Seascape Alaska

Working together to understand the depths of Alaska's vast seascape

Alaska's Bathymetry Data Gaps and Strategies to Fill the Gaps

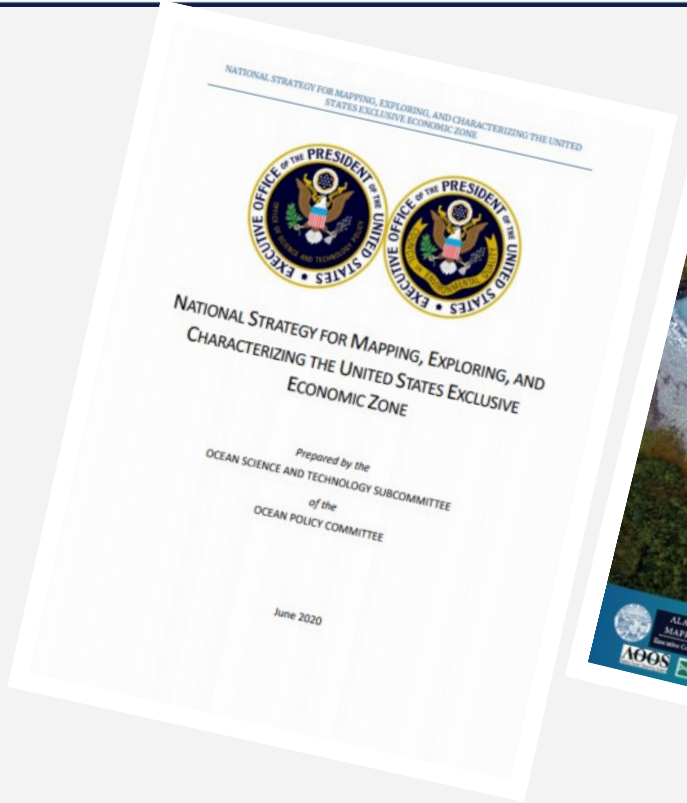
Thalia Eigen (*for Meredith Westington*)
NOAA Integrated Ocean and Coastal Mapping

Map Once, Use Many Times!

Setting the Stage: National Mapping Plans

National Strategy for Mapping, Exploring, and Characterizing the U.S. EEZ (NOMEC)

Alaska Coastal Mapping Strategy (ACMS)



