Participation of stakeholders	permanent	Stakeholders participate on a regular basis. The next Conference will consist of an open and a closed session, to accommodate the various needs.
IRCC7/05	Progress reports on the relevant tasks in the IHO 2015 Work Programme	permanent	See separate document " <i>North Sea Hydrographic Commission report to IRCC8-2016 on the relevant tasks in the IHO 2015 Work Programme</i> ".
IRCC7/07	Estimated values of Strategic Level Performance Indicators and Working Level Performance Indicators	permanent	Estimated values as of 31 December 2015 and target values for 31 December 2017 are given in the separate document " <i>North Sea Hydrographic Commission report on estimated values of Strategic Level Performance Indicators and Working Level Performance Indicators for the 7th IRCC meeting, 2015</i> ". The indicators are complemented by comments on the difficulties encountered and suggestions for a way forward.
IRCC7/08	Attendance of GEBCO Guiding Committee / Bathymetric Regional Project Chairs	permanent	Cooperation takes place through the Bathymetry Lot of the EMODNet project. GEBCO will be invited to NHSC32.
IRCC7/09	Promotion and cooperation relating to Satellite Derived Bathymetry	permanent	The NSHC Resurvey Working Group is monitoring developments, and it is a regular agenda item for NSHC Conferences.
IRCC7/15	Material provided to IHB to promote the achievements of IRCC bodies	permanent	MS are encouraged to provide materials.
IRCC7/17	Encourage English language training	permanent	Not applicable, staff at all HOs is able to speak English
IRCC7/18	Facilitate resolution of inconsistencies between charts	permanent	Is part of standing NSEHWG and ICCWG activities
IRCC7/19	Encourage using risk assessments to establish survey priorities	permanent	Facilitated by the RWG
IRCC7/20	Provide input on possible sources of CB funding	input expected	To be discussed at NSHC32
IRCC7/26	Report on status of procedures to select representatives to the Council	ongoing	To be discussed at NSHC32
IRCC7/27a	Task new INT Chart Producer Nations to provide first edition of first INT Chart to ICCWG	ongoing	Not applicable, no new INT Chart Producer Nations
IRCC7/27b	Task ICCWG to manage the review of first edition of first INT Chart of a new INT Chart Producer Nations	ongoing	Not applicable, no new INT Chart Producer Nations

¹ The action descriptors were shortened for ease of reading. For the full description, reference is made to the IRCC Action list.

Action identifier	IRCC action description¹	IRCC status	Actions taken by NHSC
IRCC7/27c	Task INT Chart Producer to provide first and new editions of INT Charts to ICCWG 3 months prior to NSHC Conference	ongoing	Facilitated by ICCWG
IRCC7/27d	Task ICCWG to transfer submitted INT charts to IHB	ongoing	Facilitated by ICCWG
IRCC7/27e	Task MS to update list of online chart catalogues	ongoing	Facilitated by ICCWG
IRCC7/28	Implement procedure for new editions of INT Charts and report review processes for review of first edition of first INT Chart of a new INT Chart Producer Nation		Not applicable, no new INT Chart Producer Nations
IRCC7/33	Instruct ICCWG to investigate improved communication across the regions		Facilitated by ICCWG
IRCC7/41	Consider incorporating hydrography in more comprehensive maritime projects		MS are encouraged to incorporate hydrography in more comprehensive maritime projects.
IRCC7/42	Invite MS to update C-55 annually	input expected	MS are invited to update C-55 annually.
IRCC7/43	Provide access to IHB to CB promotional material	input expected	MS are invited to share CB promotional material to the IHB as displayed at the EIHC 5 CB exhibition.
IRCC7/44a	Provide technical visits summary reports	permanent	Not applicable, no technical visits
IRCC7/44b	Provide technical visits full reports	permanent	Not applicable, no technical visits
IRCC7/44 bis	Provide technical visits full reports for 2014	ongoing	Not applicable, no technical visits
IRCC7/48	Consider nominating regional MSDIWG representatives	input expected	To be discussed at NSHC32.
IRCC7/52	Continue supporting GEBCO regional projects	permanent	Cooperation takes place through the Bathymetry Lot of the EMODNet project.
IRCC7/53	Remind HOs of request to give GEBCO access to shallow water bathymetric data		HOs are reminded to give GEBCO access to bathymetric data.
IRCC7/56	Provide comments on relevance of information overlay services	expected via Action WENDWG5/01	Action is paused as the issue is still under consideration of the WEND WG (overlay services as AIO). See also decision 27 agreed at IRRC7.
IRCC7/62	Consider providing IHO representatives at international meetings	input expected	MS are encouraged to provide IHO representatives at international meetings.

