

UNITED STATES OF AMERICA – CANADA HYDROGRAPHIC COMMISSION

USCHC Report to the Seventh Meeting of the
IHO Inter Regional Coordination Committee (IRCC7)

Mexico City, Mexico
June 1-3, 2015

1. **Co-Chair:** Denis Hains (Canada)
Co-Chair: RDML Gerd F. Glang (USA)

2. **Membership:**
Full Members: Canada
United States of America

Organizational update:

For Canada

The new regional Directors are

- Pacific Regional Office (Sydney, British Columbia): Dave Prince
- Central and Arctic Regional Office (Burlington, Ontario): Michel Goguen
- Québec Regional Office (Mont-Joli, Québec): Serge Gosselin
- Atlantic Regional Office (Dartmouth, Nova Scotia): Jacinthe Cormier

For the United States

Within the Office of Coast Survey, new division chiefs have assumed positions as follows:

- Marine Chart Division: John Nyberg
- Hydrographic Surveys Division: Captain Eric Berkowitz
- Navigation Services Division: Russell Proctor
- Coast Survey Development Laboratory: Captain Rick Brennan

In 2015, OCS adopted a new Strategic Plan that identifies four organizational goals:

- Be the Experts: continuously evolve the capabilities and capacities required to be the authoritative national source of navigation products, coastal mapping data and coastal services
- Transform Charting: provide an expanded user base with timely, quality navigation data in media-neutral formats.
- Innovate Hydrography: expand capabilities to acquire data from a broad base of sources, improve chart content and use date for multiple purposes
- Change Navigation: provide mariners at home and abroad with adaptive and integrated decision support tools that they need for safe and efficient navigation

3. **Meetings:**

- a. Since IRCC6:
 - i. Chart Advisory Committee (CAC) did not meet.
 - ii. 38th USCHC met in National Harbor, Maryland on March 16, 2015.
- b. Next events

- i. 39th USCHC meeting is tentatively scheduled to take place in conjunction with the 2016 Canadian Hydrographic Conference 16-19 May 2016 in Halifax, Nova Scotia (www.chc2016.ca).

4. Activities:

- a. Reports
 - i. USCHC-38 Minutes
 - ii. USCHC Report to the IRCC-7
- b. Projects
 - i. The reports "Eliminating ENC Overlaps USCHC Case Study" was submitted to the WEND WG-5 and the IRCC-7 summarizing the processes and practices that the U.S. and Canada went through successfully to eliminate ENC overlaps affecting 94 U.S. and Canadian ENCs from Band 1 to 6.
- c. Representation in IHO Working Groups and Committees See Appendix A.
- d. Status of IRCC actions relevant for USCHC. See Appendix B. In particular, the USCHC developed a regional commission position on the use of AIOs.
- e. USCHC input to IHO Strategic Performance Indicators (SPIs) and IRCC Working-level Performance Indicators (WPIs) relevant to USCHC. See Appendix C.
- f. Established the Global Crowd-Sourced Bathymetric Database partnership with the NOAA Geophysical Data Center in Boulder Colorado.
- g. In October 2014, OCS and CHS signed a Schedule A to the umbrella Memorandum of Agreement between OCS and CHS to eliminate an overlap of ENCs in the Beaufort Sea. As of March 2016, the overlaps have been eliminated. Currently, there are no overlaps between Canada and the United States.

5. Status of IRCC actions (relevant for the USCHC)

- a. Status of IRCC6 Actions – See Appendix B
- b. USCHC input to IHO Strategic Performance Indicators (SPIs) and IRCC Working-level Performance Indicators (WPIs) – See Appendix C

6. Main Items under Consideration:

- a. Print on Demand - In April 2014, NOAA stopped using the government printing and distribution system originally adopted in 1861. As of April 2014, NOAA has authorized seven companies to sell NOAA's paper nautical charts that are printed upon customers' orders -- or "on demand." The information on the charts is still maintained by NOAA, and the charts are corrected with Notices to Mariners up to the week of purchase.

