



INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MESO AMERICAN & CARIBBEAN SEA HYDROGRAPHIC
COMMISSION



MACHC Integrated Chart Committee
Wednesday, 9 December 2015 – Meeting
Antigua and Barbuda

1. Commencement of Meeting:

- a. Welcome & Introductions: The Chair of the MICC, John Nyberg (US/NOAA), opened the Meeting at about 10:35 by introducing himself as well as the Vice Chair, Paulo Matos (Brazil). He also introduced the Technical Coordinator, Anthony Klemm (US/NOAA) and the Communications Coordinator, Erich Frey (US/NOAA). As this meeting was held directly after the MEIP participants had already been introduced and no additional introductions were deemed necessary. The list of participants is as follows:

Antigua: Cdr. Wayne Mykoo	UKHO: Chris Thorne
Bermuda: Sean Patterson	Jeff Bryant
Brazil: Cdr. Paulo Matos	Sam Harper
Nickolás Roscher	USA: John Nyberg
Colombia: Capt. Gustavo Gutierrez	Anthony Klemm
Cuba: Ramón Patrón Díaz	Jim Rogers
France: Capt. Laurent Kerieguer	Erich Frey
Mexico: Cdr. Ricardo Lopez Cruz	Venezuela: Lt. Daniel Rojas
Netherlands: Leendert Dorst	Lt. Sugerlys Palacios
	IHB: Alberto Costa Neves
	IC-ENC: James Harper

A list of previous MICC Participants is provided as Annex B.

b. Approval of the Agenda:

Regarding the Agenda, it was suggested that item 5-b, INT Chart Coordinator, be moved to the end of section 5. Additionally, item 5-d was removed because it falls outside of the MACHC Region and was previously addressed. No further changes were suggested and the Agenda was accepted as adjusted.

2. MICC Organization:

a. Participants List:

The MICC Participant List was circulated and updated. The revised List of MICC Participant List is available at Annex B.

b. Approval of Minutes from 21 October MICC Conference Call:

As there were no additional comments to the previous minutes, they were approved with no further adjustments.

c. MICC Administrative Actions:

The status of Administrative Actions discussed is as follows:

- i. Action 12.5 (The US (NOAA) to develop a country by country list of Ports lacking large scale coverage) is **completed** as of this meeting.
- ii. Action 7.1 (Update the MICC Participant List as noted in item 2 of the Oct 21 MICC Conference Call minutes) is **completed**.
- iii. Action 7.2 (The U.S. to prepare a one page draft proposal to establish a separate group to handle the Risk Assessment task and provide it before the next Conference Call) has been overtaken by events and considered **completed**.
- iv. Action 7.3 (The U.S. to distribute the Port Analysis Country Reports prior to the next meeting) has been **completed** as of this meeting.

3. Risk Assessment Activity:

The Risk Assessment Activity (Action 7.2, above) had been discussed at length during the Conference Calls and is considered beyond the scope of MICC due to the many facets of the various Risk Assessment areas. The only segment of Risk Assessment where the MICC would have limited engagement would be areas lacking ENC coverage. As there is a separate Risk Assessment session at this venue, the MICC considers this topic to be overtaken by events. During discussions, Sam Harper (UK) indicated that perhaps this discussion should be kept open and Leendert Dorst (Netherlands) suggested that it be put on hold for the time being.

Anthony Klemm (US-NOAA) noted the discussion on Risk Assessment and indicated that it does not fit in the purview of the MICC and the Terms of Reference. Chris Thorne (Chair MEIP/UK) asked what Risk Assessment is based on: Is it the availability of charts, data or data availability? The Chair, John Nyberg summarized the MICC's past work on Risk Assessment including AIS and IWRAP information. He further indicated that the MICC's position will be noted in its Report to Plenary.

