

ditional information can be obtained at [nauticalcharts.noaa.gov](http://nauticalcharts.noaa.gov)

**BADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

**CAUTION**  
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.  
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

navigation and insured vessels, but in uncharted locations.  
Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Floating aids to navigation have been moved from their charted position, extinguished or otherwise made inoperative. It is the navigator's responsibility to verify the position or operation of aids to navigation. Obstructions and submerged obstructions may have been moved from charted locations. Pipelines may have been uncovered or moved.  
Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and obstructions to the nearest United States Coast Guard cutter or buoy tender.

# FY25

# Rear Admiral Richard T. Brennan Ocean Mapping Fund Informational Webinar

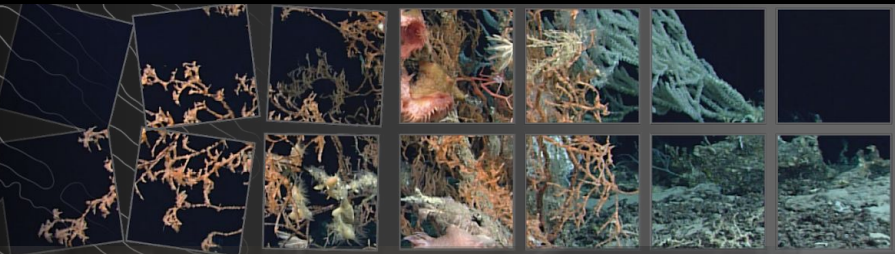


In honor of RDML Richard T. Brennan

*We will start at 1pm E.T.*  
Ashley Chappell  
NOAA Integrated Ocean and Coastal Mapping

Christy Fandel  
Chief, Operations Branch, Hydrographic Surveys Division

# Seminar Logistics



- ❑ We encourage you to share input and feedback using the webinar and email:
  - ❑ We will be recording; attendees or their likeness will not be posted
  - ❑ Use “Questions” function to write your questions.
  - ❑ When submitting a question, please let us know if you would like to speak and we will unmute you. We will hold questions for the Q&A portion.
  - ❑ You can email us at [iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov) for any follow-up questions.
  - ❑ If you are having technical difficulties, please contact Amber Butler at [amber.butler@noaa.gov](mailto:amber.butler@noaa.gov).



**RADAR REFLECTORS**  
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

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Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved.

Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

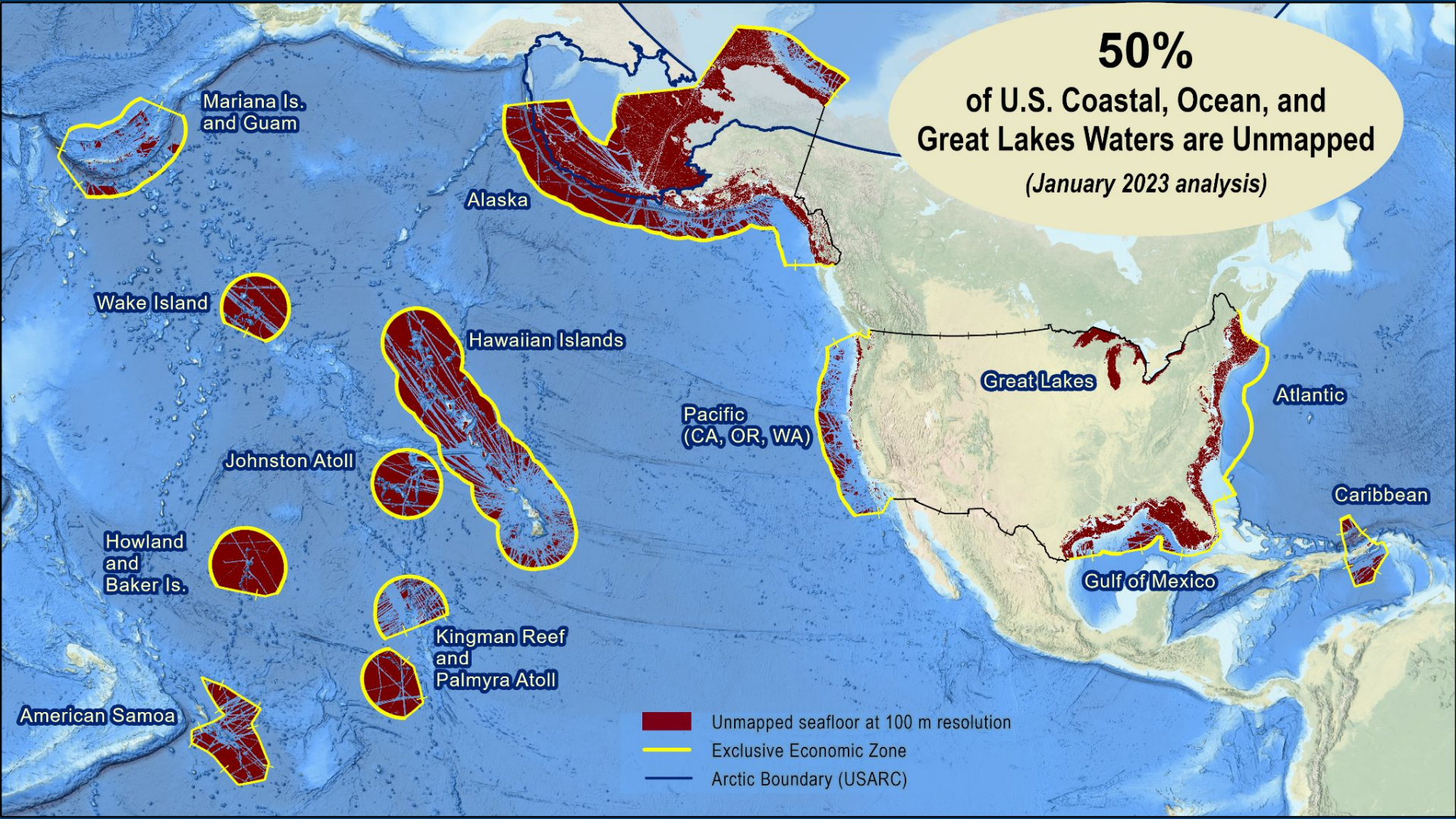
**MAGNETIC VARIATION**  
Magnetic variation curves are for 2015 derived from 2015 World Magnetic Model and incorporating secular change. It is assumed that the variation is increasing. If actual change is opposite in direction to variation it is subtractive and the variation is decreasing.

# Rear Admiral Richard T. Brennan





**50%**  
of U.S. Coastal, Ocean, and  
Great Lakes Waters are Unmapped  
(January 2023 analysis)

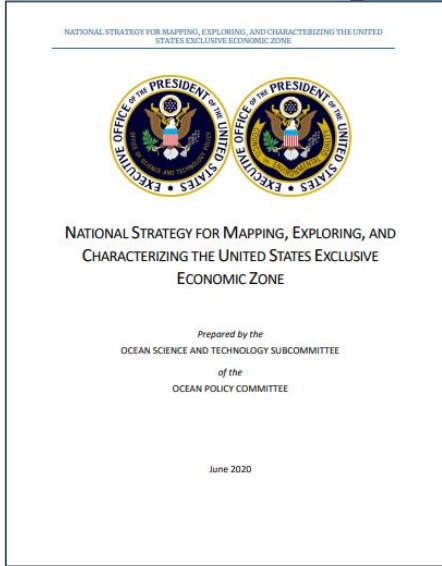




# Map Once, Use Many Times



MAPPING THE COAST OF ALASKA  
*A 10-Year Strategy in Support of the United States Economy, Security, and Environment*



