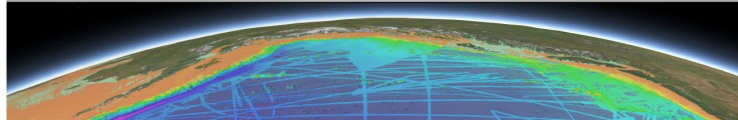


Arctic & North Pacific Ocean Regional Center

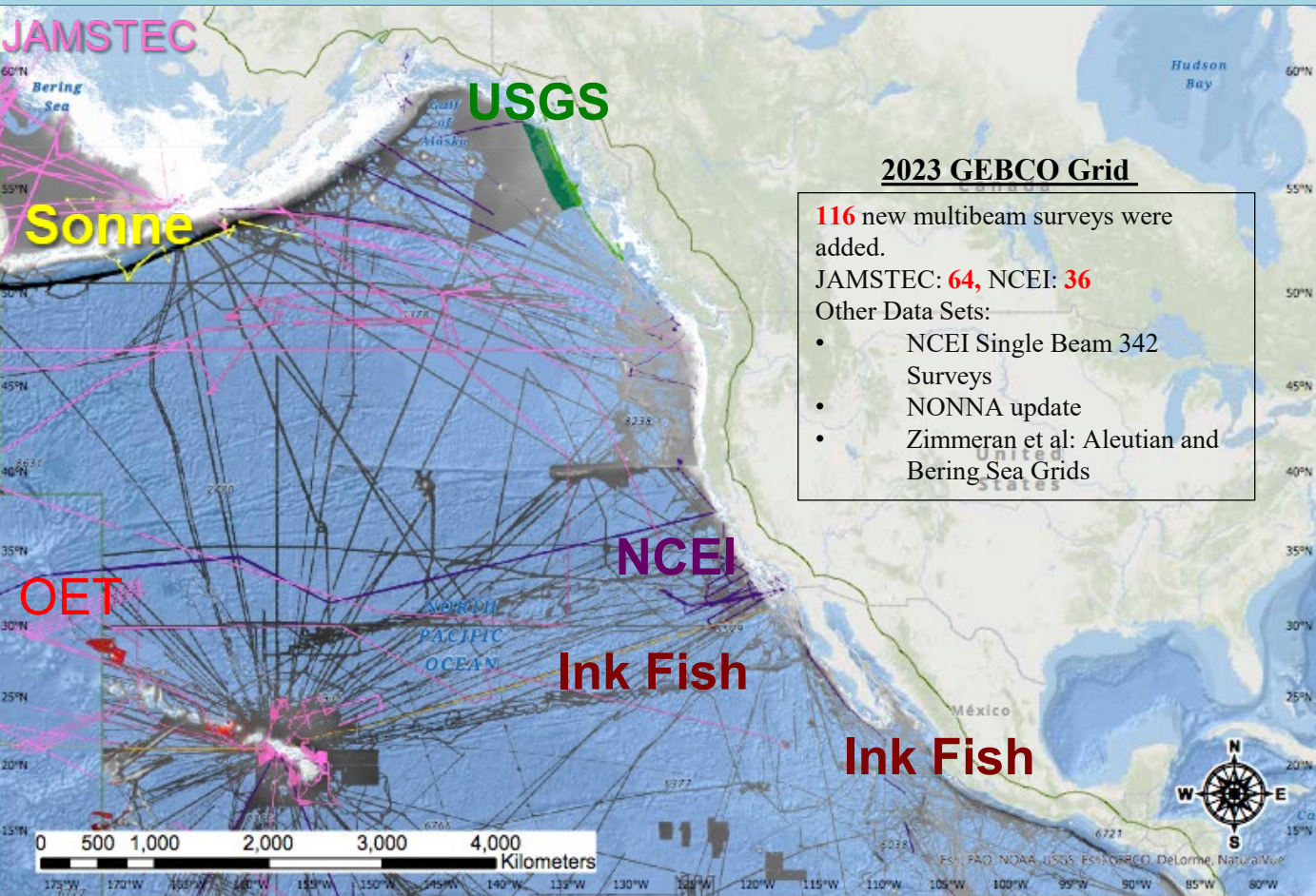
2023 North Pacific Update

Juliet Kinney, Paul Johnson, Larry Mayer,
Sara Cardigos, Michael Bogonko
Center for Coastal and Ocean Mapping, University of New
Hampshire