Action 12.1: The Chair, MICC will to note this issue in the MICC Report to Plenary. (MICC Chair)

4. Port Analysis:

The Chair, John Nyberg (US/NOAA) noted the extensive work done by Anthony Klemm (US/NOAA) who developed the country-by-country Port Analysis Reports. John further noted that some holes in ENC coverage were discovered. Anthony Klemm summarized the Cruise Ship analysis using AIS data. He further elaborated that the Ports of Call of Cruise Ships was compared to the availability (or non-availability) of Bands 4, 5 or 6 ENC coverage of the targeted Ports. Lack of coverage was then identified as a "gap". Anthony further expressed gratitude to the UK for the support in conducting this analysis. Anthony summarized that 18 months of data from 2012-2013 was used in the assessment. The result was that there were 48 Ports which were not covered by Bands 4, 5, or 6 ENC

coverage. It was also noted that a significant challenge of this effort was identifying the appropriate contacts to attain actionable decisions on resolving these gaps. A REST web mapping service of this data is available at:

http://gis.charttools.noaa.gov/arcgis/rest/services/MACHC/worldwide_cruise_ship_port_gaps/MapServer.

Finally, Anthony requested the appropriate contacts get in touch with during the course of the MACHC to progress this effort. The Chair thanked Anthony for this accomplishment and opened the floor for comments.

Alberto Neves (IHB) complimented the group on a job well done and suggested that this report be submitted to IRCC and CPSC. It was further stated that this data can be used in any web map servers. Leendert Dorst (Netherlands) asked if this can be accessed by others, including Hydrographic Offices. Anthony responded that, yes, it can and James Harper (IC-ENC) indicated that it was a great analysis and asked if there were paper charts covering the 48 gaps. The Chair, John Nyberg indicated a desire to expand this analysis to include CLIA input. Efforts to expand this analysis were supported by Chris Thorne (MEIP Chair/UK).

5. INT Charts

Review of INT Chart Actions:

- i. Action 12 (Venezuela and UK to review limits for INT 4102) remains **on-going**. Chris Thorne (Chair MEIP/UK) reported that discussions with Venezuelan personnel had taken place and that Venezuela had a further proposal, which has not yet been fully resolved. The new target completion date has been set for January 2016.
- ii. Action 4.1 (UK to contact Colombia regarding the overlap and paper size of INT Charts 4025 and 4011) continues as **on-going**. Chris Thorne (Chair MEIP/UK) indicated that contact had been made with Colombia and that options, including modifying the 2 charts to the north to landscape format is being considered. Colombia agreed to the new resolution target date of April 2016.
- iii. Action 6.1 (NOAA to send the Risk Assessment presentation (from the March 19 Conference Call) to Brazil.) has been **completed**.
- iv. Action 7.4 (Add discussion topic “Can National Chart coverage be accepted as satisfying INT Chart coverage” to the MICC Meeting Agenda) has been **completed**. This is further elaborated in section “5-c” below.
- v. Action 7.8 (U.S. (NOAA) to investigate the possibility of placing a MACHC INT Chart catalog on the MACHC website) has been **completed**. The Chair, John Nyberg noted the Korean effort to build an INT Chart catalog on behalf of the IHO and suggested that we make use of this. He further suggested that Member States should strive to keep it updated. With that, it was decided that

rather than duplicate already completed work, the MICC make use of the IHO/Korean effort which has this catalog already in place.

b. Updates to Current INT Chart Coverage:

An INT Chart Scheme adjustment covering the Caribbean area was submitted by Lt. Daniel Rojas (Venezuela) for approval. While there were relatively insignificant changes in most instances, this adjustment was approved and recommended for approval by MACHC Plenary. However, there was one area which would result in the creation of a gap. This will be a topic to be resolved over the next several months. Chris Thorne (MEIP Chair/UK) noted a meeting with Venezuela and agreed to work with Venezuela to ensure that this gap will be addressed. John Nyberg stated that while we agree in principle with the Venezuelan proposal and that we are approving the scheme, not the actual charts.

Anthony Klemm (US/NOAA) noted the update of S-11 which now shows the Mexican INT Chart scheme. He further noted that with the 2 UK Charts and one Colombian Chart at the southern end, INT Chart coverage on the Pacific is now complete.

Lt. Daniel Rojas (Venezuela) stated that what is now portrayed in S-11 is still not correct. Ricardo Lopez Cruz (Mexico) inquired whether the proposed Venezuelan scheme adjustment is to correct S-11. The reply from Venezuela was “yes” this is the reason. John Nyberg responded that once the Plenary approves the Venezuelan adjustment, information can be submitted to IHB for updating in S-11. Plans are to have this in place by the April MICC Conference Call. Paulo Matos (Brazil) suggested that the MICC approve the proposed Venezuelan scheme adjustment.