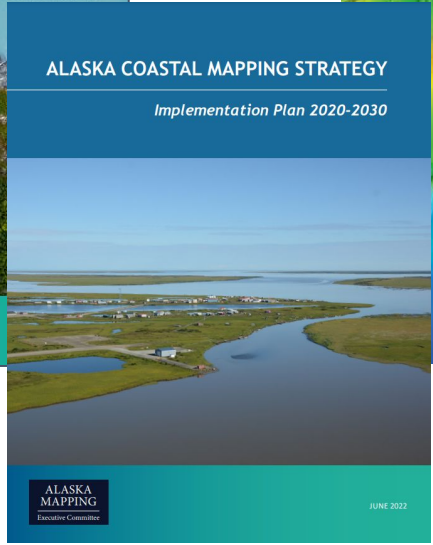
NATIONAL STRATEGY FOR MAPPING, EXPLORING, AND CHARACTERIZING THE UNITED STATES EXCLUSIVE ECONOMIC ZONE



NATIONAL STRATEGY FOR MAPPING, EXPLORING, AND CHARACTERIZING THE UNITED STATES EXCLUSIVE ECONOMIC ZONE

Prepared by the  
OCEAN SCIENCE AND TECHNOLOGY SUBCOMMITTEE  
of the  
OCEAN POLICY COMMITTEE

June 2020



ALASKA COASTAL MAPPING STRATEGY  
*Implementation Plan 2020-2030*



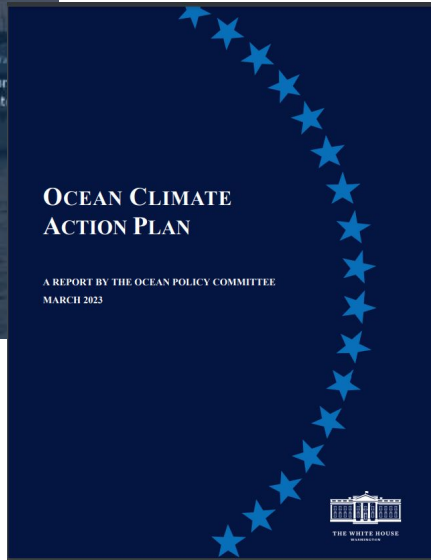
ALASKA MAPPING  
Executive Committee

JUNE 2022



Mapping U.S. Marine and Great Lakes Waters  
Office of Coast Survey Contribution  
to a National Ocean Mapping Strategy

July 2020



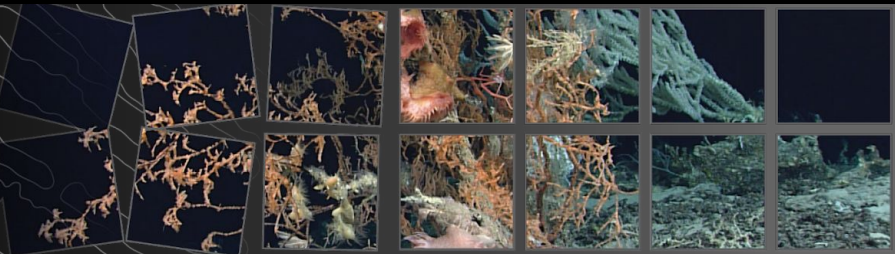
OCEAN CLIMATE ACTION PLAN

A REPORT BY THE OCEAN POLICY COMMITTEE  
MARCH 2023



<https://iocm.noaa.gov/about/strategic-plans.html>

# Matching Fund in Brief



## GOALS

- ❑ Leverage NOAA and non-Federal partner funds to acquire more ocean and coastal mapping data collected by qualified contract surveyors during FY 2025
- ❑ Increase hydrographic surveying and coastal mapping to support:
  - ❑ Safer navigation
  - ❑ Hazard mitigation for coastal resilience
  - ❑ Preservation of marine habitats and heritage
  - ❑ Coastal and ocean science
  - ❑ Deeper understanding of natural resources for sustainable ocean economies
  - ❑ **MANY** other activities

# What's New for FY25?



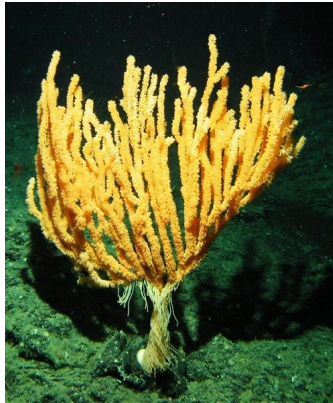
- ❑ Updated strategy area of focus
  - ❑ #3 Expand coastal mapping to inform science-based decision-making capabilities
- ❑ 50% of U.S. waters are considered unmapped

NOAA ships Fairweather and Rainier, photo by NOAA



# Areas of Focus

For this opportunity, proposals will be considered that are aligned with national priorities for climate and infrastructure, and the goals of the NOMECS, ACMS, and the Coast Survey Ocean Mapping Plan



- A. Map the United States Exclusive Economic Zone (EEZ)**
- B. Expand Alaska Coastal Data Collection to Deliver the Priority Geospatial Products Stakeholders Require**
- C. Expand coastal mapping to inform science-based decision-making capabilities**



# Tools to Use



## NOAA National Bathymetric Source Data

[bathymetry](#) [earth observation](#) [marine navigation](#) [model](#) [oceans](#) [oceans](#)

### Description

The National Bathymetric Source (NBS) project creates and maintains high-resolution bathymetry composed of the best available data. This project enables the creation of next-generation nautical charts while also providing support for modeling, industry, science, regulation, and public curiosity. Primary sources of bathymetry include NOAA and U.S. Army Corps of Engineers hydrographic surveys and topographic bathymetry (topo-bathy) lidar (light detection and ranging) data. Data submitted through the NOAA Office of Coast Survey's external source data process are also included, with gaps in deep water filled through Global Multi-Resolution Topography, a merged model of bathymetry. Different vertical datums and file formats are made available to meet various uses. The BlueTopo folder includes multilayer floating point GeoTIFFs with associated Raster Attribute Tables (RAT) containing elevation, vertical uncertainty, with other quality metrics and source information. These files are arranged in a tiling, naming, and resolution scheme corresponding to the Electronic Navigational Chart (ENC) but are not for navigation due to the inclusion of additional non-navigation data and non-navigation vertical datums. For navigational datasets please see the S-102 distribution portal. In the future "nowCOAST" will provide to the public web mapping services for the BlueTopo products.

