

Arctic & North Pacific Ocean Regional Center

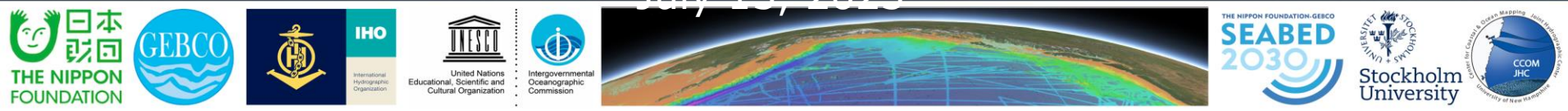
2023 North Pacific Update

Juliet Kinney, Paul Johnson, Larry Mayer, Sara Cardigos,
Michael Bogonko

Center for Coastal and Ocean Mapping, University of New Hampshire

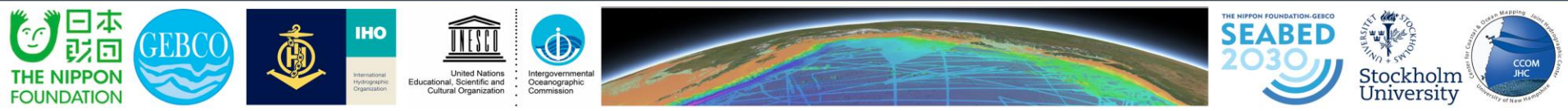
South-West Pacific Regional Mapping Community
Meeting

