



XIVth Meso American & Caribbean Sea Hydrographic Commission Meeting
9-13 December 2013
Philipsburg, Sint Maarten
Minutes of the 14th Meeting
Summary

Contents

1. Opening.....	3
2. Marine Economic Infrastructure Programme Working Group Meeting.....	4
3. MACHC Integrated Charting Committee Meeting.....	4
4. Capacity Building Session.....	4
5. Stakeholders Day “ Hydrography Underpinning the Blue Economy”	4
6. Approval of agenda and timetable	4
7. List of documents.....	5
8. List of participants.....	5
9. Minutes XIII th MACHC Meeting	5
10. Review Action Items from the XIII th MACHC Meeting	5
11. MACHC statutes	5
12. IHO matters.....	5
12.1 IHB report.....	5
12.2 IRCC5 report.....	6
12.3 MACHC Actions IRCC6.....	6
12.4 HSC5 report	6
12.5 WEND report.....	6
13. National Reports	6
14. Maritime Safety Information (MSI).....	7
14.1 Maritime Watch WWNWS	7
14.2 Procedures in response to marine disasters.....	7
14.3 Presentation Mexico	7
14.4 Presentation France	8
14.5 Presentation ICG/CARIBE EWS.....	9

15. MACHC Committees and Working Groups	9
15.1 Marine Economic Infrastructure Programme (MEIP) Working Group Report	9
15.2 MACHC Integrated Charting Committee (MICC) Working Group Report.....	10
15.3 Capacity Building Session Report.....	10
16. Relevant International Organizations Reports.....	11
16.1 International Association off Marine Aids to Navigation and lighthouse Authorities (IALA)	11
16.2 International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA)	11
16.3 International Maritime Organization (IMO)	12
16.4 Organization of Eastern Caribbean States (OECS)	13
16.5 Pan American Institute of Geography and History (PAIGH)	14
16.6 RAC/REMPEITC-Caribe	14
16.7 Caribbean Memorandum of Understanding on Port State Control (CMOU)	14
16.8 International Centre for ENC's.....	15
17. Progress Satellite Derived Bathymetry (SDB) Techniques	15
17.1 Presentation International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico (IBCCA)	15
17.2 Presentation on Satellite Derived Bathymetry (France)	16
17.3 Satellite-derived bathymetry (USA)	16
18. Crowd Sourcing Survey Techniques.....	16
18.1 Presentation on Crowd Sourced Bathymetry (CSB).....	16
18.2 NOAA crowd sourcing initiatives	16
18.3 IHB Presentation on Crowd Sourcing.....	16
19. Topics for discussion at EIHC5	16
20. Blue Economy.....	17
20.1 The benefits of hydrographic expertise in Maritime Boundaries issues	17
20.2 Presentation on the CLME+ Project.....	17
20.3 Report Stakeholders day.....	17
21 Maritime Funding.....	18
22. Discussion MACHC Statutes	19
23. Any other business.....	19
24. Date and Venue of the next meeting.....	20
25. Closing.....	20

1. Opening

Mr. M. Amafo LL.M (Suriname), the Chair of the Meso American & Caribbean Sea Hydrographic Commission (MACHC), welcomed all the participants to the 14th session of the MACHC Meeting. A special welcome was extended to the stakeholders, the industry and the relevant International and Regional Organizations, represented at the meeting. The importance of public private partnerships in ensuring the sustainability and reliability of surveying and charting in the region was highlighted in that respect. The Chair also emphasized the commitment from the Region to provide adequate hydrographic services for ships navigating in the Caribbean region. The Chair requested delegates to participate actively in the working groups' sessions, which were scheduled to take place after the formal opening.

On behalf of the Committee the Chair thanked the Netherlands and the Government of St. Maarten for hosting the annual meeting of the MACHC. The working groups, members and the IHB were also thanked for their continuous support during the past year.

After the welcome address by the Chair, Robert Ward, the President of the International Hydrographic Bureau (IHB) addressed the audience. In his remarks he noted the importance and the purpose of the Regional Hydrographic Commissions that are responsible for the surveying and charting of the navigable waters of the sea. He emphasized that there is a need to improve the in-country capabilities across the region. He further noted the importance of capacity building and awareness raising.

In the keynote address the Governor of St. Maarten, H.E. Mr. Eugene B. Holiday, welcomed the delegates to St. Maarten. He underscored the importance of hydrography for sustainable development of the region. He also noted the importance of hydrography for the cruise ship industry and the development of the Blue Economy taking into account existing commitments for protection of the environment. After the keynote address the Governor declared the meeting open.

The meeting photograph was taken and all participants received a copy of the photo.



2. Marine Economic Infrastructure Programme Working Group Meeting

The Marine Economic Infrastructure Programme (MEIP) Working Group, chaired by Mr. Tim Lewis (UK), discussed the MEIP issues during the MEIP working group meeting on 9 December 2013. The summary of the MEIP report can be found under item number 15.1.