Action 12.2: The MICC to gain approval of the Venezuelan scheme adjustment and provide IHB (S-11) the necessary updating information. (MICC Chair)

c. National Charts as substitutes for INT Charts:

Erich Frey (US-NOAA) provided background information where the idea of substituting National Charts for INT Charts originated. At that time ENC development was the primary driving force of what was then the “Electronic Chart Committee” of MACHC and INT Chart development was not under its purview. This was discussed about 10 years ago and as a “temporary” situation, it was noted that National Charts would be accepted as substitute INT Charts. However this time has passed and Chris Thorne (MEIP Chair/UK) noted that many Member States’ National Charts already meet INT Chart specifications and could with relatively little effort be converted to INT Charts, if they so desired. A few Member States would however, have significant work to do to convert their charts. In this case, National Charts do not meet INT Chart specifications and can therefore not be accepted as INT Charts. Paulo Matos (Brazil) noted there is a possible role for the INT Chart Coordinator, but added that National Charts could not be substituted for INT Charts. The group agreed with this assessment and was not further

discussed. John Nyberg summarized this discussion with the conclusion that National Charts cannot be substituted for INT Charts.

d. INT Chart Coordinator:

The Chair, John Nyberg introduced the role of the IRCC suggested INT Chart Coordinator, interpreting that the task appears to be to verify that Charts meet INT Chart Specifications. Alberto Neves (IHB) clarified this by stating that only Charts from “**new**” **INT Chart producers** need to be examined. Essentially, initial plans are to start with “new” INT Chart producers and perhaps expanding the task at a later time.

6. Electronic Charts:

a. Review of Electronic Chart Actions:

- i. Action 4.4 (Venezuela to provide update on the progress of ENC development in the Orinoco River area) remains as **on-going**. Lt. Daniel Rojas (Venezuela) added that the National Institute for Channels is in charge of the Orinoco River area. Chris Thorne (MEIP Chair/UK) noted that he had met with the Channel personnel and is working with them with hopes of providing an update over the next year. Paulo Matos (Brazil) inquired if these are “River ENCs” or regular ENCs and requested a point of contact. Venezuela responded by indicating that they would provide contact information. Lt. Daniel Rojas (Venezuela) added that a multi beam survey was conducted in the river last year and that a private company is working on this.
- ii. Action 12.6 (In coordination with MEIP, the US (NOAA) to investigate the development of a catalog for Region B and how ENC On-Line can support this effort) continues as an **on-going** activity. John Nyberg noted the IHO efforts on the ENC catalog and that it appears to getting done in other ways.
- iii. Action 12.8 (Conduct WEND survey among MACHC Members on RENC participation and availability/distribution of ENCs) is **completed**.
- iv. Action 7.5 (Venezuela to contact the Orinoco River authority to get a status on ENC compilation and report at the December MICC Meeting. (See also Action 4.4)) is redundant with Action 4.4. Therefore this action is considered **completed**, leaving Action 4.4 as on-going.
- v. Action 7.6 (U.K.to send official request to Venezuela and Colombia for their .000 files for use in ENC On-Line) is **completed**.
- vi. Action 7.7 (U.S. (NOAA) to prepare the on line survey regarding RENCs and WEND) has been **completed**. See Action 12.8, above.

b. Updates/adjustments to Region B ENC scheme:

Anthony Klemm (US/NOAA) addressed this topic and indicated that the MICC has a viewer on their website at: <http://www.iho-machc.org/>. Anthony further proceeded by demonstrating the viewer and its capabilities. Anthony also provided a summary of

total ENCs (723) available in the Region at the end of 2015 which reflects an increase of 58 new cells this past year.

c. Updates/resolutions of overlaps in ENC coverage:

Resolution to overlaps is a continuous activity of the MICC. As new cells become available, there is always the likelihood of an overlap as a result. As these gaps are identified, efforts are made both during the quarterly Conference Calls as well as by direct bilateral communications with affected Member States to resolve all overlap issues as they occur.