Arctic-Antarctic and North Pacific Mapping Meeting V
November 27-29, 2023



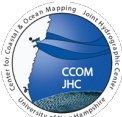
North Pacific 2023 Multibeam



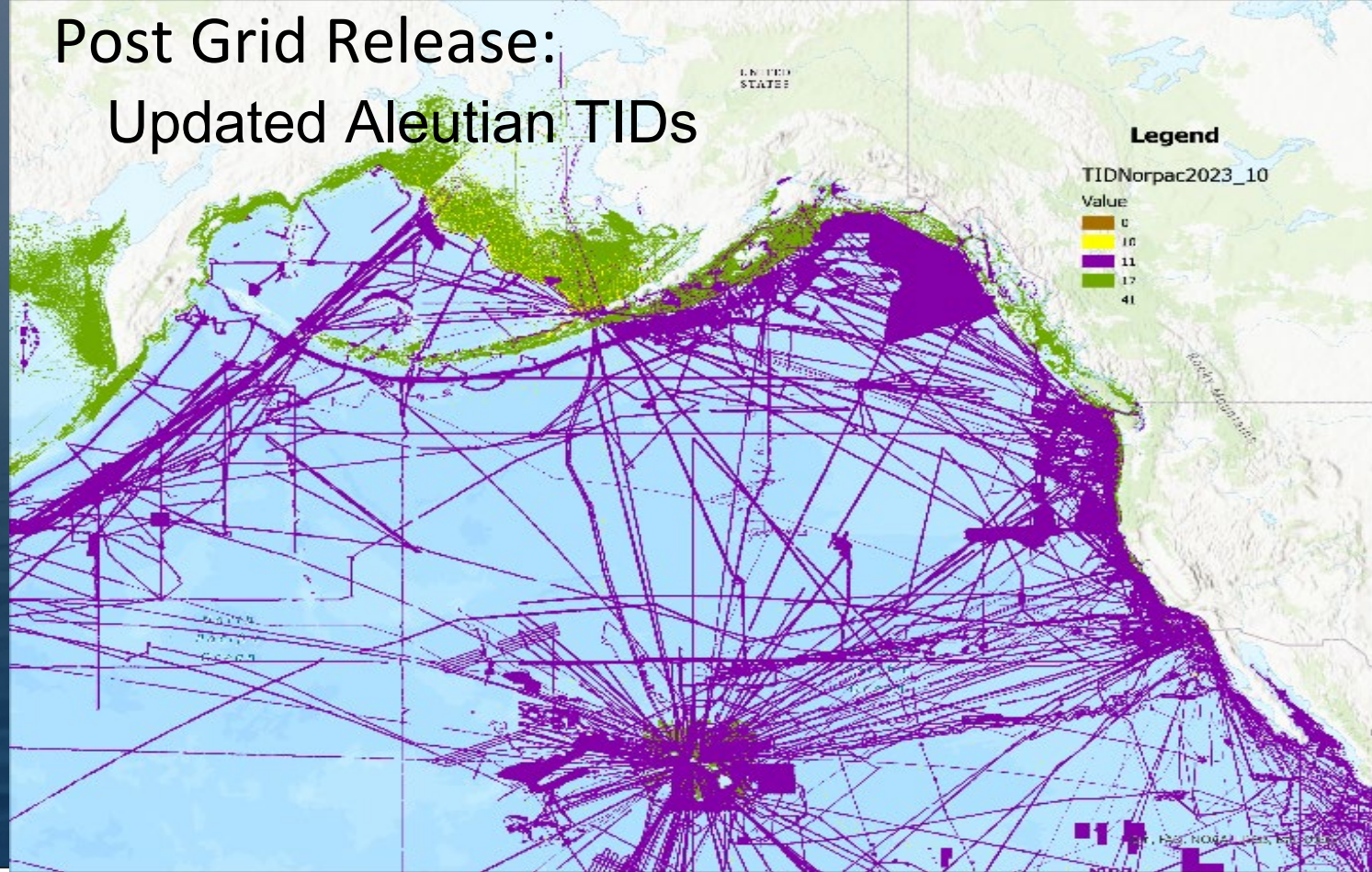
Multibeam Surveys:

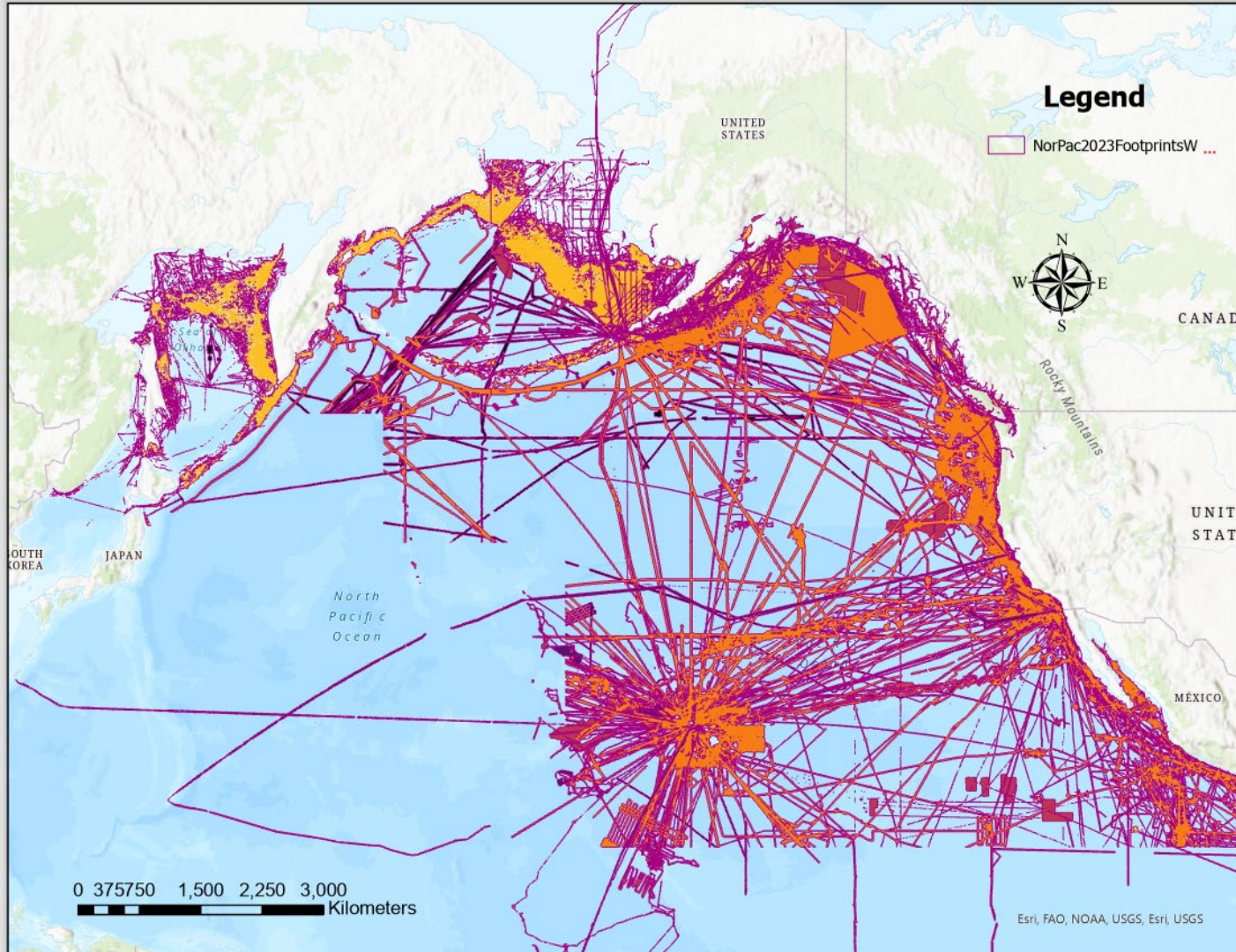
- **NCEI: 36**
- **Nautilus/OET: 8**
(25 grids)
- **JAMSTEC: 64**
- **Ink Fish: 4**
- **USGS: 2**
- **CCOM: 1**
- **Wöfl et al, 2022 SO293 :**

Post Grid Release:



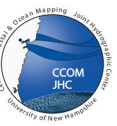
Post Grid Release: Updated Aleutian TIDs





Data Coverage Polygons (Survey Footprints) for all data sets used in NorPac2023 grid submitted to GDACC

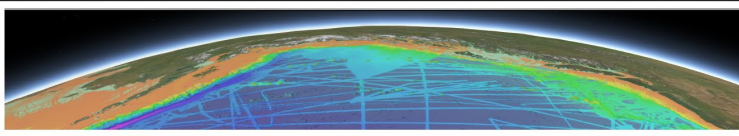
Many issues with data coverage polygon creation!