3. MACHC Integrated Charting Committee Meeting

After the MEIP working group meeting the MACHC Integrated Charting Committee (MICC), chaired by Mr. John Nyberg (USA), discussed the MICC issues during the MICC meeting. The summary of the MICC report can be found under item number 15.2.

4. Capacity Building Session

After the MICC session the Capacity Building session under chairmanship of Mr. Jeff Bryant (UK) took place. During the CB session the CB issues were discussed. The summary of the CB report can be found under item number 15.3.

5. Stakeholders Day “ Hydrography Underpinning the Blue Economy”

A stakeholder’s day was organized on Tuesday 10 December 2013, in which the stakeholders and industry had the opportunity to give a presentation regarding their activities in relation to the theme of the stakeholder’s day “Hydrography-Underpinning the Blue Economy”. The stakeholder’s day was chaired by the MACHC Vice-Chair, Captain P. Kortenoeven (Netherlands).

The following organizations gave a presentation during the stakeholder’s day:

- Hypack Inc., Mr. Carlos E. Tejada;
- CZM Carib, Mr. Franck Horenberg;
- Fugro Pelagos Inc, Mr. Don Ventura;
- International Centre for ENC’s, Mr. James Harper;
- IIC Technologies, Mr. Derrick Peyton;
- Esri, Mr. Rafael Ponce;
- Liquid Robotics, Teledyne, Caris, by Mr. David Walker, Mr. Doug van Woudenberg, Mr. Paul Cooper and Mrs. Karen Hart.

On behalf of Mexico, Mr. Francisco Javier Cabrera Alonso also gave a presentation regarding the Mexican Cartographic Department.

During the plenary session the Vice Chair presented a report of the Stakeholder’s Day with the relevant recommendations, to the Committee. The report and a summary of the stakeholder’s day can be found under item number 16.

6. Approval of agenda and timetable

On Wednesday, 11 December 2013, the Chair introduced the Agenda and Timetable (Doc. MACHC14-01b) and invited the participants to comment on the document in case updates are necessary. The Chair proposed that the time table be used as a guide for the work of the Committee. The Agenda and Timetable were considered and adopted.

Audio recording of the meeting was also approved. The audio recordings will be deleted after the minutes of the MACHC 14 meeting are approved at the 15th MACHC meeting.

7. List of documents

The Chair commented that all the documents are on the website of the IHO under the link regarding the 14th MACHC meeting documents and that delegates were expected to have downloaded the documents.

http://www.iho.int/mtg_docs/rhc/MACHC/MACHC14/MACHC14_Docs.htm

All the documents and reports are will be uploaded to the website so delegates were asked to provide the secretary with all the documentation regarding the meeting. The list of documents (Doc. MACHC 14-01c) was approved by the meeting.

8. List of participants

The delegates were asked to confirm the list of participants (Doc. MACHC 14-01d) and advise the secretary of any amendments to the document.

9. Minutes XIIIth MACHC Meeting

The Chair took this report (Doc. MACHC 14-02) as being read and invited the meeting to adopt the report as presented with any editorial changes being submitted to the secretary.

The Minutes of the XIIIth MACHC meeting were adopted by the meeting.

10. Review Action Items from the XIIIth MACHC Meeting

The list of Actions from the XIIIth MACHC Meeting (Doc. MACHC 14-03) was reviewed and updated.

11. MACHC statutes

The President of the IHB introduced this item (see Doc. MACHC 14.04.1). The Chair suggested to discuss the MACHC Statutes on the last day of the meeting, thereby giving the MSs the opportunity to consult with their respective HO's. The report on this item is placed under item 21 (Discussion MACHC Statutes).

12. IHO matters

12.1 IHB report

See Doc. MACHC 14-05.1 for full report.

Status of Approval of Amendments to the IHO Convention

By October 2013, 39 of the required 48 approvals to the Protocol of Amendments had been received by the Government of Monaco. President Robert Ward urged the IHO Member States of the MACHC (Colombia, Guatemala, Jamaica, Trinidad and Tobago and Venezuela) who have not yet indicated positive support to the Amendments to the Convention on the IHO to give their support in that respect.

The 5th Extraordinary Hydrographic Conference will be held as the first Assembly of the IHO if a further nine approvals to the amended Convention are received by the Government of Monaco before 6 July 2014.

President Ward also gave a brief overview of the Status of Approval of New Member States of the IHO. Bulgaria, Haiti, Mauritania, Montenegro and Sierra Leone have all been accepted for membership of the IHO but have not yet deposited their instruments of accession with the government of Monaco. Viet Nam, Brunei Darussalam, and Georgia have applied for membership of the IHO but still lack the two-thirds majority support from IHO members in order for their membership to be accepted.

He further commented on the C-55 inputs, changes to the IHO Yearbook and the developments with regard to the IHO GIS database.

12.2 IRCC5 report

The MACHC Chair introduced the IRCC5 report (Doc. MACHC 14-05.2), including the decisions affecting the MACHC.

