

25th Conference of the Meso American - Caribbean Sea Hydrographic Commission

MACHC International Chart Coordination (MICC)
Working Group Report to MACHC25 - December 2024

MICC CHAIR: Bernice Mahabier
Vice Chair: Julio Castillo



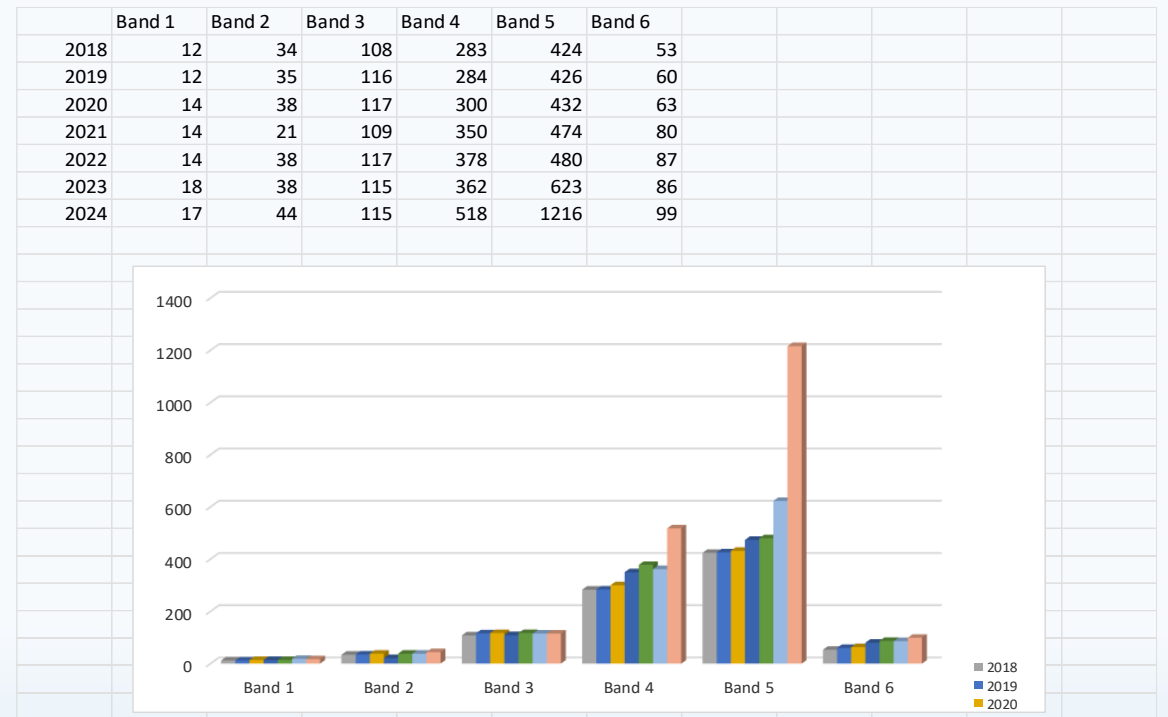
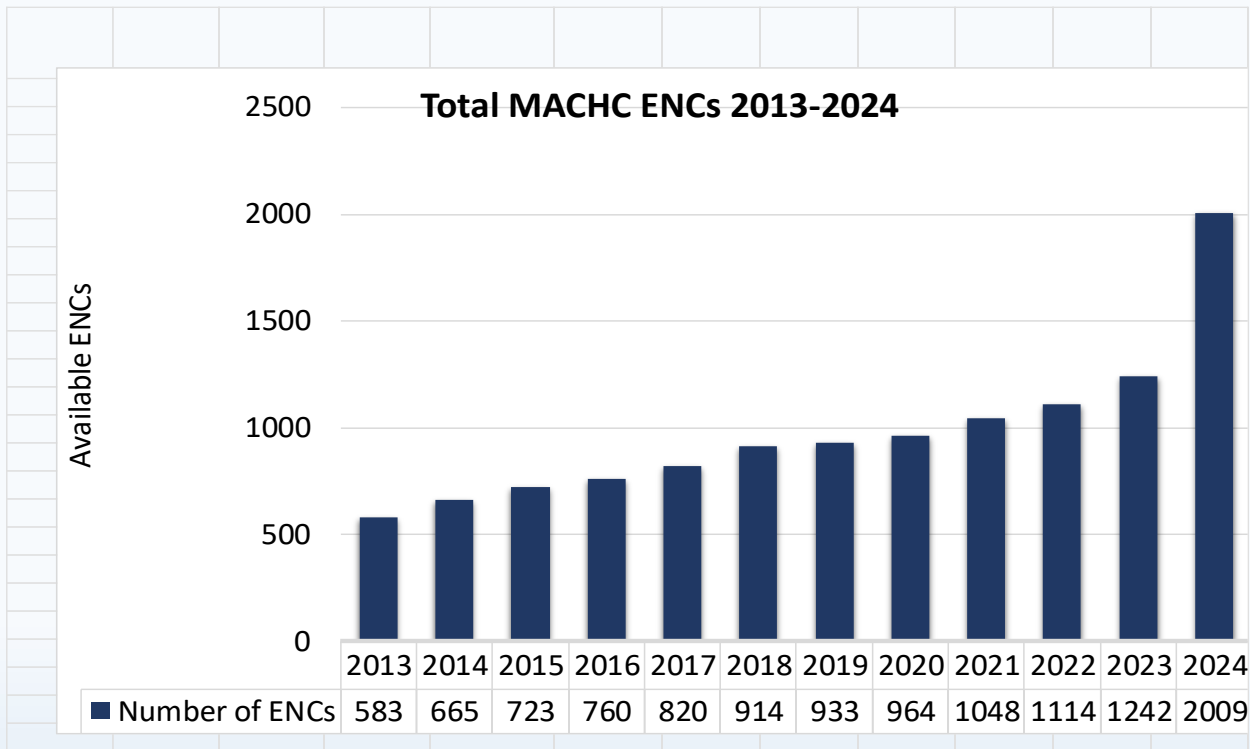
IHO

