THE NIPPON FOUNDATION-GEBCO

SEABED 2030

Webinar 1: Where are we now? Introduction, Goals & Status of Mapping in the Region

Webinar Chair:
Ms. Kathryn Ries, Chair MACHC

Presenters:
Dr. Vicki Ferrini, Head Seabed 2030 Atlantic/Indian Regional Center

Ms. Jennifer Jencks, Director IHO Data Center for Digital Bathymetry

MACHC Seabed 2030 Coordinator:
Ms. Cecilia Cortina

2020 MACHC-IOCARIBE Seabed 2030 Webinar Series: Webinar 1, Sept 11, 2020

Welcome

MACHC Chair, Ms. Kathryn Ries

IOCARIBE Secretary, Dr. Cesar Toro

IHO
International Hydrographic Organization

UNESCO
United Nations Educational, Scientific and Cultural Organization

Intergovernmental Oceanographic Commission

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SEABED 2030

Today's Agenda

10:00 - 10:15 Logistics & Welcome (MACHC Chair, IOCARIBE Secretary)

10:15 - 11:15 Introduction and Overview (Head of RDACC for the Atlantic and Indian Ocean and Director DCDB)

- Objectives for these webinars
- What we are doing and why
- Why we need to do this together
- How we can help you
- Review of status of mapping in the region

11:15 - 11:45 Discussion

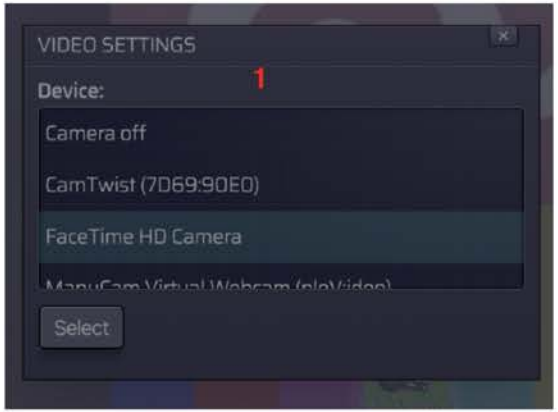
11:45 - 12:00 Conclusions and Homework for Next Session

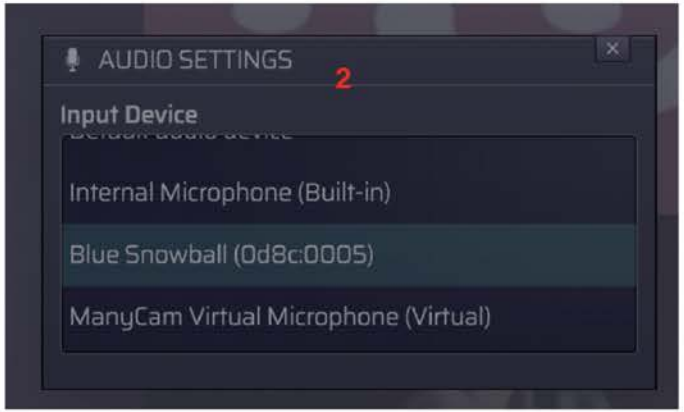
Logistics

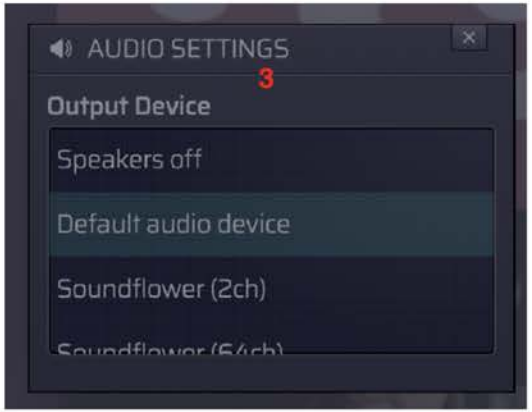
Logistics

How to Select Your Microphone and Camera (Top Left of Screen)

Select your **camera (1)**, **audio input device (2)** (microphone, headset, etc.), **output device (3)** (headphones, speakers, etc.)







Logistics

How to Select the Language of Your Audio Channel

Select the **audio channel (1)** (language) you want to listen to.

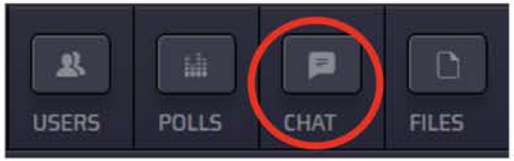
Logistics

How to Make a Video Channel Larger

Click on any video channel/square and it will move to the large viewing area.

How to Ask Questions Via Chat

Although we encourage you to speak to the room on video and audio, you may also submit questions via chat. Click on the "CHAT" icon in the upper right and submit a question via text. Percy Pacheco will moderate this chatroom and raise questions to the Chair.

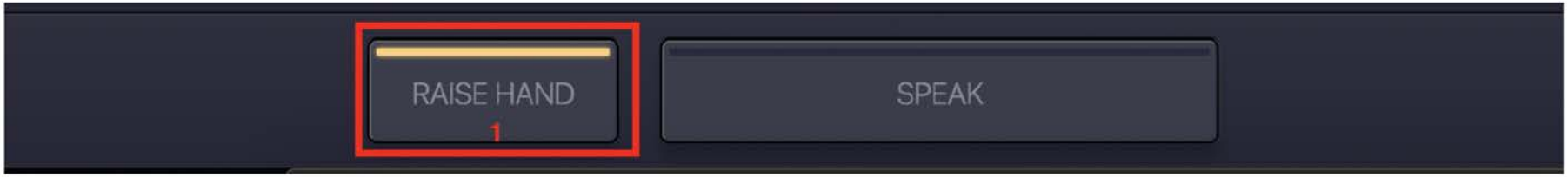


Logistics

How to Be Recognized by the Chair

Raise your hand, by pressing the button **Raise Hand (1)** to indicate the wish to speak.

When given the right to speak by the Moderator, Speak button will start glowing blue (2) and the Status line will say “Microphone open” (2).

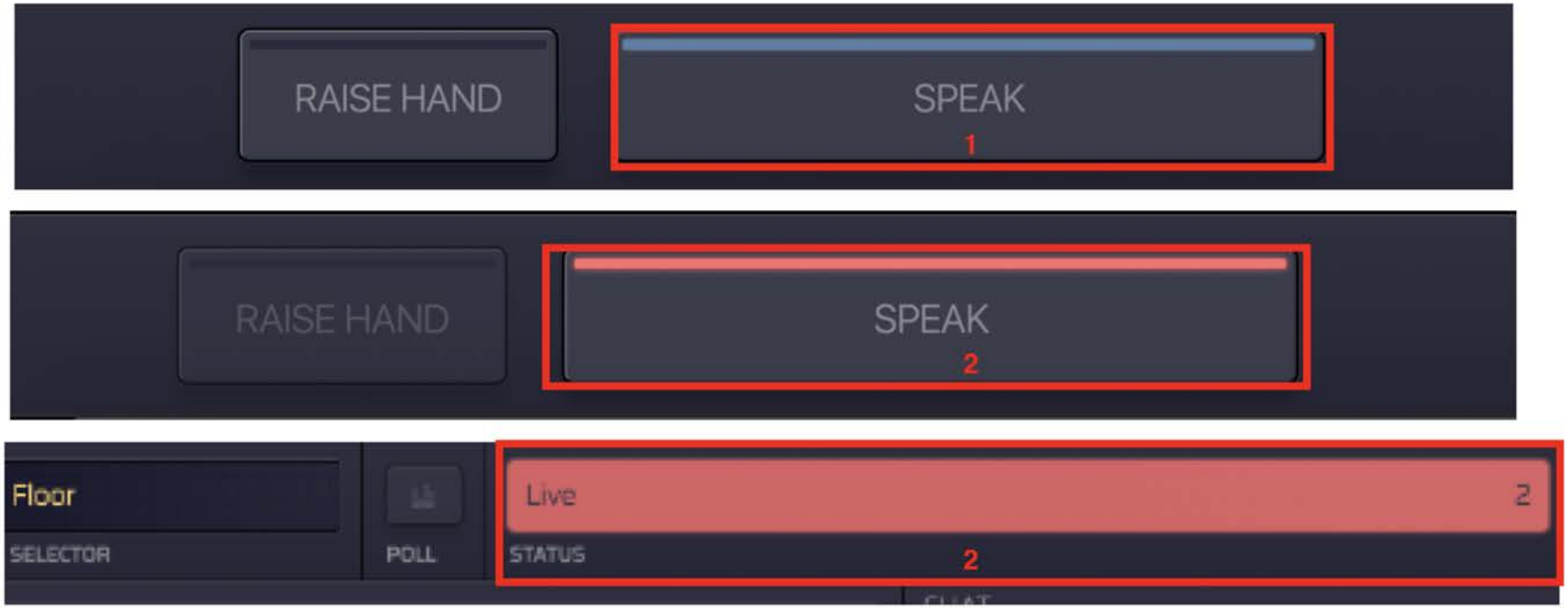


Logistics

How to Speak to the Room

Press **Speak (1)**.

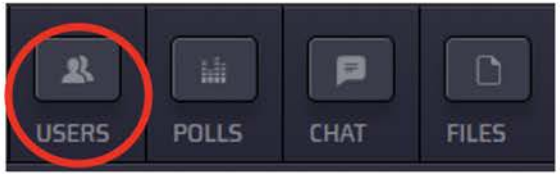
Your speak button should turn red (2), and your Status should say Live (2) - this indicated that you are currently live and streaming.



Logistics

How to See Who Else is in Attendance

Click on the “USERS” icon in the upper right to see who else is in attendance.



Overview of Webinar Series

Objectives of this Webinar Series

- Overview & Introduction:
  - Objectives, strategy and motivation of the Nippon Foundation - GEBCO Seabed 2030 Project
- Promote collaboration and coordination
- Review current status of ocean mapping for this region
- Demonstrate online tools that are available
- Engage the community of stakeholders
  - Gather information about existing data, planned mapping efforts
  - Input on needs of stakeholders with respect to tools, workflows, regional mapping priorities

Webinar Schedule

- Webinar 1 - Sept 11: Where are we now? Introduction and Goals including review of current mapping status in the region
- Webinar 2 - Sept. 25: How do we build the map? How can you contribute data
- Webinar 3 - Oct. 9: Increasing Data Coverage: Crowdsourced Bathymetry and Data Coverage Polygons
- Webinar 4 - Oct. 23: Moving Ahead Together: Summary, Next Steps and Wrap up.

Goals for today

- Introduction to Seabed 2030
- Review status of mapping in the MACHC region
- Introduction to the IHO Data Center for Digital Bathymetry
- Demonstration of Seabed 2030 MACHC Web App
- Discussion
- Homework for next Webinar

THE NIPPON FOUNDATION-GEBCO

SEABED 2030

Introduction

Dr. Vicki Ferrini, Head Seabed 2030
Atlantic/Indian Regional Center

2020 MACHC-IOCARIBE Seabed 2030 Webinar Series: Webinar 1, Sept 11, 2020

What is Seabed 2030?

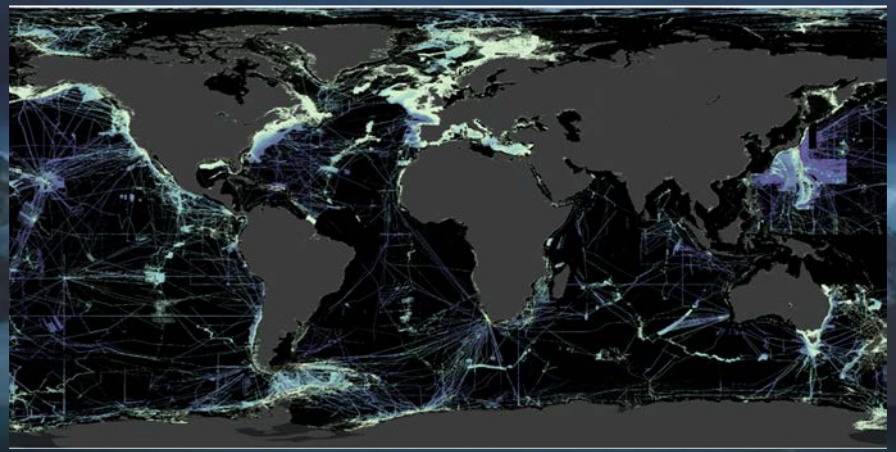
The Nippon Foundation - GEBCO Seabed 2030 Project is a collaborative project to inspire the complete mapping of the world's ocean by 2030, and to compile all bathymetric data into the freely-available GEBCO Ocean Map.

> *Seabed 2030 aspires to empower the world to make policy decisions, use the ocean sustainably, and undertake scientific research that is informed by a detailed understanding of the global ocean floor.*

THE NIPPON FOUNDATION-GEBCO SEABED 2030

Why is Seabed 2030 Important?

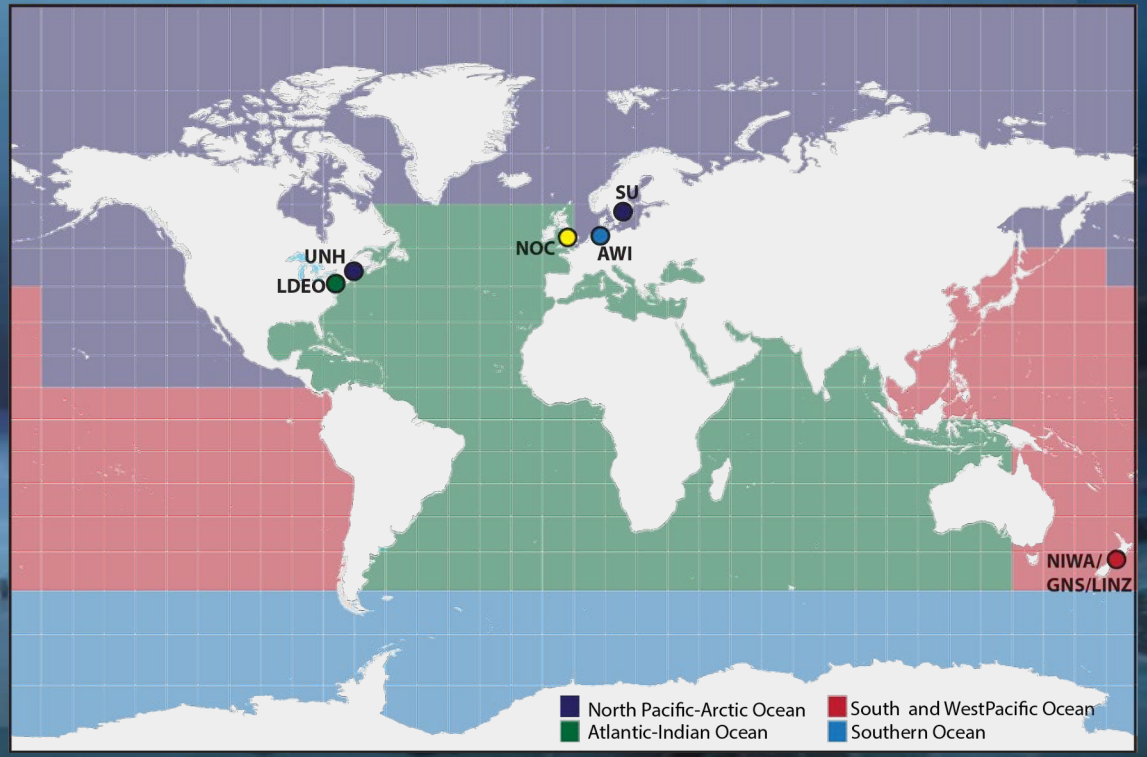
- Bathymetry data is an essential ocean observation
- Seabed mapping data has broad use and value
- Ocean processes extend beyond territorial waters
- Only ~20% of the ocean has been mapped with direct observation
- Mapping the entire ocean is a massive task that can only be achieved through cooperation and coordination