12.3 MACHC Actions IRCC6

The MACHC Chair will consult with the Chairs of the working groups to determine the MACHC actions for IRCC6.

12.4 HSSC5 report

Mr. P. Matos (Brasil) introduced the HSSC5 report including the decisions affecting the MACHC, see Doc. MACHC 14-05.3 for full report. The IHB president emphasized the importance of the HSSC5 and urged MS to attend the meeting actively. The MACHC needs to appoint a lead state to represent the MACHC at the HSSC and report back. The Chair will consult with IIC Tech. and Brasil to represent the MACHC at the HSSC meetings and report back to the MACHC. The representative of the MACHC should take note of the MS and WG position with regard to the MACHC. The Commission endorsed the way forward. The Chair to request HSSC to approve the support of MSDIWG to the MEIPWG in governance and standards.

12.5 WEND¹ report

Mr. J. Nyberg (USA (NOAA)) introduced the WENDWG report, see Doc. MACHC 14-05.4 for the presentation.

The revised WEND Guidelines were approved by the WENDWG and by IRCC5 and will be circulated by the IHB. MSs to support the new WEND guidelines and the definition of a cartographic boundary that will be circulated by CL.

13. National Reports

Member States provided the meeting with summaries highlighting important aspects of their National Reports. The full National Reports can be accessed on the IHO website.

¹ Worldwide Electronic Navigational Database

There were a number of recurrent themes that developed from the presentations:

- The need for Capacity Building training and equipment
- CB in Spanish as well as English
- Progress and statistics regarding paper chart and ENC production
- Continue improving the awareness of hydrography in the region
- Technical cooperation in the region

National reports and presentations can be found on the IHO MACHC website.

14. Maritime Safety Information (MSI)

14.1 Maritime Watch WWNWS

Mr. Jim Rogers (USA (NGA)) presented on the work of the World Wide Navigational Warning Service and Maritime Safety (see Doc. MACHC14.06.2). The title of his presentation was “Coordinated global service notifying users by satellite broadcast of immediate hazards that might endanger the safety of life at sea”. He provided an example of Capacity Building at Work and how fast the NAVAREA warnings are promulgated by the Watch Officers if the incidents are reported to the respective NGA contact point. There were some discussions on MSI training (real, online) and the languages of the training.

The CB Coordinator noted that it is possible to arrange:

1. 3 day MSI course (Eng, Fr, Sp)
2. 5 day Phase 1 course (Eng)

The Chair thanked the delegate for the presentation and extended an invitation to the WWNWS for the MACHC 15 meeting.

Action:

1. MSs to identify the needs in training for MSI and report to the CB Coordinator.
2. Based on the needs, training for MSI can be developed.

14.2 Procedures in response to marine disasters

The Commission discusses regional progress on the establishment of procedures and emergency response to marine disasters.

Action: Chair to send a questionnaire to MS to provide contact details, based on the National Reports and other relevant information.

14.3 Presentation Mexico

The delegate from Mexico gave a brief presentation regarding the last hurricane Manuel and how Mexico responded to it.

The MS took note of the presentation.

14.4 Presentation France

The presentation from SHOM (France) focused on Marine Disasters and the extension of the IHO resolution 1/2005 (See Doc. MACHC 14.06.3.2). IHO Resolution 1/2005 'IHO response to disasters' outlines the appropriate procedures and guidelines to enable an immediate and appropriate response to any future disaster affecting coastal areas of the world. The actual resolution 1/2005 as amended only focuses on the situation after the occurrence of such severe disasters, but what about being involved prior those disasters occur. In order to be efficient, tsunami & inundation warning systems are to be designated at the scale of a basin, beyond national boundaries. Tidal data are very relevant for improving the efficiency of warning systems (tsunami) and forecasting systems (storm surge). It is of great importance to share those data across boundaries.

In that respect the TSUAREG project was initiated. This project will contribute to a future warning system for marine disasters in Caribbean and adjacent regions through:

- New monitoring and detection systems
- Transmission of data in real time

This project is a partnership between Europe, Martinique, SHOM, Seismic research centers and since 2012, sea-level measurements at La Martinique and La Guadeloupe are transmitted in real-time to IOC.

At IRCC5, Wollongong, June 2013 France submitted a proposal to amend Resolution 1/2005 to include prevention and alert systems.

The amendment encourages coastal States to collect relevant data in their area of interest and to make data available to improve tsunami warning systems, cooperate and support the IOC Tsunami Warning Programme by setting up near-real time transmission from their sea-level and tide gauges network.

Action required from MACHC:

The MACHC members are invited to:

- support that proposal of amendment of resolution 1/2005 to include prevention and alert systems.
- support IOC in developing access to Real Time sea level data level information required by alert systems.

Mexico informed that it has developed a model to detect seismic events that could result in tsunami and invited visits.

Assistant Director Costa Neves (IHB) noted that there is a need to investigate which buoys can be used for navigation purposes, tides and warnings in case of a marine disaster.

