



**17th MEETING OF THE MESO AMERICAN AND CARIBBEAN
SEA HYDROGRAPHIC COMMISSION (MACHC17)
Belem, Brazil
13 – 17 December 2016
AGENDA AND TIMETABLE**

| Time | | Responsible |
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| 08:15-17:00 | MACHC Seminar on Raising Awareness of Hydrography - Monday 12 December: Hydrographic governance - Tuesday 13 December: Satellite Derived Bathymetry | CB Chair Mr Jeff Bryant |
| | Cocktail Ceremony hosted by the NAVAL LEAGUE | Host |

| Time | Tuesday (13 December) Smart Casual | Responsible |
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| 19:00-21:00 | MACHC Ice breaker | Host |

| Time | DAY ONE OF MACHC17 Wednesday, 14 December 2016 Business Casual (Short sleeved navy whites/short sleeved wayabera/similar) | | Responsible | |
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| 08:00-08:15 | Registration 17 th MACHC | | | |
| 08.15-08.40 | Formal Opening of the MACHC. Separate addresses | | Chair, SG IHO, Host | |
| 08:40-09:45 | MACHC integrated Charting Committee (MICC) meeting Agenda by MICC Chair | | MICC Chair Mr. John Nyberg | |
| 09:45-10:30 | Coffee Break | | | |
| 10:30-12:00 | Marine Economic Infrastructure Program (MEIP) meeting. Agenda by MEIP Chair | | MEIP Chair Mr. Chris Thorne | |
| 12:00-13:30 | Lunch | | | |
| 13:30-15:00 | Risk assessment meeting Agenda by Chair RA-group | Capacity Building Committee Agenda by Chair CBC | Chair Mr. S Harper | Chair Mr. J Bryant |
| 15:00-15:45 | Coffee Break | | | |
| 15:45-17:15 | Risk assessment meeting (continued) | | Chair Mr. Sam Harper | |
| TBD | Cocktail at the Oceanographic Ship Antares | | Host | |

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| | <p>2.1 IHO Secretariat Report <i>Doc:- MACHC17-2.1 IHO secretariat Report</i></p> <ul style="list-style-type: none"> - SG IHO provides a background brief on the composition and roles of the Council - 20 minutes <p>2.2 IRCC8 Report <i>Doc:- MACHC17-2.2 IRCC8 Report</i></p> <ul style="list-style-type: none"> - Include MACHC actions from IRCC 8 - See general remark below - 20 minutes <p>2.3 HSSC8 Report <i>Doc:-MACHC17-2.3 HSSC7 Report .</i></p> <ul style="list-style-type: none"> - See General remark below, eg. for decisions - 15 minutes <p>2.4 MSI/WWNWS <i>Doc: MACHC 17-2.4</i></p> <ul style="list-style-type: none"> - Includes the impact of e-navigation on the provision of MSI in the region and the use of the Joint Manual on MSI (IRCC8 action 6) - See General remark below. - 15 minutes <p>2.5 MACHC response to Disasters (IHO resolution 1/2005) <i>Doc: MACHC 17-2.5 MACHC response to Disasters</i></p> <ul style="list-style-type: none"> - Context is IHO resolution 1/2005 - Case study passage of Hurricane Matthew <ul style="list-style-type: none"> • <i>Back brief NL surveys off Haiti</i> • <i>Back brief NGA website</i> - Identify lessons and way forward - 20 minutes <p><u>General remark</u> Chair invites the representatives of the above IHO bodies/working groups to present the key (policy) developments, decisions, actions or implications that affect the MACHC region.</p> | <p>IHO Secretariat</p> <p>Chair</p> <p>Brazil</p> <p>Mr. Pete Doherty</p> <p>Chair</p> <p>Mr. Leendert Dorst Mr. James Roogers</p> |
| 12:00-13:30 | Lunch | |
| 13:30-15:00 | <p><u>3. National Reports from Members and Associate Members</u> <i>Part I</i></p> <ul style="list-style-type: none"> • <i>MACHC17-03.A National Report Antigua and Barbuda</i> • <i>MACHC17-03.B National Report Barbados</i> • <i>MACHC17-03.C National Report Belize</i> • <i>MACHC17-03.D National Report Brazil</i> • <i>MACHC17-03.E National Report Colombia</i> • <i>MACHC17-03.F National Report Costa Rica</i> • <i>MACHC17-03.G National Report Cuba</i> • <i>MACHC17-03.H National Report Dominican Republic</i> | National delegates |