Updates:

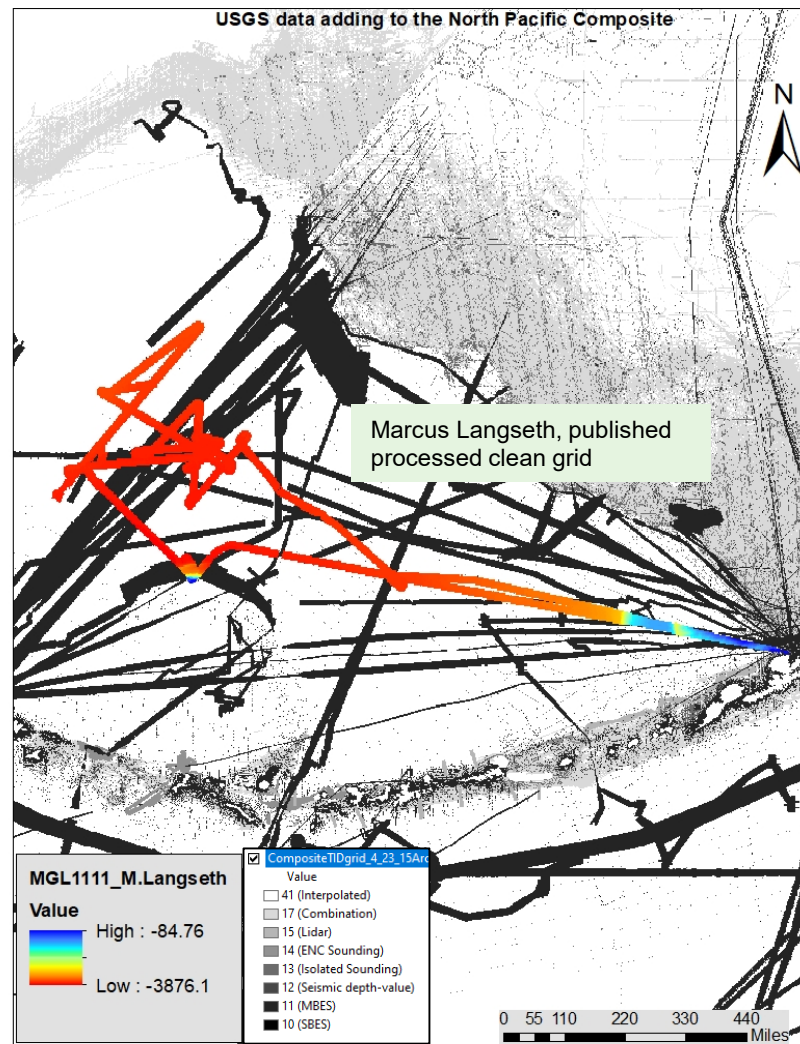
21 New Multibeam Surveys were processed and submitted to Stockholm Statistics Nov 1
49 new multibeam surveys not in grid received from NCEI. Processing started.

Expecting more for 2024:
Zimmerman, OET, InkFish, CCOM, S0292 etc.



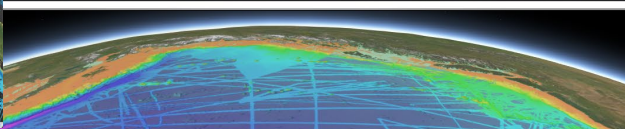
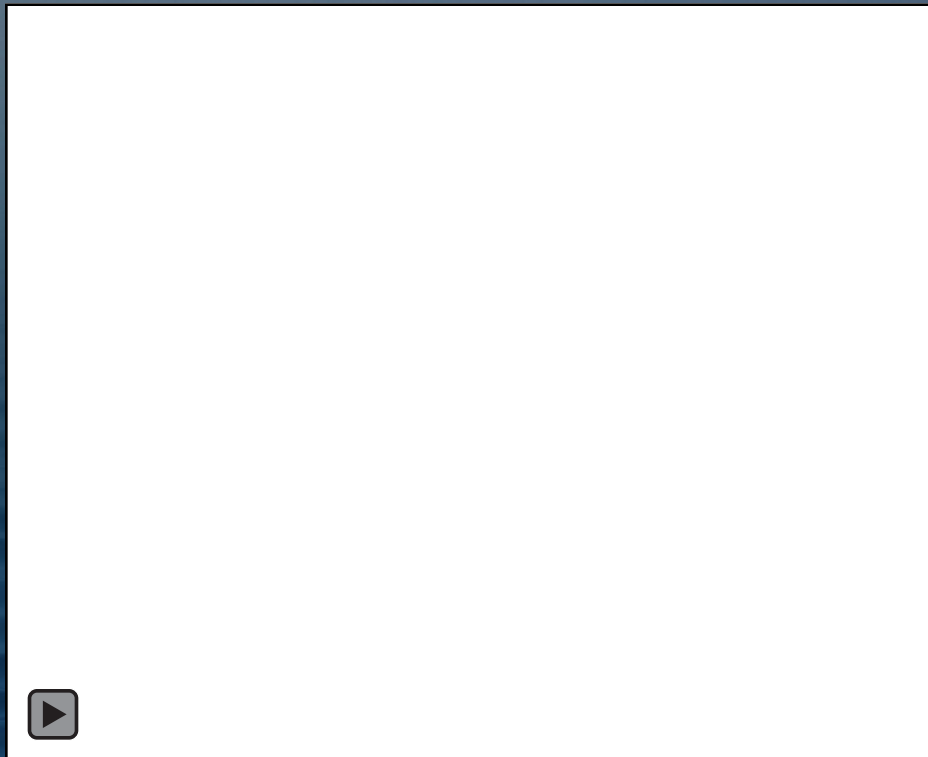
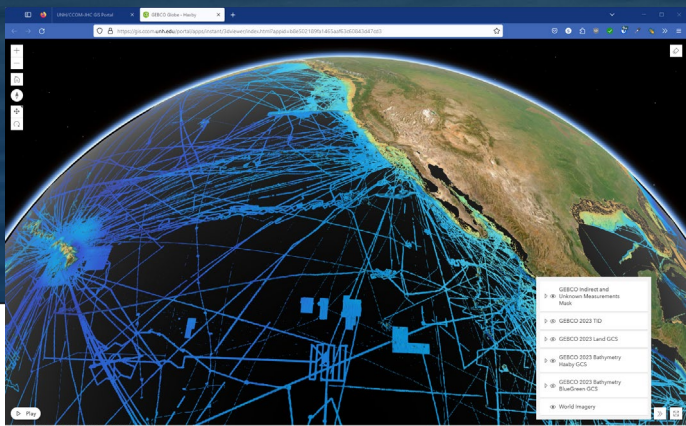
Data Identification: Grids Published by USGS in Alaska

