

**21TH MEETING OF THE MESO AMERICAN – CARIBBEAN SEA
HYDROGRAPHIC COMMISSION (MACHC21)
Virtual Conference– 30-November 3- December 2020**

NATIONAL REPORTS FROM [Cuba] TO THE MACHC21

Executive summary

1. Hydrographic Office / Service: Hydrographic and Geodetic Service of the Republic of Cuba
 - a) Name of the institution: National Office of Hydrography and Geodesy
 - b) Description: 19th Avenue and 84th Street, 3rd floor south wing Playa, Havana. Cuba
Telephone: +53 7 209 0926
 - c) Submitted by: Jorge Martín Ruiz, hg@unicom.co.cu

Detailed information to update IHO Publication P-5 (*Yearbook*) is submitted in Annex A (alternatively, use the online system, reference B). Please indicate "no change" in Annex A if this is the case.

2. Surveys:

[Describe any significant developments since the last RHC meeting in surveys related to the items below]

 - a) Coverage of new surveys: 23 388,6 Km²
 - b) New technologies and /or equipment: Unmanned system for bathymetric works
 - c) New ships: -
 - d) Crowdsourced and satellite-derived bathymetry - national policy: The HS works on a project to implement its use.
 - e) Challenges and achievements: New hydrographic studies with cartographic purposes, with coverage of I and II order with single beam echo sounders in coastal sections, canals and ports and interior of bays (3180.0 km²) and Special and I order with multi-beam echo sounder in 3 bays (20210.0 km²). Bahía de Cárdenas, Bahía de Nipe, Bahía del Mariel.

Detailed information about surveys to update IHO Publications P-5 (*Yearbook*) and C-55 (*Status of Hydrographic Surveying and Charting Worldwide*) is submitted in Annexes A and B, respectively (alternatively, use the online system, reference B). Please indicate "no change" in Annexes A and B if this is the case.

3. New charts & updates:

[Describe any significant developments since the last RHC meeting in charting related to the items below]

 - a) ENC coverage, gaps and overlaps: 45 ENCs without gaps and overlaps
 - b) ENC distribution method: By IC-ENC
 - c) RNCs: 186
 - d) INT charts: 4
 - e) National paper charts: 186
 - f) Other charts, e.g. for pleasure craft: 8 albums of yachting charts.
 - g) Challenges and achievements: The cartographic coverage was increased with a total of 75 electronic navigational charts or ENCs, 45 in distribution, 186 paper charts and 186

BSB with a total of 11 new editions and new editions of the 8 official yacht chart albums.

Detailed information about charting to update IHO Publications P-5 (*Yearbook*) and C-55 (*Status of Hydrographic Surveying and Charting Worldwide*) is submitted in Annexes A and B, respectively (alternatively, use the online system, reference B). Please indicate "no change" in Annexes A and B if this is the case.

4. New publications & updates:

[Describe any significant developments since the last MACHC meeting in nautical publications related to the items below]

- a) New Publications:--
- b) Updated publications: Notice to Mariners (Monthly); Annual Summary Notice o Mariners; Lights List of Cuba; Sailing Direction (9 Fascicles); Tide Tables of Cuba; Nautical Almanac; Symbols, Abbreviations and Terms used on charts (INT1); Charts and Nautical Publications Catalog.
- c) Means of delivery, e.g. paper, digital: in paper format (on demand) and digital.
- d) Challenges and achievements: The HS maintains the update and publication of Notices to Mariners and Nautical Radio Warnings as part of the Spatial Data Infrastructure of the Republic of Cuba and maintains the exchange of information on maritime safety with the general coordinator of the area (NAVAREA IV).

Detailed information to update IHO Publication P-5 (*Yearbook*) is submitted in Annex A (alternatively, use the online system, reference B). Please indicate "no change" in Annex A if this is the case.

5. MSI

[Describe the status of Maritime Safety Information (MSI) related to the items below]

- a) Existing infrastructure for MSI dissemination
- b) Statistics on work of the National Coordinator
- c) New infrastructure in accordance with GMDSS Master Plan
- d) Challenges and achievements

Detailed information about MSI to update IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*) is submitted in Annex B (alternatively, use the online system, reference B). The national self-assessment of MSI is submitted in Annex C. Please indicate "no change" in Annexes B and C if this is the case.

6. C-55

The table with the latest information to update IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*) is provided in Annex B (alternatively, use the online system, reference B). Please indicate "no change" in Annex B if this is the case.