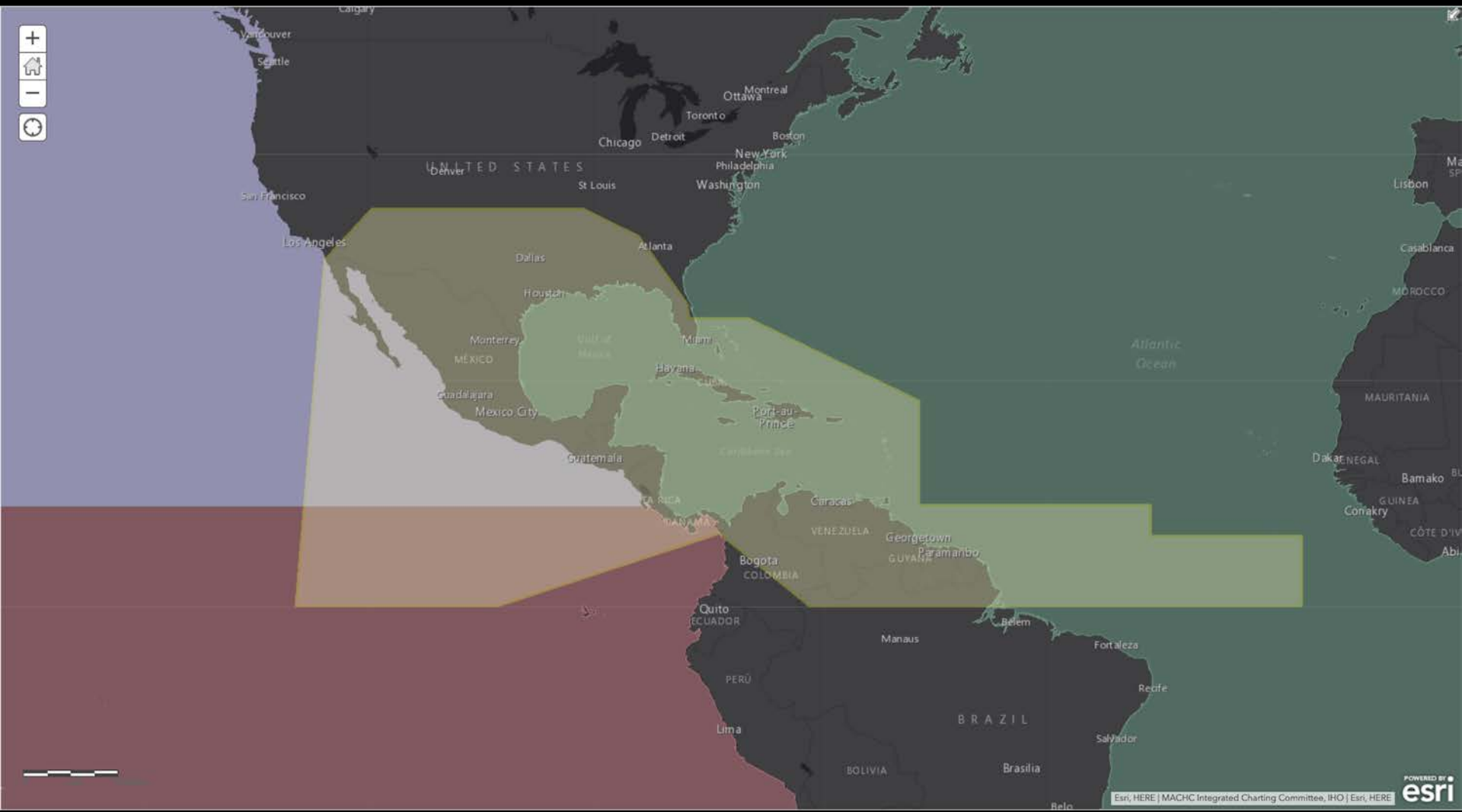


THE NIPPON FOUNDATION-GEBCO
SEABED 2030

Seabed 2030: Regional Approach

- Regional Centers (RDACCs)
  - Engage with stakeholders
  - Build upon existing efforts
  - Assemble regional products
  - Identify gaps
- Global Center (GDACC)
  - Assemble global products
  - Disseminate global products

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Dallas
Houston
Monterrey
MÉXICO
Miami
Havana
Guadalajara
Mexico City
Port-au-Prince
Guatemala
Caracas
VENEZUELA
Georgetown
Paramaribo
Bogota
COLOMBIA
Quito
ECUADOR
Manaus
Belem
Fortaleza
Recife
PERÚ
BRAZIL
Lima
Salvador
BOLIVIA
Brasilia
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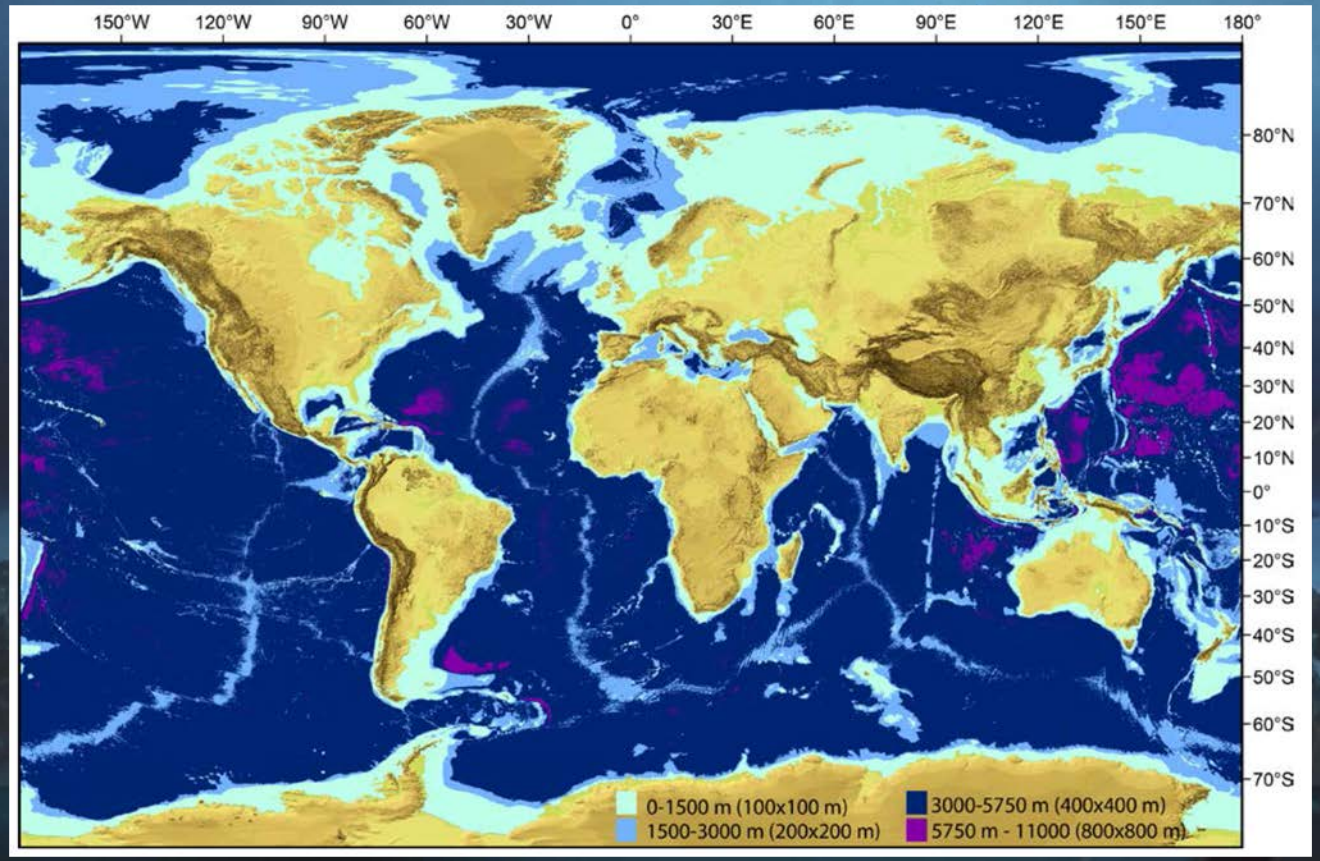
Casablanca
MOROCCO
Atlantic Ocean
MAURITANIA
Dakar
SENEGAL
Bamako
GUINEA
Conakry
Esri, HERE | MACHC Integrated Charting Committee, IHO | Esri, HERE
POWERED BY esri

What does 100% mapped mean?



THE NIPPON FOUNDATION-GEBCO SEABED 2030

Why work together?

- Learn from one another
- Leverage efforts to work toward common goals
- Share data, approaches, workflows, tools
- Develop new collaborations and opportunities
- Prioritization and mapping campaigns
- Capacity development
- Power of the crowd
- One ocean, one planet

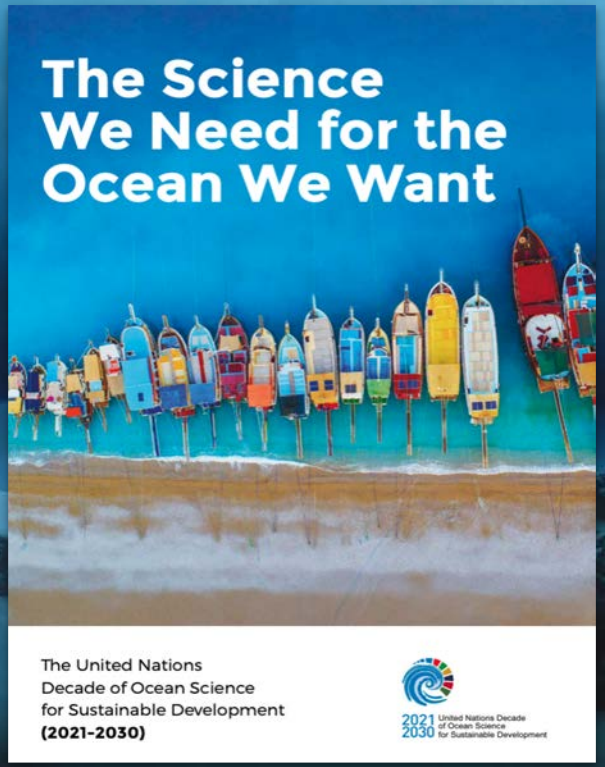
THE NIPPON FOUNDATION-GEBCO
SEABED 2030

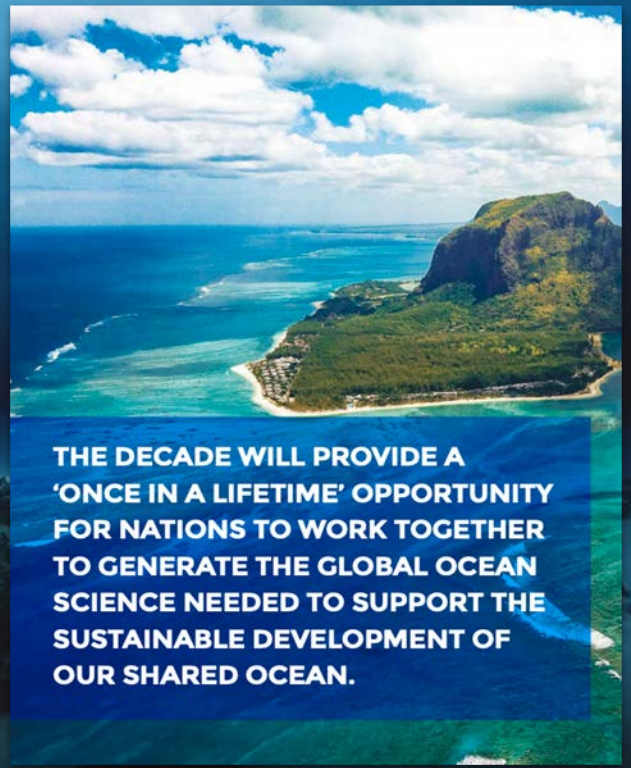
UN Decade of Ocean Science for Sustainable Development (2021-2030)

- A clean ocean
- A healthy and resilient ocean
- A productive ocean
- A predicted ocean
- A safe ocean
- An accessible ocean
- An inspiring and engaging ocean