6. Agenda items

Some relevant items of NSHC31-2014 are:

WP1 - Corporate affairs

ratification of the protocol of amendments to the IHO; European Union (JECMaP, EMODNet, PSI Directive); EIHC5

WP2 - Hydrographic Services and Standards

vertical references (Tidal WG); airborne and satellite bathymetry; crowd-sourced bathymetry; MSDI (BSNSMSDIWG); INSPIRE; S-100 series

WP3 - Interregional Coordination and Support
Capacity Building; WEND and RENCs; Region D ICCWG and ENC Harmonization WG;
C-55; Dover Strait Survey WG and Resurvey WG; data acquisition and processing;
NSHC internet site

7. cooperation with other organizations

See Element 1.1 in separate document "*North Sea Hydrographic Commission report to IRCC8-2016 on the relevant tasks in the IHO 2015 Work Programme*".

8. Conclusions

NSHC focuses on the following topics:

1. shared progress to reach an up to date bathymetric coverage of the North Sea, taking into account resurvey strategies for dynamic areas and emerging survey methods (LIDAR, SDB, CSB);
2. shared experiences relating to Marine Spatial Data Infrastructures, notably through establishing a BSHC/NSHC MSDI Working Group;
3. shared progress on the establishment of vertical reference frames, including national Chart Datums, references suitable for the coastal zone, and Ellipsoidally Referenced Surveying.
4. The online publication of the North Sea Bathymetry Database at the new web site of NSHC, in order to (a) contribute to the further development of EMODNet, (b) assist in survey prioritization, and (c) make data available to society in line with the PSI Directive.

9. Achievements and lessons learned

The level of cooperation is excellent and progress on the three topics of the Conclusion is satisfactory, although the region needs to accept a limited survey capacity (topic 1), and lacks an international initiative to establish a consistent set of vertical references for the entire North Sea area (topic 3).

10. Actions required from IRCC

- a. note the report, including the status of the relevant action items;
- b. discuss interregional solutions to mitigate the limited survey capacity;
- c. discuss interregional solutions to establish a consistent set of vertical references for entire sea areas.

11. Acknowledgements

DE, DK, FR, IE and UK are kindly acknowledged for their useful feedback.

Marc van der Donck, Captain RNLN
NSHC Chair

North Sea Hydrographic Commission (NSHC) report to IRCC8-2016 on the relevant tasks in the IHO 2015 Work Programme

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IHO Work Programme 1 – "Corporate Affairs"

Element 1.1: Co-operation with International Organizations and participation in relevant meetings.

Task	Topic	Actions taken
1.1.4	European Union	- The cooperation takes place through the IHO/EU Network Working Group (IENWG), in which DE represents the NSHC. See Annex 1 for details about the work of this WG. - The Coastal Mapping project is led by FR. See Annex 2 for details about the project.
1.1.12	International Maritime Organization	MSC: Several MS are involved in MSC meetings. NCSR Subcommittee: Several MS are involved in NCSR meetings.
1.1.14	UNESCO-IOC	GEBCO: A close relation with GEBCO is maintained through the GEBCO Atlas Manager.
1.1.21	Shallow Survey	NSHC RWG5 was organized directly following Shallow Survey 2015, allowing insights from the conference to feed into the WG meeting.

