

**FOURTH MEETING OF THE IHO INTER REGIONAL COORDINATION COMMITTEE
IHO-IRCC4
Singapore, 7-8 June 2012**

OUTCOME FROM THE 18th IHC

Submitted by IRCC Chair Group

1. Work Programme 1 (Corporate affairs)

- Status of IHO Membership

See IRCC4-02.3

- Status of approval of the Protocol of amendments to the IHO Convention

See IRCC4-02.4

- Input from and to the IHO Strategic Planning Mechanism

Decision 1 Performance indicators.

The Conference agreed to request the Directing Committee to work with the two Committees (HSSC and IRCC) to review the strategic performance indicators set out in the annex to document CONF.18/WP1/Add.2 before submission to Member States for their approval and to invite the HSSC and IRCC to review the operational performance indicators relevant to them and report back to the 5th EIHC.

See IRCC4-06.2

- Input from and to the IHO Work Programme

See IRCC4-06.1

2. Work Programme 2 (Hydrographic services and standards)

- Report of the Marine Spatial Data Infrastructure Working Group (MSDIWG)

In its report to the Conference (CONF.18/WP.2), the MSDIWG referred to the key role of the Capacity Building Sub-Committee (CBSC) and the Regional Hydrographic Commissions (RHCs) in assisting States to contribute to MSDI through education of both developing and developed Member States on the benefits of SDI and by facilitating discussion on this topic as opportunities arise.

In discussing the report, the Conference noted that more work was needed if any progress was to be made in the area. Although the subject was currently discussed within the framework of the HSSC, it was not clear whether it should remain on the agenda of that Committee or be discussed as a coordination issue by the Inter Regional Coordination Committee (IRCC). The main aim for the next Work Programme period was to improve the quality and utility of MSDI-related guidance for the benefit of Member States. However, it would not be possible to achieve that goal unless there was increased participation by Member States, and especially by those able to supply experts in the matter to facilitate discussions.

It was also recommended that Member States seeking an overview of the issues to be addressed by IHO should consult document HSSC3-INF6 on Information about MSDI future challenges and MSDI initiatives in the Baltic, drafted by a working group set up by the Baltic Sea Regional Hydrographic Commission. Although the model presented might not be readily applicable around

the world, the document gives a valuable insight into the issues in question and identifies a number of lessons to be learned.

The IRCC is invited to consider further its role at the Committee level and via RHCs and CBSC in contributing to the development of MSDI through:

- reviewing MSDI developments at the regional level (RHCs),
- identifying CB requirements associated with MSDI development (CBSC),
- identifying any need for cross-regional coordination (IRCC),
- discussing future IRCC input to MSDIWG activities (IRCC).

3. Work Programme 3 (Inter regional coordination and support)

- IHO Stakeholders' Forum

Decision 9 (PRO IRCC-2)

The Conference agreed to request the Directing Committee, with the support of HSSC and IRCC, to consider organizing the next IHO Stakeholders' Forum as soon as possible after the Conference and not later than 2013, with a focus on ECDIS-related issues.

The IHB has been informed that HSSC is likely to have a stakeholders' day at the next HSSC meeting (September 2012), mostly concerning the technical program but IRCC topics can be included if someone from IRCC volunteers to give a presentation.

In accordance with the action plan associated with Decision 9, the IRCC is invited to identify which items of its Work Programme could benefit from exchanges with the relevant Stakeholders and to consider its involvement in the HSSC stakeholders' day, notably in relation with the activities of the WEND WG.

- Capacity building strategy

Decision 11

The Conference agreed to task the CBSC to review the IHO CB Strategy focussing on IHO objectives and to consider the financial implications, and to report to the 5th EIHC.

The CBSC is invited to report to IRCC on the actions to be considered to implement Decision 11.

- C-55 development (References: CONF.18/WP.3/Add.1, CONF.18/REP/01 [IHO 2013-2017 WP] and CONF.18/REP/02 [IHO 2013 WP])

IRCC3 agreed Action 09 - "Conduct a meeting to design a framework for C-55 development" as a result of a paper (IRCC3-03.1F) presented by the Baltic Sea Hydrographic Commission (BSHC). Some preparatory scoping work conducted by correspondence at the initiative of the UKHO and the CBSC Chairman and the submission in parallel by the IHB for consideration by the 18th IHC of a proposal - PRO 6 - about the global status of hydrographic surveying led IRCC to postpone the meeting mentioned in action IRCC3/09 and to submit to the Conference an interim report on the outcome of its preliminary work, supplemented with input from the IHB (CONF.18/WP.3/Add.1).