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

Defining Mapped: Sounding Density Analysis

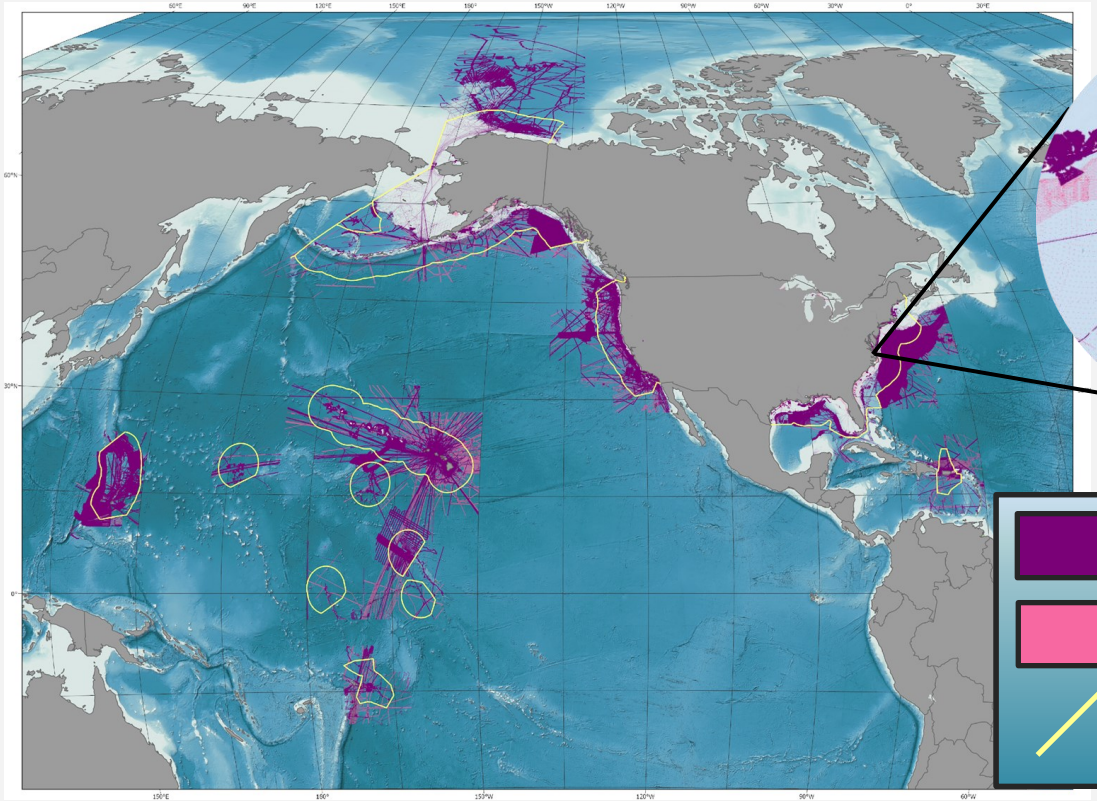
Criteria for Minimally Mapped

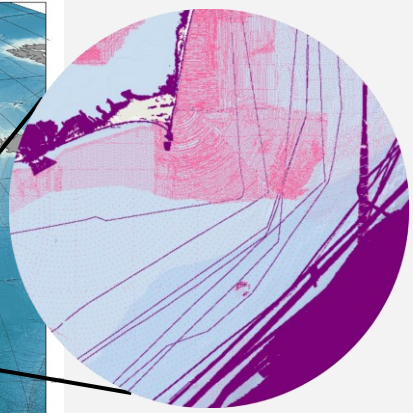
- Area must be surveyed after 1960
- Each 100 m cell must be supported by at least 1 sounding
- Publicly accessible **bathymetry** at NOAA NCEI and/or OCM

Bathymetry Layers

Extended Continental Shelf Grids
Bathymetric LIDAR
NOS Hydrography (BAG-formatted + MB)
Multibeam Bathymetry
NOS Hydrography (> 1960)
Single-beam Bathymetry (> 1960)
Crowdsourced Bathymetry

U.S. Bathymetry Gap Analysis Web Service





See NOAA's GeoPlatform

Also, linked from https://iocm.noaa.gov/seabed-2030-bathymetry.html

- 3 or more soundings per ~100 m cell
- 1-2 soundings per ~100 m cell
- U.S. EEZ / Maritime Boundaries

