

22nd Meeting of the Meso America – Caribbean Sea Hydrographic Commission

MACHC / IOCARIBE Seabed
2030: Planning Results and
Recommendations

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Seabed 2030 Coordinator



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MACHC-IOCARIBE Seabed2030 Strategy and 2021-22 Work Plans addresses IHO Recommendations for CSB:

✓ **29.1** MACHC members and associate members are encouraged to officialise and/or review their positions on the conduct of **CSB in their waters of jurisdiction** (iaw IHO CL 21/2020 and IRCC CL 1/2020) and to identify further potential sources of bathymetric measurements and survey data providers to facilitate the further completion of the DCDB data holdings, as well as to make data openly available for **inclusion in the DCDB** and the widest possible use, in accordance with **IHO Resolution 1/2017**.

✓ **29.2** MACHC is invited to **continue** with its **active participation** in the initiatives such as UN Decade for Ocean Science (Calls for Decade Actions) and Seabed2030.



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UN Decade on Ocean Science

Ocean Decade Challenge 8:

Develop a comprehensive digital representation of the ocean



Nippon Foundation-GEBCO Seabed2030 Project
officially endorsed as part of the UN Ocean Decade



MACHC-IOCARIBE Seabed 2030 Strategy
2021-2030

Regional contribution



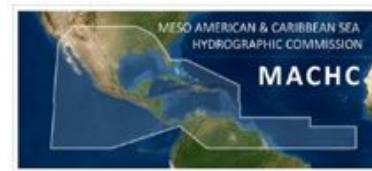
MACHC-IOCARIBE Seabed2030 Strategy and 2021-22 Work Plans addresses IHO Recommendations for Seabed 2030:

- ✓ **34.1** MACHC members are encouraged to become **actively involved in the GEBCO programme** and its subordinate projects, to support the collection of data within their waters, and to make more detailed and comprehensive seabed data available, in particular deep ocean data from transit or commercial/scientific surveys.
- ✓ **34.2** MACHC members to continue inviting GEBCO programme and Seabed 2030 project representatives to MACHC meetings to discuss options for deepened **cooperation and support**, in order to make more people aware of the **importance** of gaining a complete picture of the **seabed**.



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MACHC / IOCARIBE Seabed 2030 Planning:

Overview of Virtual Meetings

- Webinar – November 12: Exploring Applications and Remote Bathymetric Data Processing.
- Meeting POC - November 16: Review of Work Plan for 2022.



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Overview of Webinar



The screenshot shows the homepage of the Meso American & Caribbean Sea Hydrographic Commission (MACHC). The header features a map of the region and the text "Initiatives of the Meso American-Caribbean Sea Hydrographic Commission". The navigation bar includes links to Home, MICC, MMSDIWG, Capacity Building Committee, Maritime Safety Information, Seabed 2030 (highlighted with a red box), Disaster Response, Links, and Acronyms. On the left sidebar, there is a language selector for "Español" and links for "Webinars 2021" (highlighted with a red box) and "Webinars 2020". The main content area displays "Seabed 2030 Virtual Meetings - 2021" and a list of webinars under the heading "Webinars".

HOME » SEABED 2030 » SEABED 2030 VIRTUAL MEETINGS

Seabed 2030 Virtual Meetings - 2021

Webinars
MACHC Webinar on the Seabed 2030 Project: (November 12th, 2021)
<ul style="list-style-type: none">• Interactio Speaker Guidelines• Interactio Speaker Recommendations• Flyer• Welcome Speech Seabed 2030• Agenda• Exploring Applications for Bathymetric Grid Generation• Remote Bathymetric Data Processing