USGS Alaska: Daina Mathai
GEBCO lab visit project



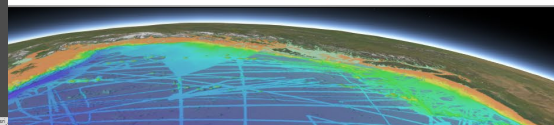
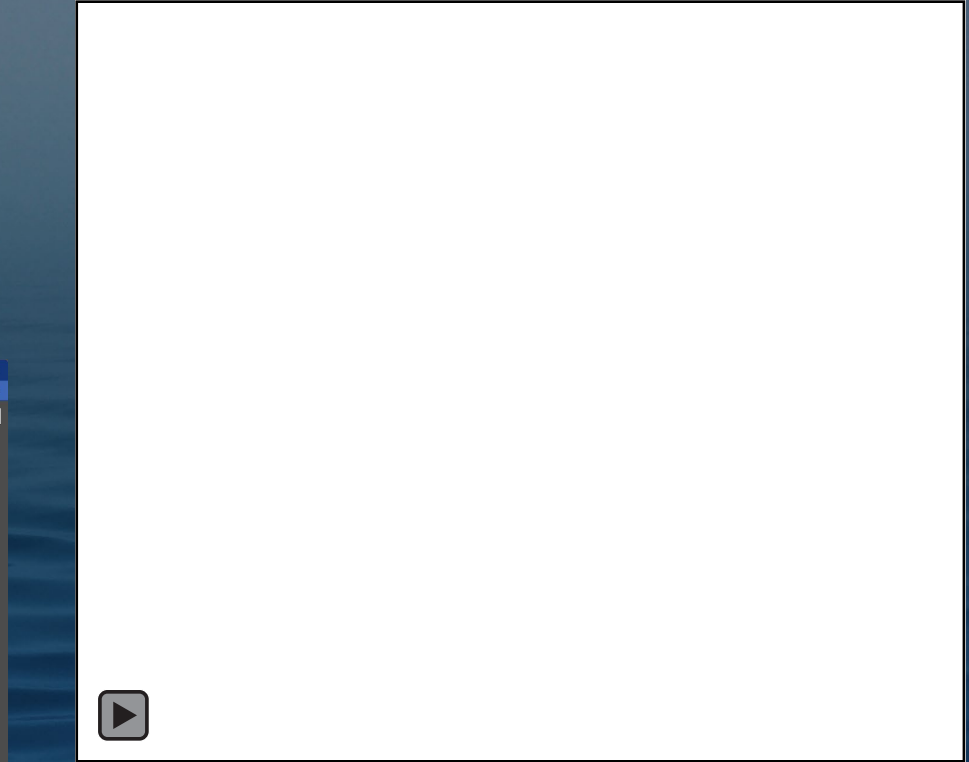
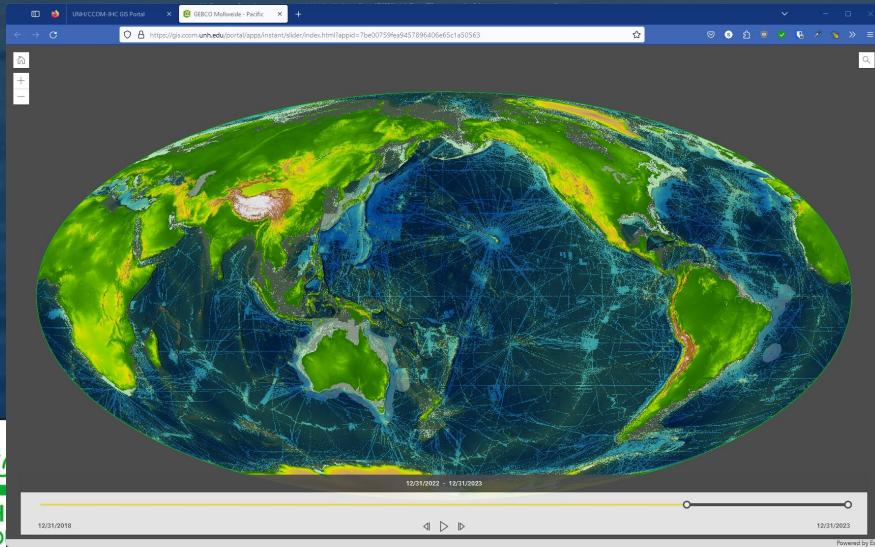
GEBCO 2023 Globe Visualization