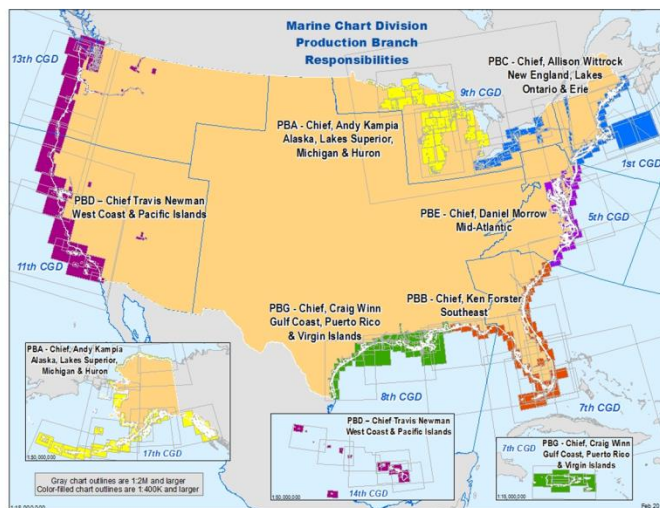
The agreement template that NOAA signs with interested distributors is available for reference on the USCHC-38 website. The template shows the standard responsibilities and expectations of the Office of Coast Survey and the print on demand partner.

- b. Enhancing management and operational-level exchanges between hydrographic offices on an annual basis.

CHS and OCS reiterated the desire to foster more direct and frequent contacts

between hydrographers, mariners, cartographers, and staff in general. In particular, contacts at the respective offices in ----- should be encouraged due to their historical value and logistical convenience. Other opportunities for exchange between peers will be encouraged.

- c. Sharing R&D results in emerging technologies and practices. The R&D items of mutual interest identified by the Hydrographic Offices include the real-time digital update system the US is using for its Coast Pilot publications, using radar and satellites to collect bathymetric information, developing policies for hydrographic offices use of non-traditional data sources (such as crowd source or other data sources that do not currently meet IHO specifications), utilization of LIDAR, and others.
- d. Ensuring responsiveness of the RHC to the action items of the IRCC and active participation in the working groups of the HSSC. The U.S. and Canada shared representation lists of respective members of various technical and other groups supporting the goals of the IHO. This list will hopefully enhance communications, preparations, and contributions to the work of the IHO. See Appendix A.
- e. Organizational Efficiencies
 - i) OCS restructured Chart production by dissolving ENC, paper and critical corrections branches and creating six regional branches that each maintains all functions and all products.



- ii) This is part of an “ENC-First” realignment where source data is restructured to optimize ENC continuous maintenance and the ENC will be the source of the raster products (PODs and RNCs).

7. IHO Work Programme relative to USCHC

Programme 1 “Corporate Affairs”

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

1.1.12 International Maritime Organisation (IMO).

Each Commission member has attended and supports delegations to the IMO MSC and NAV meetings.

1.1.17.1 Digital Geo-spatial Intelligence Working Group (DGIWG).

CA (CHS) participated in the meeting the NATO Geospatial Information Framework Model Maintenance Team (NMMT) held in Ottawa Canada in February 2015. This was a follow-on to the meeting in 2014 and CHS's contribution, like the year before, was to work with the NMMT hydrographical sub-team and assist in their efforts to harmonize S-101 and the NATO Geospatial Information Framework (NGIF).

Element 1.3 Public Relations

1.3.3 World Hydrography Day, June 21.

Members individually organized several activities and events to celebrate the day and to promote knowledge about the role and significance of hydrography.

Programme 2 "Services and Standards"

Element 2.2 Hydrographic Data Transfer Standards

2.2.2 Maintain and extend the relevant IHO standards, specifications, and publications.

The representatives of both CHS and OCS participated in HSSC-6 and, as indicated earlier, members are actively involved in several working groups (see Appendix A).

Element 2.3 Nautical Cartography

2.3.2.6 S-11 Part B – Catalogue of INT Charts.

Both Commission members submitted updates to the INT catalogue for Region A to the IHB and the IHO website has been updated to reflect these submissions.

Programme 3 "Inter Regional Coordination and Support"

Element 3.1 Co-operation with Member States and attendance at relevant meetings.