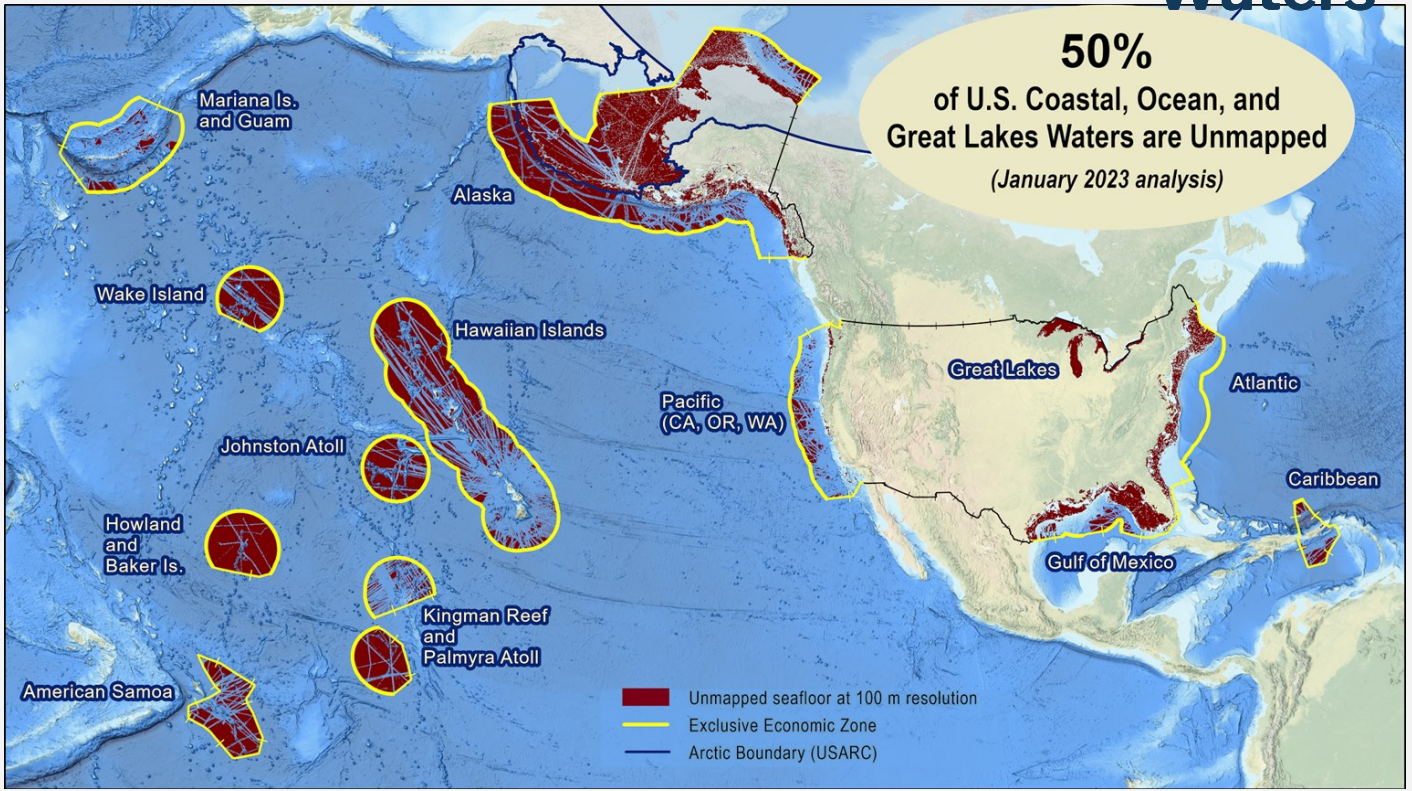
Progress Report on Unmapped U.S. Waters

Coming in early 2024!

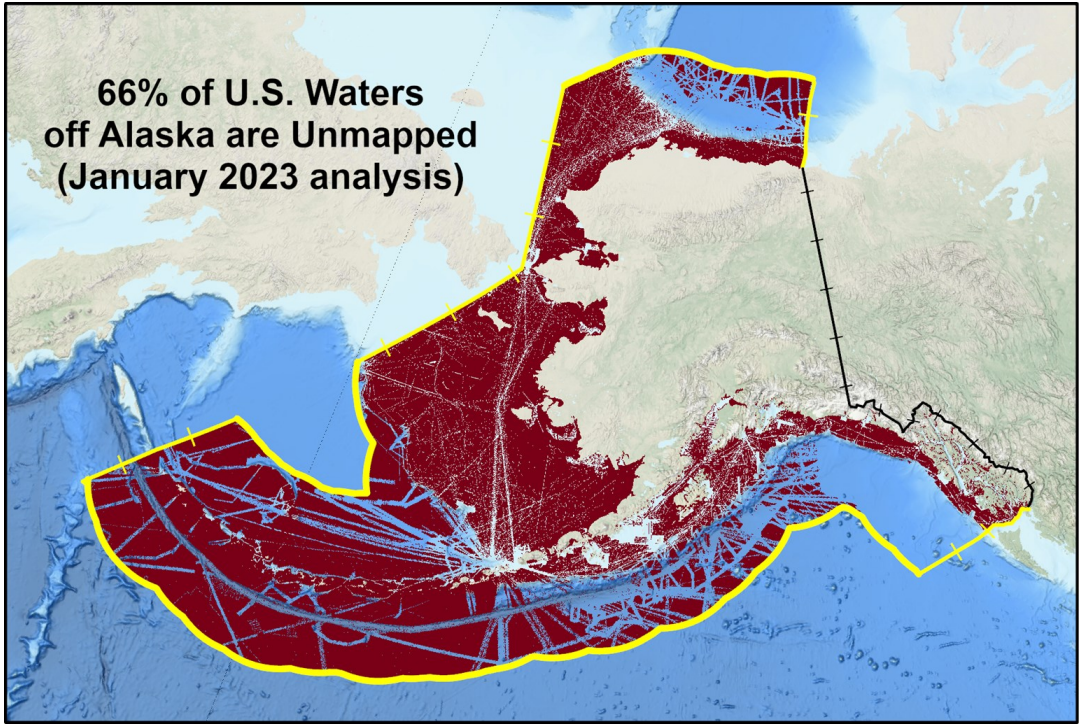
5th annual report covering progress up to the end of 2023