International
Hydrographic
Organization



Electronic Charts

- a) Updates / resolutions of overlaps in ENC coverage
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal



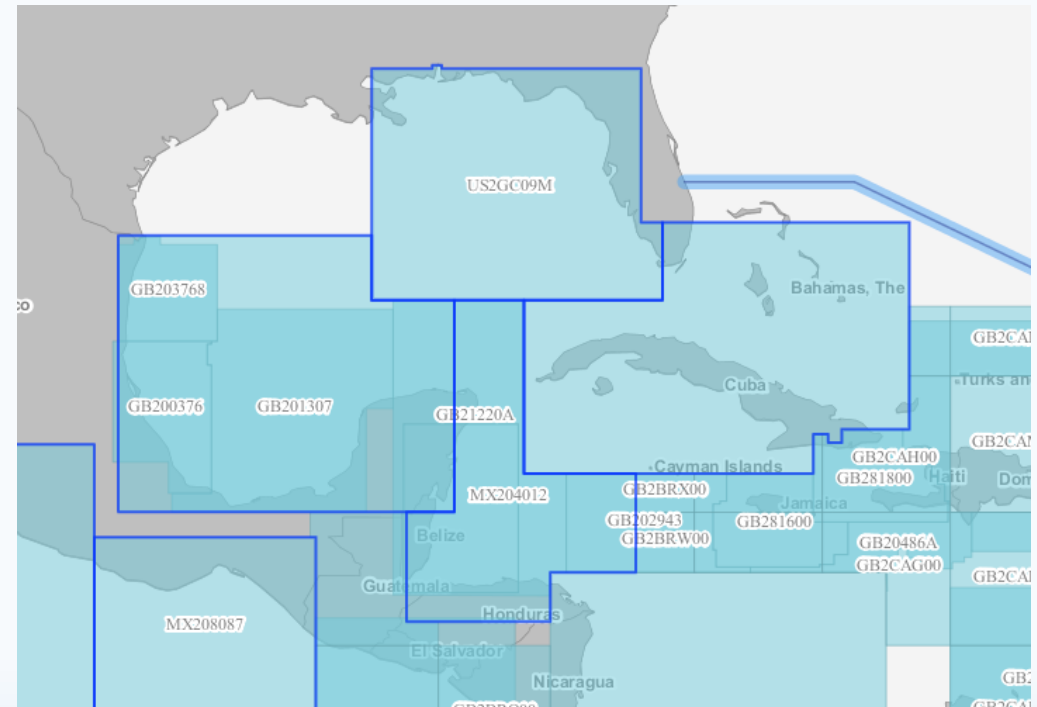
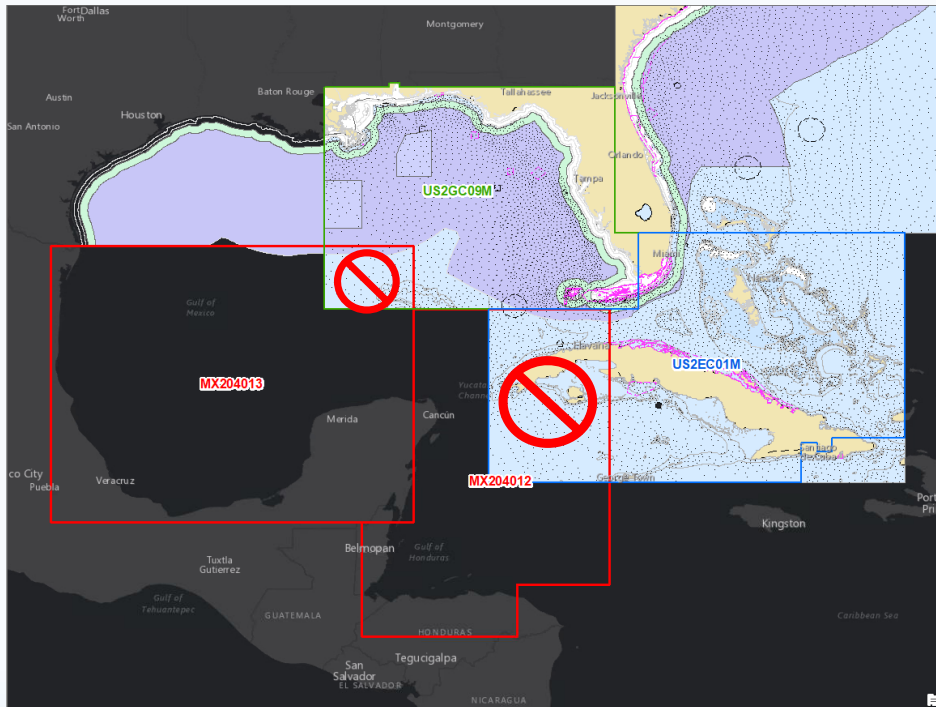
IHO