3.1.15 USA and Canada Hydrographic Commission

In addition to the USCHC, the members remain in close and frequent contact discussing matters of mutual concern. The Commission also stays abreast of developments in other RHC's; such as the ARHC, for example, and the Vice Chair of the MACHC attended USCHC-38. NOAA attended the Mexico's National Hydro Conference in December 2014.

8. Conclusions and Achievements

a. The USCHC continues to be an effective body for the Member States. It serves as an important avenue for communication in address issues of mutual interest.

9. Actions required from IRCC7

- a. IRCC-7 is invited to take note of this report.
- b. IRCC7 is invited to endorse the USCHC submission, "*Proposal to add the topic of Satellite-derived bathymetry as a standing agenda item at all future IRCC meeting.*"

Appendix A

U.S.-Canada Representation in Working Groups of the IHO

As of March 2015

Group	U.S.	Canada
HSSC	Scott Reeves (NGA) John Nyberg (NOAA)	Kian Fadaie
ENCWG	Scott Reeves (NGA) Diane Melancon (NOAA)	Patti Parkhouse
S-100	Julia Powell (NOAA) Scott Reeves (NGA)	Lynn Patterson
NIPWG	Mike Kushla (NGA) Tom Loeper (NOAA)	n/a
CSPCWG / NICWG	Jacqueline Barone (NGA) Robert Heeley (NOAA) Colby Harmon (NOAA)	David Prince To be succeeded by Dan Brousseau after the next meeting.
TWCWG	Mark Opdyke (NGA) Peter Stone (NOAA, CO-OPS)	Louis Maltais
DQWG	Brian Heap (NGA) Sean Legeer (NOAA)	n/a
MSDIWG	Lucy Hick (NOAA)	Kian Fadaie
HDWG	Tim Hallock (NGA)	n/a
ABLOS	Meredith Westington (NOAA)	Sunil Bisnath (York University)
IRCC	Keith Alexander (NGA) Gerd F. Glang / Jonathan Justi (NOAA)	Denis Hains / Kian Fadaie
WWNWS	Chris Janus (NGA)	Lucia Bakker (Canadian Coast Guard)
CBSC	Chris Janus (NGA)	n/a
WENDWG	John Nyberg (NOAA)	Laurent Tardif
IBSC	Dave Anderson (NGA) Andy Armstrong (NOAA)	n/a
GEBCO	James Ford (NGA) Lisa Taylor (NOAA)	Kian Fadaie (SCUFN only)

Appendix B

Status of IRCC-6 actions (relevant of the USCHC)

No	ACTION (AGENDA ITEM)	RESP.	DEADLINE	USCHC Status
IRCC6/01	Encourage the approval of pending applications for IHO membership			<p>Canada and the U.S. have approved the membership applications of Viet Nam and Georgia.</p> <p>Both Canada and US are now pursuing support for new memberships per CL 32/2015.</p>
IRCC6/05	Provide the IRCC Chair with progress reports on the relevant tasks in the IHO 2014 Work Programme (10)	RHCs and IRCC subsidiary organs	Jan 2015	<p>See section 6 in the USCHC report to IRCC-7.</p> <p>2015 Work Program 3.1.15 (USCHC) does not have a key deliverable identified. USCHC is looking to propose one for the 2016 Work Program.</p>
IRCC6/07	Provide to the IRCC Chair the estimated values of SPIs and agreed WPIs as of 31 December 2014 and target values for 31 December 2017, complemented by the comments on the difficulties encountered and suggestions for a way forward.	RHC Chairs	Jan 2015	See Appendix C of the USCHC Report to IRCC-7 (2015) report.