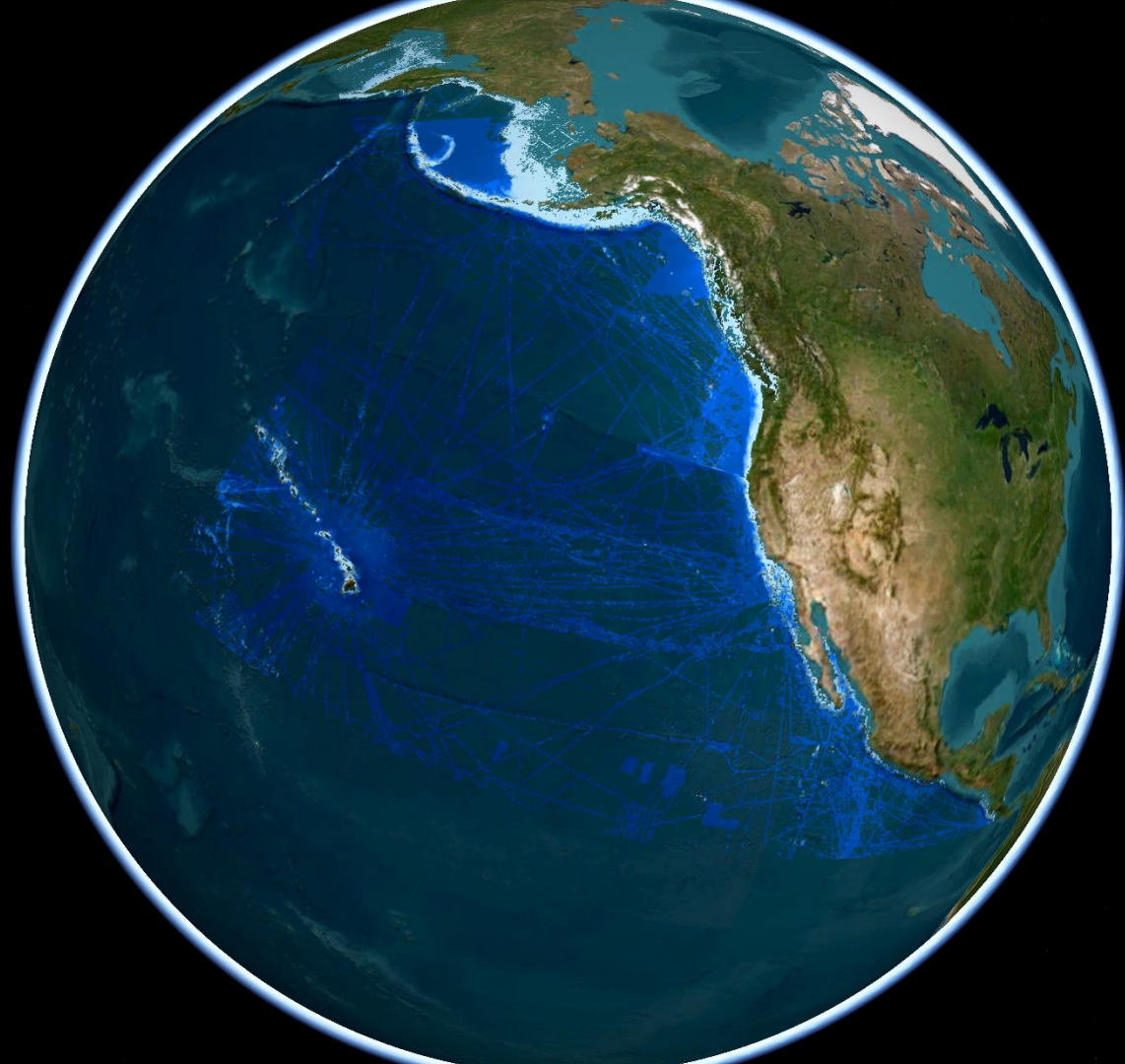
July 13, 2023



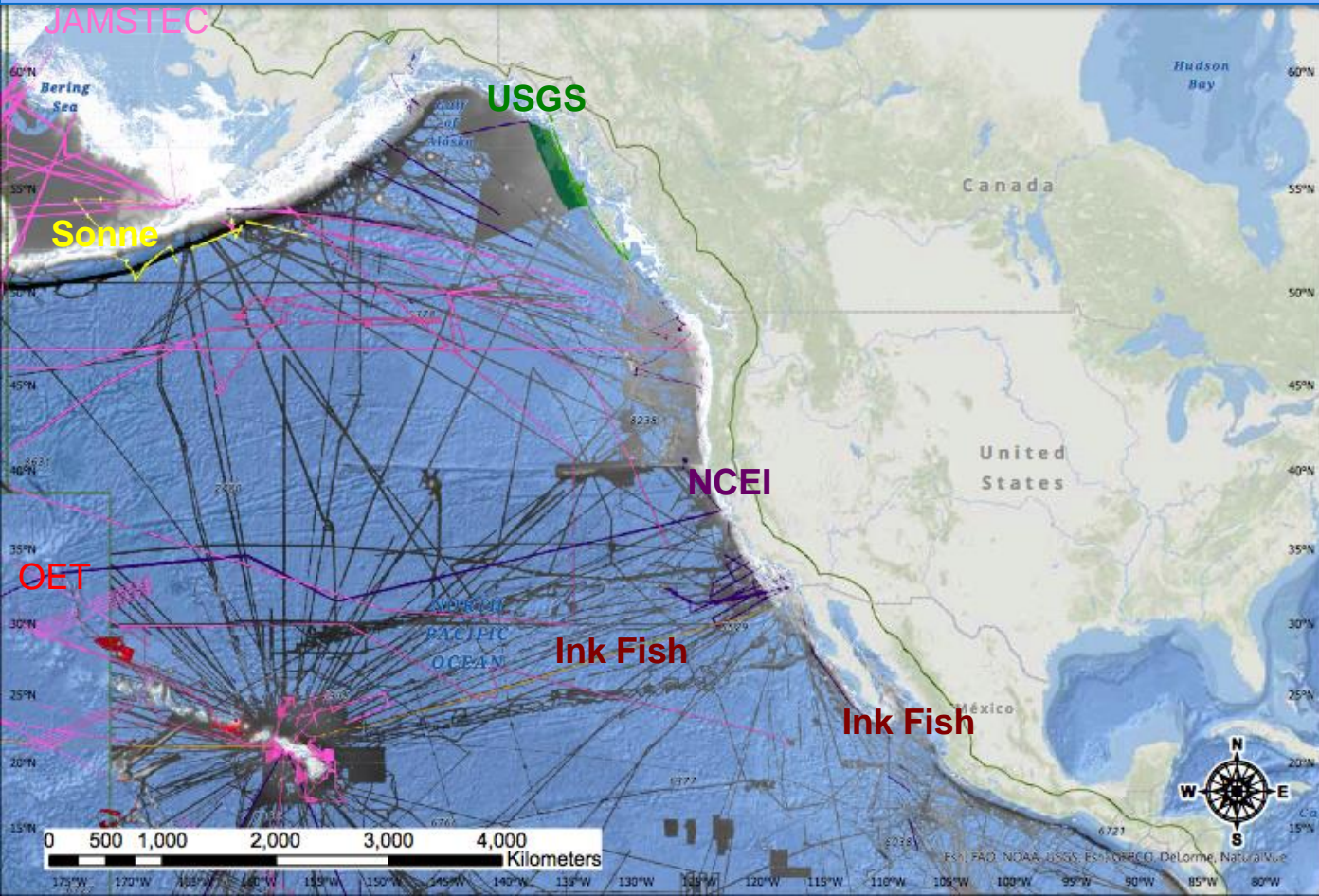
We want your Data!