7. Capacity Building

[Describe the need for or ability to offer Capacity Building in relation to the items below]

- a) Offer of and/or demand for Capacity Building: The Hs needs training in Marine Spatial Data Infrastructure, Nautical Cartography and Hydrography, Maritime Boundaries, Maritime Safety information training, participation in Nautical Cartography (Cat A and

Cat B) and Hydrography (Cat A and Cat B) programs, convert the S-57 ENCs to S-101 ENCs.

- b) Training received, needed, offered
- c) Status of national, bilateral, multilateral or regional development projects with a hydrographic component. (In progress, planned, under evaluation or study)
- d) Description of proposals and requests to the IHO/CBSC

8. Oceanographic activities

[Describe any significant developments in oceanographic activity since the last MACHC meeting related to the items below]

- a) General
- b) GEBCO/IBC's activities, GEBCO Seabed 2030 activities
- c) Tide gauge network
- d) New equipment
- e) Challenges and achievements

9. Spatial data infrastructures

- a) Status of MSDI
- b) Relationship with the NSDI
- c) Involvement in regional or global MSDI efforts
- d) National implementation of the Shared Data Principles – including any national data policy and impact on marine data.
- e) MSDI national portal
- f) Best practices and lessons learned
- g) Challenges and achievements

10. Innovation

- a) Use of new technologies
- b) Risk assessment
- c) Policy matters

11. Other activities

[Describe any other significant developments of interest to the MACHC since the last meeting related to the items below]

- a) Participation in IHO meetings
- b) Meteorological data collection
- c) Geospatial studies
- d) Preparation for responses to disasters
- e) Environmental protection
- f) Engagement with the Maritime Administration
- g) Aids to Navigation matters
- h) Magnetic and gravity surveys
- i) International engagements
- j) Others

12. Conclusions

[Provide a short summary statement that highlights any of the following:

- a) Areas of significant achievement*
- b) Areas of particular concern*
- c) Any other matters of interest to the MACHC]*

Input to the IHO Publication P-5 (*Yearbook*)Country: CUBAOrganization: Servicio Hidrográfico y Geodésico de la República de Cuba

(Please provide the information in English)

Contact information/ Informations de contact / Información de contacto	
-National Hydrographer or equivalent -Directeur du service hydrographique ou équivalent -Director del Servicio Hidrográfico o equivalente	Director Name: Jorge MARTÍN RUIZ. Postal address: 19th Avenue and 84th Street, 3rd floor south wing Playa, Havana. Cuba Tel: +53 7 209 0926 Fax: - Email: hg@unicom.co.cu
-Head of the Hydrographic Office (if different from the person indicated above) -Directeur du Service Hydrographique (si différent de la personne indiquée ci-dessus) -Director del Servicio Hidrográfico (si diferente de la persona indicada anteriormente)	Post: - Name: - Postal address: - Tel: - Fax: - Email: -
-Other point(s) of contact -Autre(s) point(s) de contact -Otros punto(s) de contacto	- Head of the Hydrographic and Aids to Navigation Department. MSc. Diógenes LÓPEZ ALMEIDA. -Head of Geodetic and Cartographic Department. MSc. Fernando GUANCHE DEL VALLE.
-Web site -site web -sitio web	
Country information / Informations sur le pays/ Información sobre el país	
-Declared National Tonnage -Tonnage national déclaré -Tonelaje Nacional Declarado	Tonnage: 30642 Date:
-National day -Fête nationale -Fiesta nacional	1 January
-Date of establishment and Relevant National Legislation -Date de mise en place et législation nationale pertinente -Fecha de constitución y legislación nacional pertinente	

-Date first joined IHO -Date d'adhésion à l'OHI -Fecha de adhesión a la OHI	20/04/1950
-Date ratification Convention -Date de ratification de la Convention -Fecha de ratificación de la Convención	20/12//1967
-Remarks on membership -Remarques sur l'adhésion -Comentarios sobre la adhesión	
Agency information/ Information sur l'agence/ Información sobre la agencia	
-Top level parent organisation -Organisme mère -Organización asociada de nivel superior	Ministry of the Revolutionary Armed Forces
-Principal functions of the organisation or the department -Attribution principales de l'organisme ou du département -Principales funciones de la Organización o departamento	Supervision and control of the government policy in the execution of hydrographic surveys, cartography, tidal, geodesy and for activities of aids to navigation.
-Annual operating budget -Budget annuel -presupuesto anual	
-Total number of staff employed -Effectifs totaux -Número total de personal empleado	
-Number of INT charts published -Nombres de cartes INT publiées -Número de cartas INT publicadas	4
-Total number of paper charts published -Nombre total de cartes papier publiées -Número total de cartas de papel publicadas	186
-Number of ENC cells published -Nombres de cellules ENC publiées -Número de células ENC publicadas	45
-Number of Other charts -Nombre d'Autres cartes -Número de Otras cartas	185 BSB

