



INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MESO AMERICAN & CARIBBEAN SEA HYDROGRAPHIC COMMISSION



**20th Meso American & Caribbean Sea Hydrographic
Commission Meeting
2-6 December 2019
Santo Domingo, Dominican Republic
List of Actions**

Legend
White: open
Light Grey: continuous
Light Green: completed or closed

Table 1: ACTION ITEMS FROM THE 20th MACHC

No	Reference	Action	Responsible party	Due date	Status
List of actions 20th MACHC meeting					
20.2.1.1		Member states provide suggestions for articles for the region for the IHR (starting via the live polling at MACHC20)	Member States	12/13/2019	Completed
20.2.3	17.2.1.1	Countries not shaded in green in MSI matrix should get in touch with NAVAREA IV and XII Coordinator (Mr. Peter Doherty and Mr. Christopher Janus) and/or IHO Secretariat (Assistant Director Alberto Costa Neves) to request an update as appropriate. (Current MACHC continuous action 17.2.1.1 updated accordingly) . Also ensure that National Points of contact are accurate.	National Coordinators	7/31/2020	Continuous

No	Reference	Action	Responsible party	Due date	Status
20.3.b.1		Member States requesting “high level/technical visits” from the breakout group results should confirm their interest directly to the CB Coordinator (Lucy.Fieldhouse@ukho.gov.uk). These will be evaluated for potential inclusion in the 2021-2023 MACHC Capacity Building Plan.	Interested MACHC Members and CB Coordinator	2/28/2020	Completed
20.3.b.2		Use the IHO CB procedure 11 to assess the status of Member States within IHO CB phases to better evaluate the requests for phases 1, 2 & 3 training opportunities resulting from the breakout group process.	CB Coordinator	6/30/2020	Completed
20.3.b.3		Translate Procedure 11 into Spanish.	Guatemala		Completed
20.4.2		Establish links between the IOCARIBE and MACHC websites for easy access and visibility of available training courses of mutual interest, to advance the use of the Seabed 2030 tool, and continue current engagement between the CMA and MMSDIWG, the CARIBE-EWS, and the joint IBBCA.	MACHC Chair and Secretary IOCARIBE	3/31/2020	Completed
20.4.3		MACHC attendees to ask their IMO reps to raise awareness of Hydrographic issues at the potential donor organization meeting taking place in Jamaica, 20-24 January, with IALA, IHO participation.	MACHC Attendees	1/19/2020	Completed
20.5.1.1		Produce draft of 2021-2023 MACHC Capacity Building Plan; review training priorities and offerings offerings from SEPRHC and SWAtHC , COCATRAM, IALA, IMO, Spain, industry etc. to identify potential areas of common interest/opportunity for the new CB Plan.	CB Coordinator	8/31/2020	
20.5.2		COCATRAM 2020 Hydrography and Cartography Course content and logistics to be planned and participants from the region identified.	CB Coordinator, COCOTRAM, IHO, Colombia	8/31/2020	
20.5.3		Member States to liaise with their IMO representatives to request joint technical visits with IALA and IHO (funded by the IMO) as part of the IMO MS Audit Scheme (VIMSAS).	Interested MACHC Members	6/30/2020	

No	Reference	Action	Responsible party	Due date	Status
20.5.6		Members interested in technical visits should note recommendations from the Technical Visit to Guatemala and speak with the US and Guatemala.	MACHC Members	7/31/2020	
20.6.1		Consider request for additional data layers to further support the “Economic Assessment of Risks in Maritime Navigation across the Greater Caribbean Region” project in MMSDIWG workplan.	MMSDI WG Chair	8/31/2020	
20.6.4.1	17.6.5	Provide existing bathymetric data to the IHO DCDB (bathydata@iho.int) as indicated in MACHC continuous action 17.6.5, <i>including that collected by private sector companies under their authorization (MS)</i> . (Existing continuous action updated with the italicized addition from MACHC 20). Guidance on how to contribute data is found in English and Spanish on the MACHC Initiative website.	All MACHC Members	10/31/2020	
20.6.4.2		MS provide future survey plan polygons to add as a layer in the MACHC Seabed 2030 gap analysis tool to Percy.Pacheco@noaa.gov (MS) to encourage survey collaboration and avoid duplication of effort.		5/31/2020	
20.6.4.3		A link to the Seabed 2030 Regional Gap Analysis tool will be shared with IOCARIBE, so that it, in coordination with the MACHC can raise awareness and encourage the increase in contributions to the IHO DCDB and Seabed 2030 from their respective member states through a Joint MACHC/IOCARIBE CL01.	MACHC Chair and IOCARIBE Secretary	10/31/2020	
20.6.4.b.1		Provide link on MACHC Initiative website to IHO CL11/2019 for MACHC IHO MS to review and provide their response on CSB national policies.	MACHC Initiative Webmaster		Completed
20.6.4.b.2		Non-IHO MS to review and provide their comments to IHO CL11/2019 to the MACHC Seabed 2030 Coordinator for collation and submission to IHO.	MS and MACHC SB 2030 Coordinator	8/31/2020	
20.6.4.b.3		IHO to determine how to handle responses from non-IHO coastal states.	IHO	11/30/2020	