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

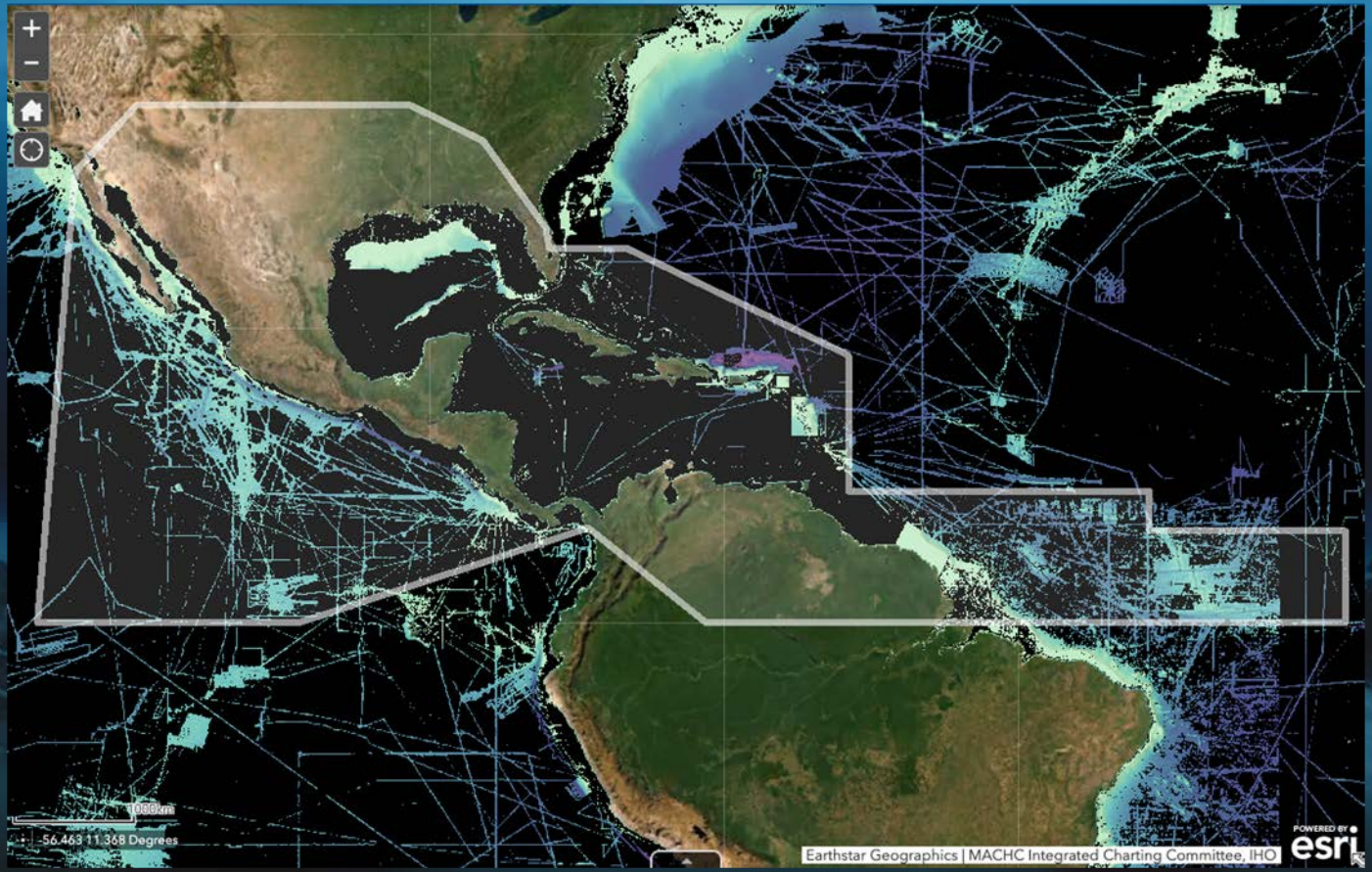
14 LIFE BELOW WATER



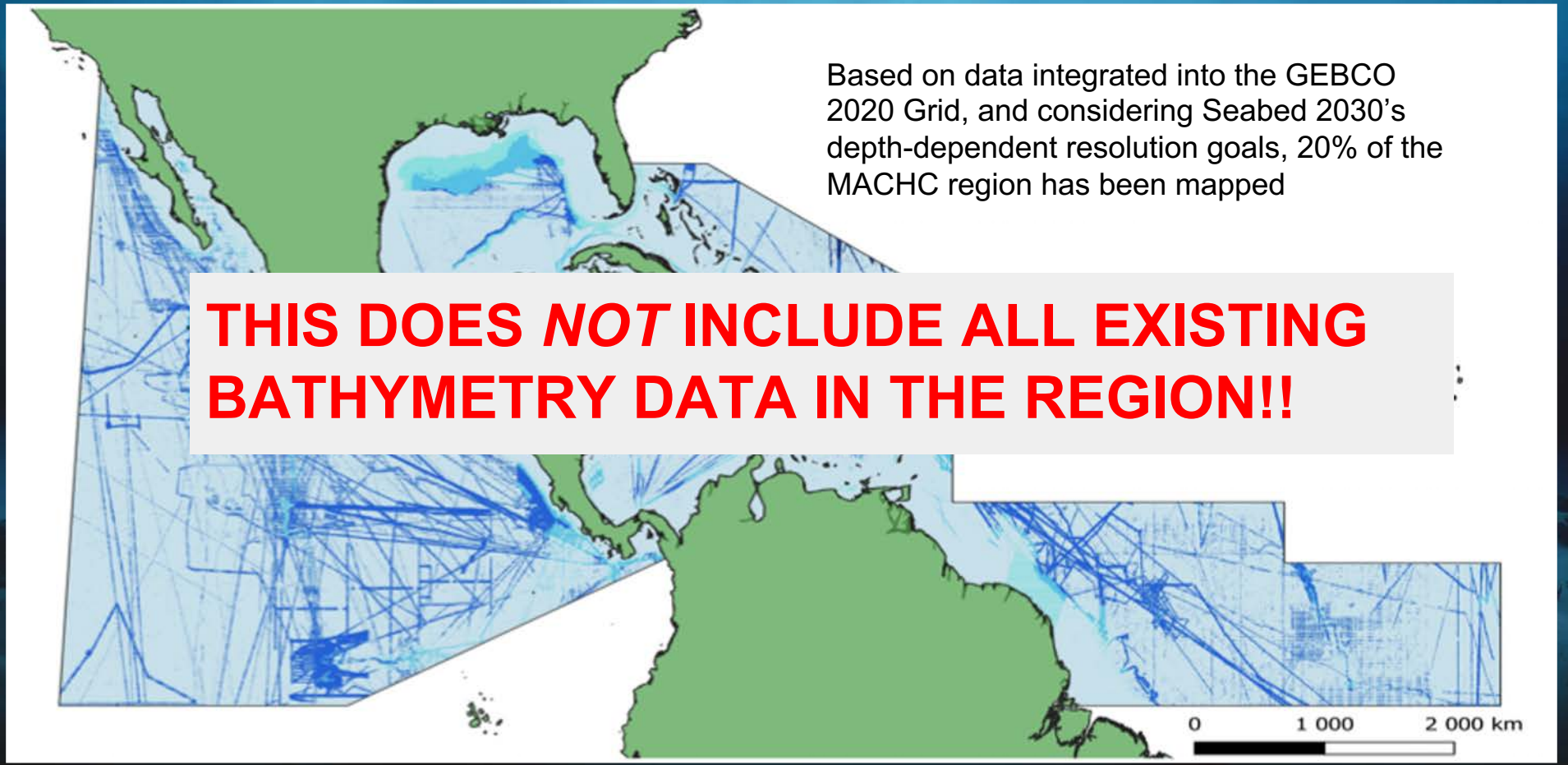


https://unesdoc.unesco.org/ark:/48223/pf0000265198

Status of Mapping in the Region: GEBCO 2020



How much of the MACHC has been “mapped”?



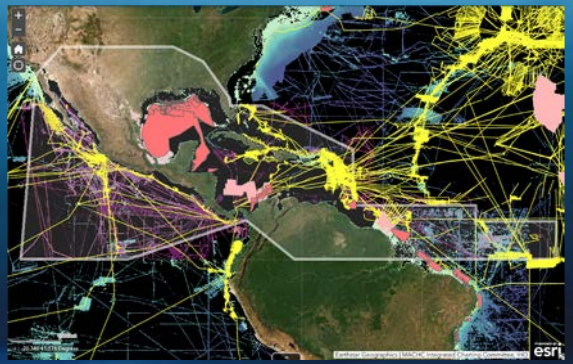
Based on data integrated into the GEBCO 2020 Grid, and considering Seabed 2030’s depth-dependent resolution goals, 20% of the MACHC region has been mapped

THIS DOES *NOT* INCLUDE ALL EXISTING BATHYMETRY DATA IN THE REGION!!

How much of the MACHC region has been mapped?

GEBCO 2020
Data Coverage

+

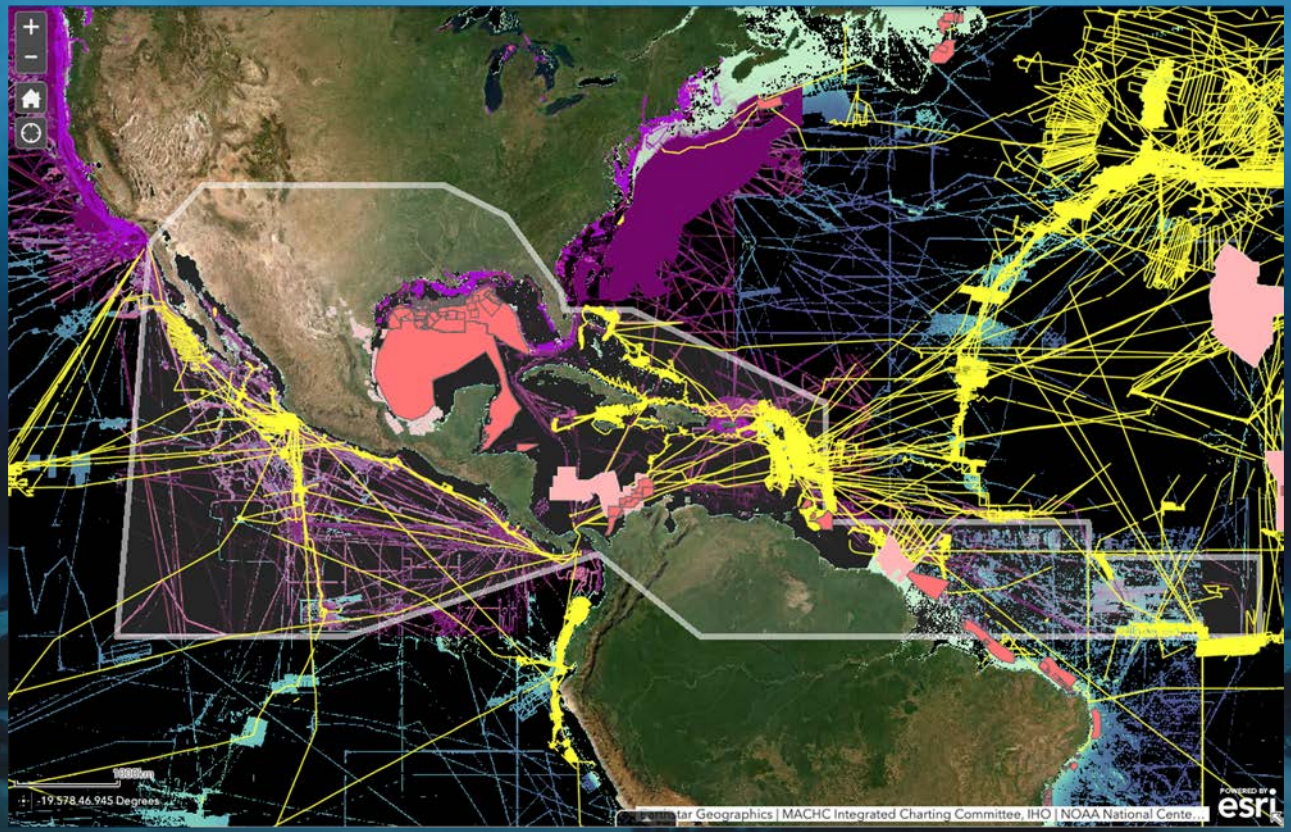


Known existing data
not yet shared and/or
not yet integrated

+ ?

Unknown
existing data
not yet shared

How much of the MACHC region has really been mapped?



Much more than 20%!!

Questions?

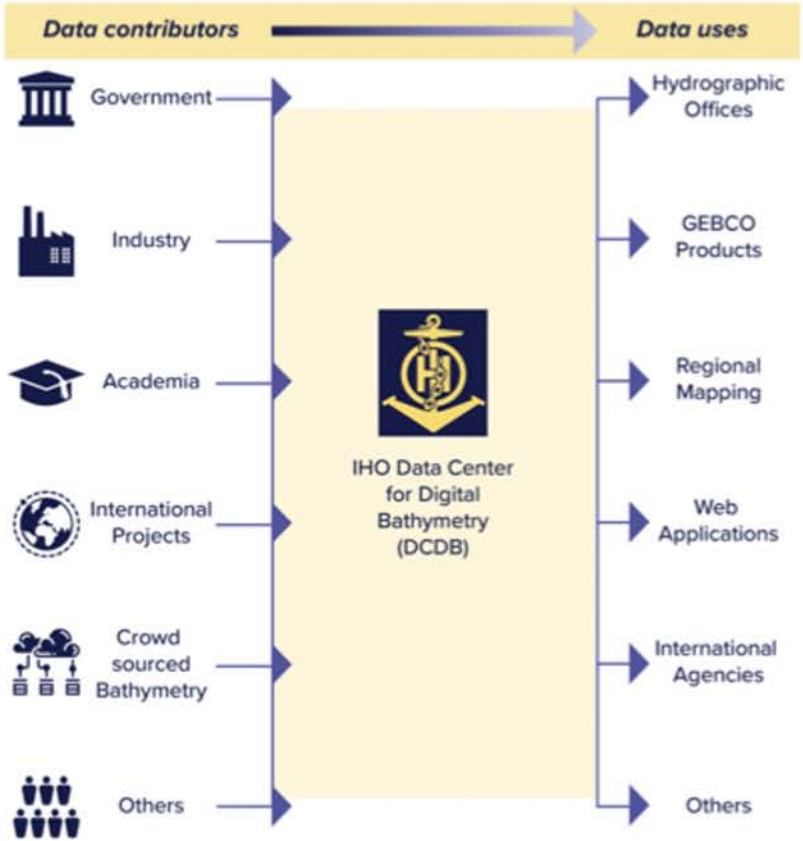
Introduction to the IHO Data Center for Digital Bathymetry

IHO Data Center for Digital Bathymetry (DCDB)

> *The IHO DCDB is the recognized IHO repository for all ocean bathymetric data.*

The DCDB works closely with the Seabed 2030 Project to provide long-term preservation, discovery and access of source bathymetry data.

www.ngdc.noaa.gov/iho/



IHO Data Centre for Digital Bathymetry (DCDB)

The IHO DCDB was established in 1990 to steward the worldwide collection of bathymetric data. The Centre archives and shares, freely and without restrictions, depth data contributed by mariners. The IHO DCDB is hosted by the U.S. National Oceanic and Atmospheric Administration (NOAA) on behalf of the IHO Member States.

IHO DCDB Data Viewer highlighting ship tracks and data availability over the Pacific Ocean and neighboring regions

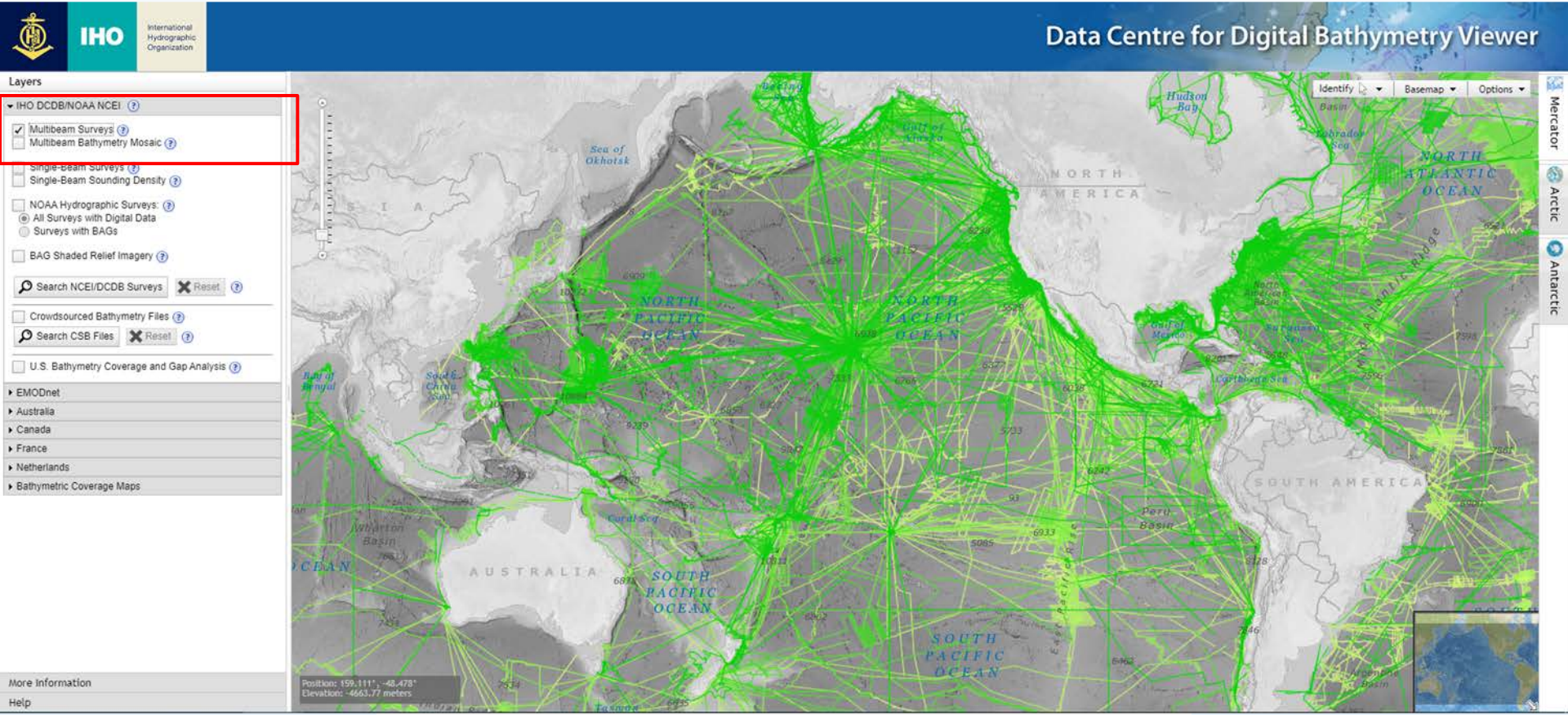
The DCDB archive includes over 30 terabytes of oceanic depth soundings acquired with multibeam and singlebeam sonars by hydrographic, oceanographic and industry vessels during surveys or while on passage.