International Hydrographic Organization



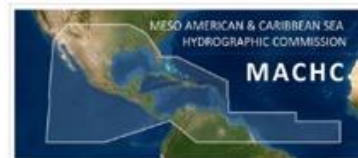
Electronic Charts

- a) Updates / resolutions of overlaps in ENC coverage
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal



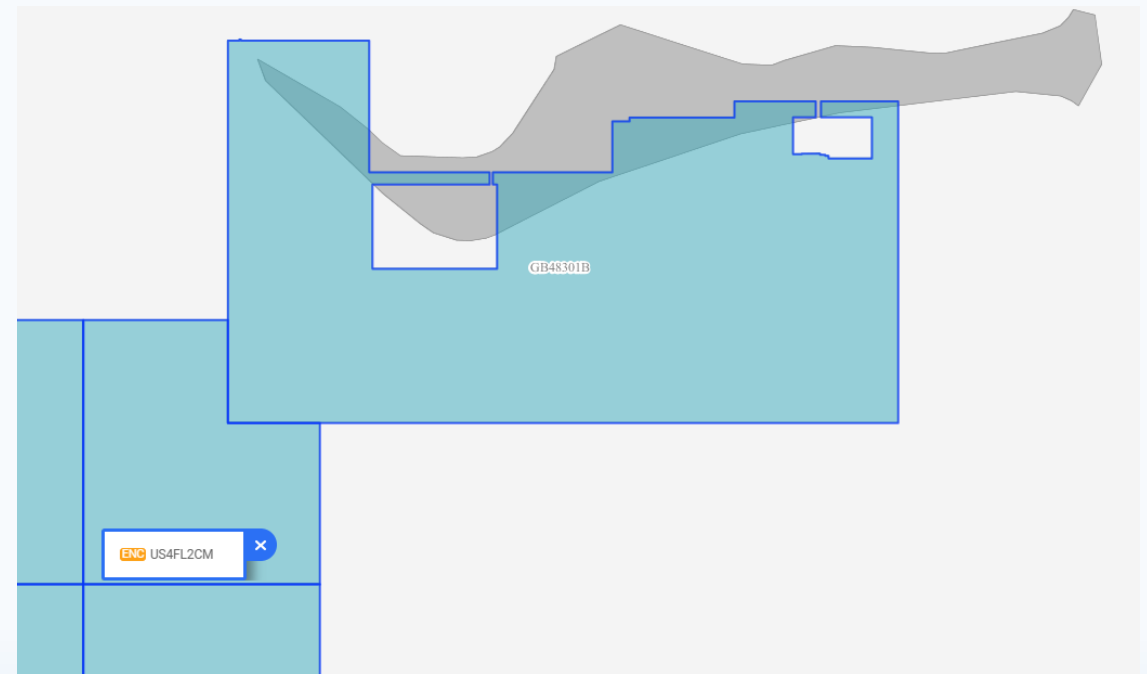
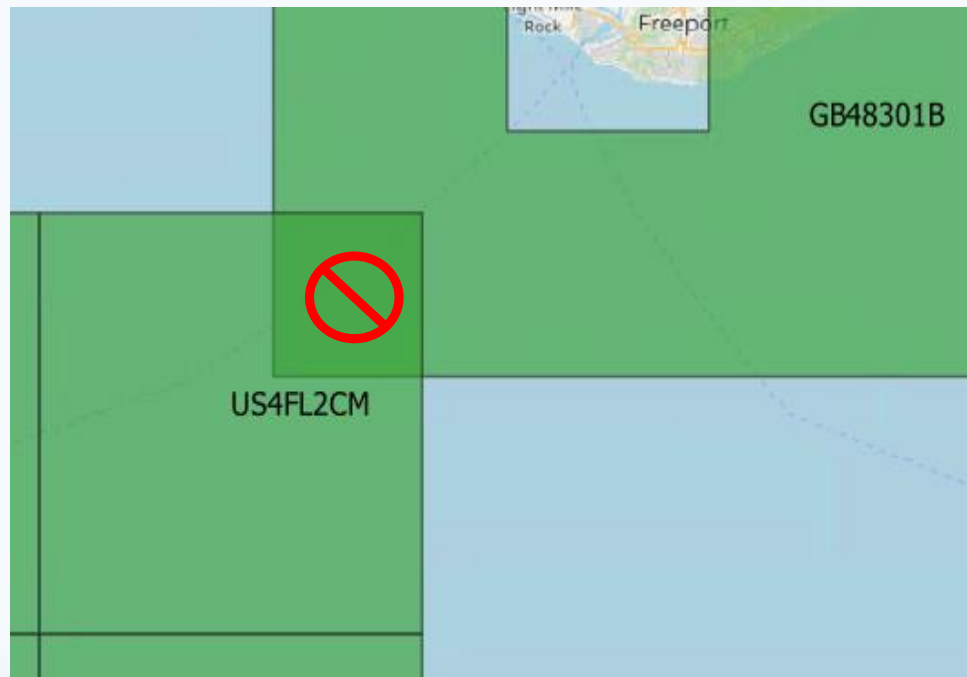
IHO

International
Hydrographic
Organization



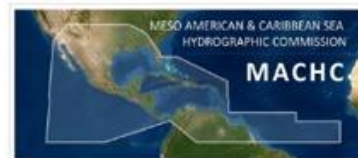
Electronic Charts

- a) **Updates / resolutions of overlaps in ENC coverage**
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal



IHO

International
Hydrographic
Organization



Electronic Charts

- a) Updates / resolutions of overlaps in ENC coverage
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal

IC-ENC REGIONAL HYDROGRAPHIC COMMISSION OVERLAP REPORT - MACHC RHC - NOVEMBER 2024														
ID	STATUS	RENC Membership	RHC	ENC 1	ENC 2	Usage Band	ENC 1 Scale	ENC 2 Scale	ENC 1 Edn	ENC 2 Edn	Overlap extent (Kmxkm) (m/square NM)	Impact Assessment	Justification	Action requested
990	LIVE	IC-ENC	MACHC	VE300200	VE300100	3	180000	180000	2	2	5m x 165Km	LOW	Same producer overlap	Remove overlap
173	ACCEPT	IC-ENC	MACHC	PA3AM929	CO300023	3	180000	180000	6	1	1m x 9.9Km	ACCEPT	Overlap is over land	
627	RESOLVED	IC-ENC	MACHC	BR304025	BR304027	3	90000	90000	1	1	30km x 1 km	RESOLVED		No Action Required
374	RESOLVED	IC-ENC	MACHC	BR321400	BR321200	3	180000	180000	1	2		RESOLVED		No Action Required
1283	RESOLVED	IC-ENC	MACHC	BR400202	BR400202	4	45000	45000	1	2		RESOLVED		No Action Required
1284	RESOLVED	IC-ENC	MACHC	BR400222	BR400203	4	45000	45000	1	3		RESOLVED		No Action Required
1285	RESOLVED	IC-ENC	MACHC	BR400222	BR400204	4	45000	45000	1	10		RESOLVED		No Action Required
903	RESOLVED	IC-ENC	MACHC	BR501625	BR501636	5	12000	12000	1	7	5.8Km X 5Km	RESOLVED		No Action Required
620	RESOLVED	IC-ENC	MACHC	CO400109	CO400502	4	22000	45000	1	1	23km x 1.7	RESOLVED		No Action Required
952	RESOLVED	IC-ENC	MACHC	CO400419	CO400662	4	45000	45000	1	2	21km X 3km	RESOLVED		No Action Required
1286	RESOLVED	IC-ENC	MACHC	CO500254	CO500253	5	12000	12000	3	11		RESOLVED		No Action Required
399	RESOLVED	IC-ENC	MACHC	CU311428	US3FL30M	3	90000	466940	1	33	46Km x 1.7Km (21 sq NM)	RESOLVED		No Action Required
132	RESOLVED	IC-ENC	MACHC	GB500414	GB500414	5	8000	8000	1	4	Full overlap	RESOLVED		No Action Required
634	RESOLVED	IC-ENC	MACHC	EC300100	CO300310	3	90000	90000	1	1	62.10x6.1 km	RESOLVED		No Action Required
280	RESOLVED	IC-ENC	MACHC	GB201029	MX208081	2	700000	700000	1	1		RESOLVED		No Action Required
439	RESOLVED	IC-ENC	MACHC	GB202943	GB281600	2	700000	350000	1	6	Unmeasurable	RESOLVED		No Action Required
988	RESOLVED	IC-ENC	MACHC	GB203768	US3GC01M	2/3	350000	350000	1	36	Upto 90m x 95Km	RESOLVED		No Action Required
281	RESOLVED	IC-ENC	MACHC	GB21017N	MX208081	2	700000	700000	2	1		RESOLVED		No Action Required
279	RESOLVED	IC-ENC	MACHC	GB21017S	MX208081	2	700000	700000	2	1		RESOLVED		No Action Required
389	RESOLVED	IC-ENC	MACHC	GB300260	CO300020	3	180000	180000	2	1	78.7NM x 23.5 NM	RESOLVED		No Action Required
527	RESOLVED	IC-ENC	MACHC	GB502079	GB502079	5	12000	12000	1	1	DUPLICATE CELL	RESOLVED		No Action Required
528	RESOLVED	IC-ENC	MACHC	GB52047A	GB520407	5	12000	12000	1	1	DUPLICATE CELL	RESOLVED		No Action Required
460	RESOLVED	IC-ENC	MACHC	MX208080	GB201029	2	700000	700000	1	2	557.8km x 467.7Km	RESOLVED		No Action Required
344	RESOLVED	IC-ENC	MACHC	MX208082	GB201027	2	700000	700000	1	3		RESOLVED		No Action Required
345	RESOLVED	IC-ENC	MACHC	MX208082	GB201028	2	700000	700000	1	2		RESOLVED		No Action Required
346	RESOLVED	IC-ENC	MACHC	MX208082	GB201029	2	700000	700000	1	2		RESOLVED		No Action Required
347	RESOLVED	IC-ENC	MACHC	MX208082	GB21017N	2	700000	700000	1	2		RESOLVED		No Action Required
348	RESOLVED	IC-ENC	MACHC	MX208082	GB21017S	2	700000	700000	1	2		RESOLVED		No Action Required
349	RESOLVED	IC-ENC	MACHC	MX208083	GB201027	2	700000	700000	1	3		RESOLVED		No Action Required
350	RESOLVED	IC-ENC	MACHC	MX208083	GB201028	2	700000	700000	1	3		RESOLVED		No Action Required