The Chair thanked France for their presentation and asked the MS to take note of presentation.

14.5 Presentation ICG/CARIBE EWS

On behalf of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and adjacent (ICG/CARIBE EWS), Mr. Sébastien Deroussi, Vice Chair WG1 held an presentation to the Committee (See Doc. MACHC 14.06.3.3). The ICG/CARIBE EWS consists of 32 Member States and 16 territories in the Caribbean and Adjacent regions and 3 Observer States (Canada, Peru and Sri Lanka). It was established in 2005. Eight Sessions have been held in Barbados, Venezuela, Panama, Martinique, Nicaragua, Dominican Republic, Curacao and Trinidad and Tobago. The next session is scheduled for May 13-15, 2014 in St Thomas, United States Virgin Islands and the MACHC is invited to attend the next session (ICG IX, St. Thomas, USVI). The work is being done by 4 Working Groups and 5 Tasks Teams. Mr. Deroussi explained the Tsunami warning system and provided some information on Seismic Data Availability, Sea Level Data Availability in the Caribbean, CARIBE EWS Coastal Sea Level Monitoring Stations Progression (1960-2020) and the CARIBE WAVE 2014.

The Chair thanked the delegate for the extensive report and for the invitation. The ICG/CARIBE EWS is also invited to be represented at the MACHC 15 meeting.

Action: MACHC attendance at ICG IX, May 13-15, 2014 , St. Thomas, USVI

15. MACHC Committees and Working Groups

15.1 Marine Economic Infrastructure Programme (MEIP) Working Group Report

Mr. T. Lewis (UK), Chair of the MEIPWG, introduced the MEIP report, see Doc. MACHC 14-07.b for full report. The MEIP-WG Chair reported on the MEIP developments and proposals followed by a discussion and consideration on the way ahead. The MEIP achievements are inter alia: regular teleconference attendance, some data is made available, two demonstrator platforms produced (ESRI , CARIS) and a cross-stakeholder Maritime Funding meeting in Feb 2013. The Challenges are that currently MEIP-WG has NO funding, MS have little resources to devote beyond “day jobs”, Governance and data are fundamental, National MSDI/Policy – IPR. MS are to review demonstrators models and provide feedback (End Jan 14) and MS are to review questionnaire/ data reports feedback (End Jan 14). Chair MACHC will send a letter to MSs to use the demonstrator models, review MEIP questionnaire and provide relevant feedback. The Commission will evaluate if the mission of the MEIP WG (based on the TOR) is completed or not. Based on the conclusions, the Commission will decide the way forward (develop new TOR). Is there a need for MEIP WG to be part of IHO MSDI WG? The Chair pointed out there was no elected vice-chair and should the group continue, it would be pertinent to look for vice-chair. MACHC Chair enquired whether there was a role that the industry could fulfill, in light of no MS volunteers. Chair considered this could present a potential conflict of interest for the industry chair further down the line and therefore is not suitable. The MEIP WG will evaluate the TOR and report back. Decision: MEIPWG to participate in the MSDIWG5 meeting (5-7 Feb 2014)

15.2 MACHC Integrated Charting Committee (MICC) Working Group Report

Mr. J. Nyberg (USA (NOAA)), MICC Chair, introduced the MICC report, see Doc. MACHC 14-07.a for full report. The MICC Chair reported on the MICC developments and proposals followed by consideration by the Commission. INT Charts: updated to S-11 (http://www.iho.int/iho_pubs/standard/S-11/S-11_PartB_RegionB_e2.0.4.pdf). Next update will include a Pacific scheme following proposal from Mexico. ENC's: 18 out of 26 overlaps are resolved. Closing gaps: 13 of 29 are resolved. Cuba released 8 Usage Bands 3 and five more are being validated. The MICC its homepage with ENC's and other relevant information is noted (link: <http://www.iho-machc.org/whatis/micc.html>). Information regarding the Electronic Navigational Charts for the Cruise Line industry. Cruise Shipping Miami 2014 is planned for March 10-13, 2014. Action: US to provide contact information so the Cruise Lines International Association (CLIA) can be invited to participate in MACHC15. Changes to INT Chart Scheme and S11 and other requests from MICC were endorsed.