### Resources on AWS

**Description**  
NOAA National Bathymetric Source Data

**Resource type**  
S3 Bucket

**Amazon Resource Name (ARN)**  
`arn:aws:s3:::noaa-ocs-nationalbathymetry-pds`

**AWS Region**  
`us-east-1`

**AWS CLI Access (No AWS account required)**  
`aws s3 ls --no-sign-request s3://noaa-ocs-nationalbathymetry-pds/`

**Explore**  
[Browse Bucket](#)



## HYDROGRAPHIC SURVEYS SPECIFICATIONS AND DELIVERABLES

May 2020

**S-44 Edition 6.0.0**

International Hydrographic Organization  
Standards for Hydrographic Surveys

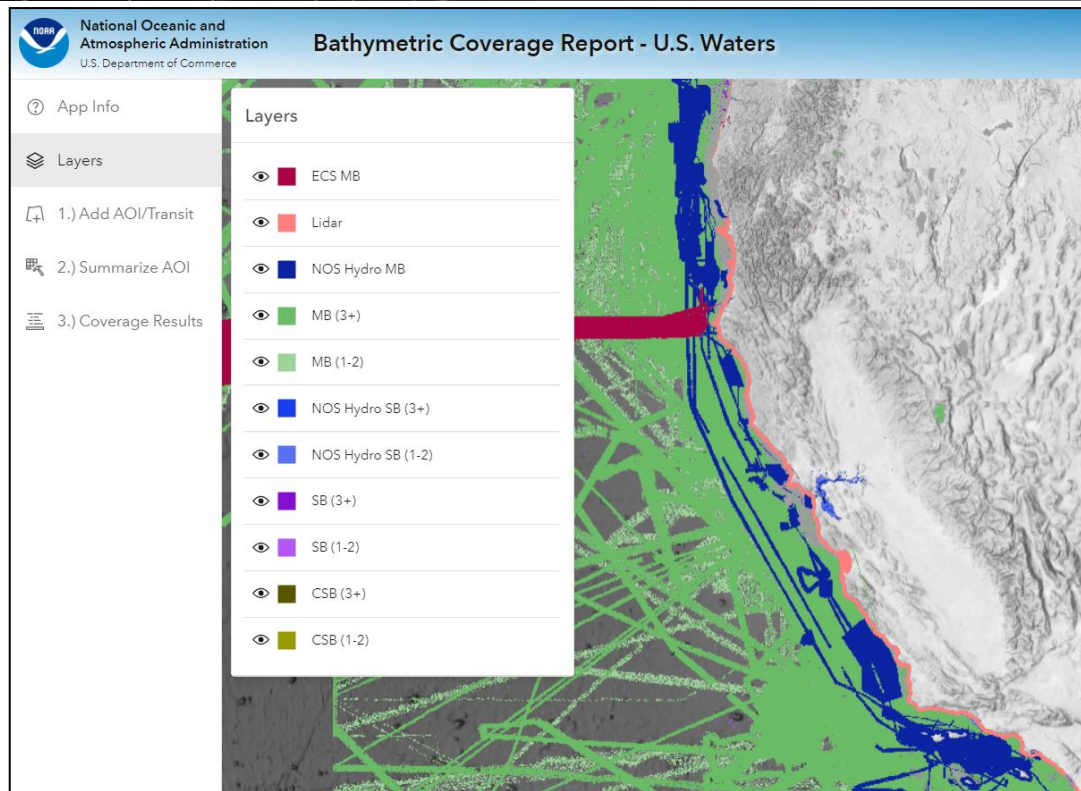
**IHO**

Published by the  
International Hydrographic Organization  
40, Quai d'Albion 1<sup>er</sup>  
F-93200 La Plaine  
Tel: (33) 1 55 15 81 00  
Fax: (33) 1 55 15 81 40  
info@iho.int  
www.iho.int

**Mapping Data Acquisition  
Cost Estimation Sheet**  
Email [iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov)

# Tools to Use: Bathymetry Coverage Report Tool

- Bathymetry Coverage Report Tool
- Use to assess your area or transit against bathymetry gaps
- Quantify your potential contributions in sq. nautical miles
- Download GeoTiff exports
- Export PDF report
- <https://gis.charttools.noaa.gov/bathymetry-coverage-report/>





# Eligibility

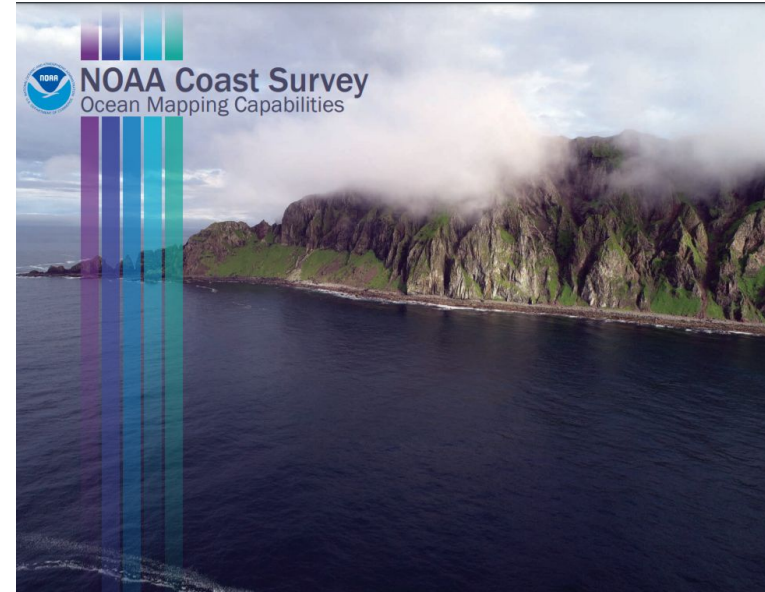
- ❑ Non-Federal entities. Examples:
  - ❑ State/local governments
  - ❑ Tribal entities
  - ❑ Universities/academia
  - ❑ Private sector
  - ❑ NGOs/philanthropic orgs
  - ❑ Coalitions of non-federal entities
  
- ❑ Qualifying proposals must demonstrate the ability to provide at least **30%** matching funds, for transfer to NOAA by **September 2024** via memorandum of agreement



Big Sur coastline, photo by NOAA

# What NOAA Brings

- ❑ Hydrographic surveying and shoreline mapping expertise
- ❑ **70%** match
- ❑ 33 U.S.C. 883e authority to receive funds
- ❑ Value-added contract management and oversight
- ❑ Survey compliance
- ❑ Survey/control and correction/calibration services
- ❑ Data processing, quality assessment and review of all acquired hydrographic data
- ❑ Data management and stewardship from ping to hi-res products to archive at NOAA National Centers for Environmental Information



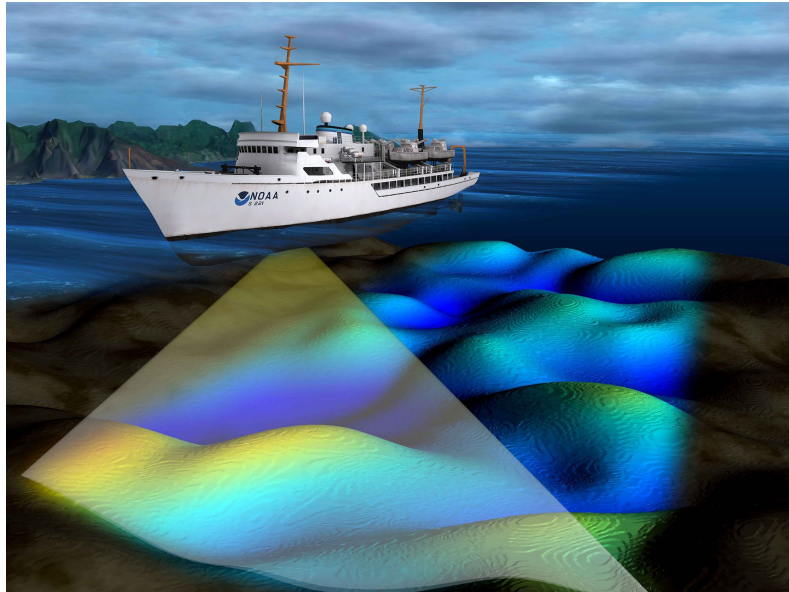
<https://nauticalcharts.noaa.gov/about/docs/about/ocean-mapping-capabilities.pdf>



# Products



Potential products include, but not limited to:



- ❑ Bathymetric data (multibeam, single beam, lidar)
- ❑ Backscatter
- ❑ Water column (depth dependent)
- ❑ Side scan sonar imagery
- ❑ Feature detection reports
- ❑ Sensor/data corrections and calibrations (e.g., conductivity, temperature and depth casts)
- ❑ Survey and control services, including the installation, operation, and removal of water level and Global Positioning System stations
- ❑ Data processing, quality assessment and review of all acquired hydrographic data
- ❑ Data management and stewardship through data archive at the National Centers for Environmental Information
- ❑ High-resolution topographic/bathymetric product generation

# How Mapping is Executed



## Geospatial Contract Vehicles

A number of federal agencies have geospatial contract vehicles that are available for use by other agencies and partners. A Memorandum of Agreement must be signed detailing the partnership but once that is accomplished, the partner benefits from the expertise these agencies have in managing and acquiring ocean and coastal mapping data with the private sector.