Last year, we were at 52% unmapped.

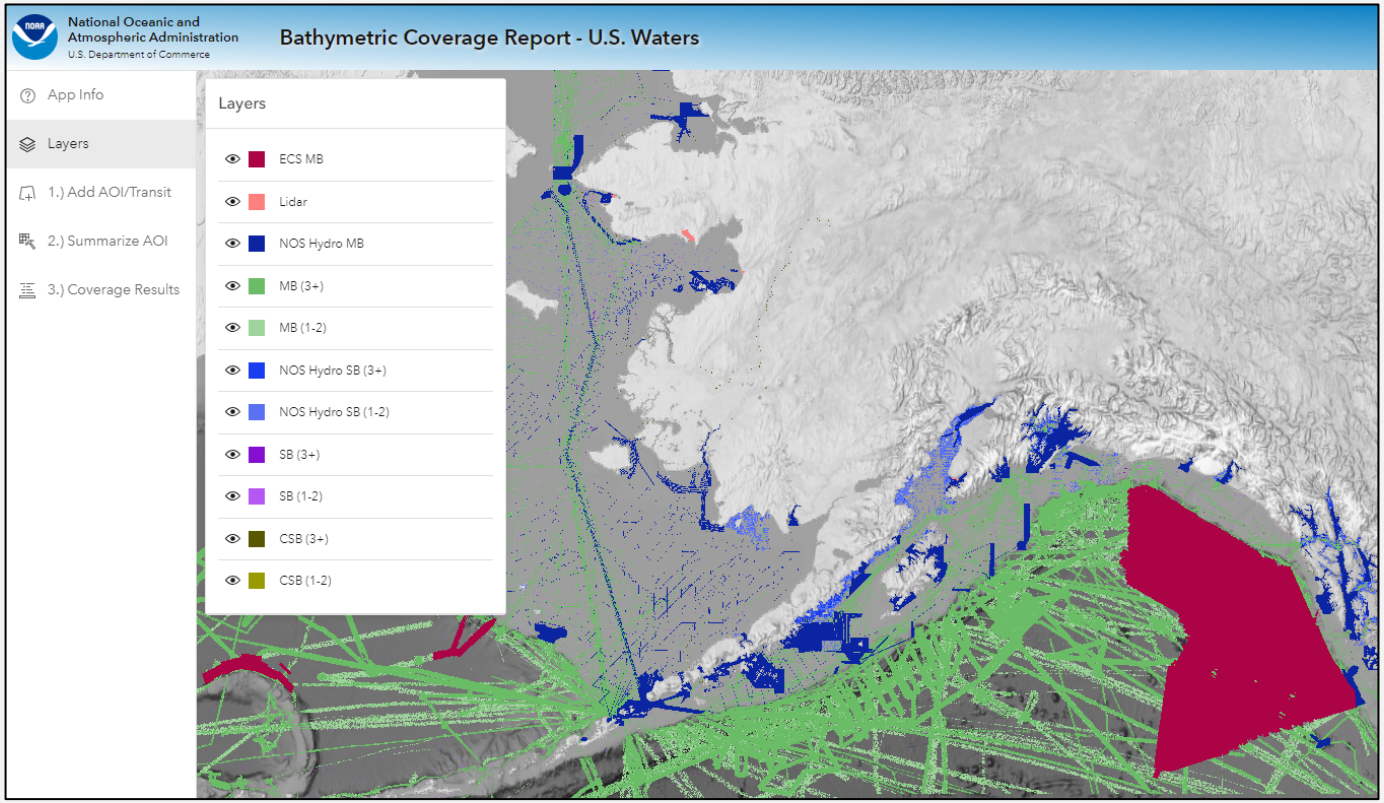
Reports located at https://iocm.noaa.gov/seabed-2030-status.html