15.3 Capacity Building Session Report

Mr. J. Bryant (UK), MACHC CB Coordinator, reported the outcomes of CBSC11 and of the CB Session, see Doc. MACHC 14-07.c for full report. Mr. Bryant chaired the CB Session on the afternoon of Monday 9 December 2013. The proceedings commenced with an explanation of the IHO's current CB strategy and a live demonstration of how to find related information on the IHO's website. The activities identified and funded for 2014 were discussed. The CB activities for 2014 are:

- A technical visit to Nicaragua
- A Sub-regional course on hydrography for Spanish speakers
- An MSDI and Data Management workshop (partially funded)

The MACHC CB Plan (2013-17) was examined by the CB group who largely agreed with the activities identified for 2015:

- Repeat technical visits
- Law of the Sea workshop
- Basic Hydrographic Survey course

The CB Coordinator noted a number of possible additional CB activities gleaned from the National Reports and Industry and Stakeholder presentations:-

- Mexico identified a further regional requirement for MSI training for Spanish speakers
- Mexico offered training in CARIS and echo-sounder use for Spanish speakers
- Industry sea riding offer from Fugro
- US Navy training opportunities
- Sea riding and practical surveying experience offered by the UK and Netherlands
- Possible CB collaboration with the ICG CARIB EWS (attend meeting in USVI, May 2014 to further explore opportunities)

The IHB President stressed the need to present all the CB requirements of the region to the CBSC, in order to allow the IHO to identify and seek appropriate funding sources. Mr. Don Ventura (Fugro) suggested to countries to include CB as part of their survey contracts.

Actions:

1. CB Coordinator to put together a questionnaire to assess how students use the training in their work.
2. Chair to issue a CL to make membership aware of the CB possibilities.
3. All MS to submit their CB requests to the Chair by 28 Feb 2014.

16. Relevant International Organizations Reports

16.1 International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)

Mr. Stephen Bennett; Programme Manager IALA WWA gave a presentation on behalf of the IALA and the IALA World-Wide Academy. IALA is an NGO that was created in 1957 (but with origins from the 1800's). It has Observer Status at the International Maritime Organization and the IHO. The IALA has a number of Memoranda of Understanding with other international organisations. IALA is seeking to become an Inter-Governmental Organisation (IGO) by 2016. Courses such as VTS training are available to ports and risk management tools seminar to increase awareness; for further details see presentation on the IHO MACHC website (Doc. MACHC14.08.1).

The Chair thanked the representative of IALA for the report and extended an invitation to the IALA for the MACHC 15 meeting.

16.2 International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA)

Capt. Ricardo Morales of the Hydrographic Office (CIOH) of Colombia provided an update on IBCCA and the progress of the regional IBCCA sheets. For full presentation see Doc. MACHC 14.08.2) MS were advised to view the webpage for the latest IBCCA activities. The Chair thanked the IBCCA for their presentation and extended an invitation to the IBCCA for MACHC 15 meeting.



Cuba presented the MICC chair a bathymetric chart.

Action: MS to send their relevant information to GEBCO.

16.3 International Maritime Organization (IMO)

Mr. C. Young (IMO Regional Maritime Adviser for the Caribbean) on behalf of the IMO gave a brief report on the work of IMO on hydrographic related matters out of the meetings of the 59th session of the Sub-Committee on Safety of Navigation (NAV). Matters out of the 28th Session of the IMO Assembly, the 63rd Meeting of the Technical Co-operation Committee (TCC) and developments in the Region were also highlighted, such as shipping routes in the Caribbean and the Panama Canal developments. For full report see Doc. MACHC 14.08.3.

The Chair thanked the IMO representative of the IMO for the report and noted the commitment from the region as put forward in the Jamaica SMA 2013 Resolution and the Jamaica 2013 High Level Resolution. The Chair also invited the IMO for the MACHC 15 meeting.

The RMA urged the IMO Member States represented at the MACHC 14 meeting to complete their Country Maritime Profile to facilitate the funding of technical assistance needs of the Region. A funding allocation of US\$1,600,000 representing approximately 62% of the 2014/2015 Integrated Technical Co-operation Programme funding requirement for the Caribbean was approved at the 28th Assembly.

Actions:

1. Incorporate E-Navigation as a MACHC agenda item for MACHC 15.
2. US to make a presentation on E-Navigation at MACHC 15.
3. CB Coordinator to contact IMO and IALA for CB issues.
4. Invite Trinidad Pilot Organization to MACHC 15.

16.4 Organization of Eastern Caribbean States (OECS)

Lt . Cdr. Wayne Mykoo of Antigua and Barbuda provided a presentation on behalf of the OECS regarding the Proposed Eastern Caribbean Hydrographic Initiative (Doc. MACHC 14.08.4). The OECS MS are: - Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Montserrat, with two associate members, Anguilla and the British Virgin Islands. The Proposed eastern Caribbean Hydrographic Initiative will be established using a two level approach as follows:

Level 1: to conduct systematic area surveys throughout the Eastern Caribbean through the creation of an inter-island collaborative hydrographic survey project using international funding and delivery by commercial resources.

Level 2: to maintain survey data to modern standards, post Level 1, by the creation of a regional hydrographic survey unit trained and equipped with mobile survey equipment to conduct minor maintenance surveys (e.g. ports and approaches), new surveys for development purposes and post natural disaster work.

The UKHO is a key partner for levels 1 and 2. An undertaking of this nature and magnitude is best driven under the aegis of an established and functional regional body, and the OECS is considered a suitable vehicle.