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| | <ul style="list-style-type: none"> • <i>MACHC17-03.I National Report El Salvador</i> • <i>MACHC17-03.J National Report France</i> <ul style="list-style-type: none"> ○ Chair invites France to provide a short back brief on developments in the IHO-EU network WG (IENWG) that affect the MACHC region in addition to their national report (5 min). • <i>MACHC17-03.K National Report Guatemala</i> • <i>MACHC17-03.L National Report Guyana</i> • <i>MACHC17-03.M National Report Haiti</i> • <i>MACHC17-03.N National Report Honduras</i> • <i>MACHC17-03.O National Report Jamaica</i> • <i>MACHC17-03.P National Report Mexico</i> • <i>MACHC17-03.Q National Report Netherlands</i> <p>Members and Associate Members to present <i>only</i> the key points (maximum 5 minutes) as a powerpoint. Suggestions are:</p> <ul style="list-style-type: none"> - Main achievements during the year, - Main challenges and/or obstructions, - Update on C-55 statistics plus prognoses (including no change reports), - Bathymetric data made available to GEBCO, - Plans that affect the region, - Specific requests for support, eg. CB support, - Lessons learned to share. <p>Chair requests Members and Associate Members not to read verbally the written national report itself.</p> | |
| 15:00-15:45 | Coffee Break | |
| 15:45-17:15 | <p><u>3. National Reports from Members and Associate Members</u> Part II</p> <ul style="list-style-type: none"> • <i>MACHC17-03.R National Report Nicaragua</i> • <i>MACHC17-03.S1 National Report Panama-Panama Maritime Authority (PMA)</i> • <i>MACHC17-03.S2 National Report Panama-Panama Channel Authority (PCA)</i> • <i>MACHC17-03.T National Report Saint Kitts and Nevis</i> • <i>MACHC17-03.U National Report Saint Lucia</i> • <i>MACHC17-03.V National Report Saint Vincent and the Grenadines</i> • <i>MACHC17-03.W National Report Suriname</i> • <i>MACHC17-03.X National Report Trinidad and Tobago</i> • <i>MACHC17-03.Y National Report United Kingdom</i> <ul style="list-style-type: none"> ○ Chair invites UK to provide an overview on the status and plans for surveys and charting in the autonomous UK overseas territories (5 min). • <i>MACHC17-03.Z National Report United States of America</i> • <i>MACHC17-03.AA National Report Venezuela</i> <p>Members and Associate Members to present <i>only</i> the key points (maximum 5 minutes) as a powerpoint. See details above.</p> | |

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| | <p>Chair requests Members and Associate Members not to read verbally the written national report itself. See comment above.</p> <p><u>4. Reports from observing States and Organisations</u></p> <p>4.1 Organisation of Eastern Caribbean States (OECS) <i>Doc:-MACHC17-04.1 Organisation of Eastern Caribbean States (OECS)</i> - 15 minutes</p> <p>4.2 Observer countries <i>Doc 17-04.2.A. National Report Granada</i> - Chair invites observer countries to present only the key points as described under agenda item 3 (maximum 5 minutes).</p> | <p>Dr. David Robin</p> <p>TBC</p> |
| | <p>4.3 Selection for the IHO Council-Candidacy</p> <ul style="list-style-type: none"> - First step is for eligible MS to opt as Candidate for selection | Member States |
| Time permitting | <p>4.4 RTCM on AIS-i</p> <ul style="list-style-type: none"> - Report on the latest work of the Radio Technical Commission for Maritime Services (RTCM) on Internet AIS services (AIS-i). | Mr. Rafael Ponce |
| TBD | <p>Navy's day ball (Dress is wear coat and vertical tie or Navy blue uniform but the MACHC participants are allowed long sleeved navy whites)</p> | None Hosted Invitations at R\$ 100,00 (~US\$ 30.00) |

| Time | DAY THREE OF MACHC17 Friday , 16 December 2016 Business Casual (Short sleeved navy whites/ short sleeved wayabera/similar) | Responsible |
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| 08:15-09:45 | <p><u>5. Survey and Risk</u></p> <p>5.1 Report Risk assessment meeting <i>Doc: MACHC 17-5.1</i> - Chair RA-group is invited to report back key findings of meeting of 14 December - 15 minutes</p> <p>5.2 Risk-based approaches <i>Doc: MACHC 17-5.2A: "A risk-based approach taken by NOAA in order to determine their hydrographic survey priorities".</i> - 15 minutes</p> <p><i>Doc: -MACHC 17-5.2B "Risk Assessment in Maritime Navigation for the Greater Caribbean Region (GCR).".</i></p> | <p>Chair RA-group Mr. Sam Harper</p> <p>Ms. Kathryn Ries</p> <p>Ms. Dawn Seepersad</p> |