- Revised to provide a visualization to the 2023 bathymetry and the most recent version of the 2023 TID released this fall
- Available through <https://gis.com.unh.edu>
- New versions
 - Blue/Green color palette with and without the indirect sounding mask
 - Haxby color palette with and without the indirect sounding mask
 - New partial transparency for the mask



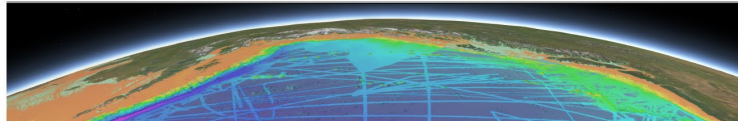
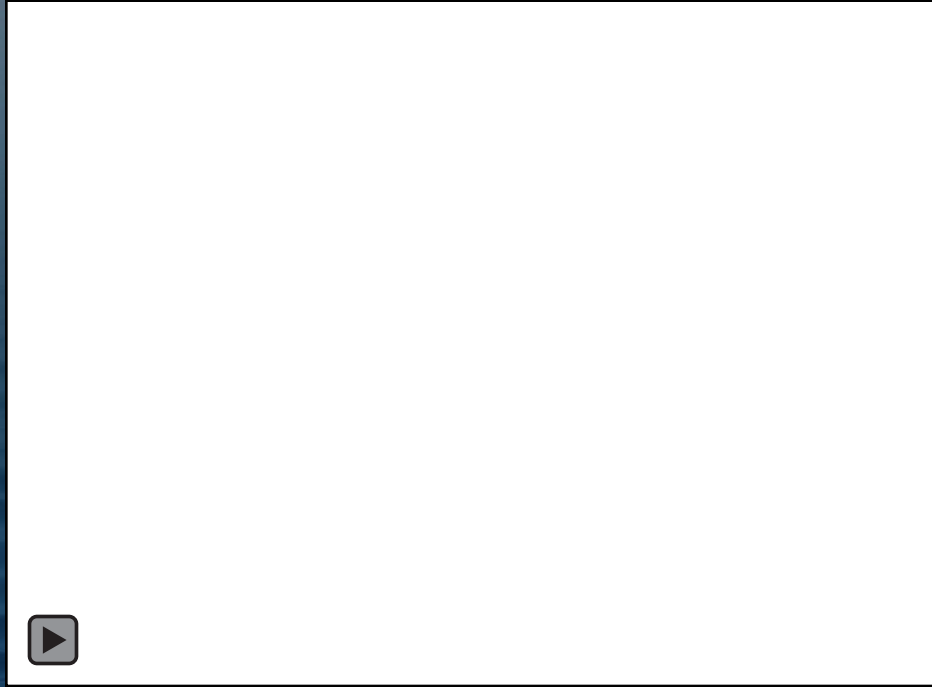
Visualizing the Change in GEBCO Coverage