Significant Milestones:

- Coming out of the 13th MACHC meeting, Antigua and Barbuda's Commissioner to the OECS, who currently chairs the OECS Ocean Governance Team, was invited to participate Maritime Funding Session in Washington on the 27th February 2013.
- The OECS Heads approved the Scoping Study in June 2013, and endorsed the Secretariat's initiative regarding funding.
- The Commonwealth Secretariat is committed to funding 60% of the scoping study. The OECS Secretariat is actively pursuing the funding for the remainder of the scoping budget. The UKHO is funding their involvement.

Current Status:

The next OECS Ocean Governance Committee Meeting is scheduled for February 2014 where it is expected that specific timelines regarding the scoping study will be finalized.

The Committee appreciated the work done by Antigua and Barbuda, UK and OECS on moving the initiative forward. The UKHO reiterated their commitment to the project with Antigua and Barbuda through the OECS.

The Chair thanked the OECS representatives for their presentation and complimented the OECS and the UKHO for their project. The Chair emphasized that the MACHC needs to engage politicians (Political will/Governance). The MACHC also needs the support of the

political Organizations in order to achieve its goals. The IHB president will assist the MACHC Chair in that respect in order to get the relevant organizations to attend the MACHC meetings (enter into partnerships).

The Chair invited the OECS to attend the MACHC 15 meeting.

16.5 Pan American Institute of Geography and History (PAIGH)

Mr. Paul Cooper of CARIS also represented PAIGH at the meeting and provided an update on the PAIGH activities (see Doc. MACHC 14.08.5).

The Chair thanked the PAIGH for the presentation and invited the PAIGH to the 15th MACHC meeting.

16.6 RAC/REMPEITC-Caribe

Ms. Anne Reglain, IMO Consultant, of REMPEITC provided a presentation on the work of RAC/REMPEITC. Ms. Reglain in her presentation focused on the consequences of not having adequate hydrographic data available when managing incidents as oil spills. In that respect she also highlighted the responsibility of HO's to have and maintain adequate hydrographic data and their aids to navigation. Hydrography supports safe and efficient navigation. Charts and AToN are essential for safe navigation. The International Liability & Compensatory Regimes (CLC 92, FUND 92, Supp. FUND, HNS and BUNKERS Convention) were also highlighted in that respect. For full presentation see Doc. MACHC 14.08.6.

The Chair thanked the representative of RAC/REMPEITC and also extended an invitation to the RAC/REMPEITC for the MACHC 15 meeting.

Action: A paper regarding the legal aspects of navigational aids (in relation to negligence of HO's) was proposed as an action item for the MACHC 15 meeting (Common Law and Civil Law system).

16.7 Caribbean Memorandum of Understanding on Port State Control (CMOU)

Amb. Dwight Gardiner as Chair of the CMOU gave a brief presentation regarding a perspective on the synergies that exist between the CMOU and the MACHC (see Doc. MACHC 14.08.7). The Memorandum of Understanding on port State control in the Caribbean Region was signed in Christ Church, Barbados February 9, 1996 by nine authorities: Antigua and Barbuda, Barbados, Dominica, Grenada, Jamaica, Netherlands Antilles, Suriname and Trinidad and Tobago.

The membership has since been expanded to 15 Member States and 1 Associate Member State. The executive body of the CMOU is the Caribbean Port State Control Committee or the CPSCC for short, which is comprised of representatives of the 16 participating maritime authorities. The mission of the Caribbean MoU is to eliminate the operation of sub-standard ships in the region through a harmonized system of port State control by enforcing the provisions of the relevant IMO conventions and international regulations. The objectives of

the CMOU are: 1. To assist in securing the compliance of ships with international standards.
2. To coordinate the efforts of maritime authorities in relation to the above activities.

The synergies that exist between the CMOU and the MACHC are based on the relevant IMO conventions, resolutions, and codes that focus primarily on the safety of navigation. The principal IMO conventions are:

- Safety of Life at Sea, 1974 (SOLAS);
- the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREG); and
- the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW).

The synergies that exist between the CMOU and the MACHC could lead to significant benefits to the Caribbean States that rely on the marine environment for a sizable portion of their national income.

The Chair thanked the CMOU representative for the extensive presentation and noted the information provided. The Chair also invited the CMOU to the MACHC 15 meeting.

16.8 International Centre for ENC's

Mr. J. Harper provided an update on the IC-ENC activities (see Doc. MACHC 14.08.8). He provided some background information on the purpose and need for RENCs. RENCs assist HOs with production, quality assurance and distribution of ENCs. The Headquarters of the International Centre for ENCs (IC-ENC) is based in United Kingdom and a regional office is located in Australia. PRIMAR is another RENC and is based in Norway and hosted by NHS.

IC-ENC Operations:

- The strategic direction is set by the Steering Committee; all members are invited to participate in this group.
- Technical and Commercial working groups made up of IC-ENC staff and member HOs.

IC-ENC is a not-for-profit organization. The annual budget is reviewed and approved by the Steering Committee. Each HO sets its own price for its ENCs, IC-ENC retains \$1 for each ENC sold and the remainder is forwarded to the relevant HO.