Alaska Progress

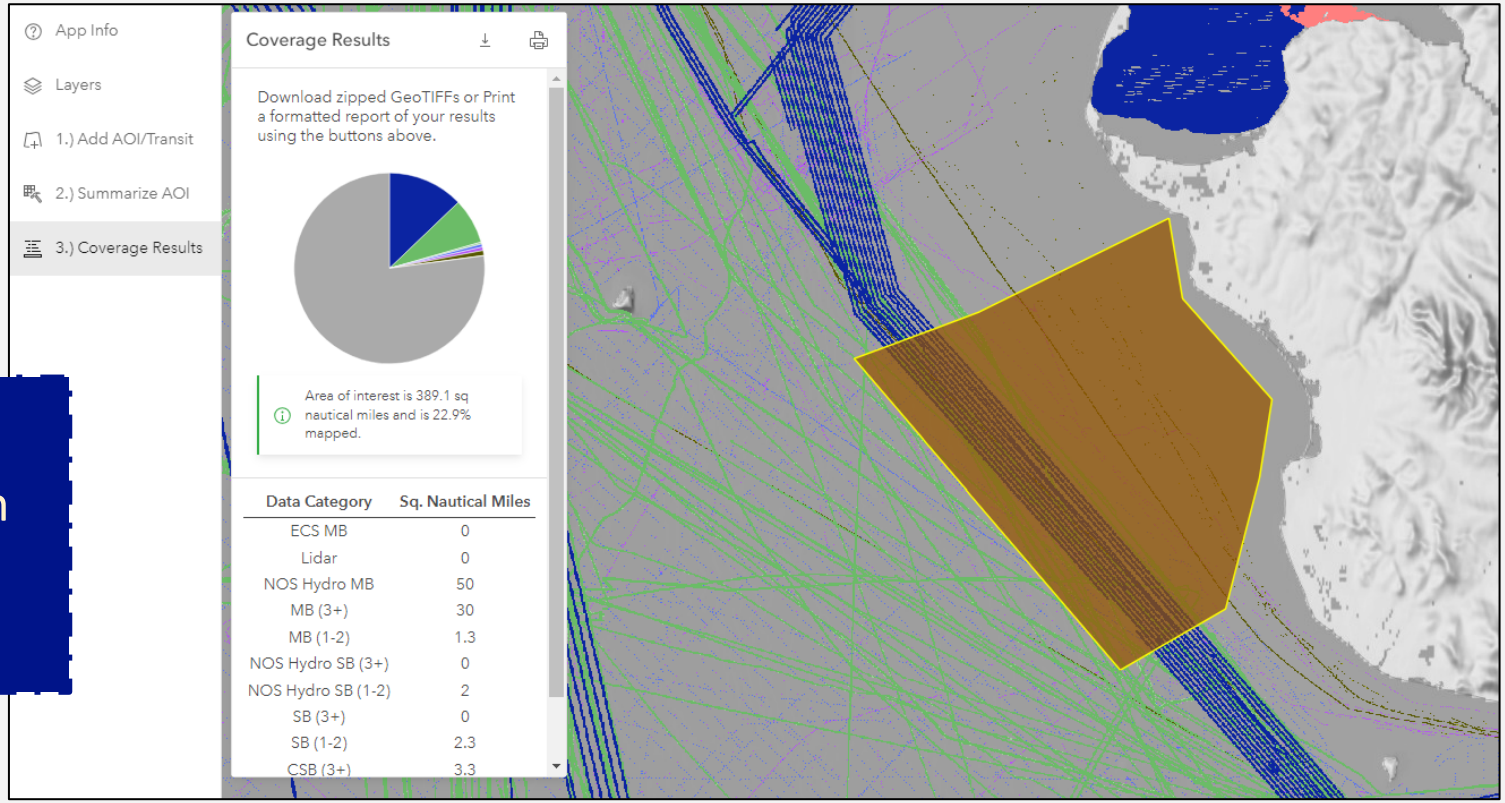


Bathymetric Coverage Report - U.S. Waters

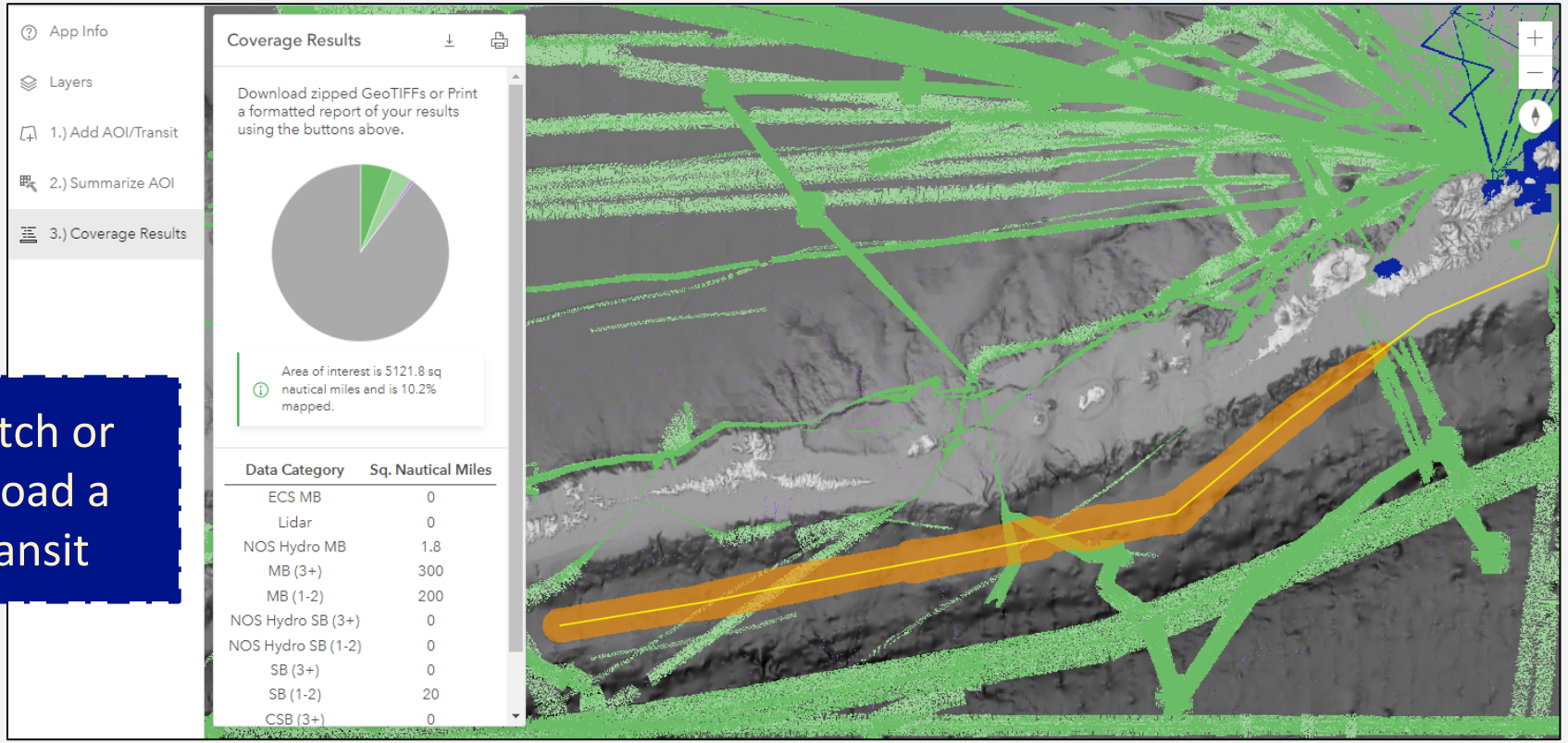


Bathymetric Coverage Report - U.S. Waters

Sketch or Upload an Area of Interest



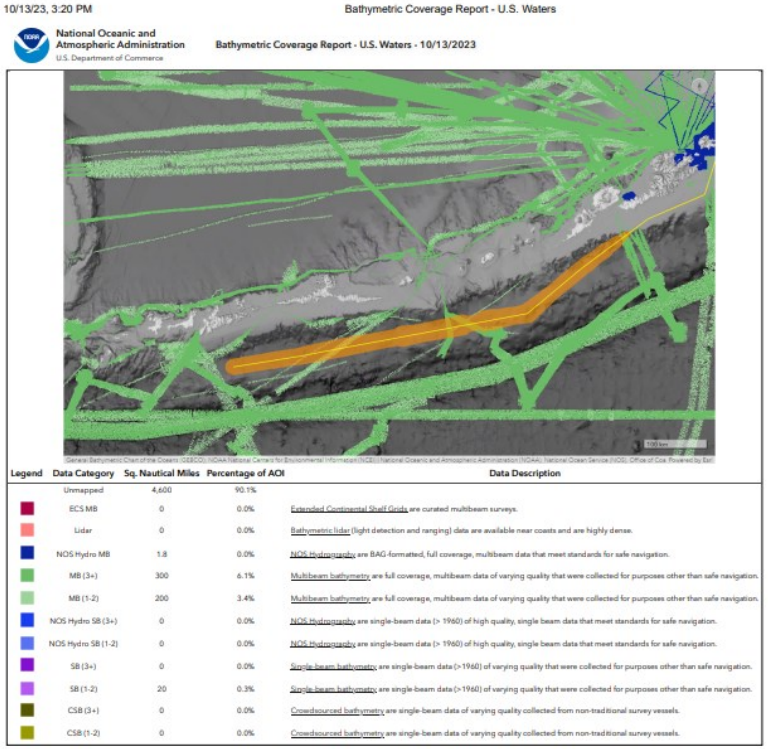
Bathymetric Coverage Report - U.S. Waters



Sketch or Upload a Transit

Applications of this tool

- Justify your mapping plans
- Print a report to share with the campaign to create a before/after record of your contributions
- Identify opportunistic routes that maximize the filling of bathy gaps
- Design survey polygons that are optimized to fill bathy gap
- Toggle on/off data layers that do not meet your definition of mapped and focus on filling the “true” mapping gaps
- Use like a card catalog to identify which pipeline at NCEI might have what you seek



10/13/23, 3:20 PM Bathymetric Coverage Report - U.S. Waters

National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Bathymetric Coverage Report - U.S. Waters - 10/13/2023