The DCDB also archives and provides access to data contributed in support of the IHO Crowdsourced Bathymetry (CSB) initiative.

The IHO DCDB Data Viewer shows the global coverage of the DCDB's bathymetric data holdings as well as the spatial extent of data archived at other repositories via web services.

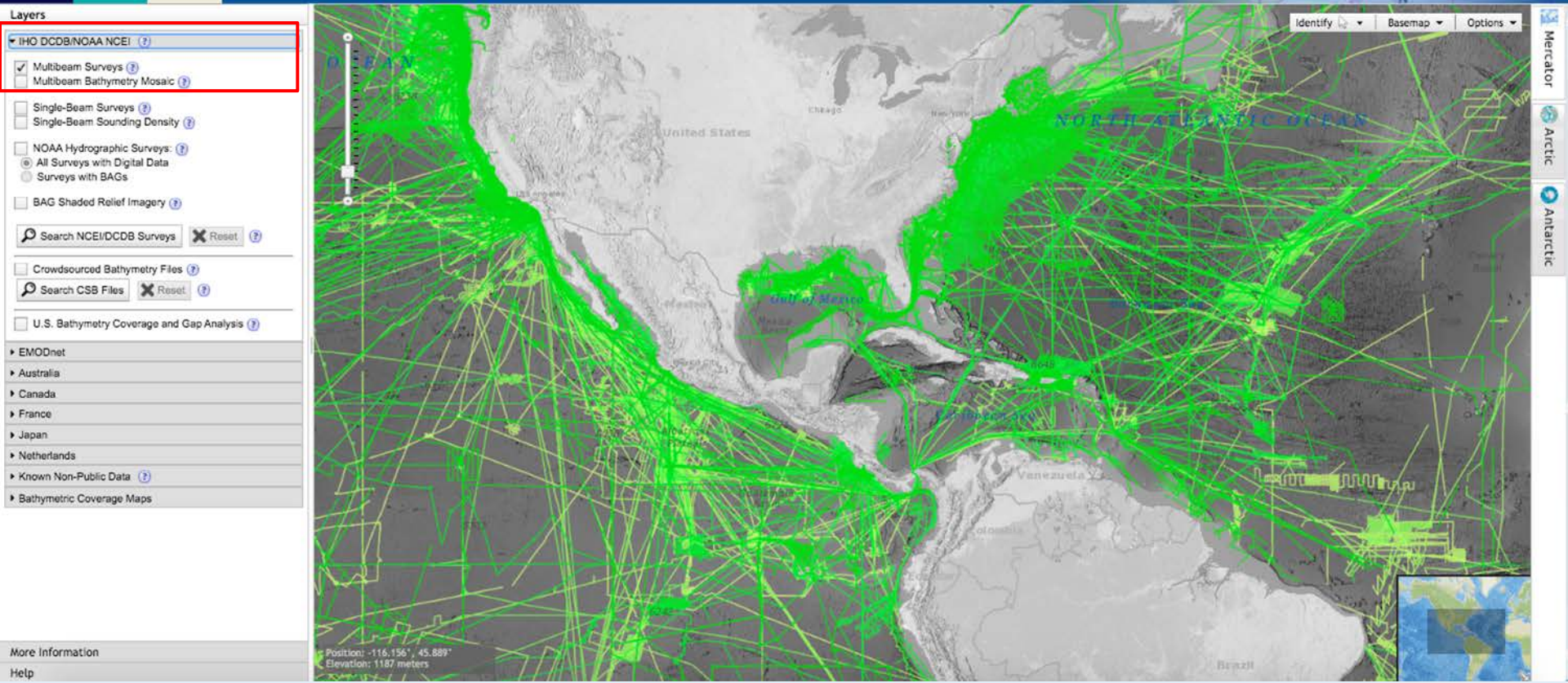
Access Data

International Hydrographic Organization
Organisation Hydrographique Internationale



IHO DCDB = World Reference for Raw Bathymetry

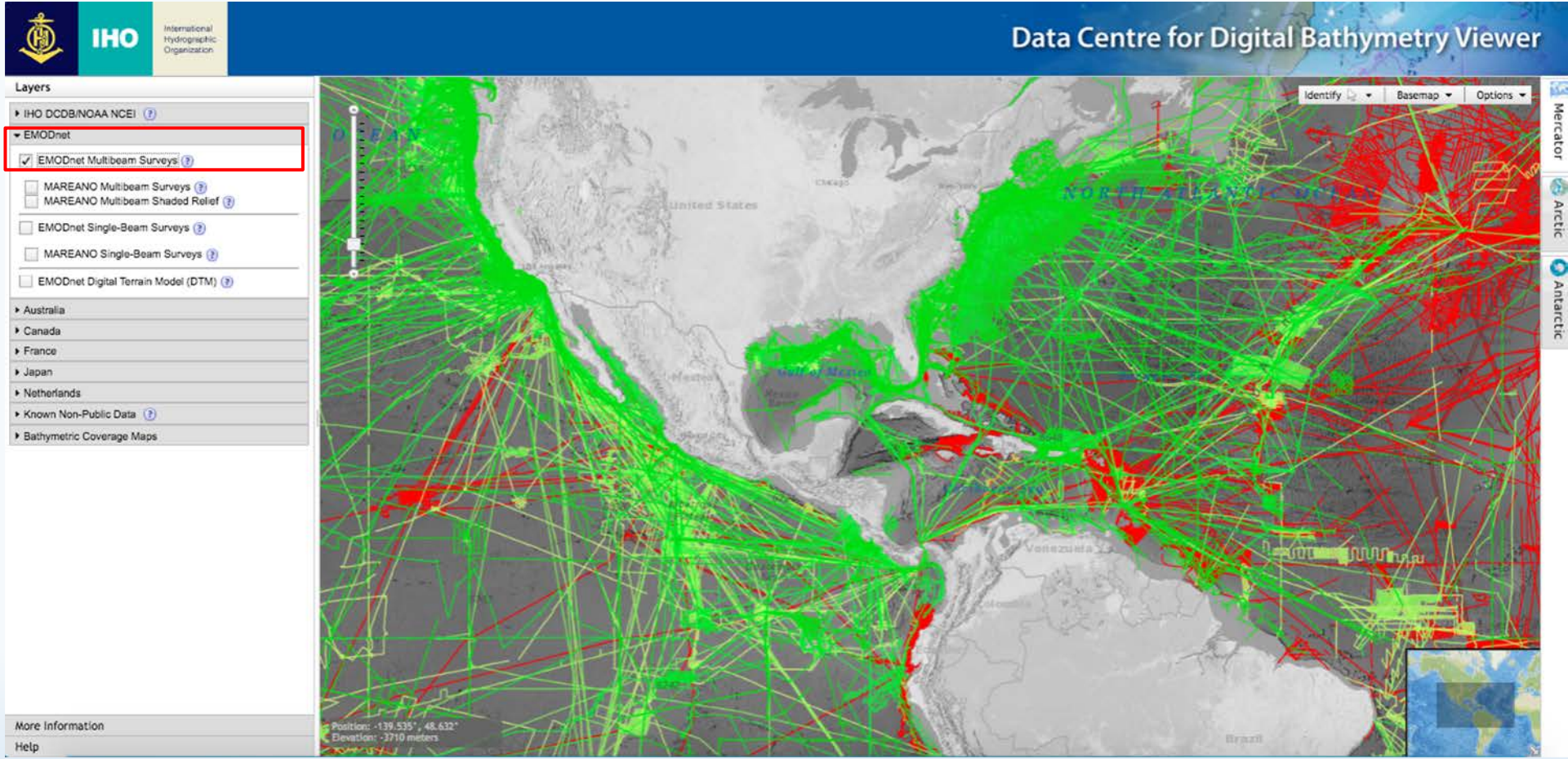
Data Centre for Digital Bathymetry Viewer

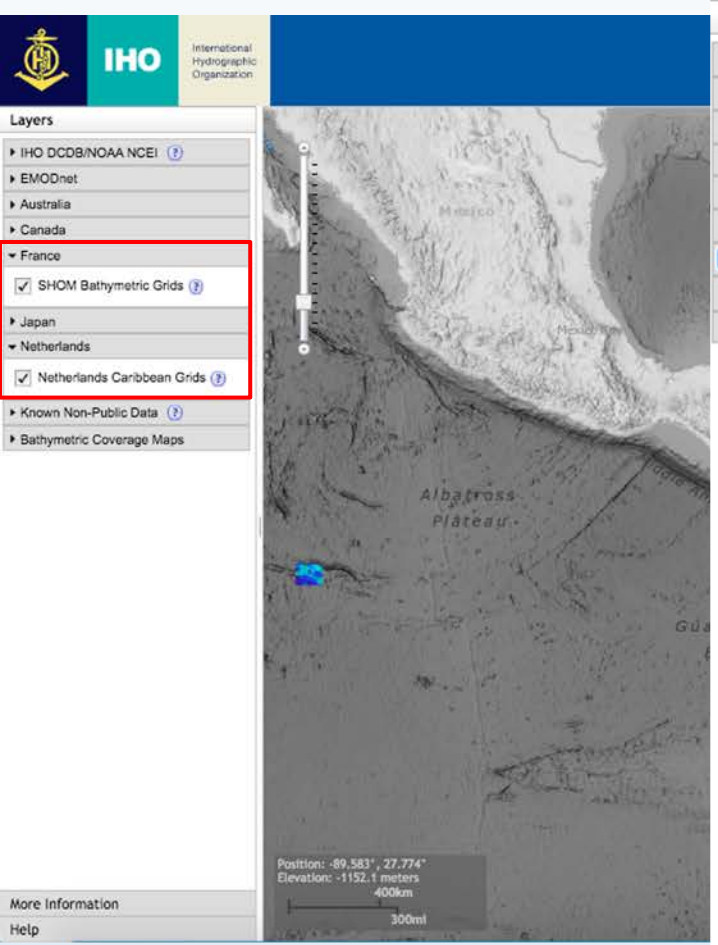


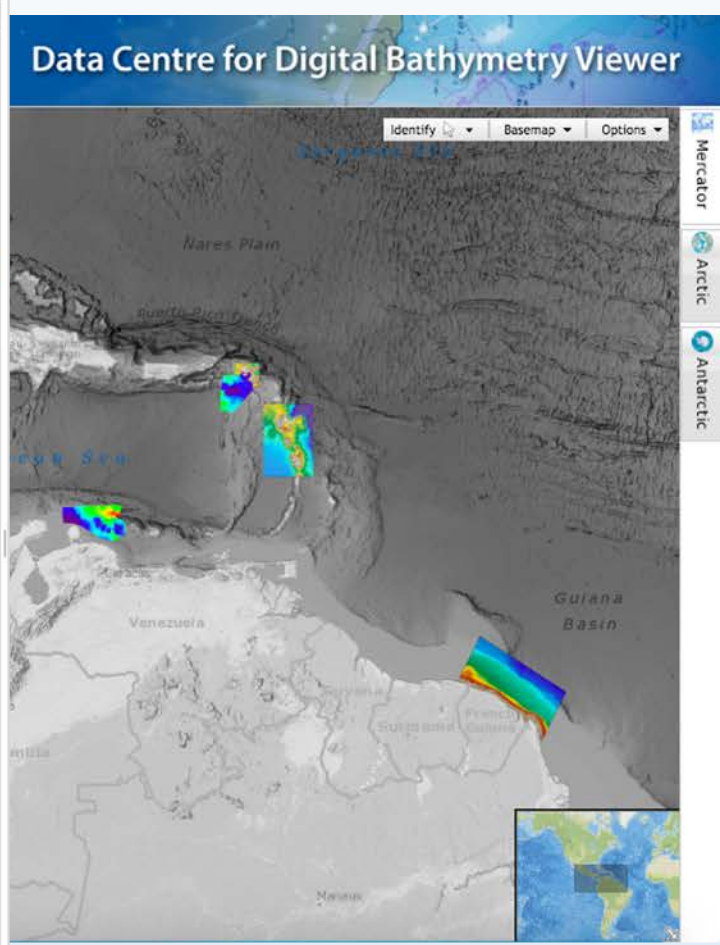
International Hydrographic Organization
Organisation Hydrographique Internationale

maps.ngdc.noaa.gov/viewers/iho_dcdb/

Data Centre for Digital Bathymetry Viewer







International Hydrographic Organization
Organisation Hydrographique Internationale

maps.ngdc.noaa.gov/viewers/iho_dcdb/

Questions?

MACHC-Seabed 2030 Online Resources and Web App

MACHC - Seabed 2030 Resources

Initiatives of the Meso American-Caribbean Sea Hydrographic Commission

Home | MICC | MMSDIWG | Capacity Building Committee | Maritime Safety Information | Seabed 2030 | Disaster Response | Links | Acronyms

Español

KEY DOCUMENTS

MACHC SEABED 2030 WORKPLAN (DRAFT)

SEABED 2030 SURVEY

Seabed 2030 POC List

Seabed 2030 - MACHC 2019 Story Map

MACHC/DCDB Letter

Regional Seabed 2030 Coordinator Role

Crowdsourced Bathymetry

IHO Crowdsourced Bathymetry Background

Guidance on Crowdsourced Bathymetry

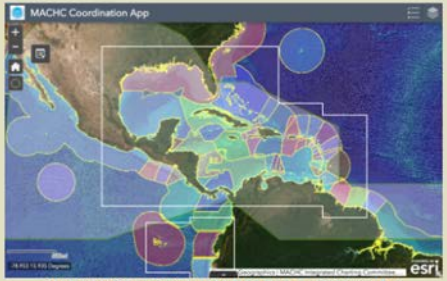
HOME » SEABED 2030

SEABED 2030

MACHC Region

Seabed 2030 Virtual Meetings Agendas

SEABED 2030 in the MACHC region is organized in four project pillars: 1) Data Discovery, 2) Data Sharing, 3) Finding and Filling Data Gaps, and 4) Close Coordination between the MACHC, Seabed 2030 Regional Data Assembly and Coordination Center for the Atlantic and Indian Oceans and Other Regional Stakeholders.