Please let us know about more data and portals!
Regional groups to be in touch with.





North Pacific 2023 Multibeam



Multibeam Surveys:

- **NCEI:** 36 Cruises
- **Nautilus/Ocean Exploration Trust:** 8 surveys (25 grids including transits)
- **JAMSTEC:** 64 Grids

Additional New Multibeam Sources:

USGS Queen Charlotte Fault Grids: (2022 publication), **composite** of Canadian NRC & NOAA/USGS grids.

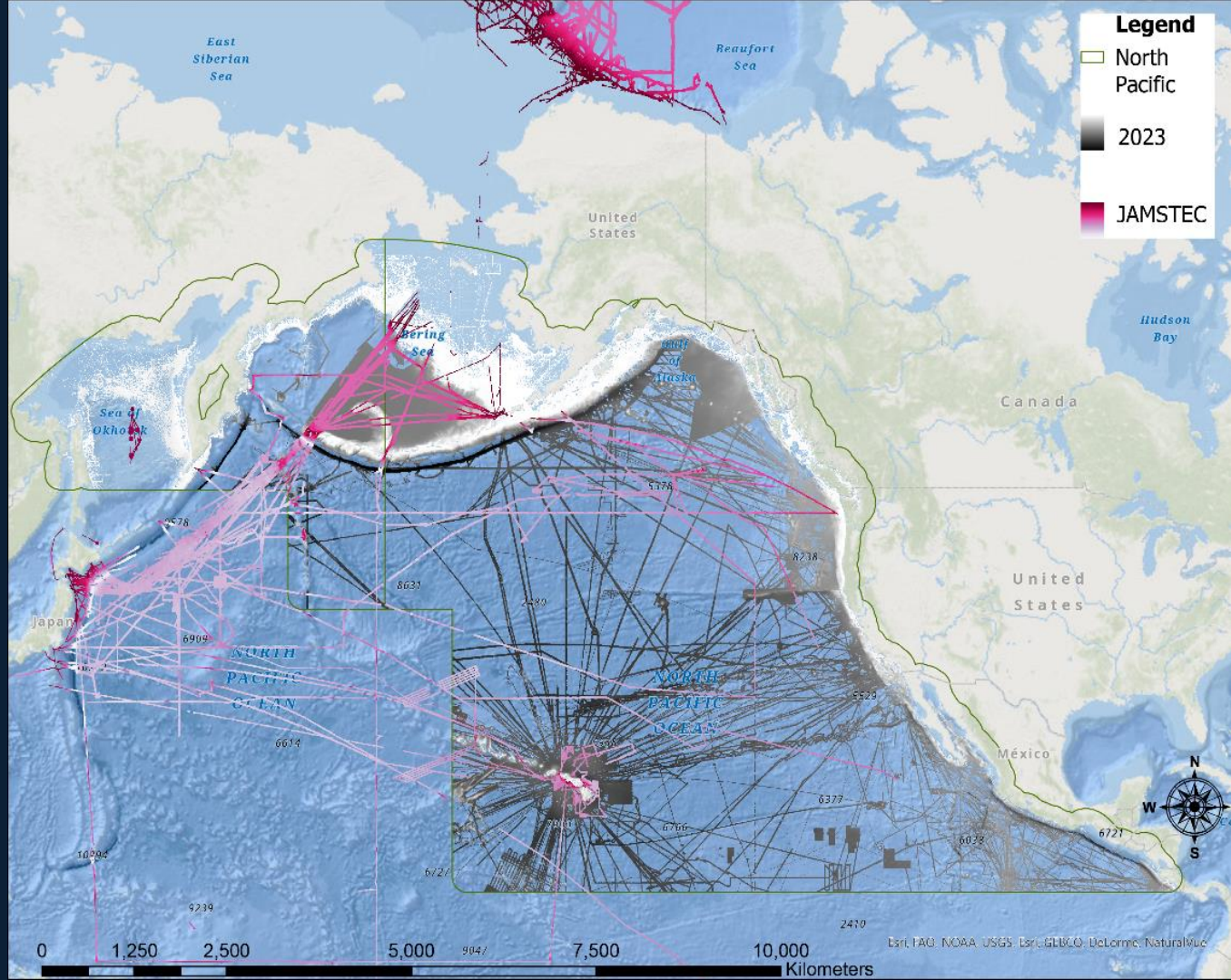
USGS/NPS Glacier Bay Data 2001

Aleutian Trench Data : Wölfl, Anne-Cathrin; Kess, Kevin; BrandtMultibeam bathymetry processed data (Kongsberg EM 122 entire dataset) of , Angelika (2022), **RV SONNE Cruise SO293**

NWHI Nihoa Drix 2022: CCOM Grid

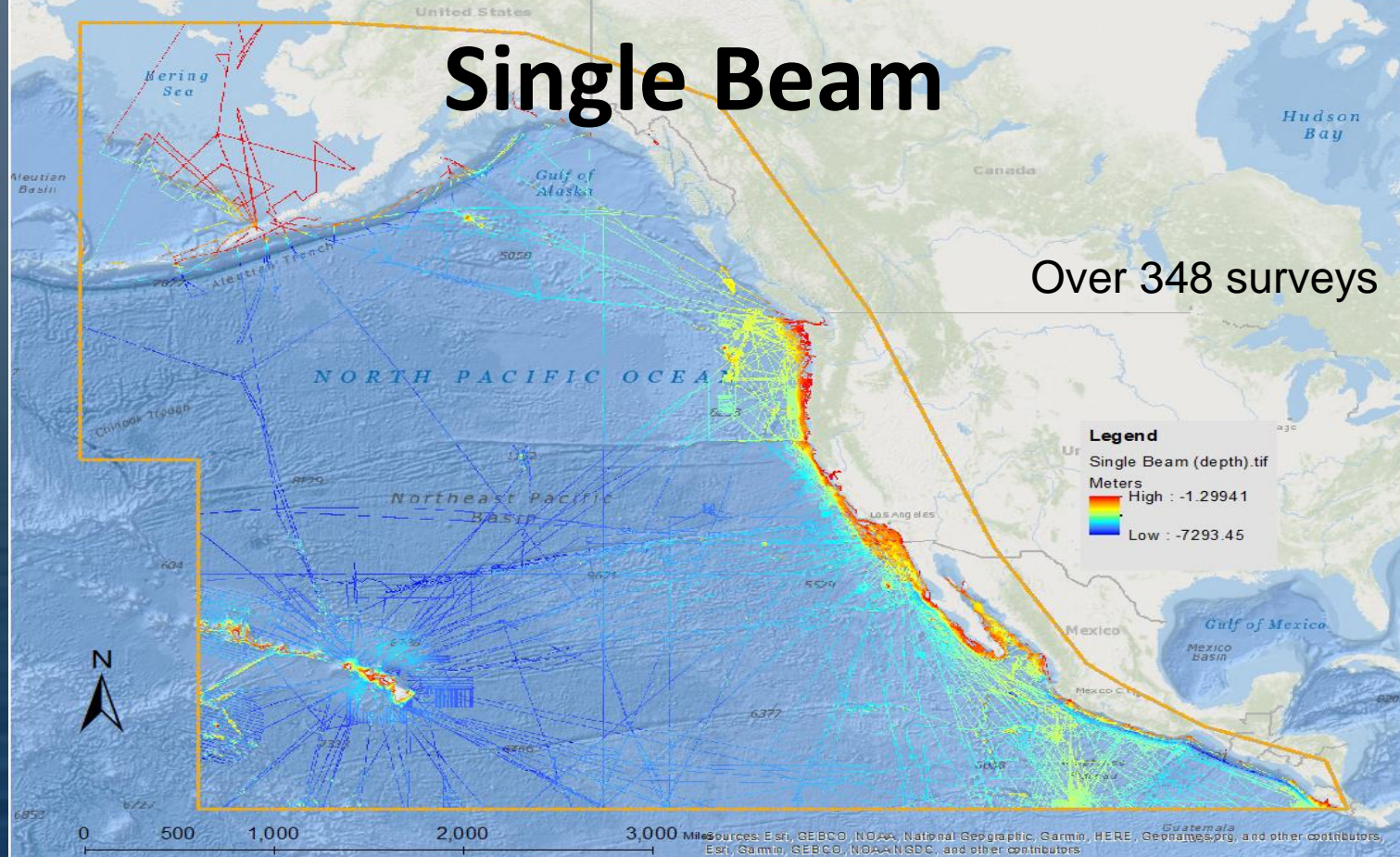
InkFish: Dagon

JAMSTEC data!