**Hydrographic Surveying Services:** NOAA's Coast Survey manages this contract vehicle for hydrographic data, including multibeam sounding data, side scan sonar, acoustic backscatter, lidar, processing of the data, quality control and resulting products.

**Shoreline Mapping Support Services:** NOAA's National Geodetic Survey manages this contract for remote sensing, digital shoreline mapping, surveying, and associated tasks. Services include planning; collecting remotely sensed data from ground, aircraft, and/or satellite based sensors; conducting ground geodetic surveys; determining tidal datums; and digital map compilation.



# Funding Availability & Project Period

Year 1: Coast Survey and the National Geodetic Survey anticipate funding up to five survey projects at a 70% match of up to \$1 million per project. All projects are expected to have an FY2025 project start date and all non-Federal partner matching funds must be received by NOAA in September 2024. NOAA intends to complete each selected project within two (2) years.

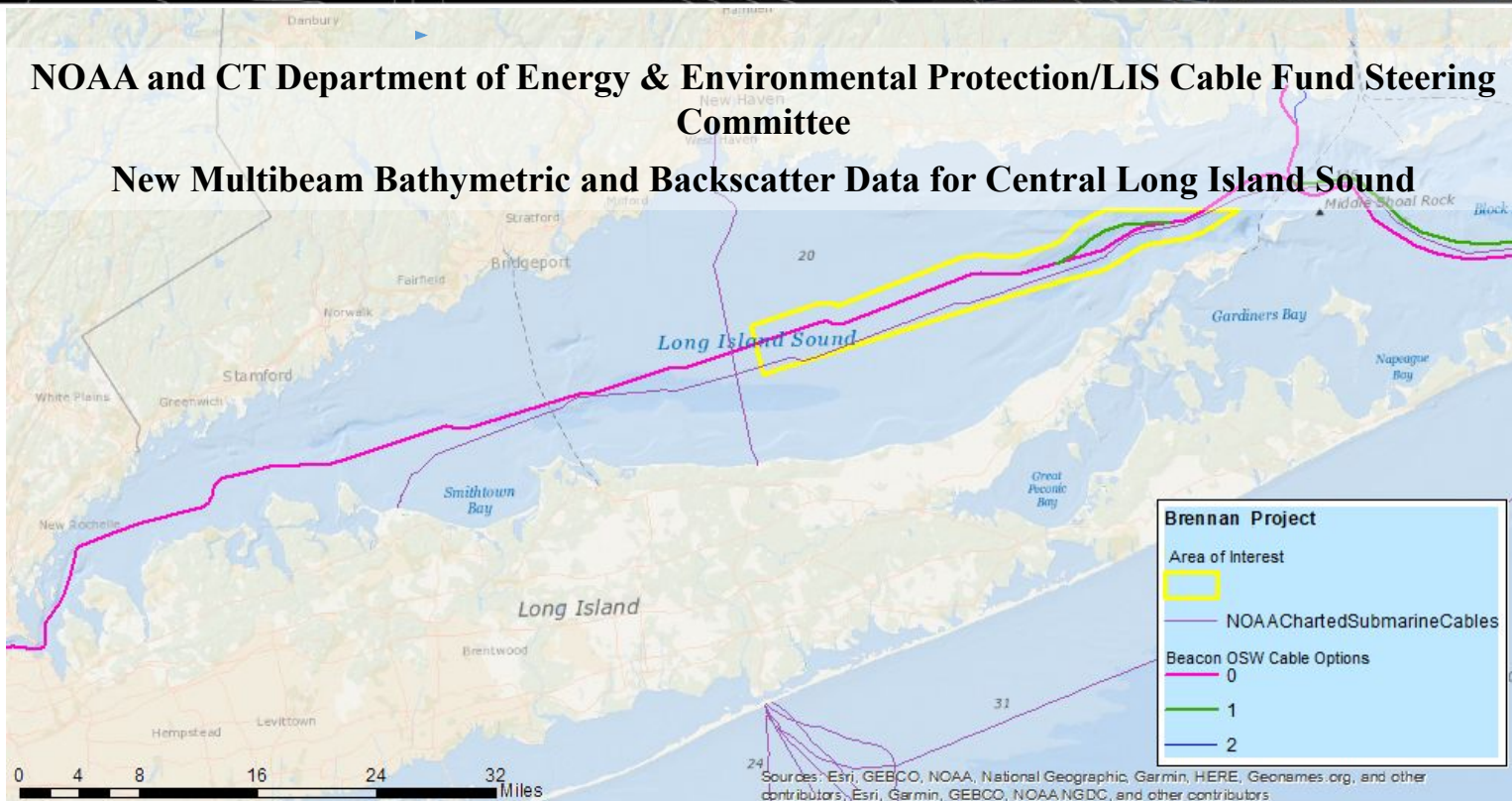


# Success from FY24



## NOAA and CT Department of Energy & Environmental Protection/LIS Cable Fund Steering Committee

### New Multibeam Bathymetric and Backscatter Data for Central Long Island Sound



**DeAva K. Lambert**  
LISCF Project Manager







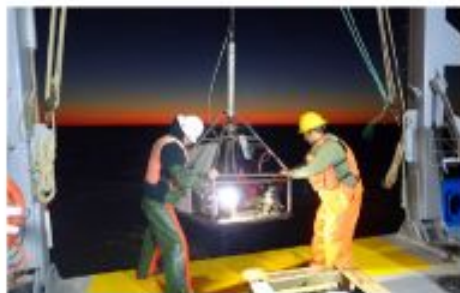
## The Long Island Sound Seafloor Habitat Mapping Initiative

View the photo gallery to find out about the work being done as part of the Seafloor Mapping Initiative.