IHO Work Programme 2 - "Hydrographic Services and Standards"

Element	Topic	Actions taken
2.7	Tides and Water Levels	UK and NL liaise between the Tidal, Water Level and Currents Working Group and the NHSC Tidal Working Group.
2.10	Hydrographic Data Acquisition and Processing	RWG contributes to discussions about reactivation of S-44 WG.
2.13	Surface Currents	UK and NL liaise between the Tidal, Water Level and Currents Working Group and the NHSC Tidal Working Group.

IHO Work Programme 3 – "Inter Regional Coordination and Support"

Various Elements

Task	Topic	Actions taken
3.1.1	Arctic Region Hydrographic Commission	ARHC will be invited to NSHC32.
3.1.2	Baltic Sea Hydrographic Commission	The NHSC Tidal and Resurvey Working Groups are in contact with their BSHC sister groups. The NHSC was invited to the BSHC MSDI Working Group. NHSC aims to expand this group into a combined NSHC/BSHC Working Group. To that end, the chair of BSHC will be approached. BSHC will be invited to NSHC32.
3.1.4	East Atlantic Hydrographic Commission	EatHC will be invited to NSHC32.
3.1.6	Mediterranean & Black Sea Hydrographic Commission	MBSHC will be invited to NSHC32.
3.1.7	Nordic Hydrographic Commission	NHC will be invited to NSHC32.
3.1.17	WEND Working Group	UK represented the NSHC during WENDWG5 in Singapore in March 2015.
3.1.18	Industry participation	Industry participation is common and appreciated during the open session of NSHC Conferences.
3.2.11	Approval of pending IHO membership	MS are encouraged to approve pending IHO memberships.
3.3.1	Capacity Building Subcommittee	UK represented the NSHC during CBSC13 in Mexico City in May 2015.
3.4.2	Enhance C-55	RWG is considering alternative ways to describe the status of hydrographic surveying, as part of the risk assessment work.
3.6.1	C-55 Status of Hydrographic Surveying and Nautical Charting World-wide	Status of hydrographic surveying is monitored by the NSHC Resurvey Working Group. Status of Nautical charting is monitored by the Region D International Chart Coordination Working Group.
3.6.2	Implementation of the WEND principles	UK represented the NSHC during WENDWG5 in Singapore in March 2015.
3.6.3	ENC schemes, consistency and quality	ENC schemes, consistency and quality are monitored by the North Sea ENC Harmonization Working Group.
3.6.4	INT Chart Schemes and availability of the INT Chart Series	INT Charts are managed by the Region D International Chart Coordination Working Group.
3.6.5	Global status of hydrographic surveying	Status of hydrographic surveying is monitored by the NSHC Resurvey Working Group.
3.9	Marine Spatial Data Infrastructures	Chair and Vice-Chair of IHO MSDIWG are involved in BSNSMSDIWG.

Annex 1: Input by DE to status of Task 1.1.4 “co-operation with the European Union”

Germany represents NSHC within the new EINWG. By initiative of this group, a consortium consisting of all NSHC members (UK enjoys observer status only) plus Italy and Greece has successfully applied to the Coastal Mapping tender of DG Mare. First results to be visited under www.coastal-mapping.eu. As another initiative within the framework of the EINWG Germany proposed the adaptation of the internet domain of the Baltic Sea Hydrographic Commission www.bshc.pro for the purposes of the North Sea region. The internet domain www.nshc.pro is already put in operation and maintained by Germany but not completely filled with content yet. One major driver of this activity was the idea for a medium scale DTM of the North Sea region composed of harmonized bathymetric data provided by all members and presented under this domain. Thanks to these national contributions this dataset is currently under preparation and announced to be available within the first quarter of 2016. The dataset will evenly be forwarded for upload into the Coastal Mapping data portal. The initiative was triggered to demonstrate the ability of national hydrographic services to collaborate cross border in the derivation of harmonized bathymetric models. It was assumed that this action would be an excellent preparation for bidder consortium equivalent to the noted one for coastal mapping for bathymetry theme of the announced EMODNET III tender. Surprisingly however, and deviating from the announced timeline, EMODNET III calls haven't been released yet.