The Chair thanked the IC-ENC for the presentation and invited the IC-ENC to the 15th MACHC meeting.

17. Progress Satellite Derived Bathymetry (SDB) Techniques

17.1 Presentation International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico (IBCCA)

Mr. Félix Frías Ibarra gave a presentation on Satellite-derived bathymetry (SDB) on behalf of the IBCCA.

17.2 Presentation on Satellite Derived Bathymetry (France)

Vice-Admiral Bruno Frachon (France) gave a detailed presentation on Satellite-derived bathymetry (SDB). For full presentation see MACHC14.09.2.

17.3 Satellite-derived bathymetry (USA)

Mr. Leland Snyder (USA (NOAA)) gave a detailed presentation regarding Satellite-derived bathymetry (SDB). For full presentation see MACHC14.09.3.

The Chair thanked all the presenters for their presentations and information provided and noted the efforts and progress made in the field of SDB.

18. Crowd Sourcing Survey Techniques

18.1 Presentation on Crowd Sourced Bathymetry (CSB)

Mr. Paul Cooper, Vice President of CARIS presented on the progress made on the use of crowd source data in the hydrographic context (see Doc. MACHC14.10.1).

18.2 NOAA crowd sourcing initiatives

RADM Gerd. F. Glang (USA (NOAA)) provided information on NOAA Crowd Sourcing Initiatives (see Doc. MACHC14.10.2). He provided information regarding the Cooperative Charting Program (US Power Squadrons (USPS)), the opportunities in crowdsourcing maritime information (Active Captain) and the NOAA Integrated Ocean and Coastal Mapping Crowd-Sourcing Examples.

18.3 IHB Presentation on Crowd Sourcing

In his presentation the IHB President encouraged the MACHC to increase their data collection and gathering of data for the common good. The need for multi-party, multi-disciplinary, collaborative projects that involve Governments, IGO, NGO, industry and donor organizations was highlighted. The IHB President also suggested equipping professionally crewed vessels with a Crowd Sourcing Data (CSD) box as a method to improve the data gathering/collection through crowd sourcing.

The Chair thanked all the presenters for their presentations and information provided and noted the efforts and progress made in the field of Crowd Sourcing.

19. Topics for discussion at EIHC5

The IHB President introduced this item and led the discussion regarding topics that States or MACHC may wish to raise or see discussed at EIHC5. Some of the MACHC topics for EIHC5 are:

- Review the CB Strategy
- Review the Staff Regulation
- Proposals to improve the technical capacity of the IHB

20. Blue Economy

20.1 The benefits of hydrographic expertise in Maritime Boundaries issues

Mr. Eric Langlois (France) gave a brief presentation regarding the benefits of hydrographic expertise in Maritime Boundaries issues. The full presentation is placed on the website under Doc. MACHC 14-12.1. In his presentation he highlighted the good practices regarding maritime boundaries determination and encouraged Members to promote their hydrographic expertise in baseline determination. Members were urged to include good practices as a cooperation area in bilateral agreements.

20.2 Presentation on the CLME+ Project

A presentation regarding the CLME+ Project was given by Capt. Ricardo Molares Barba (Colombia). Capt. Molares informed the Committee regarding the key components of the new project, called CLME+ that was approved by the GEF in September 2013. The first GEF intervention, the CLME Project, initiated its activities in May of 2009, and will end its operations in February 2014. The detailed Project Document for the CLME+ is being developed, and it is anticipated that this new project would start in the second half of 2014 and will run until 2019. With this new commitment from the GEF to support the CLME initiative with a grant of US\$ 12,5 million, the CLME+ project will allow to catalyze the implementation of the SAP. See Doc. MACHC 14-12.2 for full report.

The Committee noted the report and invited the CLME+ to the 15th MACHC meeting.

20.3 Report Stakeholders day

Captain P. Kortenoeven (Netherlands) presented a report on the Stakeholders day, which he chaired. The theme was "Hydrography-Underpinning the Blue Economy". The report provides feedback to the plenary session of the 14th MACHC on the 7 topics discussed during the stakeholders' day under the banner of "Blue Economy".

1. Hydrographic Society in the MACHC Caribbean region. This society could, among other items deal with issues like encouragement to establish national hydrographic legislation incorporating IHO standards, improvement of standards, acts as focal point for data sharing etc. Two options to set up such a society were presented. Option A: Establish a Caribbean/Latin American Chapter along the Hydrographic Society of America or Hydrographic Society UK. Option B: Establish a Caribbean/Latin American Society along the principles of the International federation of Hydrographic Societies. Proposed action: Select option A or B, then establish lead group to set up Hydrographic Society.

Action: Vice chair to coordinate and produce a paper "TOR for option A or B".

2. Increase awareness that Capacity Building is more than training. It should also include education and research, Standards and training on the job, National regulations on C-16, inland ENCs. Proposed action: Incorporate these concerns in documentation CB WG.