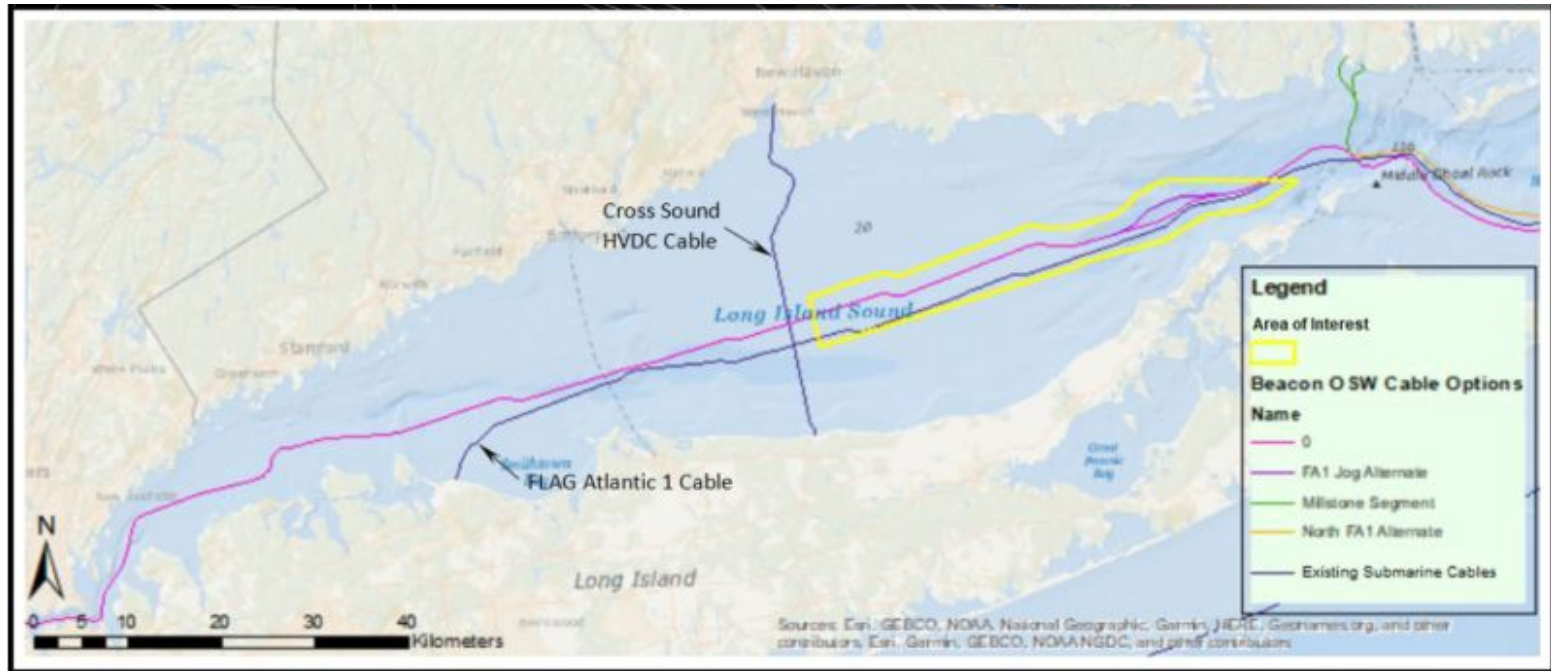
The screenshot shows the website's navigation menu with options like Home, Overview, Phase 1, Phase 2, Story Maps, Technologies, Multimedia, Products, and Technical Links. The 'Products' section is highlighted, listing various data products, publications, and technical reports available for download.

The maps and other research products developed from the research cruises are available on a new [website](#) for the Long Island Sound Habitat Mapping Initiative. There are also multimedia products for non-scientists to understand and appreciate what's below the surface of the Sound. See the rest of this gallery for examples.

To learn more about the Long Island Sound Seafloor Habitat Mapping Initiative go to [Habitat Mapping](#) page on the the University of Connecticut [website](#).

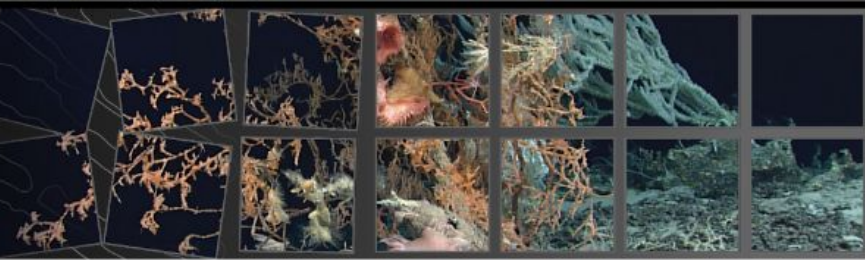


# Success from FY24





# Success from FY24



FY2022 & FY2023  
Letters of Interest  
submitted



FY2024  
Full proposal  
submitted

# Success from FY24



## Long Island Sound Cable Fund FY2024 NOAA Brennan Matching Fund Proposal

### 1. Proposal

**Title:** New Multibeam Bathymetric and Backscatter Data for Central Long Island Sound  
**Executive Summary:** The New York State Energy Research Development Authority (NYSERDA) is currently conducting an offshore wind (OSW) cable corridor constraints assessment (Assessment) to better understand the constraints of siting cables in New York State waters, including within Long Island Sound. The area of central Long Island Sound between Orient Point and Sound Beach, NY is included in the evaluation as a corridor for potential electric and distribution infrastructure. The last hydrographic surveys conducted by NOAA in this particular area occurred between 10 and 18 years ago. However, the Assessment requires current high-resolution data to help identify if existing geologic and benthic characteristics in this area may present constraints to installing electric transmission cables, as well as to support examinations of potential routing alternatives. The Steering Committee for the Long Island Sound Research and Restoration Fund, or Long Island Sound Cable Fund (LISCF), proposes that NOAA conduct a new hydrographic survey within this area to provide full coverage high-resolution bathymetry and backscatter data, improving on the benthic data available for Long Island Sound to support future decision-making and policy development for marine spatial planning, consistent with NOAA missions and priorities for hydrographic surveys.

**Project Partners:** LISCF Steering Committee

**Project Lead:** DeAva Lambert, LISCF Project Manager, Lead Environmental Analyst, Land & Water Resources Division (LWRD), CT Department of Energy and Environmental Protection (CT DEEP)

The role of the Steering Committee members is to review and approve the proposal elements and approve distribution of funds for the proposal.

**Committee Chair:** Mark Tedesco, Director, Long Island Sound Office – U.S. EPA

**Committee Members:**

LWRD, CT DEEP

Brian Thompson, Director

Kevin O'Brien, Supervising Environmental Analyst, Technical Resources Section

NY State Department of Environmental Conservation, Division of Marine Resources

Dawn McReynolds, Assistant Director

Cassandra Bauer, Estuary Management Unit Leader

Victoria O'Neill, Long Island Sound Study Habitat Restoration and Stewardship

Coordinator

NY Department of State, Office of Planning, Development & Community Infrastructure:

Jeff Herter, Coastal Resources Specialist, Geographic Information Gateway Project

Manager

CT Sea Grant – Sylvain DeGuisie, Director

NY Sea Grant – Rebecca Shauford, Director

### Proposed Survey Area:

Two options for NOAA to acquire full coverage high-resolution bathymetry and backscatter data within the Central LIS area of interest are proposed. These survey options are based on their location relative to existing cables and potential cable route options for OSW projects for New York, Rhode Island, and Massachusetts, including those under consideration for the Beacon OSW Project being evaluated in the NYSERDA Assessment, occurring between the LISCF Phase I and II Mapping Areas, which were surveyed in 2014 and 2017, respectively (Figure 4). These options have been delineated based on the LISCF Steering Committee's ability to provide \$300,000 (30% of \$1,000,000) for the proposed acoustic data acquisition and applying the FY24 Brennan Matching Fund Mapping Data Acquisition Cost Estimation for Ocean and Coastal Acoustic Data Acquisition, which presents a low to high range cost estimation based on depths above and below 40 m (Section 3).

### Strategic Relevance:

Full coverage high-resolution hydrographic mapping of the proposed survey area aligns with the Coast Survey Ocean Mapping Plan to map the full extent of waters subject to U.S. jurisdiction to modern standards and meets the Coast Survey goal to provide more precise depths with the delivery of corresponding environmental information to support the most informed decision-making. The proposed mapping also aligns with the goal to increase hydrographic surveying and coastal mapping to support coastal and ocean science to gain deeper understanding of natural resources for sustainable ocean economies while preserving marine habitats and heritage sites. Furthermore, this proposal aligns with the National Strategy for Mapping, Exploring, and Characterizing the U.S. Exclusive Economic Zone (EEZ) objective to promote the efficient, effective, and comprehensive mapping of the United States EEZ and would contribute to the Ocean and Coastal Mapping (OCM) milestone to design, execute, and track multi-year regional mapping OCM campaign plans.