- New web applications to examine the change in survey coverage
- Available through <https://gis.ccom.unh.edu>
- Pacific (below) and Atlantic centric Mollweide projections for change from 2019 to 2023
- Interactive slider versions (right) for change from 2014 to 2023



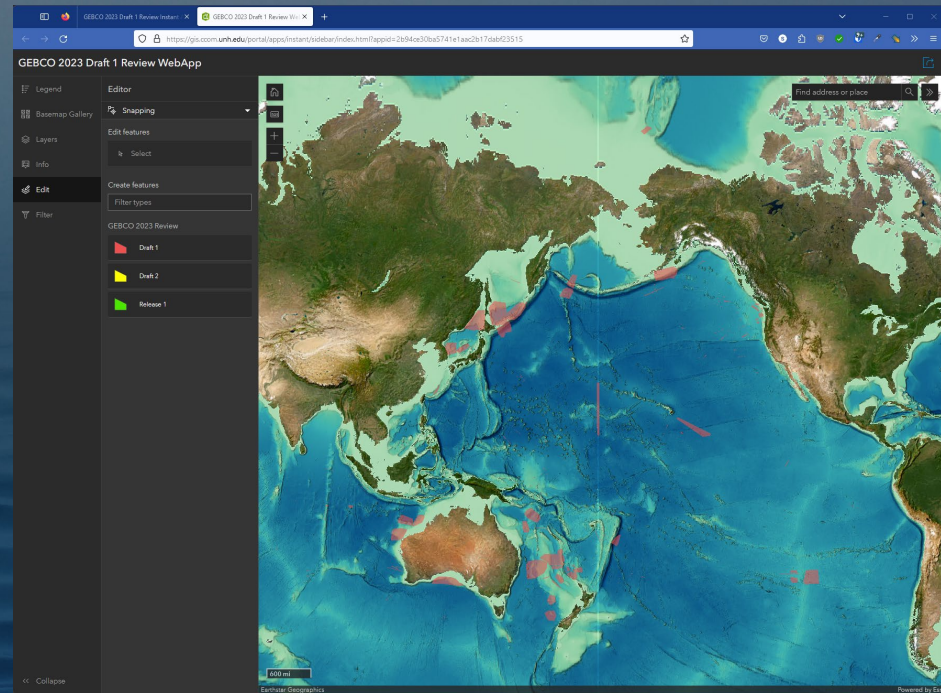
Multibeam Test Site Database

- Improve data quality by providing sites for testing
 - Calibration
 - Swath Coverage
 - Swath Accuracy
 - Backscatter
 - Water Column
- Sites from
 - Multibeam Advisory Committee
 - NOAA
 - Community
- Available through
<https://gis.com.unh.edu>



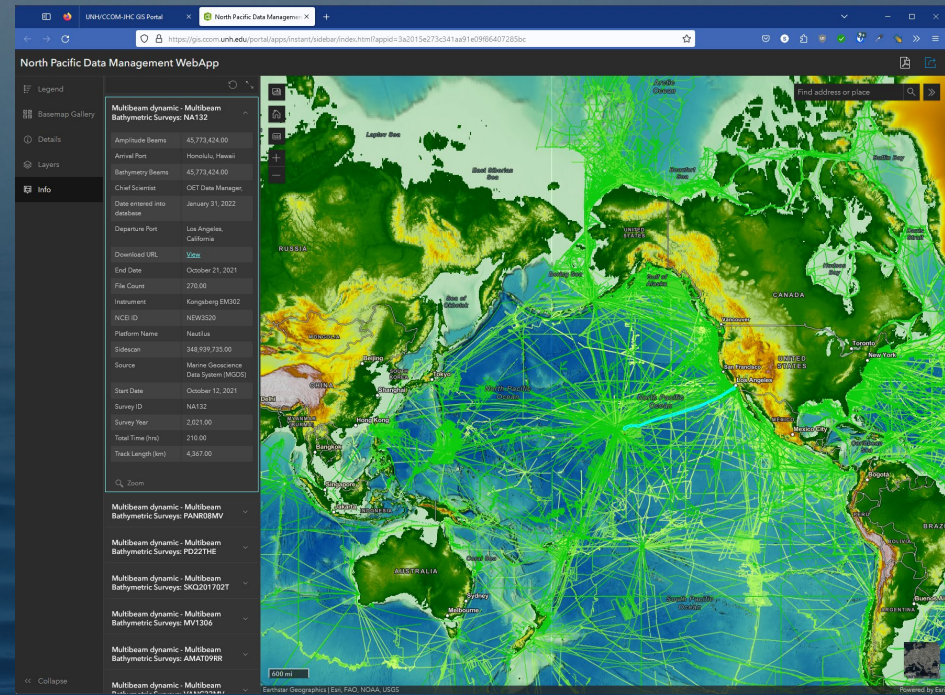
Collaborative Data Quality Assessment

- Web application created and hosted on the UNH/CCOM-JHC ESRI GIS portal
- Used for North Pacific and drafts of GEBCO 2020-2023
- Served to world-wide reviewers for each draft release of the grid
- Easy drawing of polygons to designate review areas
- Hosted database for potential data issues, track area, comments, & reviewer
- Easily exported to common formats (e.g., KML and Shapefiles)