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| | <ul style="list-style-type: none"> - An assessment of the work that has been undertaken by Land Information New Zealand (LINZ) across the islands of the South West Pacific Ocean with a view to reviewing the applicability and modifications necessary for risk assessment in the GCR. - 15 minutes <p>5.3 Satellite Derived Bathymetry (SDB). <i>Doc: - MACHC16-5.3A. "The latest activities on SDB and data assimilation".</i></p> <ul style="list-style-type: none"> - Focus on how to use the SDB-date in the best way in combination with other data taking account of the uncertainties and thus the risks. Details: <ul style="list-style-type: none"> • Substantial improvements on the uncertainties provision for SDB and on the assimilation of SDB with various other measures lead to new strategies of SDB implementation. • Relevant commercial and public funded projects - 15 minutes <p><i>Doc: - MACHC16-5.3B "Some common problems but maybe different solutions".</i></p> <ul style="list-style-type: none"> - The aim the second part of the presentation is to illustrate that having different but overlapping perspectives does not result in a such big gap between Government issues and Industry issues. - 15 minutes <p>5.4 Papers Industry and/or Nations <i>Doc: - MACHC16-5.4."Leveraging Near Real-Time Data Processing to Safely Increase Hydrographic Production".</i></p> <ul style="list-style-type: none"> - 15 minutes | <p>Mr. Thomas Heege</p> <p>Mr. Don Ventura</p> <p>Mr. Juan Carballini</p> |
| 09:45-10:30 | Coffee Break | |
| 10:30-12:00 | <p><u>6. DTM and SDI</u></p> <p>6.1 Marine Economic Infrastructure Programme Working Group (MEIP WG) <i>Doc:- MACHC17-06.1 MEIP Report (MEIP-WG)</i></p> <ul style="list-style-type: none"> - MEIP chair is invited to report on MEIP developments and present the 'think piece' with potential options for the way ahead for the MEIP with the aim to facilitate decision making (MACHC action 16.6.1.1 refers). - Back brief on the MACHC ENC online is part of the report. - 30 minutes <p>6.2 Feedback MSDIWG <i>Doc: MACHC 17-6.2: "Status report on MSDI".</i></p> <ul style="list-style-type: none"> - A report by the secretary of the MSDIWG on the developments across the HO community and a view to the future. - 15 minutes <p>6.3 UN-GGIM/Project for strengthening of Spatial Data Infrastructures (SDI) in the Caribbean</p> | <p>MEIP Chair</p> <p>Mr. John Pepper</p> |