CLICK IMAGE to view the MACHC-Seabed 2030 WebApp

The MACHC-Seabed 2030 WebApp was developed collaboratively with the Seabed 2030 Regional Data Center for the Atlantic and Indian Oceans to foster communication and coordination among stakeholders within the MACHC region. The WebApp presents several layers of information relating to the most recent GEBCO bathymetry products, existing data in the region, and upcoming mapping efforts.

Links:

CONTRIBUTE DATA TO DCDB

International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA)

Seabed 2030 Centers

Contact the Atlantic and Indian Oceans Regional Center

Explore Data Holdings at the Centre for Digital Bathymetry (DCDB)

Nippon Foundation-GEBCO (Seabed 2030)

Other Seabed 2030 Links (Articles, National Mapping Coordination Efforts)

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

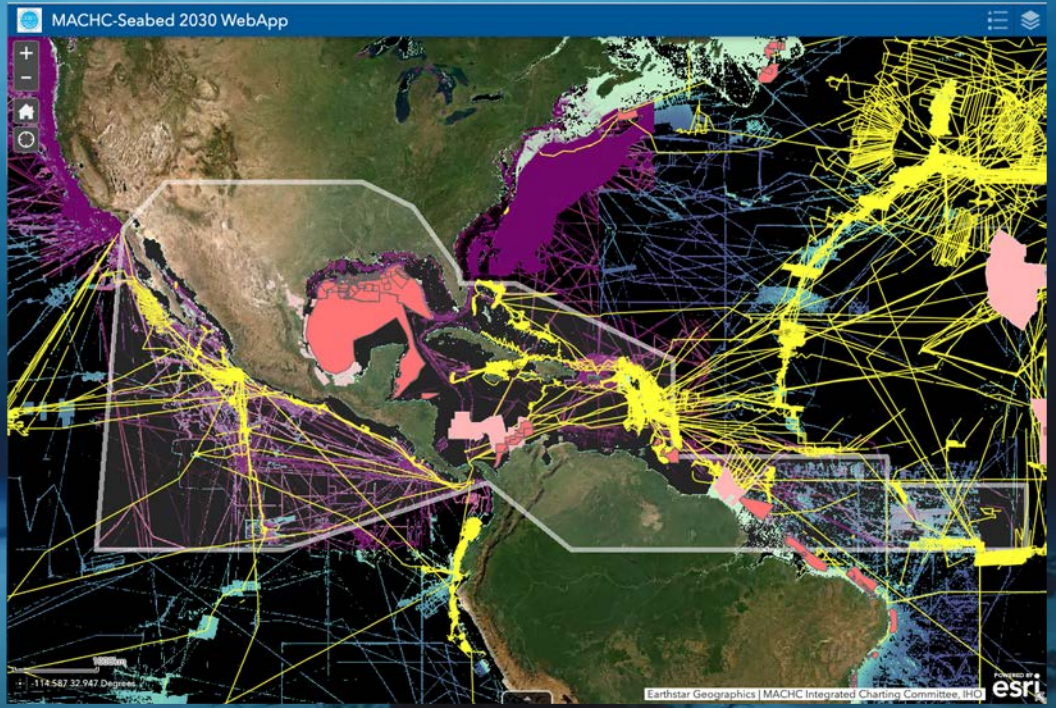
MACHC-Seabed 2030 Web App

An interactive interface that presents several informational layers to promote collaboration and cooperation toward the goals of Seabed 2030.

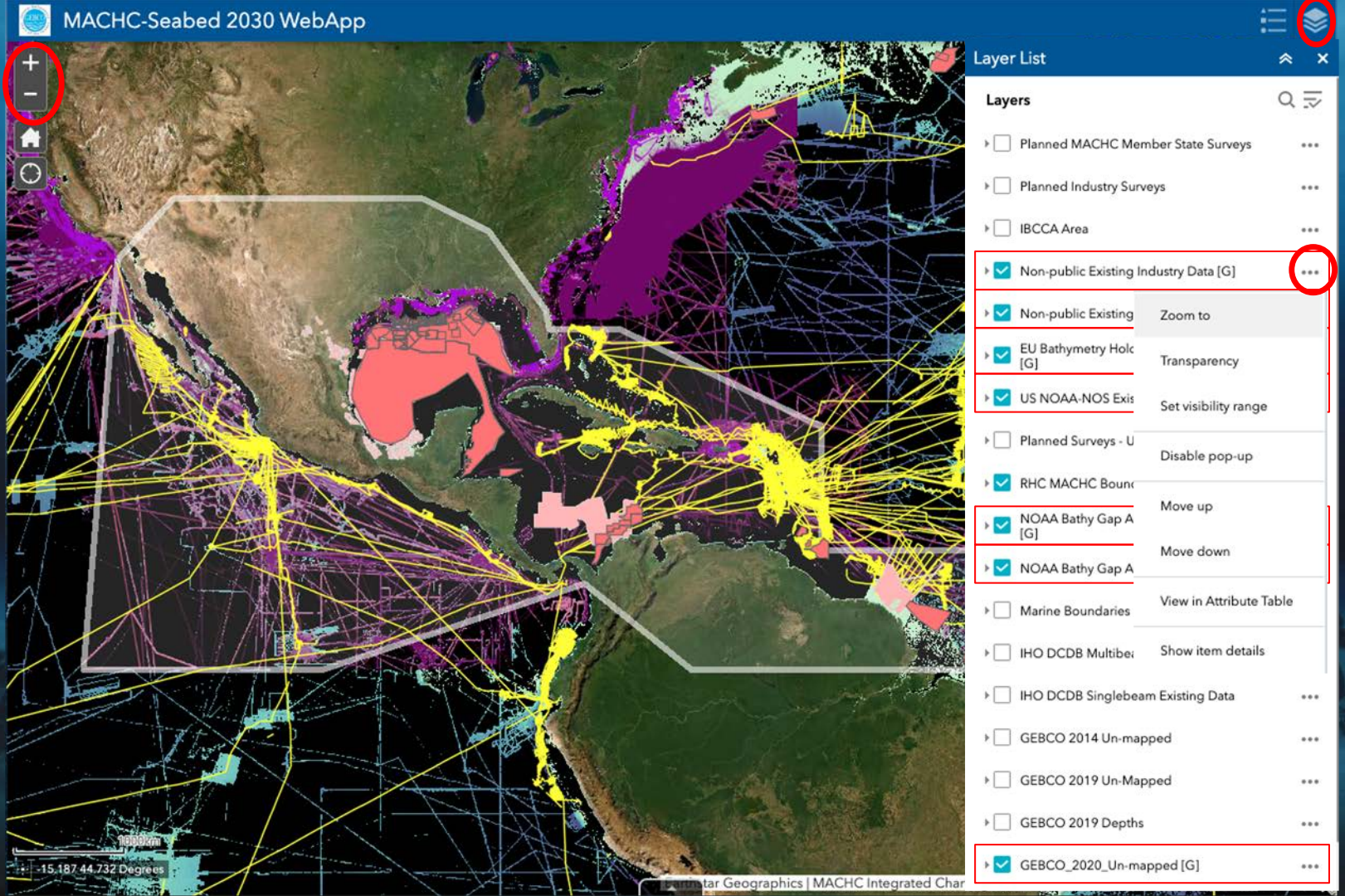
Layers are publicly available and managed by many partners. Authoritative layers used whenever available and include:

- GEBCO 2020 Map & Coverage
- Known Data Coverage Layers
  - Public Data
  - Embargoed Data
- Planned Surveys

Highlights Data Gaps



http://bit.ly/Seabed2030-MACHC


MACHC-Seabed 2030 WebApp
Layer List
Layers
Planned MACHC Member State Surveys
Planned Industry Surveys
IBCCA Area
Non-public Existing Industry Data [G]
Non-public Existing
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NOAA Bathy Gap A
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IHO DCDB Singlebeam Existing Data
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GEBCO 2019 Un-Mapped
GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
Zoom to
Transparency
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Disable pop-up
Move up
Move down
View in Attribute Table
Show item details
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MACHC-Seabed 2030 WebApp
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Geographics | NOAA National Centers for Environmental Information (NCEI), Natio...
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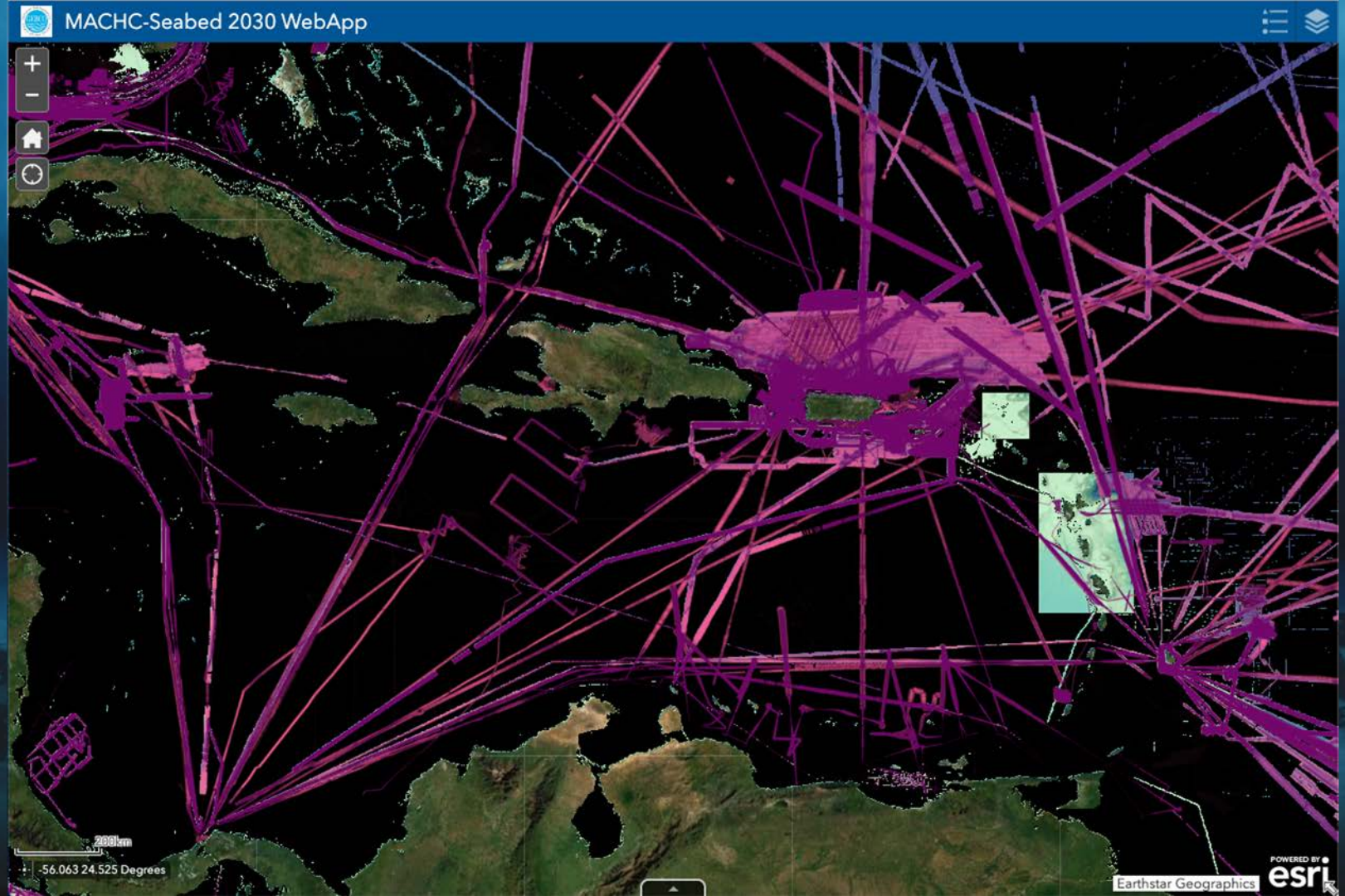
MACHC-Seabed 2030 WebApp
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Earthstar Geographics
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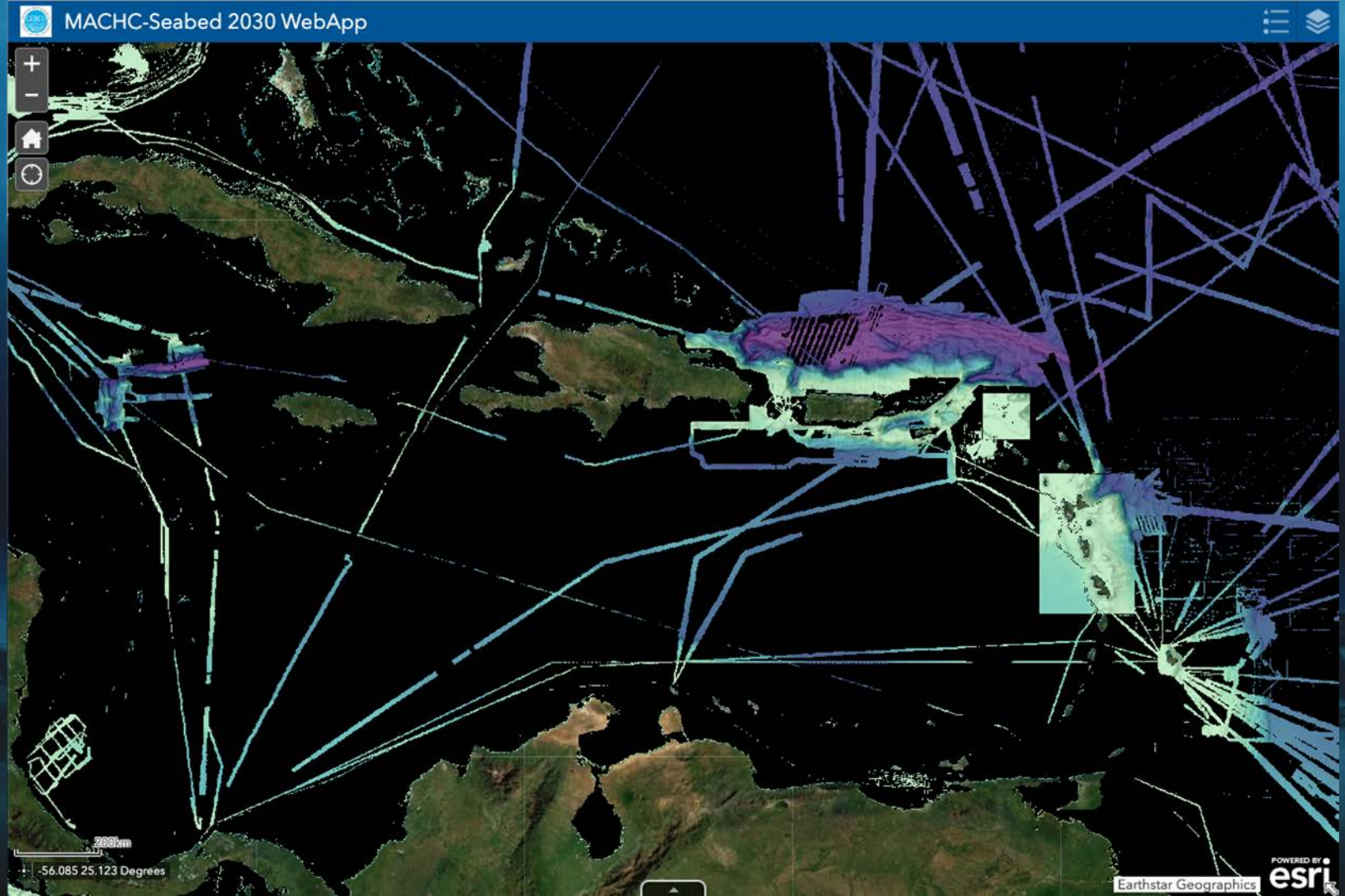
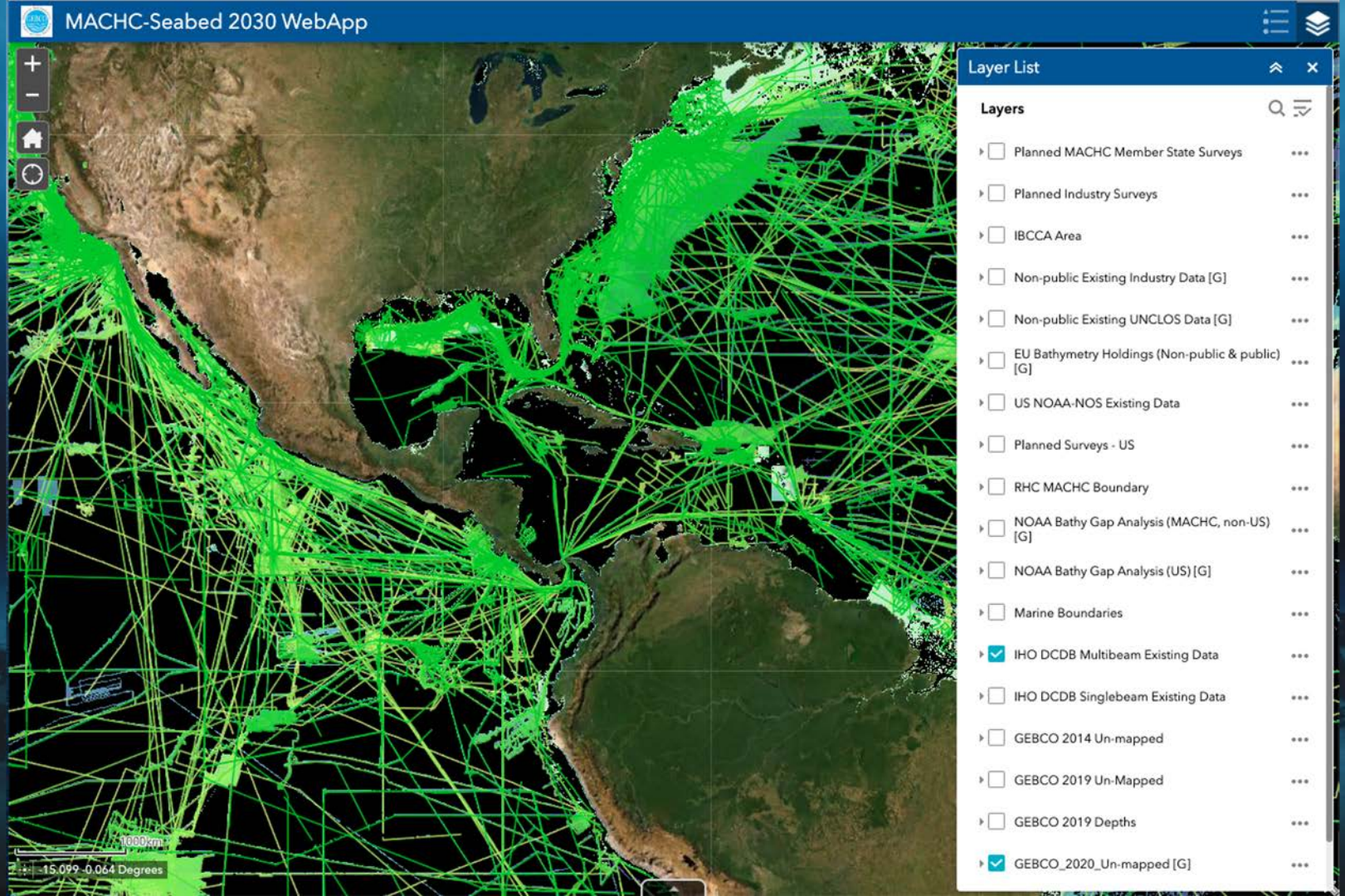