At the Conference, the IHB made a presentation to interested Member States on the development of an IHO metadata database at the IHB. The IRCC report was presented as an input to the discussion of PRO-6 and the IHO 2013-2017 Work Programme. However, no further action on the recommendations of the report was considered by the Conference when approving PRO-6 and the IHO 2013-2017 Work Programme. The relevant tasks of the IHO Work Programme (CONF.18/REP/01) are as follows:

Task 1.2.2 Develop IHO GIS and webserver and web mapping services in support of RHCs, ENC availability, INT chart coordination, C-55 and chart coordination, C-55 and other related activities, including using commercial contract support.
2013: 25K & 2014 to 2017: 10K annually

Task 3.4.3 Enhance publication C-55. IHB with the support of the RHCs, CBSC and GGC to develop a new framework for C-55
2013-2015 Develop the framework for the input, presentation and assessment of the survey and nautical cartography status: 60 k€ for 3 years

Task 3.6.1 C-55 Status of Hydrographic Surveying and Nautical Charting World-wide.

A) MS to provide annual update. (Permanent)

B) IHB to implement the new framework for publication C-55 to improve the collection, quality and availability of hydrographic data world-wide, monitor and rectify possible deficiencies and shortcomings, cooperate with other international organizations and stakeholders as necessary, and to keep MS informed on progress on this issue. (In conjunction with Task 3.4.3)

C) IHB to report periodically to IMO (NAV and MSC) on the impact of poor bathymetric data availability, datum mis-adjustment problems, and other relevant factors governing the limitations and requirements for improvements in global charting and associated services. (Permanent)

Task 1.2.2 is in progress at the IHB as presented on the first day of the 18th IHC.

Task 3.4.3 requires inputs from RHCs, CBSC and GGC on their expectation with regard to a new version of C-55. Probably there is a need for the IRCC to collect all comments by the RHCs, CBSC, GGC and other stakeholders, and produce a "User Requirements Statement" based on the principles outlined in CONF.18/WP.3/Add.1. It will be important that the IRCC consolidates its views on what a replacement of C-55 shall achieve; what the limiting parameters are and what outcomes are required. It could also consider what sort of analysis tools may be required and identify what it wants those tools for, how the info will be presented, how the maintenance will be progressed and by whom, how the survey and charting coverage will be indicated, how the accuracies or methods used for the collection of data will be standardized, etc..

The IRCC should also be ready to evaluate the resultant database and any tools that are developed and be ready to suggest improvements.

The IHB, based on the IRCC input, shall take action for the implementation of the framework; monitor the progress and accept the work done in order for payments to be made. There is an allocation for this task that seems to be enough but probably the time allocated is too long.

Task 3.6.1 A will benefit from RHCs' involvement in motivating and monitoring the provision of the appropriate information, by MSs in their regions. Task 3.6.1 B is directly related to Task 3.4.3. Task 3.6.1 C is connected with the implementation of Conference Decision 17 associated with PRO-6 (see below).

The IRCC is invited to consider ways and means to contribute to Task 3.4.3 and 3.6.1 A at committee level and via RHCs, including the possibility to set up an ad hoc working group with the appropriate terms of reference and membership. The definition of the appropriate survey indicators is one item to be considered (see Annex). The interaction with HSSC and its relevant working groups should also be discussed.

- Implementation of the WEND Principles

Decision 12 Reaffirmation of the IHO's commitment to full ENC coverage (PRO WENDWG-1)

The International Hydrographic Conference agreed that the Member States of the International Hydrographic Organization should commit to:

- continuing through best international collaborative efforts and technological innovation to complete the outstanding requirement established for adequate ENC coverage as outlined at IMO NAV54;
- working with IMO Member States to promote the need for improved hydrographic survey and nautical charting services as required by SOLAS Chap. V, Reg. 9 and to provide support through the respective IHO and IMO capacity building programs;
- encouraging bilateral and multilateral cooperation within and across RHCs to improve consistency and harmonization of ENC cells (including the removal of any overlapping data) and services;
- establishing a systematic methodology, through the IRCC and the WEND-WG and in conjunction with the RHCs and RENCs, for monitoring evolving ENC coverage requirements, agreeing production priorities and for supporting the provision of integrated ENC services;
- informing mariners, through such things as IMO Safety of Navigation circulars and other national and international navigational warning mechanisms, the areas of national waters where the use of electronic navigation systems is not possible due to the limited quality or absence of source hydrographic data reflected in the nautical charts.

Decision 13 Implementation of the WEND Principles (PRO WENDWG-2)

The Conference agreed to approve the minor updates to the main text of Resolution 1/1997 as amended - *The WEND Principles*, as per the text at Annex A of the WENDWG Report to the XVIII IHC and to refer Annexes B and C of the same Report back to the WEND WG for further consideration.

Decision 12 constitutes a reaffirmation of the basis on which the activities of the WEND WG should be continued in accordance with its term of reference. More specifically, the WEND WG is invited to consider the following actions and report back to IRCC:

- a) invite MSs/RHCs to identify ENC gaps and overlaps in their areas and elaborate a program to complete what is still missing, identifying target date for achievement;
- b) invite RHCs to identify their regional shortcoming to be able to comply with SOLAS V Regulation 9, i.e. not what they need but what services they are not able to provide;
- c) define a methodology to monitor coverage and availability of ENC and the priority areas still needed to be covered.