d. Updates to arrangements with RENCs:

John Nyberg indicated that the United States is joining IC-ENC. This will be beneficial, as most MACHC Member States participate with IC-ENC and expectations are that we can collaborate on common issues with other IC-ENC Member States. James Harper (IC-ENC) noted that IC-ENC has a training course and a planned IC-ENC technical conference. Ricardo Cruz (Mexico) noted the importance of consistency between the paper INT Chart and the corresponding ENC and suggested that we make use of all IC-ENC capabilities to address consistency issues.

e. WEND-RENC Survey:

John Nyberg stated that he had received responses from about 13 Member States and that their results will be noted in the MICC Report to MACHC Plenary. John added that the overwhelming theme was that RENC harmonization is sufficiently being implemented. James Harper (IC-ENC) asked if there might be anything that he can add to clarify RENC activity and added that this can also be further elaborated at a later time. This topic was discussed while addressing Action 7.7 and 12.8 above.

f. ENC On-Line:

This topic was adequately covered in item 6-b above and was not further elaborated at this time.

7. Consistency of data among ENCs and comparable INT Charts:

Cdr. Ricardo Lopez Cruz (Mexico) provided a presentation on this issue highlighting concern that consistency appears to be lacking between newly approved INT Chart schemes and plans for providing the corresponding ENC in a timely manner. It was noted that some delays are the results of the need to make cuts to the ENC to remove overlaps created by the INT Charts, which takes some discussion with two or more Member States. Chris Thorne (MEIP Chair/UK) noted that he was not aware that the Mexican cells were available which would result in issues between Mexican and UK cells, but that he would look in the matter. John Nyberg indicated that in general, we all understand the problem, but is not clear what action the MICC could pursue, since this appears to be a bilateral issue. James Harper (IC-ENC) echoed the comments by Chris Thorne, but noted that when new ENCs are approved for release, IC-ENC sends the new cells to all its subscribers. He added that he would follow-up on this issue when he returns to his office.

Action 12.3: James Harper (IC-ENC) to track the overlap/release issue as it pertains to Mexican ENCs. (James Harper)

John Nyberg noted that this point is well taken and summarized the issue, adding that if problems persist, the MICC would track them. He also added that IC-ENC will be included in future MICC Conference Calls.

Action 12.4: MICC to add James Harper (IC-ENC) to future MICC Conference Calls. (Erich Frey)

8. MICC Report:

John Nyberg provided the proposed MICC Report to Plenary. There were no additional comments. Capt. Gustavo Gutierrez (Colombia) thanked John for a great job and asked for a side bar to discuss the INT Chart scheme and potential issues resulting from the adjusted scheme submitted by Venezuela. John suggested further discussions during the course of the week concerning INT 4023 and 4025. *[This issue was subsequently resolved prior to the conclusion of the MACHC.]*

9. MICC Work Plan for 2016:

John Nyberg noted that a Work Plan for 2016 will be developed based on these discussions and any follow-up in Plenary.

Action 12.5: The US (NOAA) to develop a MICC Work Plan for 2016. (Erich Frey)

10. Other Business:

The issue of John continuing as Chair, MICC was noted. However, the consensus was that John was essentially the new Katie and was supported to continue as the Chair of MICC.

11. Adjourn:

The Meeting adjourned at 12:30. The next conference call is scheduled for April 6, 2016.

SUMMARY OF ACTIONS

Annex A

"New" General & Administrative Actions from 9 December 2015 MICC Meeting			
#	Action	Who	Status
12.1	The Chair, MICC will to note this issue in the MICC Report to Plenary.	MICC Chair John Nyberg	Dec 2015 Completed

New INT Chart Actions from December 9 2015 MICC Meeting			
#	Action	Who	Status
12.2	The MICC to gain approval of the Venezuelan scheme adjustment and provide IHB (S-11) the necessary updating information.	MICC Chair John Nyberg	April 6, 2016
INT Chart Actions carried forward from MICC Meeting (November 2012)			
12	Venezuela and UK to review limits for INT 4102.	Venezuela, UK	On-going Jan 2016
INT Chart Actions carried forward from Oct 23 MICC Conference Call			
4.1	UK to contact Colombia regarding the overlap and paper size of INT charts 4025 and 4011.	UK	On-going April 2016