3. Increase awareness of benefits of the RENC membership. Countries were briefed on benefits of RENC membership. Currently 2/3 of ENC-producing nations are part of a RENC. Participants were briefed on the RENC activities like advisory visits and technical assistance. Proposed action: ENC producing HOs consider joining a RENC, according to IHO Resolution 1/1997 as amended.

Action: RENC members to recommend to non-RENC ENC producer nations to join a RENC.

4. Encourage that all data from hydrographic work is provided to the HOs. (note: item 4 and item 7, Open availability of Hydrographic data, were linked together under 4. IHB to raise this issue at IRCC6 and EIHC5.

Proposed action: HOs actively promote this issue to industry and consider legislation.

Action: UKHO to draft a proposal to IRCC6 and further discussion at MACHC15.

5. Use of ENCs outside ECDIS for non SOLAS.

Proposed action: RENCs to provide feedback to MACHC and IHO.

Action: RENCs to provide feedback to MACHC and WENDWG regarding the use of ENCs outside the SOLAS/ECDIS environment. (WENDWG action item)

6. Investigate improving co-operation between Hydrography and Oceanography.

Proposed action: IHO to investigate if these concerns are realistic, if so consider whether co-operation could be improved.

Action: Chair will send a letter to the IHB with regard to this concern so it can be addressed. Chair to report to IRCC6 the need to investigate the links between Hydrography and Oceanography.

IHB president proposed that this issue be included as a MACHC issue in the MACHC report to IRCC6.

7. Open availability of Hydrographic data. (see item 4)

Proposed action: Publish data via hydrographic society for those nations where national legislation does not already allow/enforce this. Additionally, nations might consider revising national policies.

The Committee noted the report from the Stakeholders day and endorsed the respective recommendations.

21 Maritime Funding

21.1 Invited Organizations

The MACHC Chair presented a report on the invited Organizations. See presentation under Doc. MACHC14.13.1

21.2 Invited Financial Organizations

The MACHC Chair presented a report on the invited Financial Organizations. See presentation under Doc. MACHC14.13.2

Action: Letter from Chair regarding MACHC to Financial Organizations (support from IHB president). Chair to engage with CCCC² and CARICOM. Invitation letters to be sent to relevant International and Regional Organizations. Coordination from IHB president. Early invitation is pivotal for their attendance.

22. Discussion MACHC Statutes

The President of the IHB presented some proposals to amend the MACHC Statutes (see Doc. MACHC 14.04.1) to the plenary.

Discussion on working language of the MACHC (article 13a). Mexico suggested to amend article 13 to include Spanish as official language. This was supported by Cuba. Netherlands proposed to link this item to the proposal of UK (budget for translation).

Action: Mexico to lead discussions to amend article 13 (Mexico to present a paper at MACHC 15).

France addressed the interval of the meetings after the approval of the statutes.

The Netherlands emphasized the need for continuity.

Discussion on selection of a representative to the Council (Annex 3). It was decided that a MS will be elected to represent the MACHC in the Council of the IHO.

US: proposal to first circulate the final draft and seek the views of the absent countries before decision. The Chair MACHC informed the Committee that the required quorum of 2/3 members of the Commission was present to endorse the amendments to the Statutes³.

The IHB president requested Assistant Director Costa Neves to correct an error in the map attached to the MACHC Statutes. An error was identified that the limit of 35 W is wrongly drawn in the 40 W meridian.

Decision: The proposed amendments to the Statutes under the articles 1 – 12 were approved. Article 13 was not amended. Mexico will present a paper regarding article 13 (MACHC 15).

23. Any other business

There were no topics raised under any other business.

² Caribbean Community Climate Change Centre

³ Brazil, Columbia, Cuba, France, Mexico, Netherlands, Suriname, UK and USA

24. Date and Venue of the next meeting

Mexico offered to host MACHC15 in Manzanillo, Mexico and this was agreed by all MS present. Mexico will host a Hydrographic Conference during the same week from the 8th the 10th of December 2014.

The proposed dates for the MACHC 15 are therefore 11 – 13 December 2014. The chair will inform members accordingly when dates for the 15th MACHC have been set.

Furthermore, the IHB President suggested the part-funded CB MSDI workshop (€10k) due for delivery in 2014 should be replaced by a Hydrographic Awareness Raising Seminar to precede MACHC15. The CB Coordinator undertook to organize this change through the normal channels.

25. Closing

The Chair was commended on his excellent leadership during the meeting. The Chair presented the IHO President Robert Ward with a gift and the vice chair, Captain Peter Kortenoeven who informed the Commission of his retirement was also presented with a present. The Vice Chair and his organizing team remarked on the excellent work done in organizing the MACHC 14 meeting.

The Chair concluded the meeting by thanking the Members, the industry, the International and Regional Organizations and the translators for their contributions and also commended them on the outstanding work delivered.

Meeting closed.



Pic1 presentation of gift to IHB President



Pic2 presentation of gift to vice chair MACHC