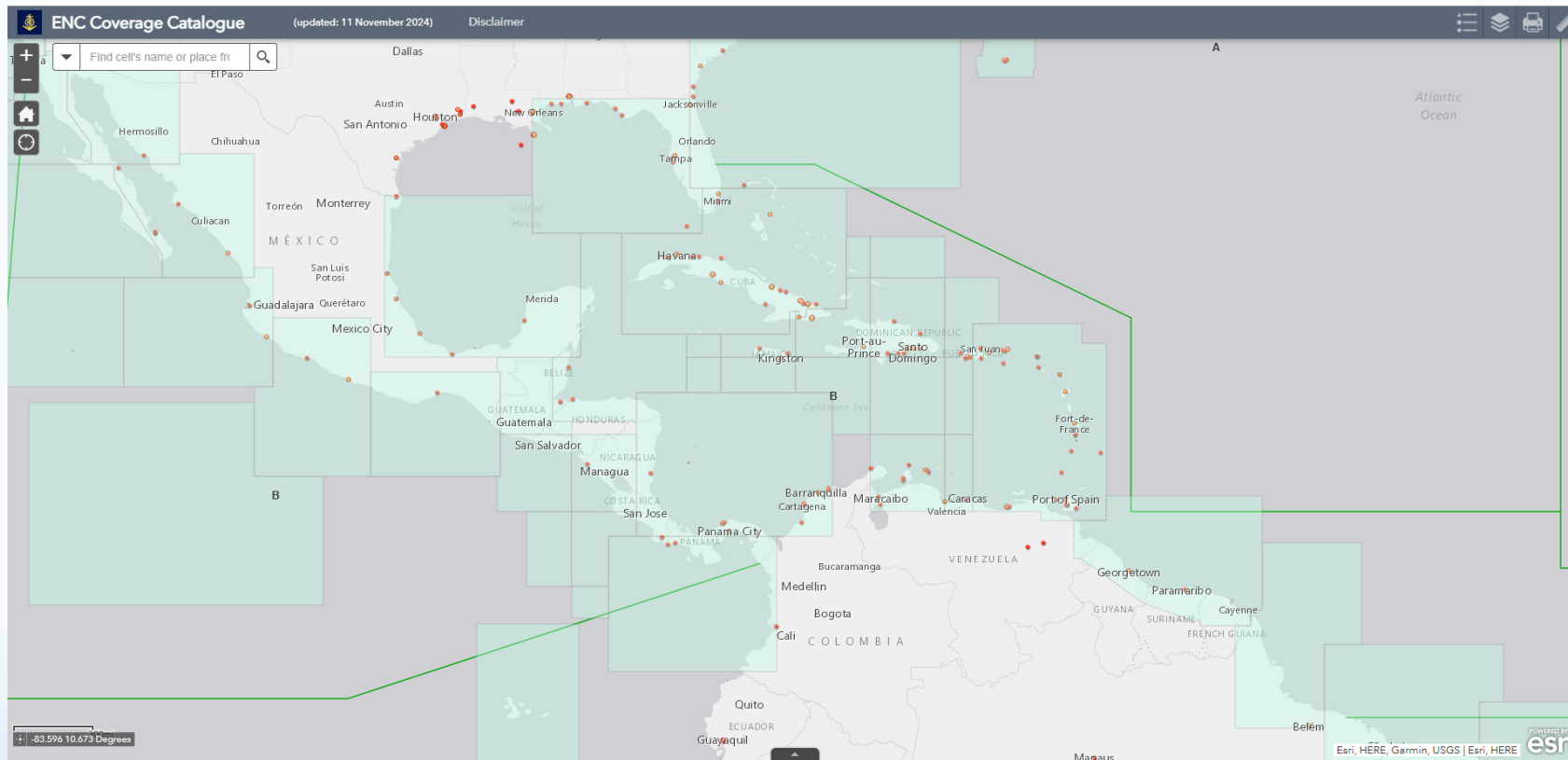
IHO

International Hydrographic Organization



Electronic Charts

- a) Updates / resolutions of overlaps in ENC coverage
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal



IHO

International
Hydrographic
Organization



Electronic Charts

- a) Updates / resolutions of overlaps in ENC coverage
- b) Overlap Report IC-ENC - ENC on-Line Update
- c) Update on regional ENC scheme: UB2
- d) MICC portal discussion: not consistent with IHO portal

MICC ENC Viewer

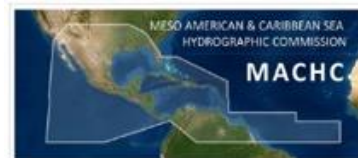
Country	Latitude	Longitude	Adequate Coverage	Port Number	Information
American Virgin Islands	17.70	-64.75	Yes	P3481	
American Virgin Islands	18.33	-64.95	Yes	P3472	
American Virgin Islands	17.77	-64.68	Yes	P3475	
American Virgin Islands	17.69	-64.74	Yes	P3479	
Aruba	12.43	-69.92	Yes	P3626	
Bahamas	26.52	-78.78	Yes	P3563	
Bahamas	25.07	-77.35	Yes	P3564	

