Arctic & North Pacific Ocean Regional Center

2023 North Pacific Update

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Arctic-Antarctic and North Pacific Mapping Meeting V
November 27-29, 2023
116 new multibeam surveys were added.

**JAMSTEC: 64, NCEI: 36**

**Other Data Sets:**
- **NCEI Single Beam 342 Surveys**
- **NONNA update**
- **Zimmeran et al: Aleutian and Bering Sea Grids**

**Multibeam Surveys:**
- **NCEI: 36**
- **Nautilus/OET: 8** (25 grids)
- **JAMSTEC: 64**
- **Ink Fish: 4**
- **USGS: 2**
- **CCOM: 1**
- **Wölfli 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.ccom.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.ccom.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
Plan Stats

Total Mapped Area : 63773.74 square km
Overlap GEBCO 2828 : 38863.33 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