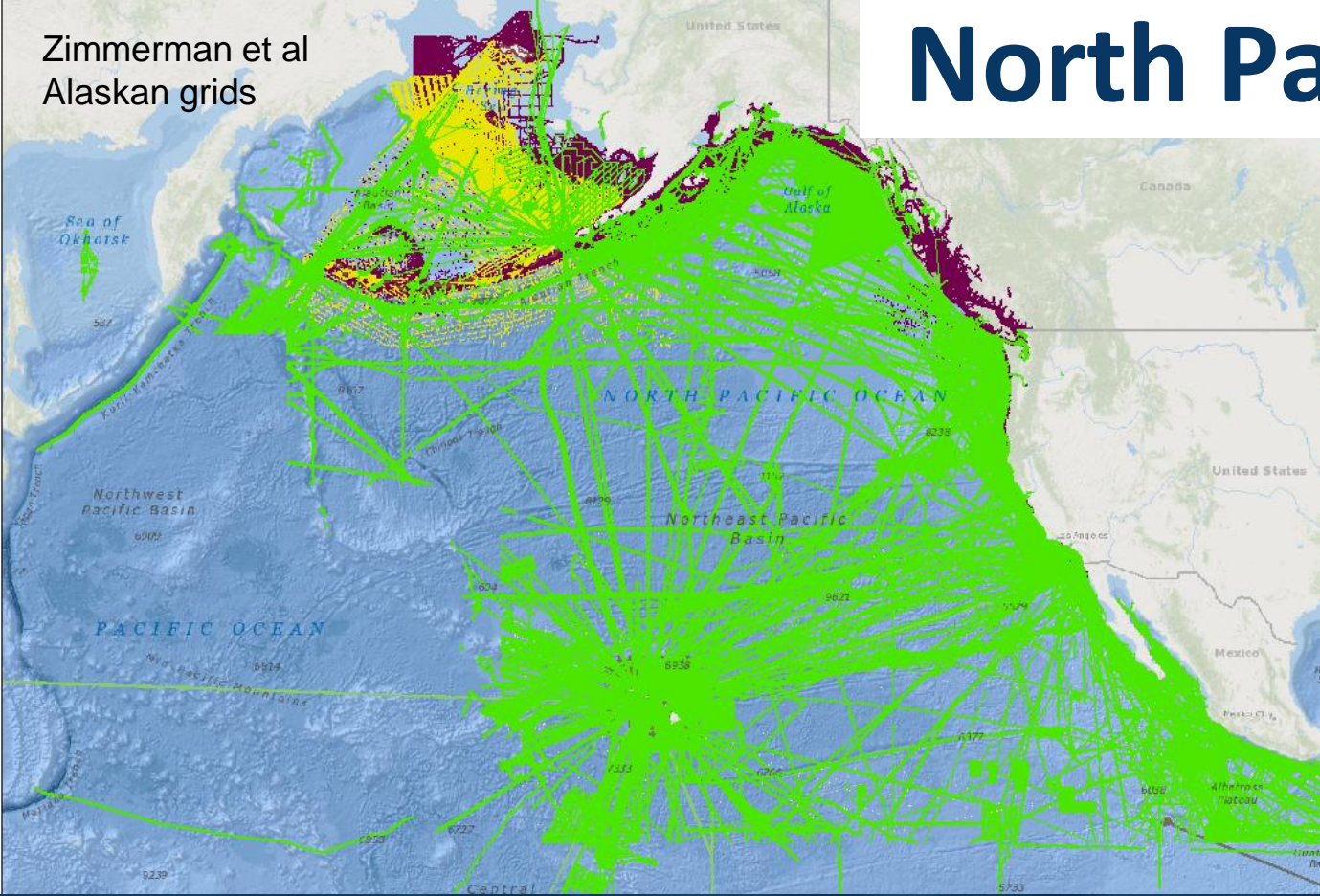


Single Beam

Over 348 surveys



North Pacific 2023

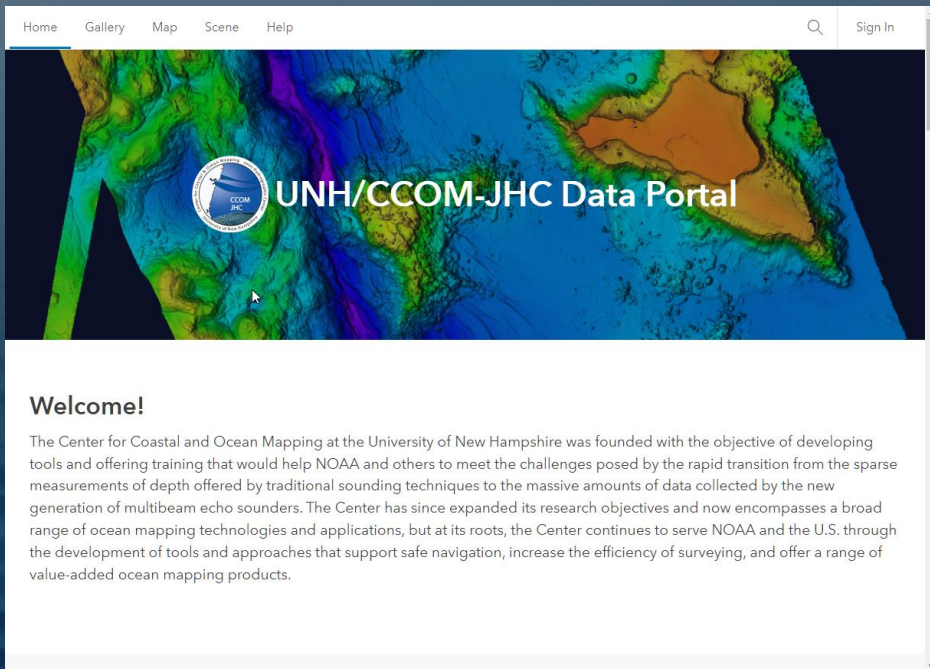


- TID 11:
Multibeam
- TID 10:
Singlebeam
- TID 17: Direct
Observations
- *note some TID errors in
Aleutians on webmap release

Planning Data Collection & Visualization

UNH/CCOM-JHC ESRI GIS Portal

- UNH/CCOM-JHC has been serving data through a combinations of ArcGIS Server and Portal since 2012
- <https://gis.ccom.unh.edu> (new 2023)
- <https://maps.ccom.unh.edu>
- Used for both internal services and external services
- Hosts wide variety of map services and web applications including
 - Extended Continental Shelf
 - Multibeam Planning Tools
 - Gulf of Maine



PLANNING CCOM MAPS DATA COVERAGE

- Internally and externally available
- Used for managing and exploring available datasets
- Many layers available including:
 - GEBCO Grid & TID
 - DCDB Map Services
 - NOS BAGs, NOS Surveys
 - Multibeam Tracklines
 - Singlebeam Tracklines
 - NOAA Gap Analysis
 - and more..
 - Interactive Plan sharing still in development