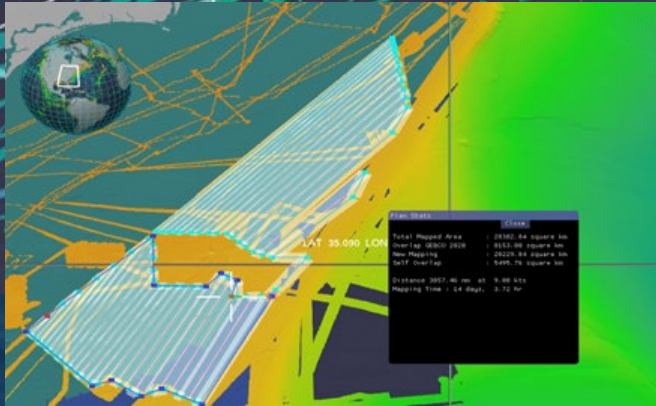
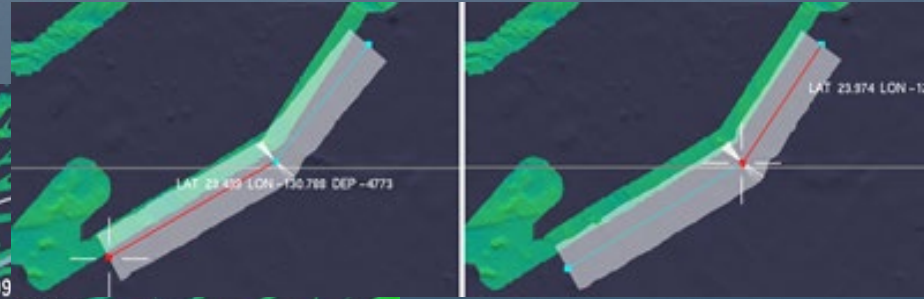
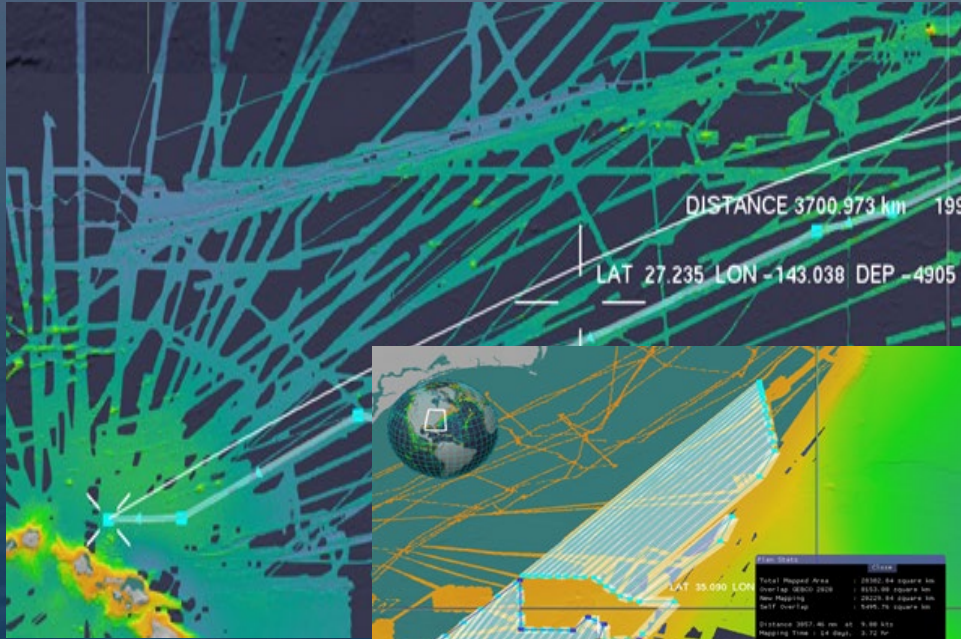


Data Management

- 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..
- Available through <https://gis.ccom.unh.edu>



GAP FILLER



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