MACHC-Seabed 2030 WebApp
-56.085 25.123 Degrees
Earthstar Geographics
POWERED BY esri

Questions about known basic web app functions and/or data coverage layers?

Layers showing publicly available data at IHO DCDB


MACHC-Seabed 2030 WebApp
Layer List
Layers
Planned MACHC Member State Surveys
Planned Industry Surveys
IBCCA Area
Non-public Existing Industry Data [G]
Non-public Existing UNCLOS Data [G]
EU Bathymetry Holdings (Non-public & public) [G]
US NOAA-NOS Existing Data
Planned Surveys - US
RHC MACHC Boundary
NOAA Bathy Gap Analysis (MACHC, non-US) [G]
NOAA Bathy Gap Analysis (US) [G]
Marine Boundaries
IHO DCDB Multibeam Existing Data
IHO DCDB Singlebeam Existing Data
GEBCO 2014 Un-mapped
GEBCO 2019 Un-Mapped
GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
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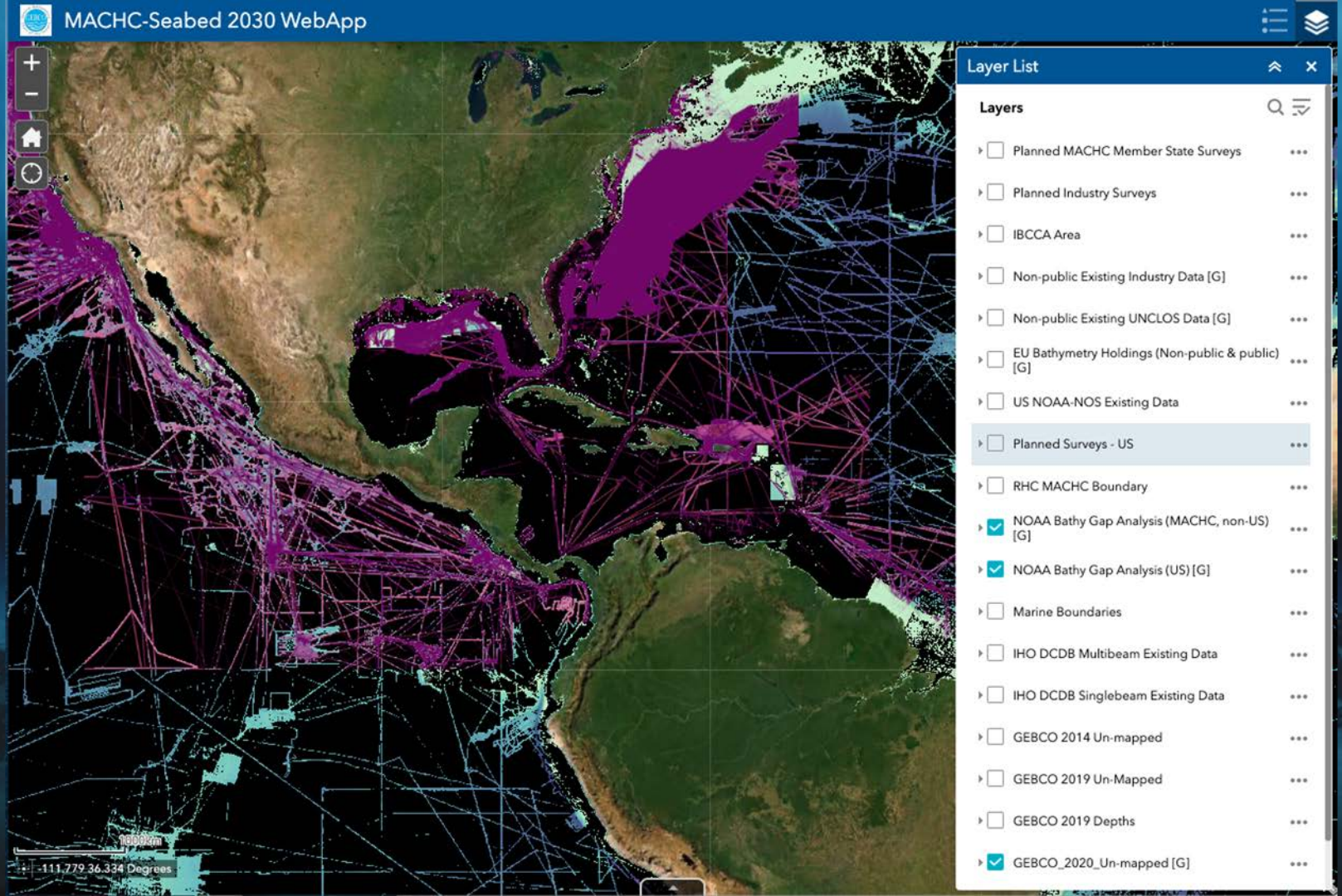
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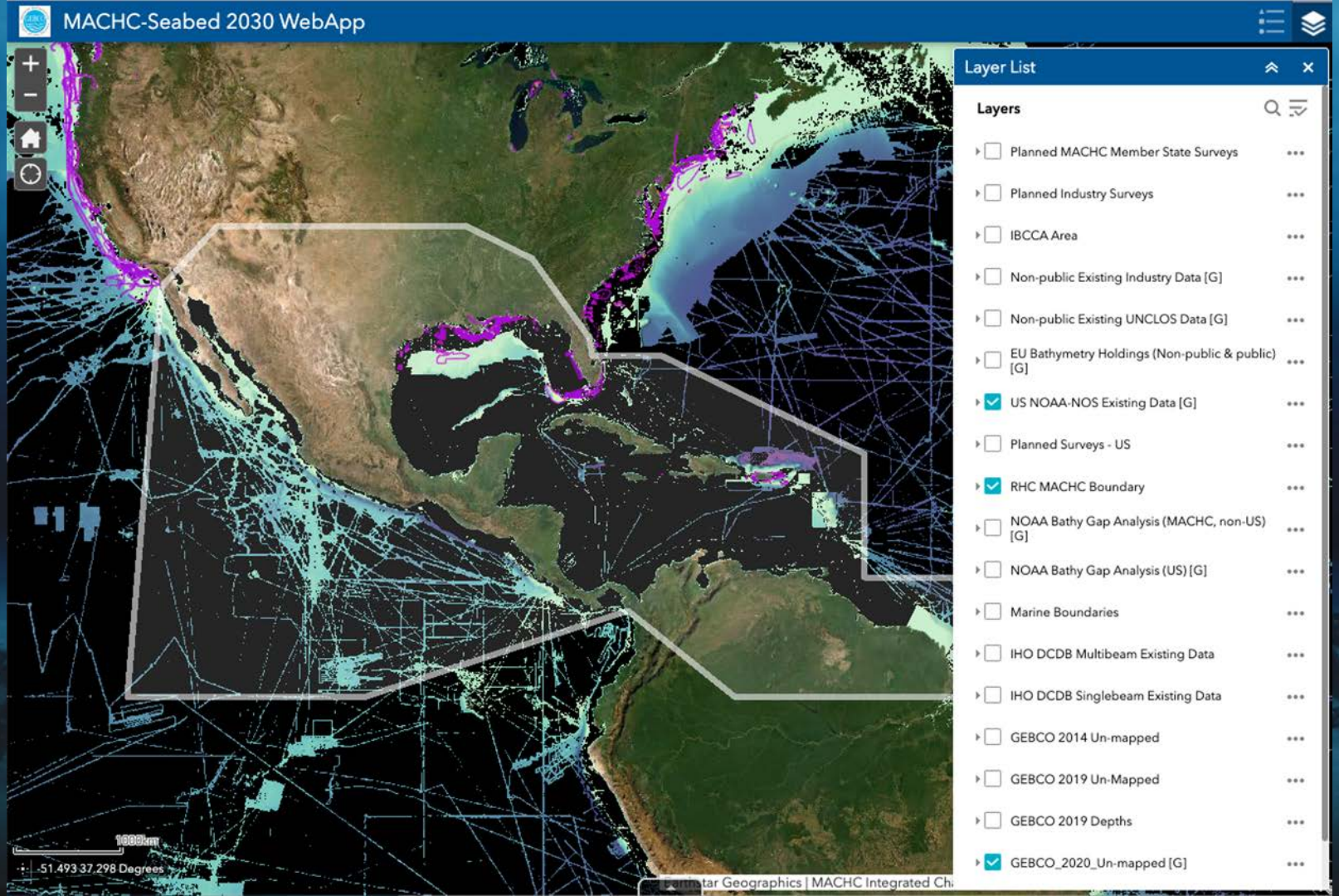
Planned Surveys - US
RHC MACHC Boundary
NOAA Bathy Gap Analysis (MACHC, non-US) [G]
NOAA Bathy Gap Analysis (US) [G]
Marine Boundaries
IHO DCDB Multibeam Existing Data
IHO DCDB Singlebeam Existing Data
GEBCO 2014 Un-mapped
GEBCO 2019 Un-Mapped
GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
-111.779 36.334 Degrees