https://www.iho-machc.org/documents/seabed2030_doc.html



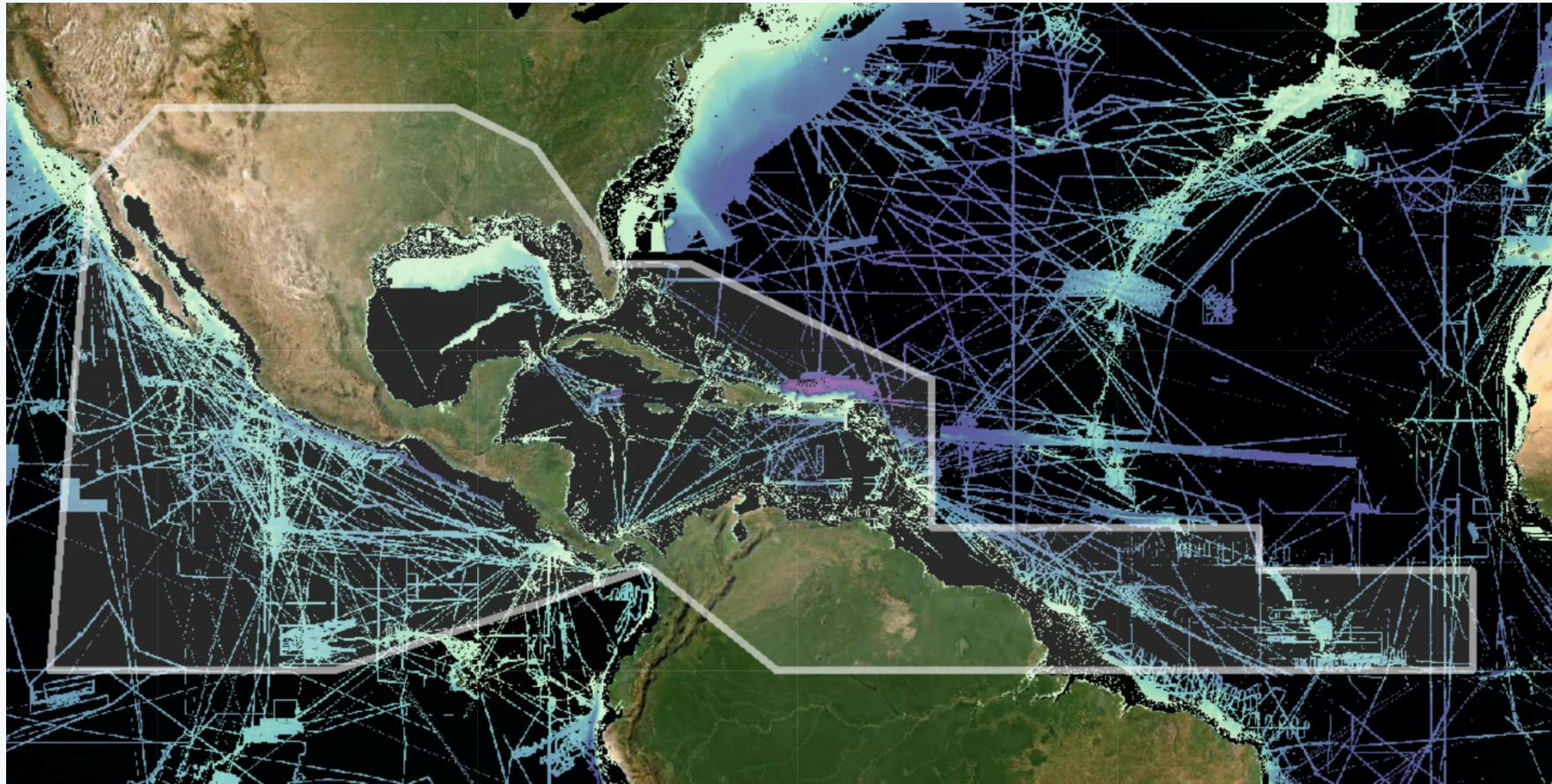
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Current Mapping Status in the Region

- ✓ **Brazil**
- ✓ **Dominican Republic**
- ✓ **France**
- ✓ **Germany**
- ✓ **Japan**



- ✓ **Netherlands**
- ✓ **Norway**
- ✓ **Russia**
- ✓ **USA**
- ✓ **Venezuela**

GEBCO 2020: 20% mapped

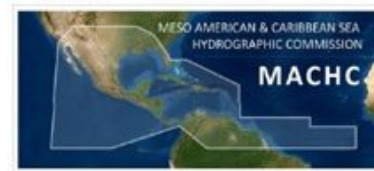
GEBCO 2021: **23%** mapped 

Thank you to all data contributors!!!