This proposal is also consistent with national priorities on climate and infrastructure, including the Biden Administration's announced goal of developing 30 gigawatts of offshore wind resources by 2030. Both New York and Connecticut have contracted for significant quantities of offshore wind and development, for which an approved cable corridor is a critical step in effective and safely landfalling the desired resources. Properly planned, high-voltage, direct current (HVDC) cables placed in close proximity to each other within a single corridor can substantially reduce benthic impacts. Therefore, a full and thorough survey is essential for selecting the most appropriate location.

Given that the data is needed to support the NYSERDA OSW Cable Corridor Constraints Assessment currently underway and for environmental studies required for the Beacon Wind Project, the degree of flexibility on timing of the survey effort is limited to completing the proposed work in FY2024.

### 2. Justification

#### Statement of Need:

The Long Island Sound Research and Restoration Fund is the result of a six-million-dollar settlement agreement between Connecticut and New York with three utility companies in response to multiple occurrences of non-compliance involving electric transmission cables crossing the Sound. To manage the research and restoration efforts, the LISCF Steering Committee was formed, consisting of representatives from Connecticut DEEP, US EPA Regions 1 & 2 through the Long Island Sound Study, the New York Department of Environmental Conservation and Department of State, and both Connecticut and New York Sea Grant offices. The goal of LISCF emphasizes benthic mapping as a priority need for improved scientific understanding of potential energy infrastructure effects and mitigation of their impacts under the LIS Seafloor Habitat Mapping Initiative in order to promote improved management decisions and support new projects for the enhancement of Long Island Sound (LIS).

The LIS Seafloor Habitat Mapping Initiative has utilized collaborative partners, including the National Oceanic and Atmospheric Administration Biogeography Branch and Office of Coast Survey and two regional academic consortiums led by the University of Connecticut and Columbia University's Lamont Doherty Earth Observatory, to comprehensively map the topography and surficial geology of the seafloor in LIS to help increase the understanding of seafloor habitats. The Initiative has embarked on multiple mapping efforts to collect a variety of data including acoustic (bathymetry and backscatter), sediment grain size and environments, physical characteristics (bottom stress, temperature, salinity) and ecological (infaunal and epifaunal) characteristics. To date, benthic mapping of two high priority areas within LIS (Phases I & II) has been completed, and mapping of a third area is underway (Phase III, Figure 1). The Initiative has also been able to leverage funds from LISCF with funding from the Long Island Sound Study National Estuary Program to pursue benthic mapping of an additional area in the central LIS basin (Phase IV, Figure 1). The LISCF Steering Committee seeks to further leverage the remaining funds from other funding opportunities in order to further expand benthic mapping in areas of LIS that possess ecological value, multiple use conflicts, and the potential for further development, including transmission cable infrastructure for offshore wind projects being developed adjacent to LIS, for which full coverage surveys with current high-resolution multibeam data are not available.

NOAA last surveyed the areas of central Long Island Sound between 2004 and 2013 (Figure 2). Since that time, multibeam echosounder technology has advanced significantly allowing for improved high-resolution acoustic data collection, especially for acoustic intensity (backscatter). Updated full coverage, bathymetry and backscatter data collected using advanced

high-resolution multibeam sonar systems would support future seafloor habitat studies, decision-making, and policy development by improving the benthic data available for this area, which is included in an evaluation for potential electric and distribution infrastructure corridors under the NYSERDA OSW Cable Corridor Constraints Assessment (Figure 3). Up-to-date high-resolution bathymetry and backscatter data for this area would help identify benthic characteristics potentially affecting the feasibility of installing electric transmission cables, as well as support examinations of possible alternative routing options. The data would also be integral for supporting future mapping of the surficial geology and ecology of the seafloor in this region of LIS.

### 3. Project Budget:

The project budget for the proposed survey is \$1,000,000 with 30% (\$300,000) funded by LISCF. This amount would be transferable in full to NOAA by September 2023.

The Proposed Survey Area Options shown in Figure 4 represent the largest "Low Cost" area (Option 1) and the largest "High Cost" area (Option 2) presented in Table 1 that \$1,000,000 might sufficiently cover based on the 40 m depth threshold.

The FY24 Brennan Matching Fund Mapping Data Acquisition Cost Estimation for Ocean and Coastal Acoustic Data Acquisition – Multibeam Echosounder rough order of magnitude (ROM) costs are reported as:

All regions < 40m \$15K - \$25K/Square Nautical Miles (SNM)

All regions > 40m \$10K - \$20K/SNM



# Success from FY24



A MEMORANDUM of AGREEMENT  
between the  
U.S. DEPARTMENT of COMMERCE  
NATIONAL OCEANIC and ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
and the  
STATE OF CONNECTICUT  
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
FOR THE PURPOSE  
of  
COORDINATING and LEVERAGING PARTNER RESOURCES  
for  
OCEAN and COASTAL MAPPING

DEEP CONTRACT ID: 2023-188

NOS MOA-2023-027/12573

# Deadlines and Dates

To: [iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov)

- ❑ **October 10th, 2023:** Due date for proposals, statements of interest regarding potential future proposals, and all supporting GIS files
- ❑ **November 15, 2023:** NOAA issues its decisions on proposals
- ❑ **December 2023 - January 2024:** NOAA works with selected partners to develop memoranda of agreement to facilitate the transfer of funds from the non-Federal partner to NOAA
- ❑ **March 2024:** NOAA finalizes the memoranda of agreement with partners
- ❑ **June-September 2024:** Non-Federal partners transfer matching funds to NOAA; funds must be available to NOAA for contracting in October 2024
- ❑ **January-September 2025:** NOAA issues task orders to its survey contractors for NOAA/partner FY24 projects





# Submission Requirements



Six (6) total pages (plus optional GIS files of project areas) and the following **three** components:

- 1.** A project title; executive summary (3-5 sentences); and the names, affiliations, and roles of the project partners and any co-investigators, as well as the project lead that will serve as primary contact (1 page maximum).
- 2.** A justification and statement of need; description and graphics of the proposed survey area, including relevance to the strategic areas of focus noted in Section III and degree of flexibility on timing of survey effort (4 pages maximum).
- 3.** A project budget that lists the source(s) and amount(s) of funding that the partner would provide as its match to NOAA. Budget must confirm that partner funds can be transferred to NOAA by September 2023 (1 page maximum).

# Evaluation Criteria



Proposals will be evaluated by the Brennan Matching Fund Program Management Team.

E.g., does the proposal have:

- Intrinsic IOCM value and/or relevance to NOAA missions and priorities?
- Clear need, anticipated outcomes, public benefit?
- POC and partners identified? Funding sources identified?
- Realistic proposed budget?
- Feasibility, flexibility?

# Questions?

We want to hear from you!

Interested, but the timing doesn't work? You'd consider submitting a proposal in future?

One page letter of interest:

Tell us what your timing hurdles are, where/what you are interested in, potential partners if more time, etc.