MACHC-Seabed 2030 WebApp
Layer List
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Planned Industry Surveys
IBCCA Area
Non-public Existing Industry Data [G]
Non-public Existing UNCLOS Data [G]
EU Bathymetry Holdings (Non-public & public) [G]
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IHO DCDB Singlebeam Existing Data
GEBCO 2014 Un-mapped
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GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
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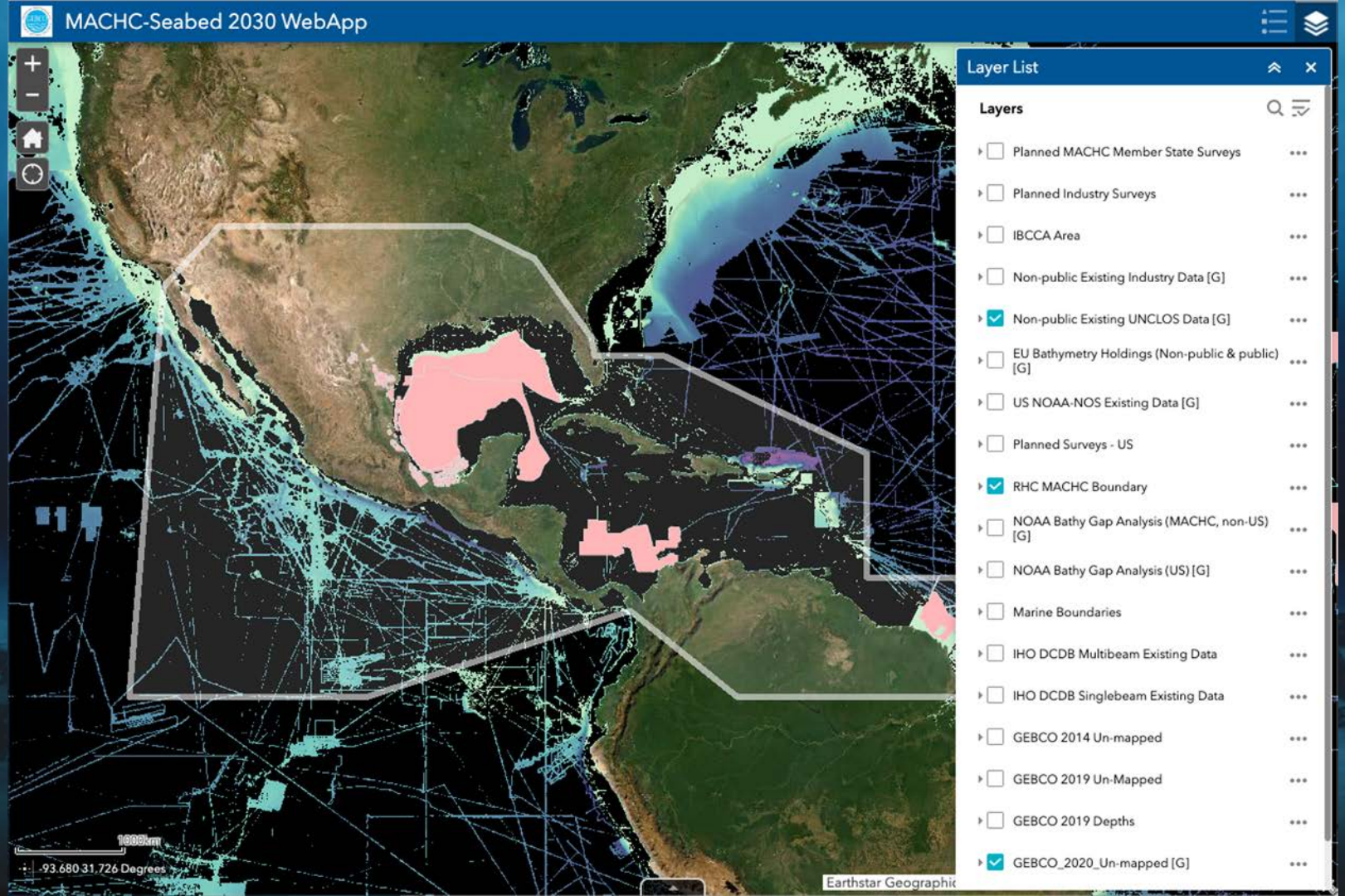
Layers showing the extent of non-public data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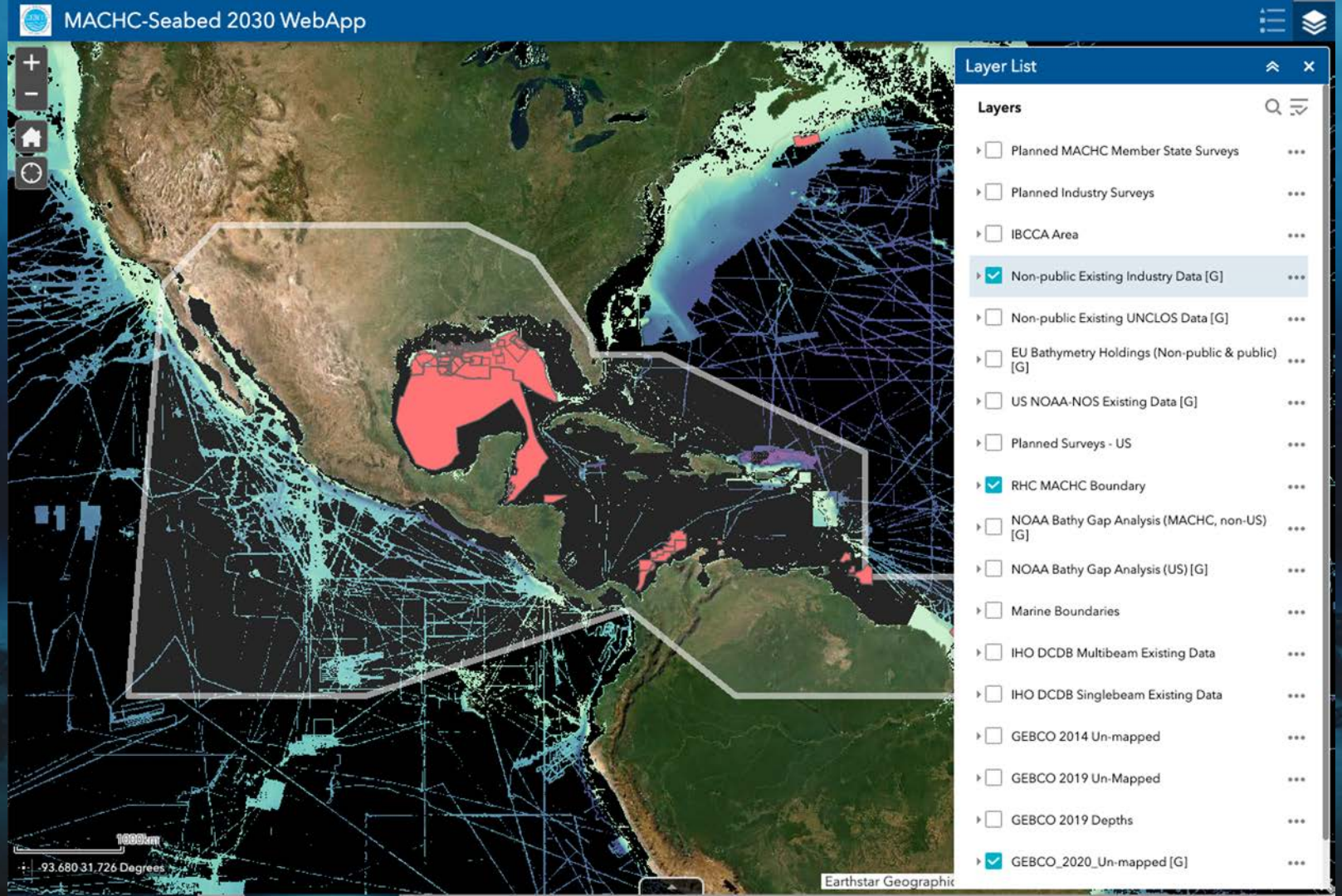
GEBCO 2019 Un-Mapped
GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
-93.680 31.726 Degrees
Earthstar Geographic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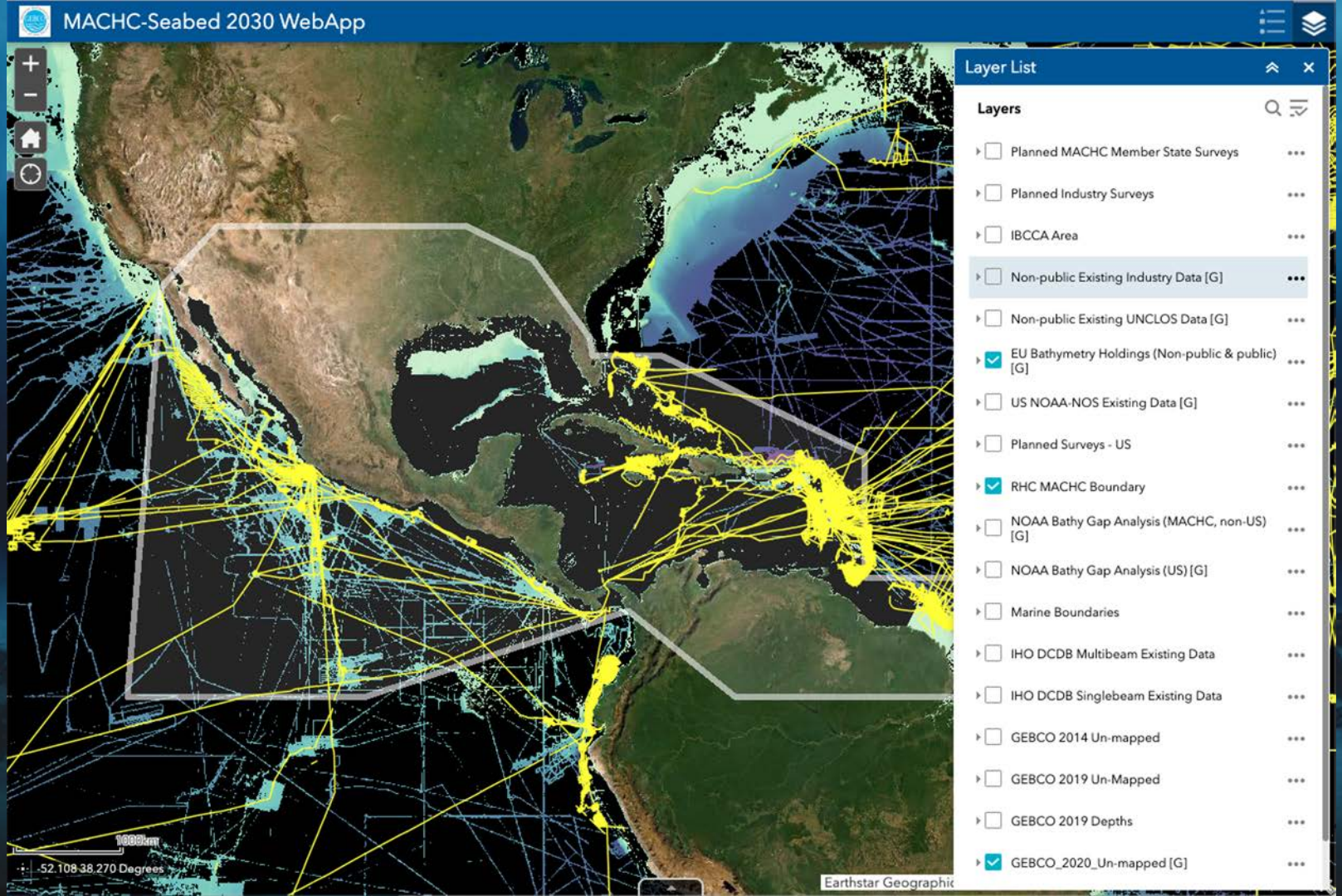
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GEBCO 2014 Un-mapped
GEBCO 2019 Un-Mapped
GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
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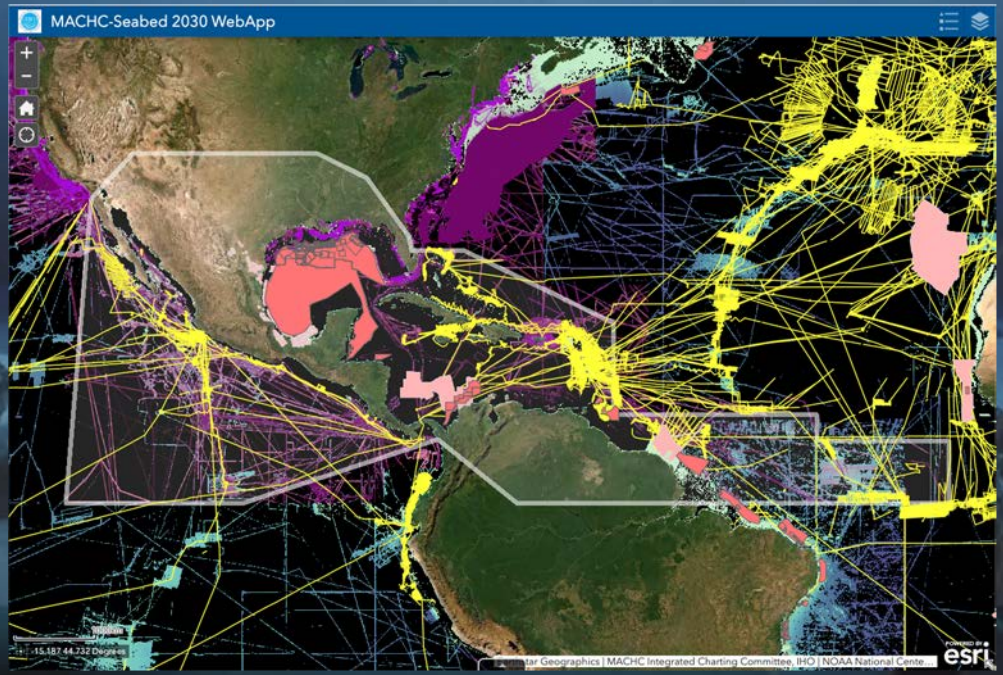
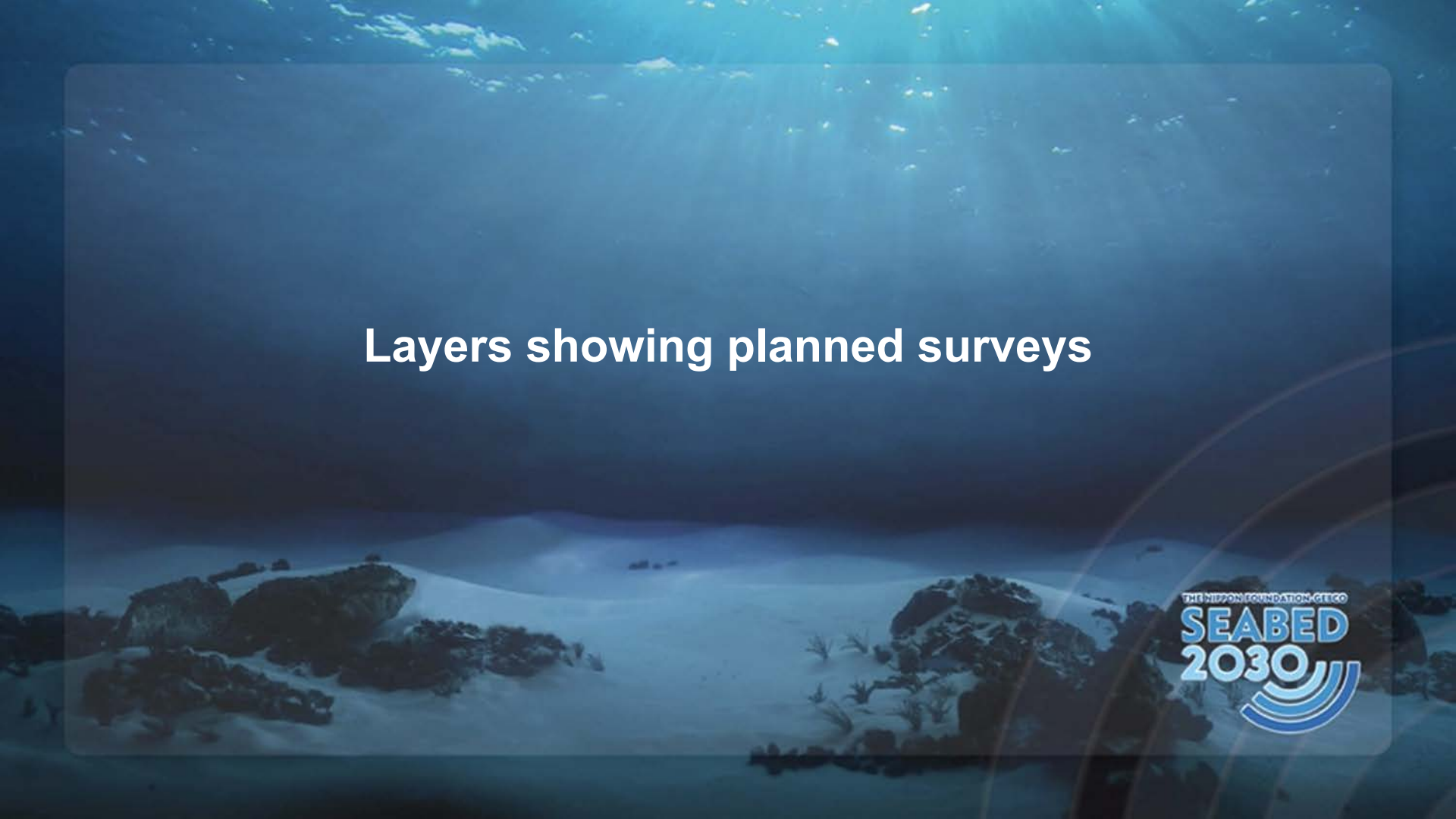
Earthstar Geographic