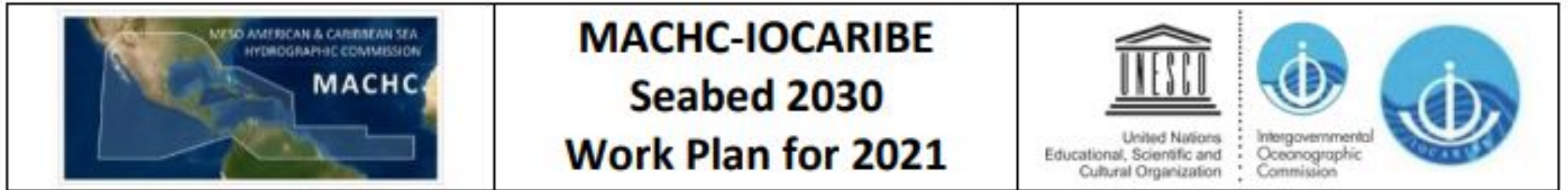
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MACHC-IOCARIBE Seabed2030 2021 Work Plan

Status



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MACHC-IOCARIBE Seabed2030 2021 Work Plan Activities

Status

#	Action Item	Contribution so far
001	Assemble information (polygons) about existing non-public bathymetric data falling under its remit not yet identified on the MACHC Web App to identify gaps	USA, CRI, NLD, SUR
002	Broadly communicate the steps to submit polygons showing data coverage of existing data to both the RDACC and the IHO DCDB.	HND, GTM, DOM, CRI
003	Look at existing regulatory requirements, legislation, bilateral, contractual or other arrangements for surveying within national waters of jurisdiction to reassess what bathymetric data can be made publicly available and at what resolution is acceptable to the government and to the data owner.	USA, NLD, BRA, CRI, MEX, SUR
004	Broadly communicate the steps to submit data to the IHO DCDB and the RDACC.	Webinar 2020, 2021



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MACHC-IOCARIBE Seabed2030 2021 Work Plan Activities

Status

#	Action Item	Contribution so far
005	Contribute multibeam, single-beam and ENC data to the IHO DCDB, wherever possible, for long-term archive and data access.	USA, NLD, BRA, FUGRO, SUR
006	Contribute national bathymetric data products to the RDACC at the appropriate resolution approved by the national authorities for integration into the GEBCO grid.	DOM, USA, NLD, BRA, CRI, MEX, SUR, BLZ
007	Identify ways to promote or to support bathymetric data sharing.	CRI, USA, NLD, BRA, SUR
008	Assemble information and polygons about upcoming surveys and data acquisition opportunities in national waters of jurisdiction to integrate into the <u>WebApp</u> to define data gaps and plan coordinated mapping campaigns.	USA, NLD, BRA, CRI, GTM, MEX, BLZ



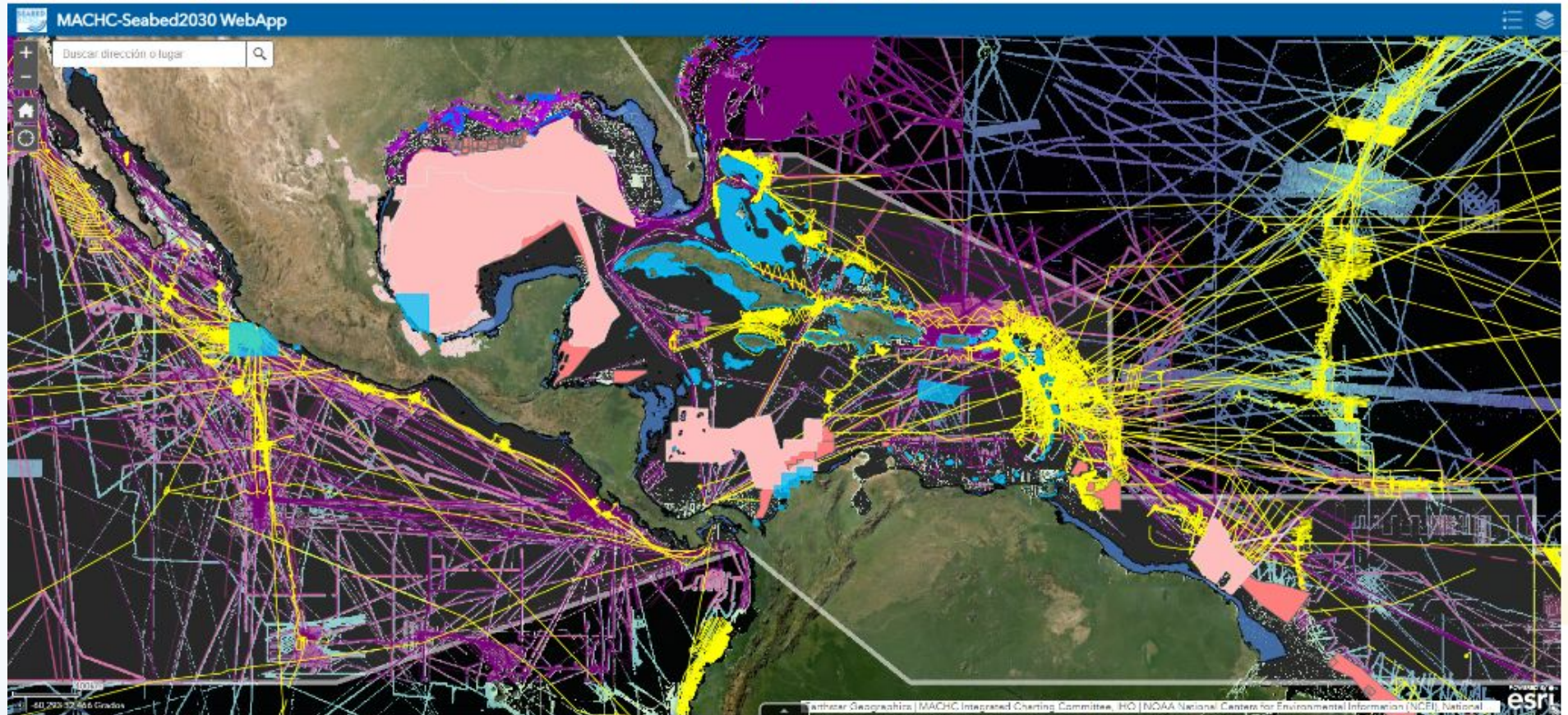
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MACHC Seabed2030 Web Application