MACHC ENConline Viewer



IHO

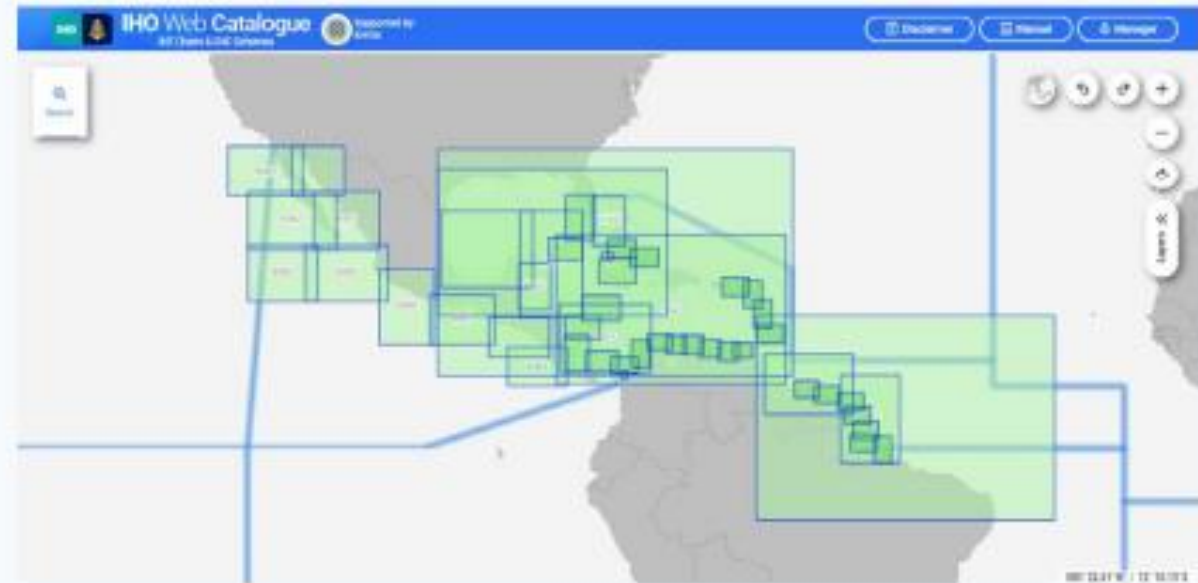
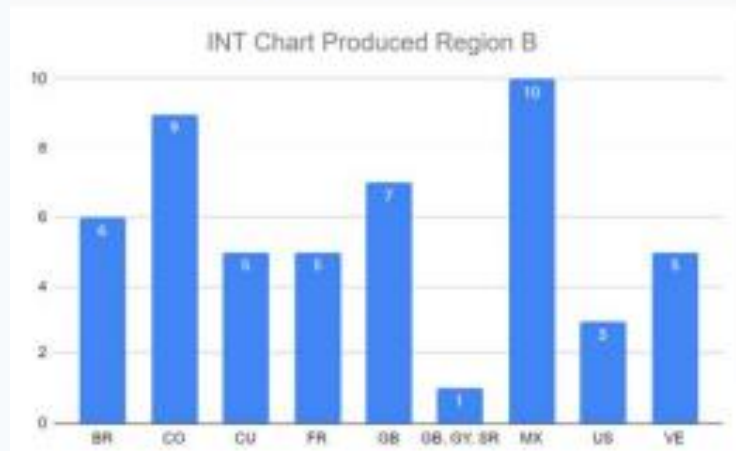
International
Hydrographic
Organization



INT Charts

- Updates about Current Coverage
- Submission of INT Charts to INT Chart Coordinator

- No pending submissions
- No updates on current coverage.



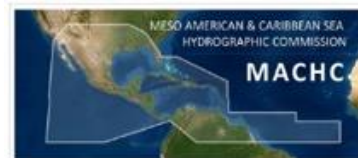
INT Chart Schemed Region B

Total 51 INT Charts Produced
Total 33 INT Charts Schemed



IHO

International
Hydrographic
Organization



S-100 Developments & Support

- a) Status of preparations to provide S-1xx datasets by 2026 with reference to WEND WG CL 02/2024 Request MICC members to submit their response
- b) RHCs to establish an S-100 Coordinator role Request MICC members to review draft TOR, ROP and Workplan of the MACHC International S100 Coordination Working Group (MISC)
- c) Presentation of the Maritime Digital Products Development Plan by the Bolivarian Republic of Venezuela

No update since 2023 – request to MS who have not responded to please submit a response

9 MS responded Including PCA's
3 MS have no S100 plan

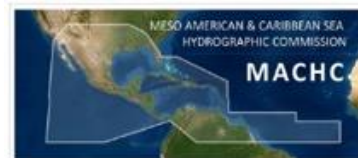
Requesting S100 producers to submit their response to WENDWG CL 02/2024

Members:	response	no response	PCA/ S57 prod
Brazil	x		
Colombia	x		
Cuba		x	
Dominican Republic	x		UKHO Grid
France	x		
Guatemala		x	
Guyana	x		UKHO Grid
Jamaica	x		UKHO Grid
Mexico	x		
Netherlands	x (incl. overseas terr.)		
Suriname	x		UKHO Grid
Trinidad and Tobago	x		UKHO Grid
United Kingdom	x		UKHO Grid
United States	x		
Venezuela		x	
Associate Members:	response	no response	PCA/ S57 prod
Antigua and Barbuda	x		UKHO Grid
Barbados	x		UKHO Grid
Belize	x		UKHO Grid
Costa Rica		x	
El Salvador		x	
Grenada	x		UKHO Grid
Haiti	x	x	
Honduras	x	x	
Nicaragua	x	x	
Panama	x		UKHO Grid
Saint Lucia	x		UKHO Grid
Saint Kitts and Nevis	x		UKHO Grid
St. Vincent & Grenadines	x		UKHO Grid