North Pacific - Data Management WebMap

Open in Map Viewer Classic

CCOM GIS Admin
agsmanager

Layers

- Map Graticules
- GEBCO Review Layers
- RDACC Boundaries
- NOAA Layers
 - NOS - Surveys with BAGs
 - NOS - BAG Footprints
 - NOS - Surveys with Digital Sounding Data
 - Nos hydro dynamic

Multibeam Bathymetric Surveys: B00137

Survey ID	B00137
Platform Name	Surveyor
Survey Year	1,988.00
Source	National Oceanic and Atmospheric Administration (NOAA)
NCEI ID	03020105
Chief Scientist	Stubblefield, William L.
Instrument	SeaBeam
File Count	10.00

Nos hydro dynamic

Properties

Use the selector above to switch between layers in the map.

Symbology

Show in map legend

Nos hydro dynamic

Surveys with BAGs

Surveys with Digital Sounding Data

- ☐ pre-1950
- ☐ 1950-1959
- ☐ 1960-1969
- ☐ 1970-1979
- ☐ 1980-1989
- ☐ 1990-1999
- ☐ 2000-2009
- ☐ 2010-present
- ☐ <all other values>

<https://maps.ccom.unh.edu/portal/apps/mapviewer/index.html?webmap=4df00934076145e0ad52a298a3d5f8ed>

Regional Interactive Planning Sites we use:

U.S. Mapping Coordination Site

<https://iocm.noaa.gov/planning/coordination.html>

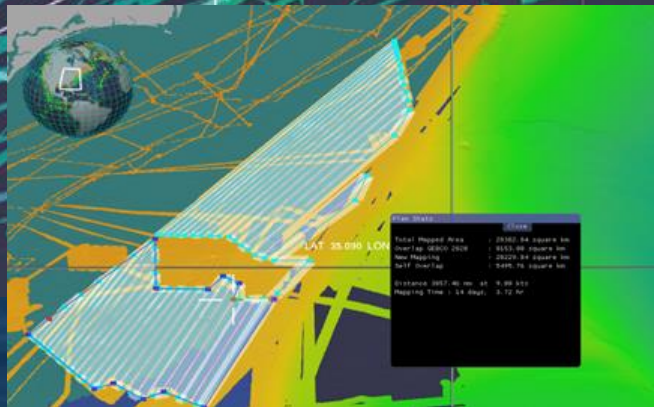
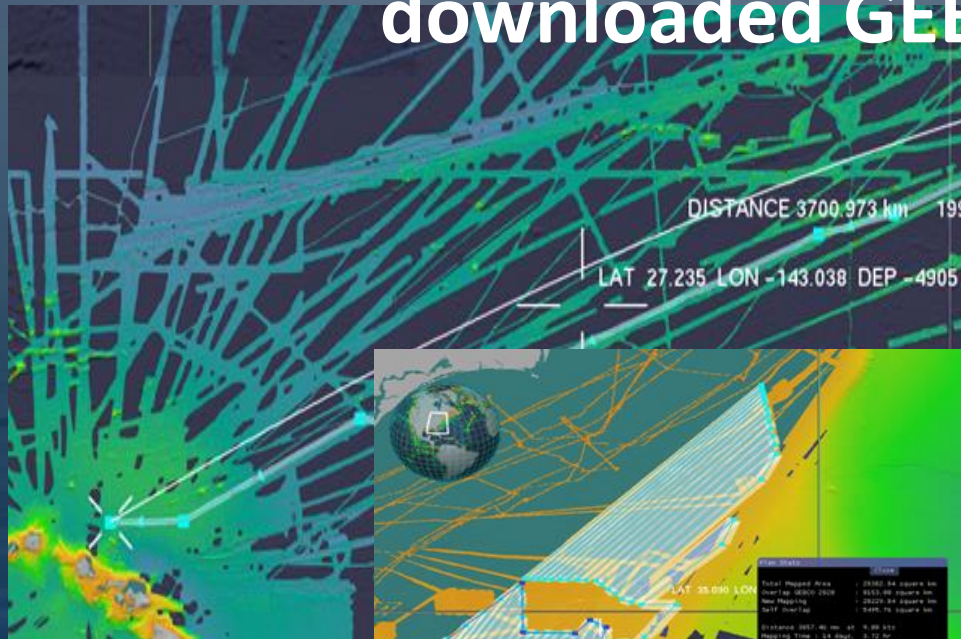
<https://legacy.seasketch.org/#projecthomepage/5272840f6ec5f42d210016e4/layers>