<https://www.iho-machc.org/seabed2030.html>

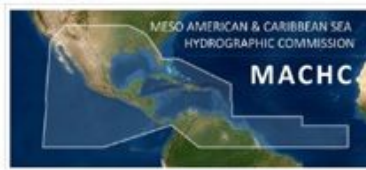


Contact Percy.Pacheco@noaa.gov for assistance on how to contribute



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MACHC-IOCARIBE Seabed2030 2021 Work Plan Activities

Status

#	Action Item	Contribution so far
009	Identify gap areas in the MACHC region without any kind of bathymetric data (distances greater than 1,000 m) providing the polygons to the respective Coastal States.	April/2021 Sep/2021
010	Explore with national authorities expanded permissions for opportunistic data acquisition via research and survey vessels during transits, consistent with national policy.	HND, USA, NLD, BRA
011	Respond to IRCC CL 1/2020 or IHO CL 21/2020 to allow for the provision of CSB data from ships within waters subject to their national jurisdiction into the public domain, according to national policy.	CRI, COL, BRA, NLD, USA, GBR, SUR



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MACHC-IOCARIBE Seabed2030 2021 Work Plan Activities

Status

#	Action Item	Contribution so far
012	Consider carrying CSB field trials with designated “trusted nodes” (data liaisons) and data collectors (mariners) in the region to provide data to the IHO DCDB.	USA, HND, SUR
013	Identify technical and other challenges to data collection, assembly and sharing and look for solutions.	BRA, CRI, GTM, HND, COL, MEX, SUR
014	Conduct an annual review process to resolve challenges to data collection and sharing.	This action will be informed by the responses from action 13.
015	Provide technical support and data submission guidelines for data and accompanying metadata and Type Identifier (TID) information.	Webinar held Nov 12

MACHC-IOCARIBE Seabed 030 2021 Work Plan Activities

Results

Technical and other challenges to data collection, assembly and sharing and look for solutions:

BRA: The Brazilian Hydrographic Office has no authority to obtain the sharing of data acquired under the remit of the Brazilian Oil and Gas Agency.

CRI: It does not have an official Hydrographic entity to collected bathymetry. CRI has requested a high level visit from IHO through MACHC CBC.

GTM, HND: Equipment and training.



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MACHC-IOCARIBE Seabed2030 2021 Work Plan Activities Results

Technical and other challenges to data collection, assembly and sharing and look for solutions *continued*:

COL, MEX: Legal aspects about share data.

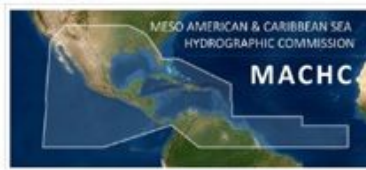
SUR: No platform and equipment for surveys beyond the EEZ.