IHO

International Hydrographic Organization



S-100 Developments & Support

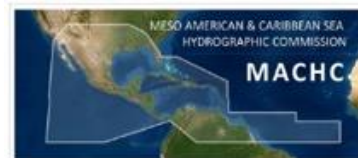
- a) Status of preparations to provide S-1xx datasets by 2026 with reference to WEND WG CL 02/2024 Request MICC members to submit their response
- b) RHCs to establish an S-100 Coordinator role Request MICC members to review draft TOR, ROP and Workplan of the MACHC International S100 Coordination Working Group (MISC)
- c) Presentation of the Maritime Digital Products Development Plan by the Bolivarian Republic of Venezuela

Findings 2023

- Most MS will have the S100 ready by 2026 and 2027
- 3 MS have no S100 plan
- Most MS are focused on S101 and 102 , other S100 products will be produced by 2030 or not included in their plan
- MS requested support in production (production systems) and distribution
- There are trials in progress

Recommendations based on the findings;

- Establish a S100 working group or groups
- Develop a S100 roadmap for the region , the need for capacity building and knowledge sharing is essential



S-100 Developments & Support

- a) Status of preparations to provide S-1xx datasets by 2026 with reference to WEND WG CL 02/2024 Request MICC members to submit their response
- b) RHCs to establish an S-100 Coordinator role Request MICC members to review draft TOR, ROP and Workplan of the MACHC International S100 Coordination Working Group (MISC)
- c) Presentation of the Maritime Digital Products Development Plan by the Bolivarian Republic of Venezuela

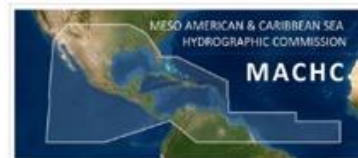
2024 activities in support

- Circulated draft TORs, ROPs, and workplans for the MACHC International S-100 Coordination Working Group
 - Received 3 revisions
 - Plan to combine these revisions and present them to the WG at next quarterly meeting
 - Interested candidates for MISC WG leadership from Venezuela and Cuba pending finalization of TOR and ROP and formal creation of the MISC WG



IHO

International
Hydrographic
Organization



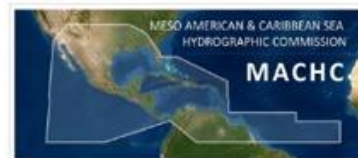
S-100 Developments & Support

- a) Status of preparations to provide S-1xx datasets by 2026 with reference to WEND WG CL 02/2024 Request MICC members to submit their response
- b) RHCs to establish an S-100 Coordinator role Request MICC members to review draft TOR, ROP and Workplan of the MACHC International S100 Coordination Working Group (MISC)
- c) Presentation of the Maritime Digital Products Development Plan by the Bolivarian Republic of Venezuela

The [IHO S-100 Resources](#) page is the best place to look for Testbed Programmes, current status of Phase 1 Product Specifications, S-100 viewers and converters, and test datasets.

Testbed Programmes

Name	Contributors	Related standards	Information	Contact
KHOA S-100 Testbed	Rep.of Korea	S-98, S-1xx		Iji KIM
IHO-Singapore Lab	Singapore	S-101, S-102	LINK	Parry Oei
S-100 Across the channel	France, UK	S-101, S-102		Christian Mouden
PRIMAR Conversion Project	PRIMAR, PRIMAR RENC member states, Taiwan, SevenCs, i4Insight, TCaris, ECC	S-101	LINK	data@ecc.no
S-100 / S-102 Demo	ECC, PRIMAR, Norway	S-101,S-102,S-111,S-129	S-100 Demo, S-102 Demo	
S-100 as a service	ECC, PRIMAR, CHS, TCaris, SevenCs	S-102, S-104, S-111	LINK	



S-100 Developments & Support

- a) Status of preparations to provide S-1xx datasets by 2026 with reference to WEND WG CL 02/2024 Request
MICC members to submit their response
- b) RHCs to establish an S-100 Coordinator role
Request MICC members to review draft TOR, ROP and Workplan of the MACHC International S100 Coordination Working Group (MISC)
- c) Presentation of the Maritime Digital Products Development Plan by the Bolivarian Republic of Venezuela - Commander Daniel Rojas

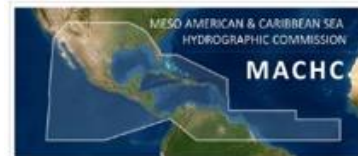


Proposed MICC Workplan

a) **Approval of MICC workplan 2025**

ANNEX B – WORK PLAN MILESTONES 2025

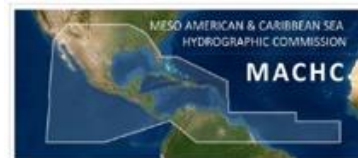
DELIVERY DATE (2025)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
Jan 1 - Feb 1	Member States to provide updates based on discussions and consideration presented at the MACHC 2024 MICC WG meeting on plans to address ENC coverage within their area	Member States to provide updates based on discussions and considerations presented at the MACHC 2024 MICC WG meeting on plans related to INT Chart activities
Feb 18 - 20	Represent MACHC at WEND WG	
March 28	<p>In preparation for the quarterly Conference Call, Member States to provide updates to:</p> <ul style="list-style-type: none"> • Resolutions of any gaps/overlaps identified • S-101 regional schemes • Establishment of S-100 coordinators • S-100 production and test beds • Product specification development participation • S-100 capacity building opportunities including workshop on “Dual Fuel” S-101 & S-57 production • Workplan in support of S-101 production • INTToGIS III & MACHC Initiatives website feedback 	<p>In preparation for the quarterly Conference Call, Member States to provide updates to:</p> <ul style="list-style-type: none"> • INT Chart metadata and shapefiles for planned INT Charts • Additional coverage / adjustments for S-11, section B
April 18	Hold quarterly conference call to assess status and next steps.	
May 5	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	