Legend	Data Category	Sq. Nautical Miles	Percentage of AOI	Data Description
	Unmapped	4,600	90.1%	
	ECS MB	0	0.0%	Extended Continental Shelf Grids are curated multibeam surveys.
	Lidar	0	0.0%	Bathymetric lidar (light detection and ranging) data are available near coasts and are highly dense.
	NOS Hydro MB	1.8	0.0%	NOS Hydrography are BAG-formatted, full coverage, multibeam data that meet standards for safe navigation.
	MB (3+)	300	6.1%	Multibeam bathymetry are full coverage, multibeam data of varying quality that were collected for purposes other than safe navigation.
	MB (1-2)	200	3.4%	Multibeam bathymetry are full coverage, multibeam data of varying quality that were collected for purposes other than safe navigation.
	NOS Hydro SB (3+)	0	0.0%	NOS Hydrography are single-beam data (> 1960) of high quality, single beam data that meet standards for safe navigation.
	NOS Hydro SB (1-2)	0	0.0%	NOS Hydrography are single-beam data (> 1960) of high quality, single beam data that meet standards for safe navigation.
	SB (3+)	0	0.0%	Single-beam bathymetry are single-beam data (>1960) of varying quality that were collected for purposes other than safe navigation.
	SB (1-2)	20	0.3%	Single-beam bathymetry are single-beam data (>1960) of varying quality that were collected for purposes other than safe navigation.
	CSB (3+)	0	0.0%	Crowdsourced bathymetry are single-beam data of varying quality collected from non-traditional survey vessels.
	CSB (1-2)	0	0.0%	Crowdsourced bathymetry are single-beam data of varying quality collected from non-traditional survey vessels.

https://gis.charttools.noaa.gov/bathy-coverage-report/ 1/1

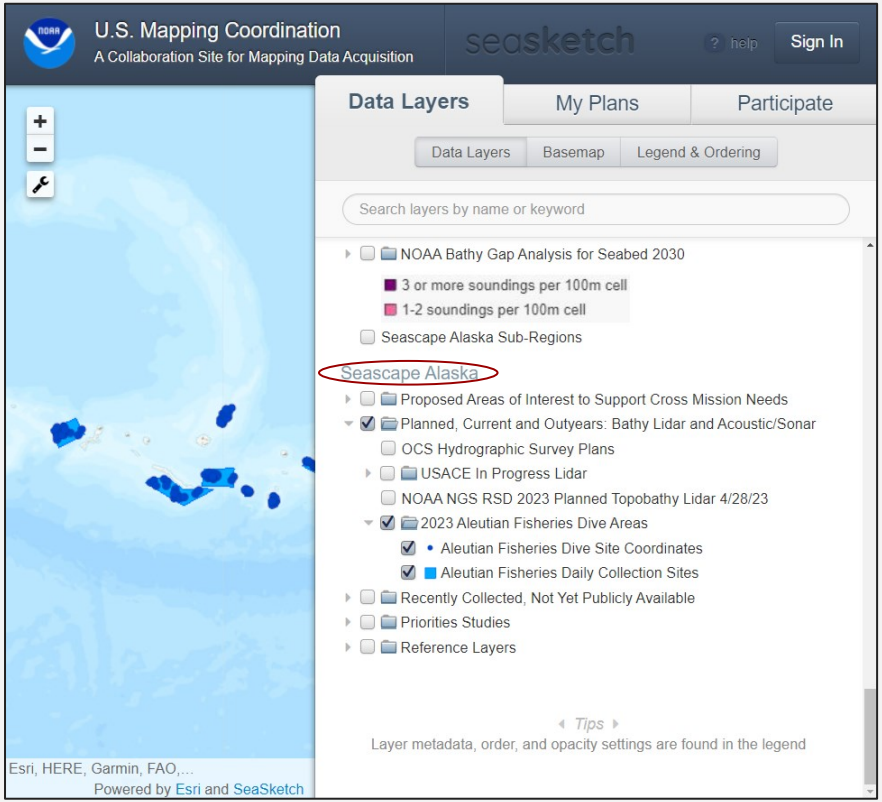
Export PDF Report and/or
Clipped bathy gap analysis grids + your input AOI or transit

Seascape Alaska Acquisition Coordination

- *New* Seascape Alaska section in U.S. Mapping Coordination Site (http://seasket.ch/OwO0CUV5Va)
- Layers selected and organized to be more pertinent and accessible for Seascape Alaska Planning
- Need help adding your plans? Contact cathleen.yung@noaa.gov.

Bonus

She's at this conference!



Thank you!

See our factsheet and story map!

Would you like to join and participate?

Contact

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