Annex 2: Input by FR to status of Task 1.1.4 “co-operation with the European Union”

The European Commission's Directorate-General for Maritime Affairs and Fisheries (DG Mare) has awarded a contract on coastal mapping call MARE/2014/10 to the 18 partners' consortium led by SHOM. Duration of the contract is 36 months. Kick-off meeting June 2015 in Saint-Mandé. Next EMODNET Bathymetry call to be issued by DG MARE early 2016, interested IENWG HOs have defined a common strategy for participating.

North Sea Hydrographic Commission (NSHC) report to IRCC8-2016 on estimated values of Strategic Level Performance Indicators and Working Level Performance Indicators

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Indicators for IRCC

Indicator	Topic	Value as of 31 Dec 2015	Target value for 31 Dec 2017	Comments and suggestions
SPI7	Increase in participation/ membership in RHCs	full participation and full membership	full participation and full membership	All relevant HOs are a member.
WPI18	Percentage of IHO MS updating C-55	hydrographic survey: 100% of respondents INT charts: 100% of respondents ENC: 100% of respondents MSI: 57% of respondents	hydrographic survey: 100% INT charts: 100% ENC: 100% MSI: 100%	43% of the respondents indicated that MSI is outside of their responsibility.
WPI19	Status of hydrographic surveys	<i>Metrics yet to be defined.</i>	<i>Metrics yet to be defined.</i>	<i>Metrics yet to be defined.</i>
WPI20	INT charts	Percentage of agreed INT chart schemes: 100% Percentage of INT charts available: 100%	Percentage of agreed INT chart schemes: 100% Percentage of INT charts available: 100%	Changes and amendments to the INT Chart Scheme continue to be managed and coordinated in the usual manner with very close liaison between MS.
WPI22	Increase in effective MS participation	MS participation stable at a high level.	MS participation stable at a high level.	None
WPI29	Coastal States with a national SDI	As all MS have obligations under the EU INSPIRE Directive, there is a national SDI for each MS.	As all MS have obligations under the EU INSPIRE Directive, there is a national SDI for each MS.	None
WPI40	Agreements signed	RENC membership: none, all MS already are a RENC member bilaterals: none reported other: none reported	RENC membership: none, all MS already are a RENC member bilaterals: no target value applicable other: no target value applicable	NSHC HOs signed RENC agreements with MS outside of the NSHC region.

Indicators for WEND

Indicator	Topic	Value as of 31 Dec 2015	Target value for 31 Dec 2017	Comments and suggestions
SPI1	Number and percentage of Coastal States providing ENC coverage	10, 100%	10, 100%	None
SPI8	Percentage of available / agreed ENC schemes.	100%	100%	Mature INT-scheme, subject to incidental change
WPI15	Growth in ENC coverage, as reported in the IHO on-line catalogue	0%	0%	The North Sea region is fully covered by ENCs.
WPI16	Number of additional IHO MS starting to produce & maintain (with/without support) relevant ENCs	0	0	All MS produce & maintain ENCs.
WPI21	Percentage of agreed ENC schemes, percentage of ENC available	100%, 100%	100%, 100%	The North Sea region is fully covered by ENCs.
WPI28	Percentage of Coastal States which provide ENC coverage	100%	100%	None

Indicators for CBSC

Indicator	Topic	Value as of 31 Dec 2015	Target value for 31 Dec 2017	Comments and suggestions
SPI3	Percentage of Coastal States which provide hydrographic services	100%	100%	None
WPI17	Percentage of Coastal States delivering hydrographic services	100%	100%	None
WPI26	Percentage of Coastal States which have achieved CB phase 1, 2 or 3 and established a National Hydrographic Office	100% for phase 3	100% for phase 3	None
WPI27	Number of States which have achieved CB phase 1, 2 or 3 and established a National Hydrographic Office in the reporting period	0	0	All MS have established a National Hydrographic Office earlier.