<ul style="list-style-type: none"> -Type of publications produced -Type d'ouvrages produits -Tipo de publicaciones producidas 	<ul style="list-style-type: none"> - Notice to mariners (monthly). - Annual summary notice to mariners. - Lights list of Cuba. - Sailing direction (9 fascicles). - Tide Tables of cuba. - Nautical Almanac. - Symbols, Abbreviations and Terms used on charts (INT1). - Charts and Nautical Publications Catalogue. - Official Yachting Charts (leisure) 			
<ul style="list-style-type: none"> -Detail of surveying vessels/ aircraft -Détail des bâtiments hydrographiques / aéronefs -Detalle de los buques hidrográficos / aeronaves 	<ul style="list-style-type: none"> -Name -Nom -Nombre 	<ul style="list-style-type: none"> -Displacement -Déplacement -Desplazamiento 	<ul style="list-style-type: none"> -Date Launched -Date de mise en service -Fecha de botado 	<ul style="list-style-type: none"> -Number of crew -Nombre de l'équipage -Tripulación
<ul style="list-style-type: none"> -Other information of interest -Autres informations utiles -Otra información de interés 	<p>GEOCUBA - Estudios Marinos Punta Santa Catalina Regla, La Habana Tel : + 53 (7) 7940409 E-mail: avisosshg@emarinos.geocuba.co.cu</p>			
	H-102 Taíno	1123	1979	21
	H-111 GEOMAR	211	1980	8
	H-94	125	1969	8
	H-95	125	1969	8
	H-96	125	1969	8
	H-85	200	1990	9
	H-87	800	1990	9
	H-116	400	1983	10

Input to the IHO Publication C-55 (*Status of Hydrographic Surveying and Charting Worldwide*)

Country: Cuba

(Please provide the information in English)

C-55 Summary for:				Comments on Charts:
Country:	Cuba			
Country Iso Code:	CU			
Country SubCode:	1			
INT Region:	1			
Country/Depend:				
Last updated:	November 2020			
Provided by:				
Chart coverage	Passage (%)	Coastal (%)	Port (%)	Comments on Surveys:
INT	100			
RNC	100	100	99,4	
ENC		85	88,2	
Status of Paper Charts				
Paper charts with depths in meters (%)			100	
Paper charts referenced to a satellite datum (%)				
Status of surveys	Adequate (%)	Resurvey (%)	No survey (%)	
0-200m				
> 200m				

MSI	Y/N	Comments on MSI:
Local warning		
Coastal warning		
Nav warning		
Port warning		
GMDSS	Y/N	Comments on GMDSS:
Master Plan		
Area A1		
Area A2		
Area A3		
NAVTEX		
SafetyNet		

National MSI Self-Assessment

Country: _____ *CUBA* _____

Organization: _____

(Please provide the information in English)

1. Maritime area

[Describe maritime area including details of the geographic boundaries]

2. Operational Points of Contact for the National Coordinator

INSTITUTION	TELEPHONE	FACSIMILE	EMAIL

3. GMDSS Master Plan

*[Report on the status of the GMDSS Master Plan: Is it up to date? When was the last update?]**[Specifics of equipment used and software version with date up-dated]*

Equipment Type for Ports and Local Area	Software Version	Date of Up-date

[Detail the number of warnings identified as immediate priority (requiring transmission within 30 minutes) and the average elapsed time for passing to NAVAREA coordinator, as reported to the last RHC meeting]:

Year Y-2		Year Y-1		Year Y	
Total	Average elapsed time	Total	Average elapsed time	Total	Average elapsed time
xx	xx.x Mins	xx	xx.x Mins	xx	xx.x Mins

4. NAVTEX Coverage:

[Diagram of NAVTEX stations and service areas within maritime area; Contact details for NAVTEX Stations; Confirm operational status has been validated.]

5. Operational Issues:

[New infrastructure in accordance with GMDSS Master Plan; Problems encountered?]

6. Contingency Planning

[Provide information regarding contingency plans that have been established and future plans where appropriate. Also report on any testing of the plan that has been conducted]

7. Capacity Building

[Demands for Capacity Building, Training requested or received, any offered, status of national, bilateral, multilateral or regional development projects with MSI component]

8. Other Activities

[Participation in other IHO or IMO Working Groups, Regional Hydrographic Commissions, regional conferences related to MSI over past year]

9. National Maritime Website

[(Address, statistics (if permitted by national legislation; how often is the information on your web site updated? Do you display the date and time of the last update on your web site?)]

10. Recommendations

[If any]

11. Summary

[Please provide a short summary of this paper which will be included in the final report of the meeting.]