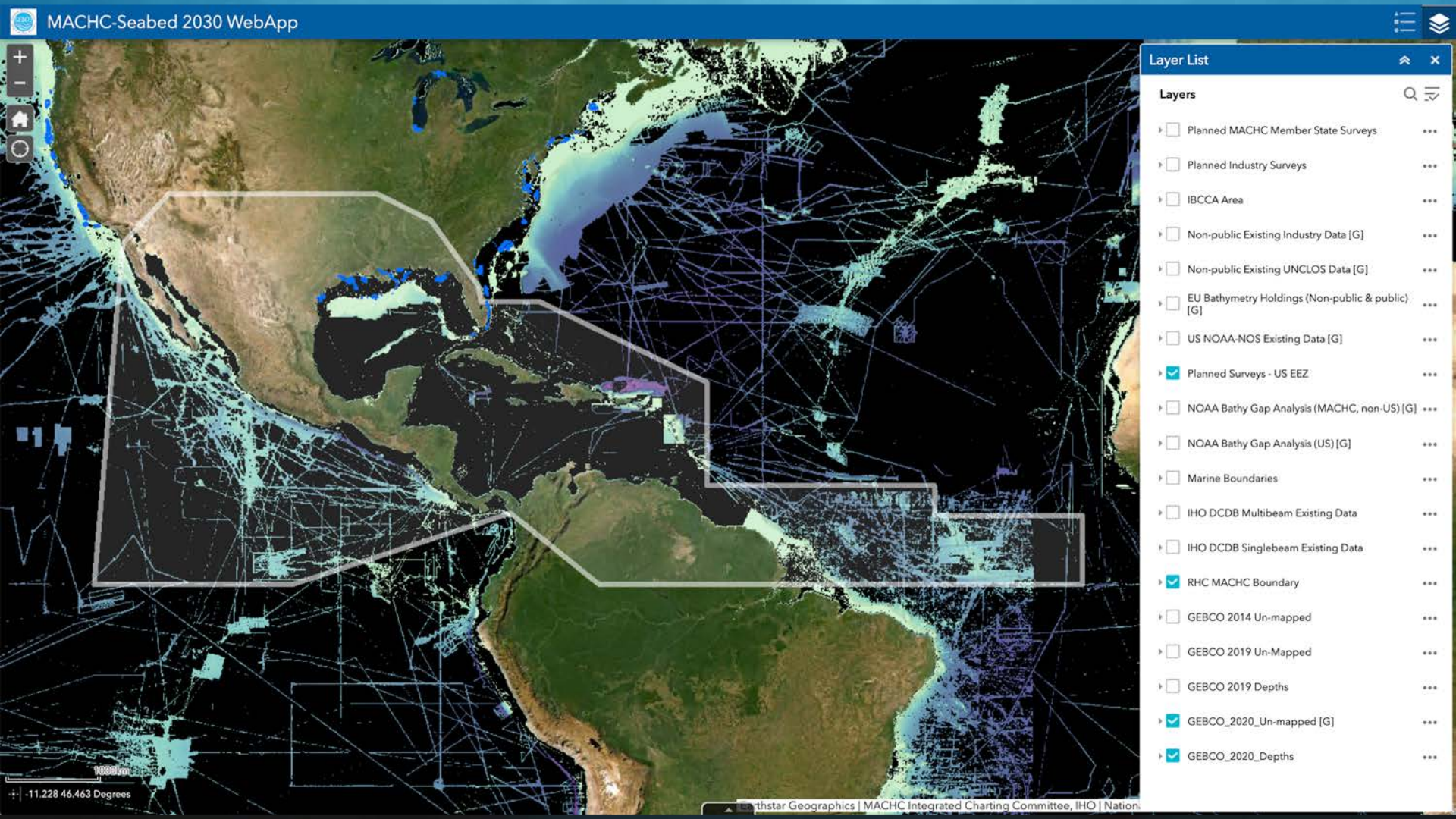
MACHC Region: Summary of known existing data

- Publicly Available Data - actively being integrated into Seabed 2030 regional data products
  - US NOS data
  - Multibeam data at IHO DCDB
- Non-public Data - Strategy needed to gain access to data for GEBCO/Seabed 2030
  - Industry
  - UNCLOS
  - EU Data
- Other??



Layers showing planned surveys

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GEBCO 2019 Depths
GEBCO_2020_Un-mapped [G]
GEBCO_2020_Depths
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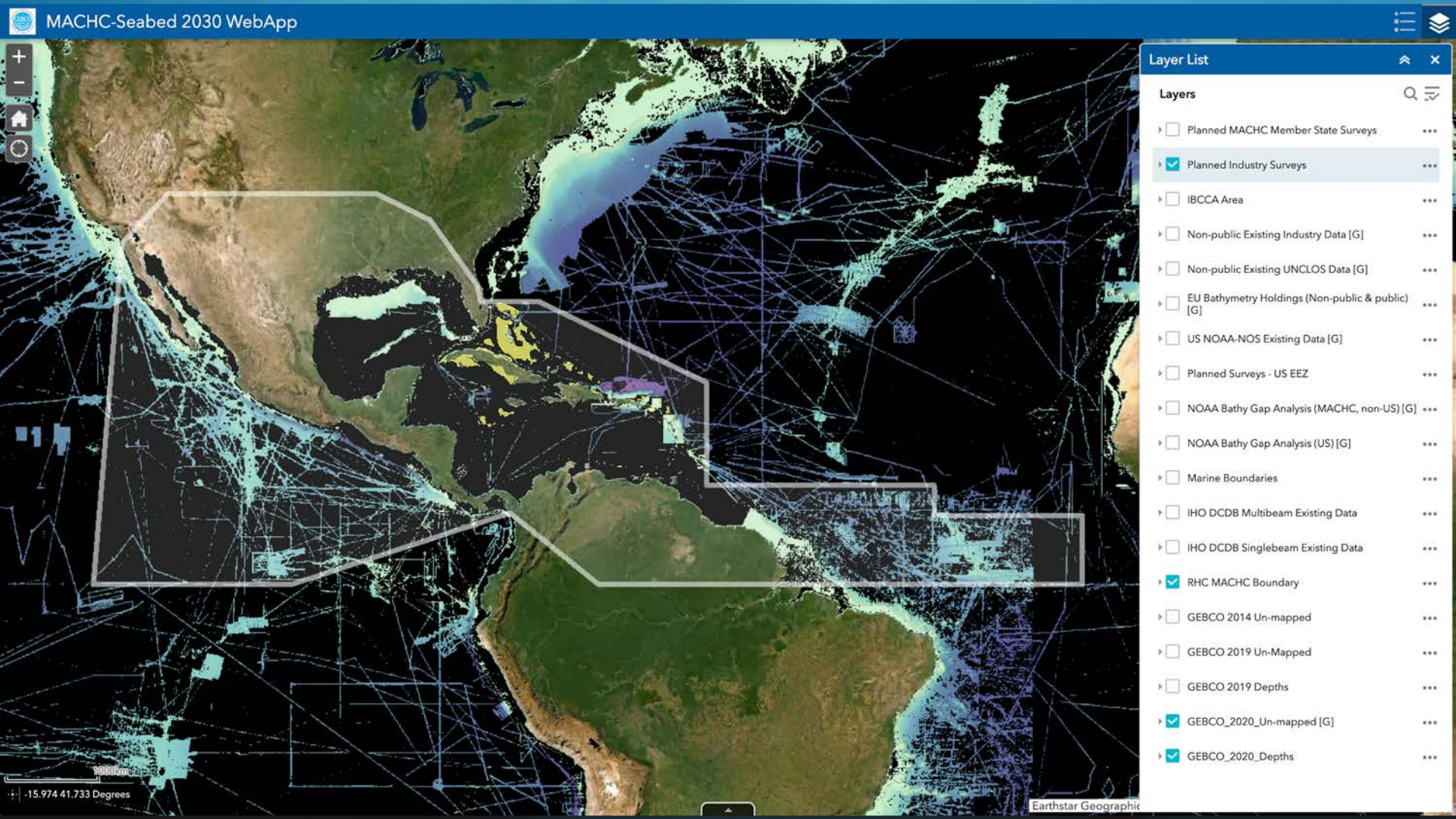
Earthstar Geographics | MACHC Integrated Charting Committee, IHO | Nation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GEBCO_2020_Un-mapped [G]
GEBCO_2020_Depths
1000 mi
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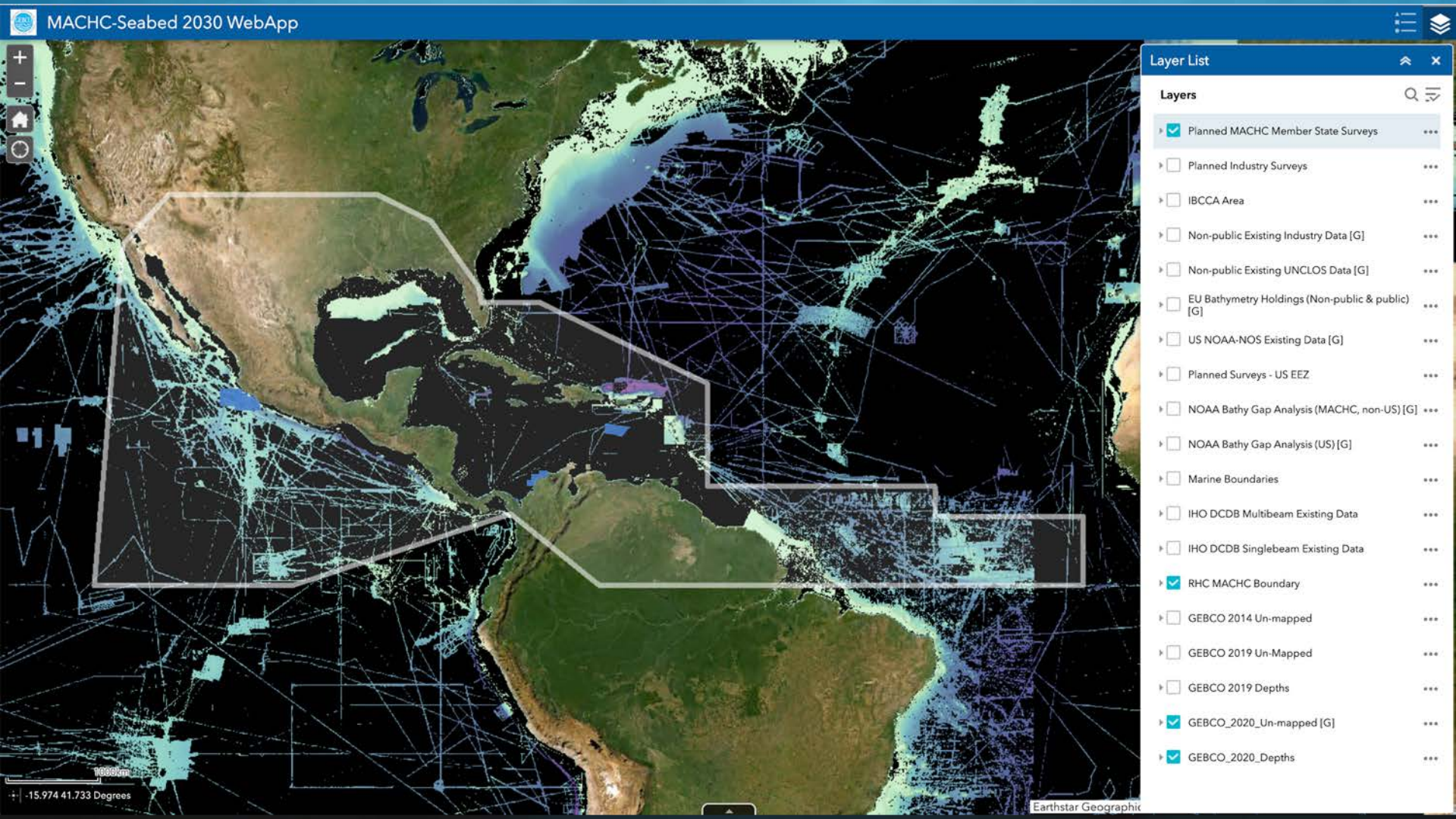
Earthstar Geographic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GEBCO_2020_Depths
1000km
-15.974 41.733 Degrees
Earthstar Geographic

Review of Planned Survey Layers

- US Mapping Plans (within US EEZ)
- Planned Industry Surveys
- Planned MACHC Member State Surveys

Questions and Discussion

Webinar 1: Summary & Conclusions

- Introduction to Seabed 2030
- Review status of mapping in the MACHC region
- Introduction to the IHO Data Center for Digital Bathymetry
- Demonstration of Seabed 2030 MACHC Web App

Next Webinars in this Series

- Webinar 2 - Sept. 25: How do we build the map? How can you contribute data?
- Webinar 3 - Oct. 9: Increasing Data Coverage: Crowdsourced Bathymetry and Data Coverage Polygons
- Webinar 4 - Oct. 23: Moving Ahead Together: Summary, Next Steps and Wrap up.

Homework

- Please explore the MACHC - Seabed 2030 Web App

  http://bit.ly/Seabed2030-MACHC
- Identify and assemble information about existing datasets that are not represented in the Seabed 2030 - MACHC Web App. (e.g. web services, polygons, etc)
- Assemble information about technical challenges that we might be able to help you address.
- Input on strategies for gaining access to non-public data?
- Send questions and correspondence to: **cecilia.cortina@gmail.com**, **cc: percy.pacheco@noaa.gov**

Thank you!

Please join us for Webinar 2 on Sept. 25:
How do we build the map? How can you contribute data?

THE NIPPON FOUNDATION-GEBCO
SEABED 2030