No	Reference	Action	Responsible party	Due date	Status
20.6.4.b.4		DCDB to provide instructions (in English and Spanish) on the bathymetric data submission process. (Member States may now use it to submit bathymetric data sets to the DCDB per continuous action 20.6.4.1)	DCDB Coordinator	3/31/2020	Completed
20.6.4.b.5		Translate technical CSB presentations and information into Spanish including key definitions.	MACHC Chair and DCDB Coordinator	6/30/2020	Completed
20.6.5		Seek and share information on the process by which the Inter-American Development Bank determines the criteria for funding projects	MACHC Chair	6/30/2020	
20.7.1.1		Provide/update senior and working level POCs on the MACHC website for disaster response and complete country/industry/regional disaster response capability and resource templates .	All Members	5/31/2020	
20.7.1.2		Consider the amendments of the MACHC disaster response framework based on the anticipated approval and amendment of the IHO resolution 1/2005 on disaster response at IHO Assembly-2.	MACHC Chair	11/30/2020	
20.7.2		Continue to reach out to the Bahamas to engage them in the MACHC.	UK, IHO Secretariat	11/30/2020	
20.7.4	19.4.1a	Engage Tsunami Warning National Contacts and determine if inundation modelers are using the best available bathymetric data (update existing continuous action 19.4.1.a with this italicized language).	All Members		Continuous
20.8.1.1		All MS invited to fill out the MMSDI WG Survey on the MACHC Initiative Website.	All Members	7/31/2020	
20.8.1.2		MMSDI WG to explore how to become involved in the Caribbean Geospatial Development Initiative as part of next year's work plan. Put the documents on the MMSDI WG site for all to review.	MMSDI WG Chair	8/31/2020	

No	Reference	Action	Responsible party	Due date	Status
20.8.1.3		MS and all coastal states are encouraged to make their other open marine spatial data available on the Caribbean Marine Atlas to take advantage of the excellent existing infrastructure and not have to recreate it individually.	All Member States		Continuous
20.8.2.1	19.8.1	MS consider joining the UN-GGIM-WGMGI (contact john.nyberg@noaa.gov for more information) as per existing continuous action 19.8.1.	All Members		Continuous
20.8.2.2		Complete the UN-GGIM-WGMGI Use Case Survey on the MACHC MMSDIWG page and ask John.Nyberg@noaa.gov for assistance as needed.	Interested MS	5/29/2020	Withdrawn by John Nyberg; overtaken by events
20.8.4		MMSDI WG to determine protocols needed to ensure that bathymetric data is accessible and in what formats to support MapAction disaster response mapping requirements.	MMSDI WG Chair	8/31/2020	
20.9.1		Dominican Republic to provide additional input/assistance related to cruise ships to the MICC WG.	Dominican Republic	6/30/2020	
20.9.6		Support process outlined in WEND overlap Resolution 1/2018 – continue good work at keeping overlaps to a minimum - and for that, submit ENC Schemes to the approval of RHC S-11 Part A, Section 200 (as part of MICC Plan) Consider making CATZOC values available in INTogIS II additional layers for Management Mode only, before April 7-9 2020 WEND meeting. Support the development of the WENS Principles, by reviewing updated version after April WEND meeting.	MACHC Members	5/31/2020	
20.10.1.c1		Respond to the invitation to attend a Latin American hydrography conference in 2021 and consider lending assistance by MACHC21.	All Member States	11/30/2020	