If you have outstanding questions, you can also join us for office hours on September 14th by emailing [iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov)



# Contact information

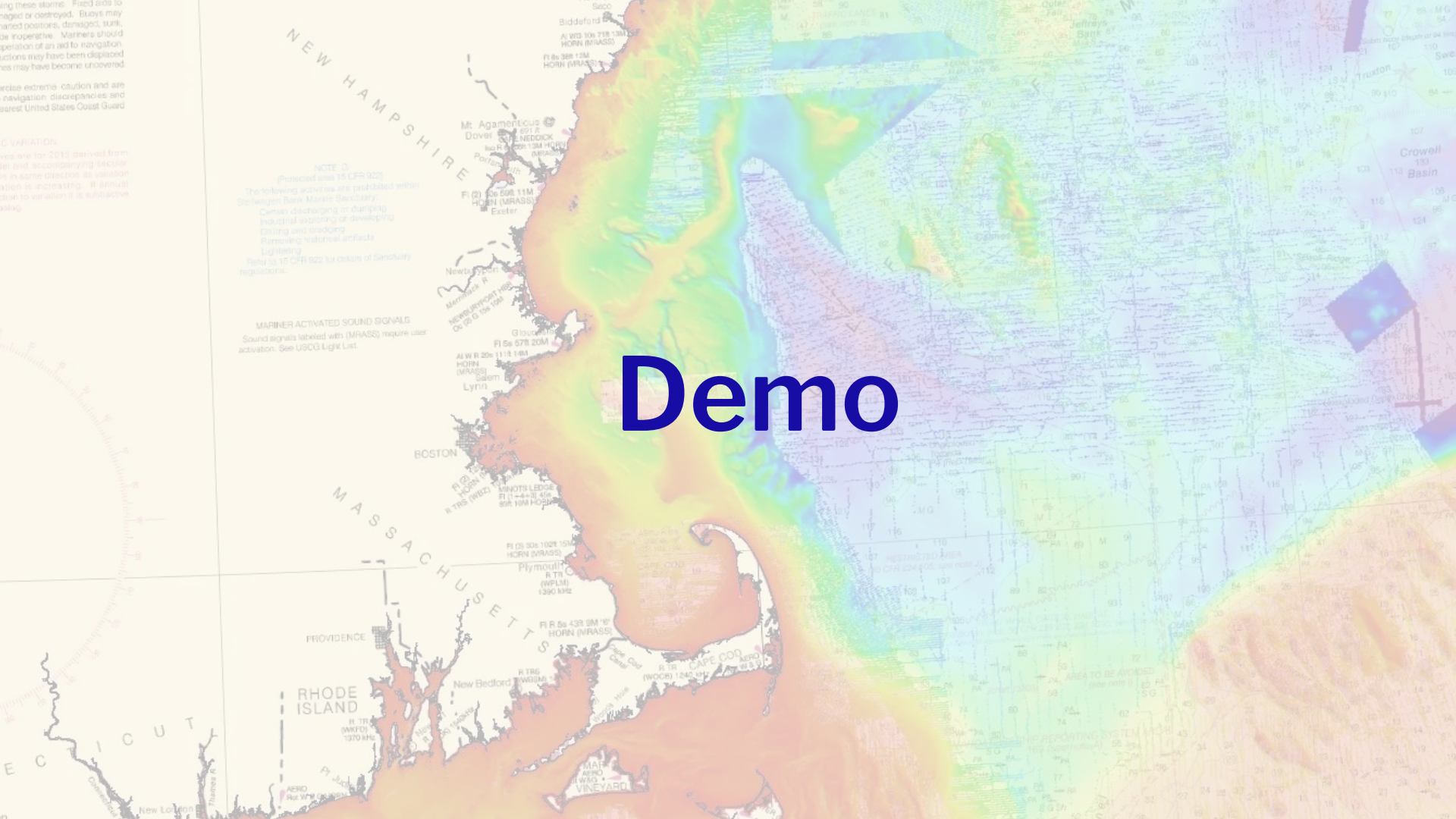
Proposals must be submitted in PDF format via email to:

[iwgocm.staff@noaa.gov](mailto:iwgocm.staff@noaa.gov)

by **October 10, 2023**

**FOR FURTHER INFORMATION CONTACT:**

Ashley Chappell, NOAA Integrated Ocean and Coastal Mapping  
(240) 429-0293 - [ashley.chappell@noaa.gov](mailto:ashley.chappell@noaa.gov)



aged or destroyed. Flashed aids to be operative. Mariners should be aware that the use of electronic aids to navigation may have been displaced or obscured.

Under extreme conditions and in areas of heavy traffic, the United States Coast Guard may suspend the use of electronic aids to navigation.

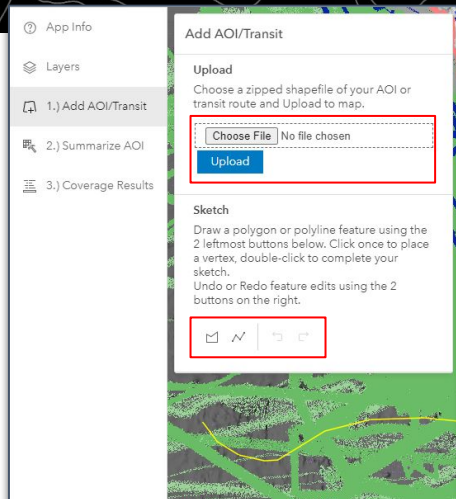
**NOTE:**  
The following activities are prohibited within the Boston Harbor Marine Sanctuary:  
Cable anchoring or dumping  
Drilling and dredging  
Removal of historical artifacts  
Lighting  
Refer to 15 CFR 902 for details of Sanctuary regulations.

**MAPINER ACTIVATED SOUND SIGNALS**  
Sound signals labeled with (MRASS) require user activation. See USCG Light List.

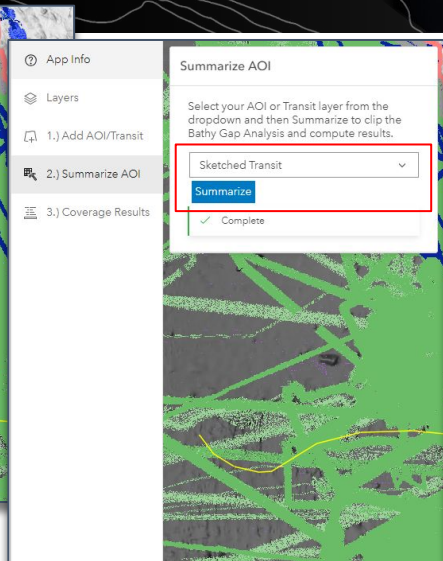
Demo



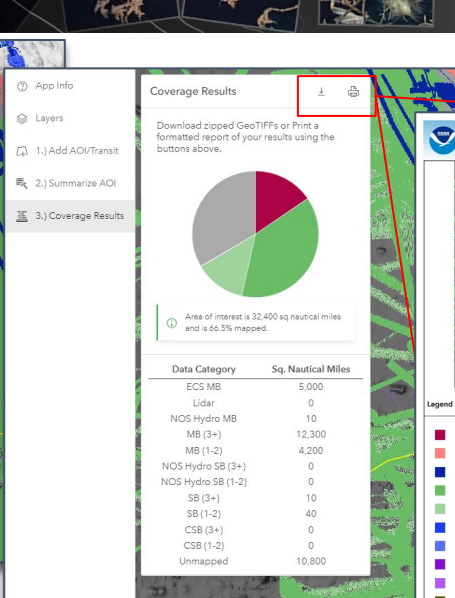
# Bathymetric Coverage Report



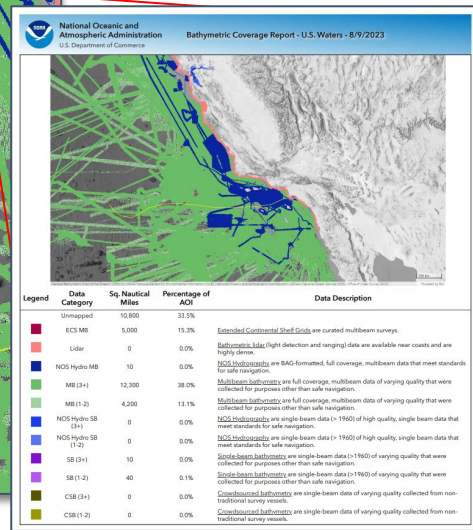
- Sketch your Area of Interest or Transit, or upload as zipped shp. For Transit analysis, a depth-based swath will be submitted as your AOI.