No	ACTION (AGENDA ITEM)	RESP.	DEADLINE	USCHC Status
IRCC6/08	Invite GEBCO Guiding Committee / Bathymetric Regional Project Chairs to attend corresponding RHCs meetings, aiming at strengthening collaboration with a priority on improving high resolution shallow water bathymetry at the regional level (6)	RHCs / GEBCO	Report to IRCC Chair Dec 2014	Completed. Andy Armstrong and Lisa Taylor were invited to USCHC-38.
IRCC6/09	Encourage MSs and representatives of industry and academia to promote and to work together to ensure that the best possible use is made of Satellite Derived Bathymetry (11)	RHC Chairs	Report to IRCC Chair Dec 2014	NOTE: US INF letter was provided to CBSC (2015) on a chart adequacy workshop to be held in summer 2015
IRCC6/15	Provide material to the IHB to promote the achievements of IRCC bodies including CBSC, GEBCO	RHC Chairs and subsidiary bodies	Report to IRCC Chair Dec 2014	Permanent.
IRCC6/18	Hydrographic Office representatives to be ready to present the regional view on CSB and SDB during EIHC5	RHC	EIHC5	Completed
IRCC6/22	Share the lessons learned from the US-Canada transboundary (agreement) project with IRCC	USCHC	IRCC7	Following WEND-5 and USCHC-38, USCHC provided "USCHC ENC ENC Overlaps Best Practices" document to the IRCC-7 Chair
IRCC6/40	Facilitate resolution of inconsistencies between paper charts and ENCs and between ENCs from different producers	RHC Chairs	Permanent	
IRCC6/41	Consider opportunities to interact with stakeholders in 2014 and encourage participation in the relevant events	RHC	December 2014	Done
IRCC6/42	Notify Member States in their regions of opportunities for interaction and encourage participation with relevant stakeholders in accordance with CL 8/2014	RHC Chairs	December 2014	

No	ACTION (AGENDA ITEM)	RESP.	DEADLINE	USCHC Status
IRCC6/46	Encourage MSs in their respective regions to use the Risk Assessment methodology to establish Hydrographic Survey priorities	RHC Chairs		<p>Done.</p> <p>See papers delivered at US Hydro (2015)</p> <p><i>“Nautical Chart Adequacy Evaluation using Publically-Available Data”</i> (A. Klemm)</p> <p>And</p> <p><i>“A Risk-based Methodology of Assessing the Adequacy of Charting Products in the Arctic Region: Identifying the Survey Priorities of the Future”</i> (Gonsalves, Brunt, et al)</p>

Appendix C

USCHC input to IHO Strategic Performance Indicators (SPIs) and IRCC Working-level Performance Indicators (WPIs) relevant to USCHC.

No PI	Designation	IRCC Contribution	Comments	USCHC input
SPI 7	Increase in participation / membership in RHCs.	Source: collated by IRCC through RHCs.		USCHC has two members. There is no need to increase the official permanent membership of the USCHC. Member states do participate in commission meetings as schedules permit. In recent years, United Kingdom and France have attended. Mexico participated for the first time in the USCHC-38.
WPI 18	Percentage of IHO MS updating their C-55 entry data regarding hydrography survey, INT charts, ENC, and MSI in the reporting period.	Source: collated by IRCC through RHCs.	US submitted a C-55 update in April 2012 and is currently updating it again. CA did not update C-55 in the reporting period.	
WPI 19	Status of hydrographic surveys in each region.	Source: collated by IRCC through RHCs.		Both nations have active national survey programs within the geographic area of the USCHC. Collected hydrographic data is shared in support of chart production and updates in trans-boundary areas per agreement.

WPI 20	Percentage of agreed INT chart schemes, percentage of INT charts available.	Source: collated by IRCC through RHCs or ICCWGs.	An update to S-11 Part b, Region A was submitted in March 2013 (US) and March 2014 (CA).	100%
WPI 22	Increase in effective MS participation in RHC activities.	Source: collated by IRCC through RHCs.		USCHC has two member states. In recent years, France and United Kingdom have attended as observers and contributors as schedules allowed. Mexico and United Kingdom participated in USCHC-38 (2015) as observers.
WPI 29	Percentage of Coastal States which have set up a national geospatial infrastructure.	Source: collated by IRCC through RHCs.	US information can be found at: http://www.ngs.noaa.gov/INFO/OnePagers/NSRS.html	100%
WPI 40	Number of agreements signed in the reporting period, including bilaterals and RENC membership, etc.	Source: collated by IRCC through RHCs.		In October 2014 US-Canada signed an amendment to the MOU to eliminate the ENC overlap in the Beaufort Sea.