Webinar Polls: More information needed about Trusted Nodes for CSB; how to respond to IHO CSB Letters and good examples of ways to increase data sharing



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MACHC-IOCARIBE Seabed2030 2022 Work Plan

Activities

	<p>MACHC-IOCARIBE Seabed 2030 DRAFT Work Plan for 2022</p>	 <p>UNESCO United Nations Educational, Scientific and Cultural Organization</p> <p>Intergovernmental Oceanographic Commission</p> <p>IOCARIBE</p>
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MACHC-IOCARIBE Seabed2030 2022 Draft Work Plan

Action 3 proposed amendment

#	Action Item
003	<u>2021:</u> Look at existing regulatory requirements, legislation, bilateral, contractual or other arrangements for surveying within national waters of jurisdiction to reassess what bathymetric data can be made publicly available and at what resolution is acceptable to the government and to the data owner.
003	<u>2022:</u> Look at existing regulatory requirements, legislation, bilateral, contractual or other arrangements for surveying within national waters of jurisdiction to reassess what bathymetric data can be made publicly available and at what resolution is acceptable to the government and to the data owner. Share examples on the MACHC Initiative Seabed2030 webpage.

MACHC-IOCARIBE Seabed2030 2022 Draft Work Plan

Action 3 proposed amendment

#	Action Item
011	2021: Respond to IRCC CL 1/2020 or IHO CL 21/2020 to allow for the provision of CSB data from ships within waters subject to their national jurisdiction into the public domain, according to national policy.
011	2022: Provide information webinar on how to respond to IRCC CL 1/2020 or IHO CL 21/2020 to allow for the provision of CSB data from ships within waters subject to their national jurisdiction into the public domain, according to national policy.

MACHC-IOCARIBE Seabed2030 2022 Draft Work Plan

Action 12 proposed amendment

#	Action Item
012	<u>2021</u> : Consider carrying CSB field trials with designated “trusted nodes” (data liaisons) and data collectors (mariners) in the region to provide data to the IHO DCDB.
012	<u>2022</u> : Provide informational webinar on how to carry out CSB field trials with designated “trusted nodes” (data liaisons) and data collectors (mariners) in the region to provide data to the IHO DCDB.

How to Contribute CSB Data

- The DCDB accepts CSB contributions through a network of "**Trusted Nodes**".
 - Eg: organizations, companies or universities serving as data liaisons between mariners (data collectors) and the DCDB.
 - Trusted Nodes may supply data logging equipment, provide technical support to vessels, download data from data loggers, and be responsible for data transfer directly to the DCDB.
- CSB data must be provided in either CSV or GeoJSON, and capture the minimum required information (XYZ, timestamp).

Those interested in contributing data or becoming a Trusted Node should contact the DCDB at bathydata@iho.int.



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Seabed 2030-funded CSB Field Trials

Objective:

1. Facilitate field trials that will accelerate CSB activity
2. Collect data in data scarce areas
3. Grow excitement about the CSB initiative
4. Develop a repeatable regional CSB mapping project strategy

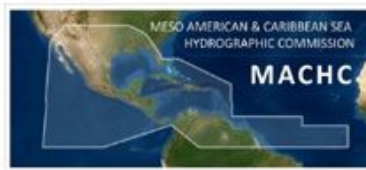
In return, a potential program must guarantee the provision of staff to:

1. Hand out data loggers to the community
2. Assist local mariners in set up
3. Act as a data assembly center
4. Provide a copy of these data to the IHO DCDB and Seabed 2030 Data Centers to be used in the GEBCO grid



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Seabed 2030-funded CSB Field Trials

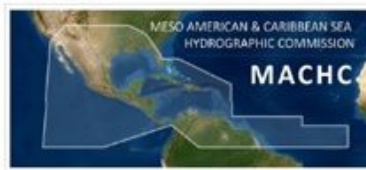
- The Institute For Maritime Technology & The South African Navy Hydrographic Office
 - *200 data loggers*
- Bureau of Marine Transportation - Palau
 - *100 data loggers*
- Greenland Institute of Natural Resources
 - *30 data loggers*
- New Zealand (various projects)
 - *6 data loggers*

*Provision of data loggers
(NMEA0183 and NMEA2000) and
installation support (where needed).*



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MACHC-IOCARIBE Seabed2030 2022 Draft Work Plan

Action 15 proposed amendment

#	Action Item
015	Provide technical support and data submission guidelines for data and accompanying metadata and Type Identifier (TID) information.
015	Provide information webinar to provide technical support and data submission guidelines for data and accompanying metadata and Type Identifier (TID) information.

Actions requested at MACHC Plenary:

1. Note this report
2. Approve the 2022 Workplan
(retaining all the actions from the 2021 Work Plan with the proposed amendments)



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Thank you.
Gracias.



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