No	Reference	Action	Responsible party	Due date	Status
20.10.1.c2		English-speaking MS interested in a 2-week Hydrographic Office management training course should approach their IMO reps to request a similar IMO training in 2021 (or in the next IMO biennium plan for 2022-23) at the Senior Maritime Administrators' Workshop (5-6 March, 2020). Similarly, Spanish-speaking MS should request a similar course for Spanish speakers from their IMO representatives, to be coordinated with the IHO, IMO, IALA, and COCATRAM in 2021.	Interested Member States	2/28/2020	Completed
20.10.1.c3		Develop and post a list of acronyms on the MACHC website (in both English and Spanish).	MACHC Chair with Costa Rica (offered translation)	4/30/2020	Completed
20.10.1.c4		Enhance the events calendar on the MACHC website to aid in tracking and participating in the many events and opportunities available. (Add to existing Google calendar)	MACHC Initiative Webmaster	6/30/2020	

Table 2: STATUS OF PREVIOUS OPEN ACTIONS (as agreed at MACHC20)

No	Reference	Action	Responsible party	Due date	Status
List of actions 19th MACHC meeting					
19.5a	Capacity Building	Continually update a calendar of upcoming CBC training activities sponsored by other Member States, Committees, regional and other partners, such as FOCAHIMECA, COCATRAM, National training opportunities, IMarEST, etc.	CBC Chair	ASAP	Open—in progress. <i>(Make new continuous action)</i>

No	Reference	Action	Responsible party	Due date	Status
19.5c 20.5	Capacity Building	<p>Create a working group for the "certification of hydrographers".</p> <p>Alternative agreed action:</p> <p>Report on the efforts to develop an individual recognition scheme (for Latin American hydrographers graduated from CAT A and B programs)</p>	<p>Mexico to lead with interested Member States, industry and HSOA/LA Chapter support</p> <p>Brazil (with Spain and Portugal)</p>	<p>ASAP</p> <p>MACHC21</p>	Open-in progress.
19.6.4a	Seabed 2030	Encourage IBCCA chart contribution completion.	Colombia	ASAP	Open—in progress. By MACHC21
19.9	MICC	The new MICC Work Plan should address the issue of a regional ENC scheme.	MICC Chair	ASAP	Open-in progress

No	Subject matter	Action	Responsible party	Due date	Status at the start of 18 th MACHC
List of open actions 15th MACHC meeting					
15.5.1.2		Haiti will send the Instrument of Accession to the IHO.	Haiti	ASAP	Open , Not deposited yet. Expect after-elections in 2017. Early in 2020
15.6.3.4	MSI	Invite the Caribbean Disaster Emergency Management Agency (CDEMA) to attend the MACHC meetings.	MACHC Chair	MACHC 20	Open . Contact established. No

No	Subject matter	Action	Responsible party	Due date	Status at the start of 18 th MACHC
					attendance at 17 th , 18 th , 19 th , and 20 th MACHC meetings. (propose closing if no participation in MACHC21)

Table 3: CONTINUOUS ACTION ITEMS

No	Subject mater	Action	Responsible party	Due date	Status
List of continuous actions 20th MACHC meeting					
20.5.1.2		Provide/update content for the Training Opportunities section of the MACHC Initiative website. (Contact Percy Pacheco) Kongsberg, COCATRAM, Spain, etc.	All Member States, Industry, Regional Orgs.	Annually, or as changes occur.	Continuous.
20.5.3		Member States to liaise with their IMO representatives to request joint technical visits with IALA and IHO (funded by the IMO) as part of the IMO MS Audit Scheme (VIMSAS).	MACHC Attendees	As appropriate.	Continuous.
20.5.6		Members interested in technical visits should note recommendations from the Technical Visit to Guatemala and speak with the US and Guatemala.	MACHC Members	As appropriate.	Continuous.

No	Subject mater	Action	Responsible party	Due date	Status
20.7.1.1.		Provide/update senior and working level POCs on the MACHC website for disaster response and complete country/industry/regional disaster response capability and resource templates.	All Members	Annually, or as changes occur.	Continuous.
20.8.1.3		MS and all coastal states are encouraged to make their other open marine spatial data available on the Caribbean Marine Atlas to take advantage of the excellent existing infrastructure and not have to recreate it individually.	All Member States	As data becomes available.	Continuous.
List of continuous actions 19th MACHC meeting					
19.4.1a 20.7.4	Reports from Observing Organizations	Engage National Tsunami Warning contacts and determine if inundation modelers are using the best available bathymetric data to support improved land-sea inundation models.	MACHC Member States	Annually	Continuous.
19.5	Capacity Building	Members to send capacity building and other requirements officially to the Chair to channel to others/committees who might help;	MACHC Member States	ASAP	Continuous.
19.5a	Capacity Building	Continually update a calendar of upcoming CBC training activities sponsored by other Member States, Committees, regional and other partners, such as FOCAHIMECA, COCATRAM, National training opportunities, IMarEST, etc.	CBC Chair	ASAP	Continuous.
19.8.1	SDI/MSDI (15.5.1.4) 20.8.2.1	Countries MS to consider joining the UN-GGIM-WGMGI (see john.nyberg@noaa.gov for more information). But if not participating directly in the UN-GGIM WG on Marine Geospatial Information are encouraged to contact their national representatives to the UN to make them aware of the importance	MACHC Member States	Annually	Continuous.