Proposed MICC Workplan

a) **Approval of MICC workplan 2025**

June 20	In preparation for the quarterly Conference Call, Member States to provide updates to:	In preparation for the quarterly Conference Call, Member States to provide updates to:
DELIVERY DATE (2025)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
	<ul style="list-style-type: none"> • Resolutions of any gaps/overlaps identified • S-101 regional schemes • Establishment of S-100 coordinators • S-100 production and test beds • Product specification development participation • S-100 capacity building opportunities including workshop on “Dual Fuel” S-101 & S-57 production • Workplan in support of S-101 production • INTtoGIS III & MACHC Initiatives website feedback 	<ul style="list-style-type: none"> • INT Chart metadata and shapefiles for planned INT Charts • Additional coverage / adjustments for S-11, section B
July 18	Hold quarterly conference call to assess status and prepare information as needed for subsequent communication to IRCC and IHB.	
Aug 05	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	
Aug 29	Investigate and/or track issues regarding consistencies and availability of ENC's and the corresponding INT (paper) Charts if problems persist.	



Proposed MICC Workplan

a) **Approval of MICC workplan 2025**

DELIVERY DATE (2025)	ACTIONS	
	Electronic Chart Activities	INT Chart Activities
Sept 5		MS to forward S-11 updates to INT Chart Coordinator for inclusion for Region B, S-11.
Sept 12		MICC INT Chart Coordinator to forward S-11 updates to IHB, to include Pacific INT scheme.
Oct 10	<p>In preparation for the quarterly Conference Call, Member States to provide updates to:</p> <ul style="list-style-type: none"> • Resolutions of any gaps/overlaps identified • S-101 regional schemes • Establishment of S-100 coordinators • S-100 production and test beds • Product specification development participation • S-100 capacity building opportunities including workshop on “Dual Fuel” S-101 & S-57 production • Workplan in support of S-101 production • INTToGIS III & MACHC Initiatives website feedback 	<p>In preparation for the quarterly Conference Call, Member States to provide updates to:</p> <ul style="list-style-type: none"> • INT Chart metadata and shapefiles for planned INT Charts • Additional coverage / adjustments for S-11, section B
Oct 17	Hold quarterly follow-up conference call to update/review and discuss MS input in preparation of 26 th MACHC.	
Nov 7	Complete follow-up activities from Conference Call. Member States to provide all additional information identified during conference call.	
Nov 14	Provide all updates, to the MICC Chair and INT chart Coordinator for the MICC Report to 26 th MACHC.	
Dec 2025	Provide update on 2025 MICC activities/accomplishments	



Other Business

- a) Approval of MICC Chair and request interest for Vice Chair position

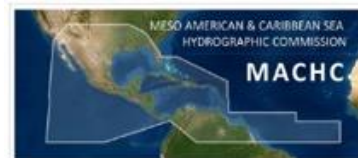
MICC WG Chair Candidate: **Julio Castillo**, USA - NOAA Cartographer, MICC Vice Chair

MICC WG Vice Chair Candidate: **Shari Robinson**, Jamaica - National Land Agency Cartographer



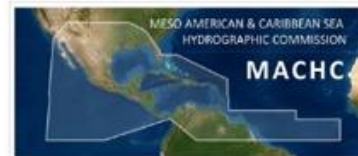
IHO

International
Hydrographic
Organization



MACHC 24 Actions

Action/Decision Serial No	Source	Action/Decision Detail	Responsible Party	Due Date	Additional Comment(s) by MACHC Sec/ Status Update Nov 24
Action 12.1_1	MACHC24	Members to review TOR and ROP for the S-100 Coordinator role (via MICC CL 03/2023)	All Members and Coastal States	Apr 24	Overdue The 19 Apr 24 MICCWG decided that a new MACHC WG would be created to oversee the S-57 and S-100 dual fuel period rather than it be left to a single person. MACHC to be briefed by MICCWG Vice Chair at meetings in Panama 3-6 Dec 24
Action 12.1_2	MACHC24	Members to submit candidates for the S-100 Coordinator role after review of the role TOR and ROP	All Members and Coastal States	Apr 24	Overdue See Action 12.1_1
Action 12.1_3	MACHC24	Consider nominations for the MICCWG INT Chart Coordinator and MICCWG Vice Chair roles	All Members and Coastal States	Apr 24	Overdue See Action 12.1_1
Action 12.1_4	MACHC24	Members to setup a S-100WG as soon as possible. MS are expected to nominate a representative for the S-100WG	All Members and Coastal States	Apr 24	Overdue See Action 12.1_1



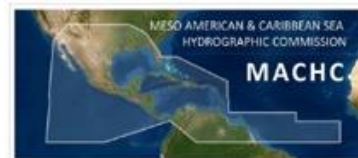
Requests of the MACHC

- Note the MICC WG Report
- Approve the MICC WG 2025 Work Plan
- Note the progress on finalizing the TOR and ROP of the MACHC International S-100 Coordination Working Group (MISC WG)
- Note the interest by Venezuela and Cuba to lead the MISC WG once it is established
- Approve MICC WG Chair and Vice Chair candidates



IHO

International
Hydrographic
Organization



THANK YOU VERY MUCH!



IHO

International
Hydrographic
Organization