- Select your layer and submit for coverage analysis



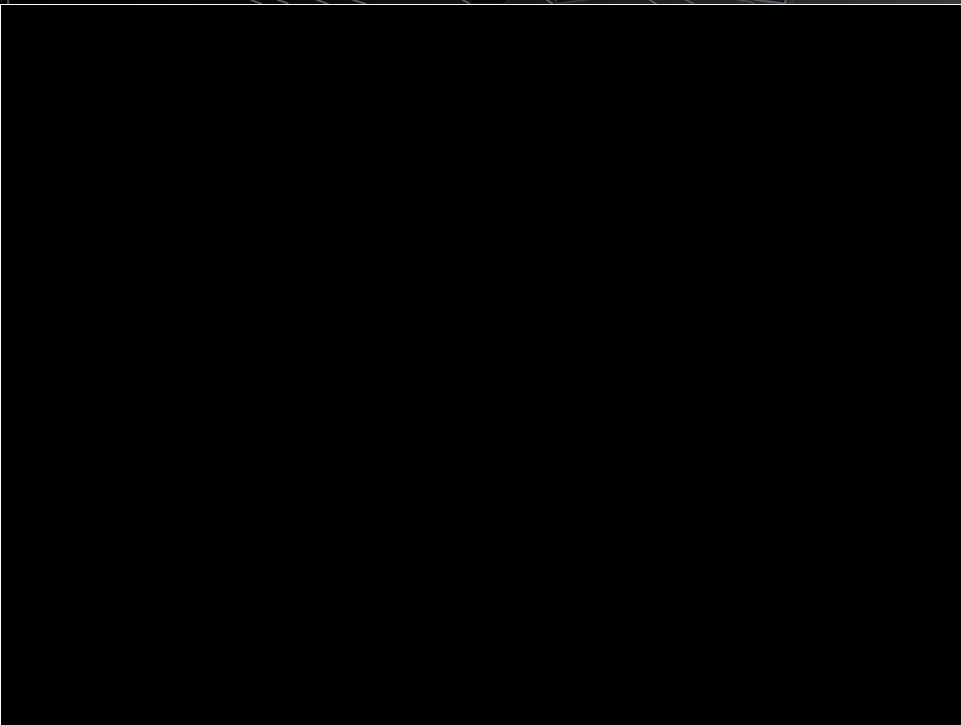
- Review coverage and export to .pdf or GeoTiffs



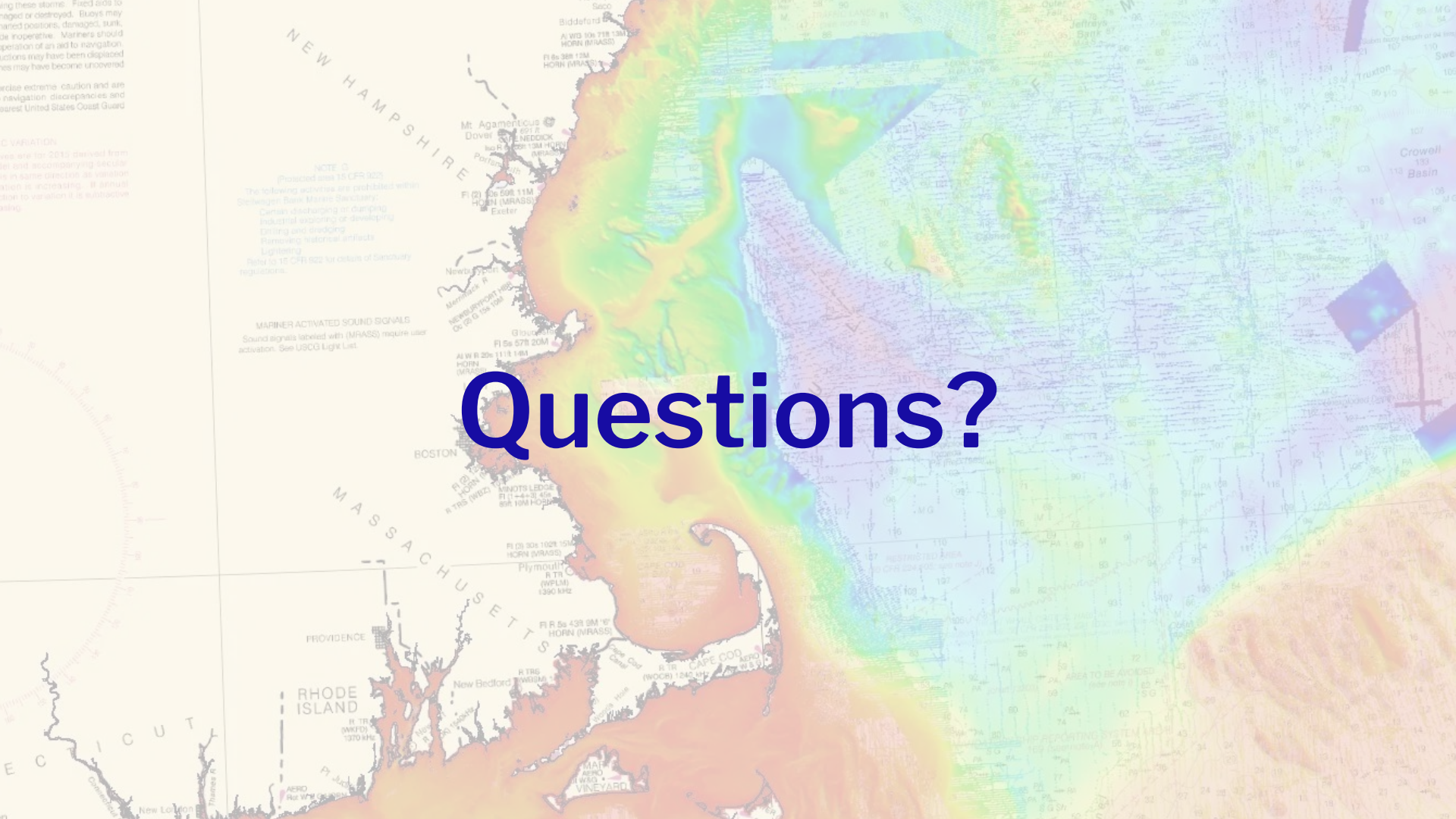
<https://gis.charttools.noaa.gov/bathy-coverage-report/>



# Bathymetric Coverage Report - Recording



<https://gis.charttools.noaa.gov/bathy-coverage-report/>



...aged or destroyed. Flashed aids may be inoperative. Mariners should exercise extreme caution and are advised to report any discrepancies to the nearest United States Coast Guard cutter.

NOTE: The following activities are prohibited within Shelburne Bank Marine Sanctuary: Certain discharging or dumping; Drilling and dredging; Removing historical artifacts; Lighting. Refer to 15 CFR 922 for details of Sanctuary regulations.

MARINER ACTIVATED SOUND SIGNALS: Sound signals labeled with (MRASS) require user activation. See USCG Light List.

# Questions?