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| | <p><i>Doc: - MACHC 17-6.3 :</i></p> <ul style="list-style-type: none"> - Chair invites INEGI representatives to provide an update of this project within the context of UN-GGIM, also focussing on the relation with other projects. - 15 minutes <p>6.4 GEBCO/IBCCA</p> <p><i>Doc: - MACHC 17-6.4 :</i></p> <ul style="list-style-type: none"> - Chair invites INEGI representatives to provide an update of IBCCA within the context of GEBCO, also focussing on the relation with other projects. - 10 minutes <p>6.5 IHO-IOC GEBCO Seabed 2030 Project</p> <p><i>Docs: - MACHC 17-6.5</i></p> <ul style="list-style-type: none"> - A US proposal to invite the MACHC Member States to support the IHO-IOC GEBCO Seabed 2030 Project. - 5 minutes <p>6.6 Concluding discussions on MEIP way ahead</p> <ul style="list-style-type: none"> - 15 minutes | <p>Mr. Felix Ibarra</p> <p>Mr. Felix Ibarra</p> <p>Mr. Jim Rogers</p> <p>Chair</p> |
| 12:00-13:30 | Lunch | |
| 13:30-15:00 | <p>6.7 Papers Industry and/or Nations</p> <p><i>Doc: -MACHC 17-6.7A: “ MSDI and where it fits within an HO”.</i></p> <ul style="list-style-type: none"> - Complementary to the article recently published in Hydro international by SG Robert Ward and a summary of presentation to the Canadian Hydrographic Conference. - 15 minutes <p><i>Doc: -MACHC 17-6.7B: “ Ways to support HO’s, ports and harbours”.</i></p> <ul style="list-style-type: none"> - Details: <ul style="list-style-type: none"> • Software tools to deliver operational efficiencies in hydrographic surveying planning, dredging & licensing, environmental monitoring and production of port ENC’s. • Real-time web based environmental data sharing and publishing as monitoring management of the data is now critical given the variable and less predictable climatic conditions. - 20 minutes <p><u>7. Nautical Charts and publications</u></p> <p>7.1 MACHC Integrated Charting Committee (MICC)</p> <p><i>Doc:- MACHC17-7.1 MICC Report</i></p> <ul style="list-style-type: none"> - MICC Chair is invited to report on MICC developments and challenges, and if required formulate proposals for consideration by members. - MICC Chair is invited to report on the implementation of the new review procedures of first edition INT Charts produced by new Producer Nations to IRCC (MACHC action 16.2.27 refers) - Back brief on the WEND WG is included in the report. - 15 minutes | <p>Mr. Derrick Peyton</p> <p>Mr. John Pepper</p> <p>MICC Chair</p> |

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| | <p>7.2 RENC <i>Doc: MACHC 17-7.2</i></p> <ul style="list-style-type: none"> - Chair invites General Manager IC-ENC to give an update on RENC-wide development and on specific activities that affect the MACHC region such as the new regional offices and training activities. - 10 minutes <p>7.3 Papers Industry and/or Nations <i>Doc: -MACHC 17-7.3A. Inland ENC's</i></p> <ul style="list-style-type: none"> - Focus on challenges and peculiarities of Brazilian inland ENC's. - 15 minutes <p><i>Doc: -MACHC 17-7.3B. "River Charts vs Coastal Charts Compilation".</i></p> <ul style="list-style-type: none"> - This presentation will cover the differences in river charts and regular coastal charts, the Inland ENC Harmonization Group, and the issues wrt to compilation and presentation. - 15 minutes | <p>Mr. James Harper</p> <p>Brazil</p> <p>Mr. Derrick Peyton</p> |
| 15:00-15:45 | Coffee Break | |
| 15:45-17:15 | <p>7.3 Papers Industry and/or Nations (continued) <i>Doc: -MACHC 17-7.3C. Chart on Demand</i></p> <ul style="list-style-type: none"> - A New Revenue Stream for Hydrographic Agencies. - 15 minutes <p><u>8. Impact of International bodies on the MACHC region</u></p> <p>8.1 International Maritime Organisation (IMO) <i>Doc: MACHC 17-8.1</i></p> <ul style="list-style-type: none"> - 15 minutes <p>8.2 International Association off Marine Aids to Navigation and Lighthouse Authorities (IALA) on E-navigation <i>Doc: MACHC 17-8.2</i></p> <ul style="list-style-type: none"> - Following 16th MACHC, chair invites IALA representative to present further developments regarding E-navigation - 10 minutes <p><u>9. Impact of Regional bodies in the MACHC region</u></p> <p>9.1 Caribbean Memorandum of Understanding (CMOU) <i>Doc: MACHC 17-9.1: "The CMOU and the synergies that exist between the CMOU and MACHC".</i></p> <ul style="list-style-type: none"> - Following 15th MACHC, chair invites the chair of CMOU to explore CMOU as an organization that besides dealing primarily with PSC matters also starts considering flag State matters that have linkages to PSC. - 20 minutes <p>9.2. THSOA <i>Doc: MACHC 17-9.2</i></p> | <p>Mr. Rafael Ponce</p> <p>Mr. Colin Young</p> <p>Ms. Gerardine Delanoye</p> <p>Ambassador Dwight Gardiner</p> <p>Mr. Carlos Tejada</p> |