<https://www.boem.gov/environment/regional-ocean-partnerships>

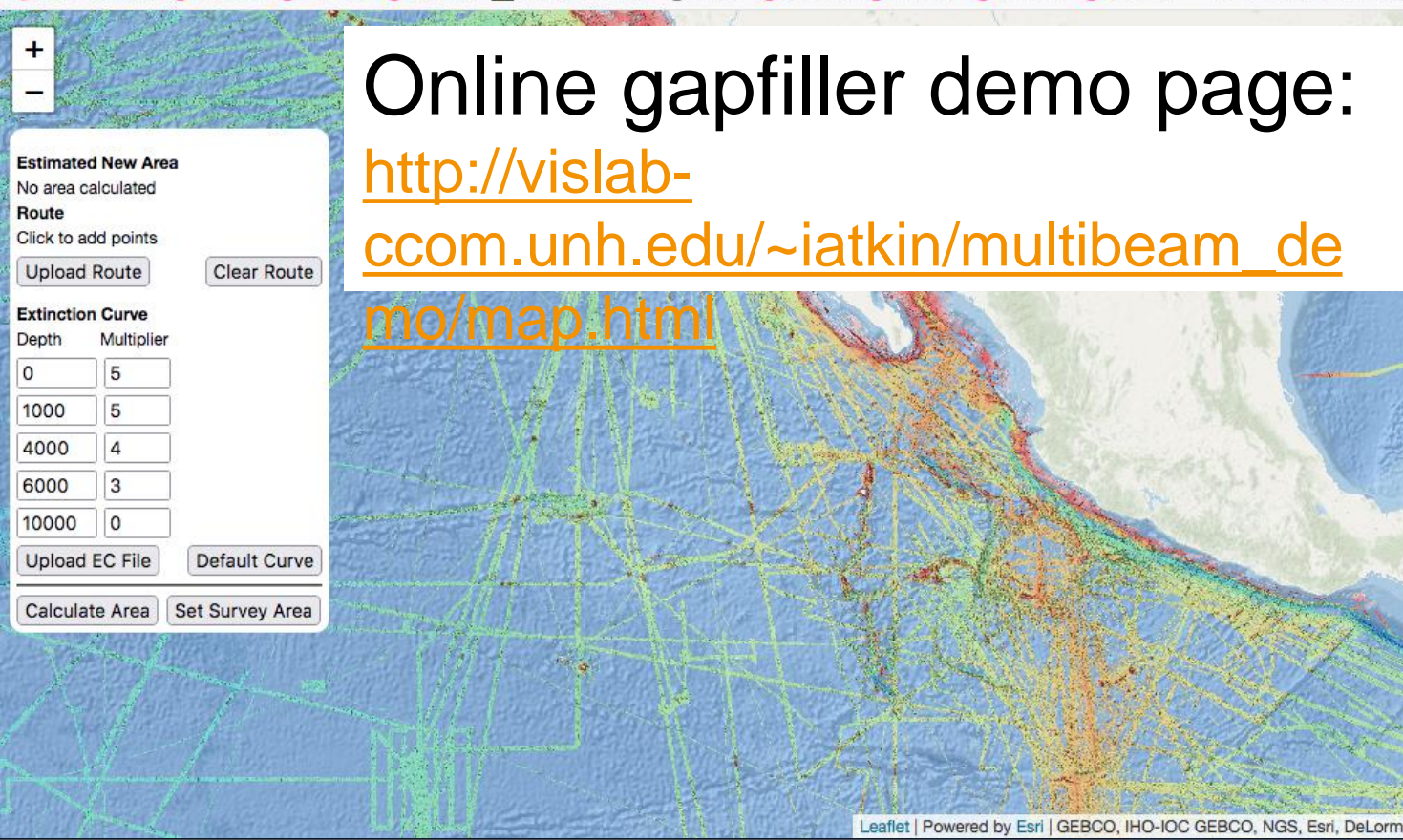
Other contacts:

https://www.gebco.net/about_us/committees_and_groups/scrum/mapping_projects/

GAP FILLER: existing version uses downloaded GEBCO grid



Plan Stats		Close	
Total Mapped Area	:	63773.74 square km	
Overlap GEBCO 2020	:	30863.33 square km	
New Mapping	:	32910.41 square km	
Self Overlap	:	35.35 square km	
Distance 2045.44 nm at 9.00 kts			
Mapping Time : 9 days, 11.27 hr			



Online gapfiller demo page:

http://vislab-ccom.unh.edu/~iatkin/multibeam_demo/map.html

Estimated New Area
No area calculated

Route
Click to add points

Extinction Curve

Depth	Multiplier
<input type="text" value="0"/>	<input type="text" value="5"/>
<input type="text" value="1000"/>	<input type="text" value="5"/>
<input type="text" value="4000"/>	<input type="text" value="4"/>
<input type="text" value="6000"/>	<input type="text" value="3"/>
<input type="text" value="10000"/>	<input type="text" value="0"/>

Leaflet | Powered by Esri | GEBCO, IHO-IOC GEBCO, NGS, Esri, DeLorme

NCEI multibeam mosaic in Beta. Use the "Set Survey Area" button to set a big box around the area you want to work in. That will ensure it loads all the data and it should show a estimated swath coverage under your mouse as you add waypoints. The circle between waypoints can be clicked/dragged to add intermediate waypoints to adjust coverage/overlaps.

GAP FILLER – beta using webservices

Vis Lab Project:
(Tom Butkiewicz and Ilya
Atkin)
working on integrating the
web service layers
updated more frequently

For More Information
Contact: Dr. Colin Ware
cware@ccom.unh.edu,
tbutkiewicz@ccom.unh.edu,
atkin@ccom.unh.edu

Thanks!