Decision 13 invites IRCC to task WEND WG to give further consideration to Annexes B and C of PRO WENDWG-2 and report back to IRCC6 for revision and adoption before submitting it to the 5th EIHC.

The IRCC is invited to consider the appropriate actions to implement Decision 12 and instruct the WEND WG accordingly.

- IHO response to disasters

Decision 14 (PRO 1)

The Conference agreed to amend Resolution 1/2005 as amended - *IHO Response to Disasters*, Section 1 - *Introduction* and Section 2 a) - *Procedures and Guidelines By Member States* following the text in PRO 1. The IHB is tasked to circulate an improved edited text to Member States through Circular Letter for any comment prior to publication in M-3.

The IRCC is invited to take Decision 14 into account when considering the outcome of action IRCC3/19 (RHCs reports on their experience with marine disasters in relation with IHO guidelines).

- Global status of hydrographic surveying

Decision 17 (PRO 6)

The Conference,
Noting:

- (a) the importance of accurate hydrographic data and information for safety at sea, protection of the marine environment and various other maritime activities;
- (b) the obligation placed on States under SOLAS V/9 for the collection of hydrographic data;
- (c) the fact that the quantity and coverage of good hydrographic data requires improvement in many parts of the world;
- (d) the need to improve the rate of acquisition of new, more detailed and accurate data and information;
- (e) the support that various developing States require to be able to carry out the important task of hydrographic surveying; and
- (f) the understanding that hydrographic surveying should be a major focus and responsibility of the IHO and all coastal States;
- (g) The XVIIIth International Hydrographic Conference tasks the IRCC and HSSC in cooperation with the Directing Committee to progress whatever actions are required to improve the collection, quality and availability of hydrographic data worldwide, monitor and rectify possible deficiencies and shortcomings, cooperate with other international organizations and stakeholders as necessary, and to keep Member States informed on progress on this issue. Member States are strongly encouraged to address these deficiencies related to maritime safety worldwide, both within the IMO framework and through national channels.

This decision includes from a) to f) different but related circumstances/facts which justify a task given to both, the IRCC and the HSSC, to work in cooperation with the IHB DC. The principal objective is to “improve the collection, quality and availability of hydrographic data worldwide”, identifying and rectifying possible existing deficiencies. In this line, the IRCC needs to determine actions contributing to this objective. The following are the initial suggested actions (not a complete list) to be completed before remedial solutions can be sought:

- a) identify the origin of the existing deficiencies affecting the collection of hydrographic data in general and at a regional and national level in particular;
- b) identify the origin of the quality and availability deficiencies in hydrographic data, in connection with the development of C-55;
- c) examine how areas that can not be surveyed and re-surveyed by coastal States, due to technical and financial problems, could be covered;
- d) examine the feasibility of establishing a survey fund to contract out surveys in areas of importance to safety of navigation, where coastal States do not have the appropriate resources in connection with such organizations as IMO, the World Bank and regional organizations

The IRCC is invited to consider ways and means to implement Decision 17 through RHCs, CBSC and/or alternatively a specific “Survey Assessment Working Group”, in connection with its contribution to the development of C-55.

=====

Annex to document IRCC4-02.2

Indicators for the assessment of surveys

Source	Indicators	Comments
Status of hydrographic surveying and nautical charting worldwide C-55 - continuously updated	Status of surveys: A1/A2, B1/B2, C1/C2	A1/A2 = % adequately surveyed 0-200m / >200m B1/B2 = % requiring re-survey at larger scale or to modern standards 0-200m / >200m C1/C2 = % which has never been systematically surveyed 0-200m / >200m
IHO Standards for hydrographic surveys S-44 - 5 th Edition - 2008	Order: Special, 1a, 1b, 2	Minimum standards for each order related to: - horizontal uncertainty - vertical uncertainty - feature detection - sounding density
IHO Hydrographic Data Transfer Standard S-57 - Edition 3.1 - 2000	Object attribute CATZOC: A1/A2/B/C/D/U	Zone of confidence category related to: - position accuracy - depth accuracy - seafloor coverage See also ZOC diagrams in IHO Publication S-4 (Chart Specifications of the IHO)
Baltic Sea Re-survey Scheme	Category of re-survey areas	CAT I: original re-survey areas, CAT II: extended areas which need to be re-surveyed also for safety of navigation, CAT III: areas which need to be re-surveyed for other (e.g. environmental) reasons
MBSHC Index of hydrographic surveys	Status of surveys: adequately surveyed resurvey required multibeam (z>200m)	Compiled by Spain. See MBSHC17-09
NSHC resurvey scheme		In development; the project includes proposing "harmonize the presentations of the resurvey schemes and of S-55".
Antarctic GIS Hydrographic survey layer	Systematic surveys (areas defined by closed polygons). Enroute surveys / Soundings on passage.	In development at the IHB. See HCA11-07.4B