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| | <ul style="list-style-type: none"> - New development of the Hydrographic Society of America (TSOA) in general and; - Develops of the Latin American Chapter over the last year focusing on the MACHC region. - 15 minutes | |
| | <p>9.3 Selection for the IHO Council-voting</p> <ul style="list-style-type: none"> - Member States vote on the candidate MS - In order to warrant the integrity of the selection process, the MACHC secretary presents the voting forms to the observer of the secretariat of the IHO to the MACHC. - 10 minutes | Member States |
| No Social event | | |

| Time | DAY FOUR OF MACHC17 Saturday, 17 December 2016 Business Casual (Short sleeved navy whites/ short sleeved wayabera/similar) | Responsible |
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| 08:15-09:45 | <p><u>10. Regional Capacity Building (CB)</u></p> <p>10.1 MACHC Capacity Building Committee (CBC) <i>Doc:- MACHC17-10.1 CBC Report</i></p> <ul style="list-style-type: none"> - CBC chair/coordinator is invited to report on CB developments and challenges, and if required formulate proposals for consideration by members. - 10 minutes <p>10.2 Feedback CBSB <i>Doc:- MACHC17-10.2 CBSC12 Report</i></p> <ul style="list-style-type: none"> - 10 minutes <p>10.3 Project of FOCAHIMECA <i>Doc: MACHC 17-10.3</i></p> <ul style="list-style-type: none"> - Chair invites MEX to provide an update on this project which aims to reinforce the hydrographic capability in the region. Request special attention to the relation with and impact on the MACHC. - 10 minutes <p>10.4 Report 3rd Mexican Hydrographic Conference <i>Doc: MACHC 17-10.4</i></p> <ul style="list-style-type: none"> - Chair invites Mexico to give a back brief of 3rd Mexican Hydrographic Conference focussing on the relation with and impact on the MACHC. - 10 minutes <p>10.5 International Association off Marine Aids to Navigation and Lighthouse Authorities (IALA) on training programs <i>Doc: MACHC 17-10.5</i></p> | <p>CBC Chair</p> <p>CBC Chair</p> <p>Mexico</p> <p>Mexico</p> <p>Ms. Gerardine Delanoye</p> |

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| | <ul style="list-style-type: none"> - Following 16th MACHC, chair invites IALA representative to present further development regarding IALA training programs in particular the World Wide Academy. - 15 minutes <p>10.6 Pan American Institute of Geography and History (PAIGH)</p> <ul style="list-style-type: none"> - Following the 16th MACHC, chair invites PAIGH to share lessons learned and illustrate ways ahead to improve effectiveness of capacity building - 10 minutes. <p>10.7 Papers Industry and/or Nation <i>Doc: MACHC 17-10.7A. "UKHO MACHC Region International Development and Data Gathering".</i></p> <ul style="list-style-type: none"> - Presentation reflects the work UKHO has been doing in the MACHC region to support the development of Blue Economies, improve the quality of charting and support the development of hydrographic capability. - 15 minutes <p><i>Doc: MACHC 17-10.7B. "An IHO IBSC recognized Hydrographic Certification Scheme".</i></p> <ul style="list-style-type: none"> - This presentation gives an overview of the recently IHO IBSC recognized hydrographic certification program in Canada. The Canadian Hydrographic Certification scheme follows allows for standards of competency and labour mobility on a global basis for HOs, Ports and other organizations requiring professional competencies amongst their contractors. - 10 minutes | <p>Mr. Paul Cooper</p> <p>Mr Sam Harpert</p> <p>Mr. Derrick Peyton</p> |
| 09:45-10:30 | Coffee Break | |
| 10:30-12:00 | <u>11. Closing activities</u> | Chair |
| | <p>11.1 Selection for the IHO Council-results</p> <ul style="list-style-type: none"> - MACHC secretary present results of election. - The observer of the secretariat of the IHO to the MACHC, is requested to confirm the integrity of the selection process. | MACHC secretary |
| | <p>11.2 Election (vice) Chair MACHC</p> <p>11.3 AOB</p> <p>11.4 Review actions and decisions</p> <p>11.5 Lessons identified</p> <ul style="list-style-type: none"> - Chair invites participants to provide (procedural) issues to be taken into account for future meetings <p>11.6 Next meeting <i>Docs:- MACHC17-11.6 Proposal Letter Cuba</i></p> <ul style="list-style-type: none"> - Short presentation by candidate Host Cuba <p>11.7 Close of meeting</p> | <p>Chair</p> <p>Chair</p> <p>Chair</p> <p>Chair/all</p> <p>Chair/Cuba</p> |