No	Subject mater	Action	Responsible party	Due date	Status
		of this initiative (contact John Nyberg for further information) and its benefits.			
List of continuous actions 18th MACHC meeting					
18.6.1	Capacity Building	Countries that have received training are invited to send feedback to MACHC CBC on the impact of hydrographic capabilities.	MACHC Member States	ASAP	Continuous.
List of continuous actions 17th MACHC meeting					
17.2.1.1 20.2.1	IHO Secretariat (MSI)	Countries not shaded in green in MSI matrix should get in touch with NAVAREA IV and XII Coordinator (Mr. Peter Doherty and Mr. Christopher Janus) and/or IHO Secretariat (Assistant Director Alberto Costa Neves) to request an update as appropriate. Also ensure that National Points of contact are accurate	MACHC Member States	MACHC 21	Continuous.
17.2.1.4	IHO Secretariat (IRRC 8/32)	Member States review entries related to IHO C-55, (Status of Hydrographic Surveying and Nautical Charting Worldwide, P-5 (yearbook) and ECDIS backup up arrangements (iaw. IHO CL 61/15) and report annually to IHO secretariat, including reports of “no change”. https://www.iho.int/iho_pubs/CB/C-55/c55.pdf	MACHC Member States	Annually	Continuous.
	IRCC 11/8	RHC Chair to request National Coordinators to review the contents of the relevant Annexes of the GMDSS Master Plan and of section C (MSI) of IHO Publication C-55 – <i>Status of Hydrographic Surveying and Nautical Charting Worldwide</i> to ensure consistency for their national entries.	MACHC Chair	Annually	Continuous.
17.2.2.3	IRCC 8/8	Encourage closer engagement of the National MSI Coordinators of Member States with the relevant NAVAREA Coordinator (7b).	National Authorities and	Annually	Continuous.

No	Subject mater	Action	Responsible party	Due date	Status
		Delegates to update their contact information in the NAVAREA IV list. (now found on the new MACHC initiative website/MSI page).	RHC Members to the NAVAREA Coordinator		
17.2.2.4	IRCC 8/31	Be attentive to opportunities to raise awareness on the role of hydrography and the importance of improving mankind's knowledge of the seas and oceans in support of the sustainable development goals, disaster risk reduction and the integrity of the oceans.	MACHC Chair in coordination with Member States		Continuous. (examples: UN-GGIM; Seabed 2030; UN Decade of Ocean Science)
17.5.2.3	Risk Assessment	Invite Ms. Dawn Seepersad to provide an update on her Risk Assessment project for the GCR. (see also action 17.5.2.1).	MACHC Chair	Annually till project completion.	Continuous.
17.6.4	DTM	Members States to consider making ENC bathymetric and contour information available for the IBCCA project via GEBCO (DCDB).	MACHC Member States		Continuous.
17.6.5	DTM	Provide existing bathymetric data to the IHO DCDB (bathydata@iho.int) to support mapping ocean areas at high resolution including that collected by private sector companies under their authorization.	MACHC Member States		Continuous.
20.6.4.1					
List of continuous actions 16th MACHC meeting					
16.10.4.2	FOCAHIMECA	If additional funding is sought from CB-funds, Mexico to make bids through the established CB mechanism's.	Mexico	As required	Continuous.
List of continuous actions 15th MACHC meeting					

No	Subject mater	Action	Responsible party	Due date	Status
15.5.3	HSSC	Encouragement of the Spanish speaking countries to participate in the HSSC WG and the HDWG meetings.	MACHC Member States	As required	Continuous , unilateral activity.
15.6.2.2	National Report	States to make full use of sea-riding opportunities to gain experience and share knowledge.	MACHC Member States	As required	Continuous , bilateral activity.
15.6.2.7	National Report	Member states are urged to assist Haiti in setting up their hydrographic office and other hydrographic activities.	MACHC Member States	As required	Continuous , bilateral activity.