ENC Actions carried forward from Oct 23 MICC Conference Call			
#	Action	Who	Status
4.4	Venezuela to provide update on the progress of ENC development in the Orinoco River area.	Venezuela	On-going
ENC Actions carried forward from 10 December MICC Meeting			
12.6	In coordination with MEIP, the US (NOAA) to investigate the development of a catalog for Region B and how ENC On-Line can support this effort.	John Nyberg/ Anthony Klemm	On-going
12.8	Conduct WEND survey among MACHC Members on RENC participation and availability/distribution of ENCs	John Nyberg/ All MACHC MS	Dec 2015
"NEW" ENC Actions from December 9 2015 Meeting			
12.3	James Harper (IC-ENC) to track the overlap/release issue as it pertains to Mexican ENCs.	James Harper	April 2016
12.4	MICC to add James Harper (IC-ENC) to future MICC Conference Calls.	Erich Frey	Completed
12.5	The US (NOAA) to develop a MICC Work Plan for 2016.	Erich Frey	Completed

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MACHC International Chart Coordination Working Group
DRAFT
Proposed 2016 Work Plan Milestones

DELIVERY DATE (2016)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
Jan 1	Add IC-ENC as a regular Participant on all MICC Conference Call	
Jan 1 – Feb 29	Member States to provide updates based on discussions, and consideration of the individual Ports Reports presented at the Dec 9, 2015 MICC meeting on plans to address gaps in ENC coverage within their area.	Member States to provide updates based on discussions, and consideration of the individual Ports Reports presented at the Dec 9, 2015 MICC on plans to provide INT Chart metadata (as noted in S-11) for existing (available) INT Charts for use in GIS
March 9	In preparation for the quarterly Conference Call, Member States to provide updates to: the list of available ENCs resolution of any gaps/overlaps identified.	In preparation for the quarterly Conference Call, Member States to forward INT Chart metadata and shapefiles for “planned” INT Charts. Member States to propose additional coverage/adjustments for S-11, section B
March 6	Reach final resolution whether or not the MICC continues in any Risk Assessment.	
March 8 - 10	Represent MACHC at WEND WG	
April 6	Hold quarterly conference call to assess status and next steps.	
April 27	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	
May 29	In preparation for the quarterly Conference Call, Member States to provide updates to: the list of available ENCs resolution of any gaps/overlaps identified.	In preparation for the quarterly Conference Call, Member States to forward INT Chart metadata and shapefiles for “planned” INT Charts. Member States to propose additional coverage/adjustments for S-11, section B
July 13	Hold quarterly conference call to assess status and prepare information as needed for subsequent communication to IRCC and IHB.	

DELIVERY DATE (2016)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
July 27	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	
Aug 10	Investigate and/or track issues regarding consistencies and availability of ENC's and the corresponding INT (paper) Charts if problems persist.	
Aug 17		MS to forward S-11 updates to MICC technical coordinator for inclusion for Region B, S-11.
Aug 24		MICC technical coordinator to forward S-11 updates to IHB, to include Pacific INT scheme.
Sep 21	Provide outline of Report for review at the next Conference Call.	
Sep 21	In preparation for the quarterly Conference Call, Member States to provide updates to: the list of available ENC's resolution of any gaps/overlaps identified.	In preparation for the quarterly Conference Call, Member States to forward INT Chart metadata and shapefiles for "planned" INT Charts. Member States to propose additional coverage/adjustments for S-11, section B
Oct 12	Hold quarterly follow-up conference call to update/review and discuss MS input in preparation of 16th MACHC.	
Nov 9	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	
Nov 6	Provide all updates, to the Technical Coordinator for the MICC Report to 17 th MACHC.	
Nov 23	All Members provide final comments on the Report to MICC Chair.	
Nov 30	Submit Final Report to MACHC.	
Dec 2015	Seek approval of Final Report at 16 th MACHC Meeting.	
Dec 31	MACHC Chair to distribute Final Report of the Status of ENC Coverage for the MACHC Region to the IRCC and IHB.	