

Making the Case for Multidisciplinary Ocean Research in the Aleutians

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2023 Alaska Geosummit

October 25 – 27, 2023

Anchorage, Alaska



**Multibeam Report for
TN182 (2005)**

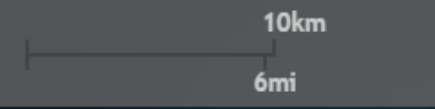
**Single-Beam
Bathymetric Survey
for OC1707A (2017)**

**Multibeam Report
for KM0311 (2003)**

Attu

Attu

Position: 172.453°, 52.855°
Elevation:



A horizontal scale bar with two segments. The top segment is labeled '10km' and the bottom segment is labeled '6mi'.

Data and imagery courtesy of NOAA National
Centers for Environmental Information



Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks



Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks



Alaska State Library - Historical Collections



United States Army

549 KIA

1,148 WIA

2,000+ Non-Battle Injuries



Alaska and Polar Regions Collections, Elmer E. Rasmuson Library, University of Alaska Fairbanks

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Gerald Flynn Photos, University of Alaska, Anchorage Archives



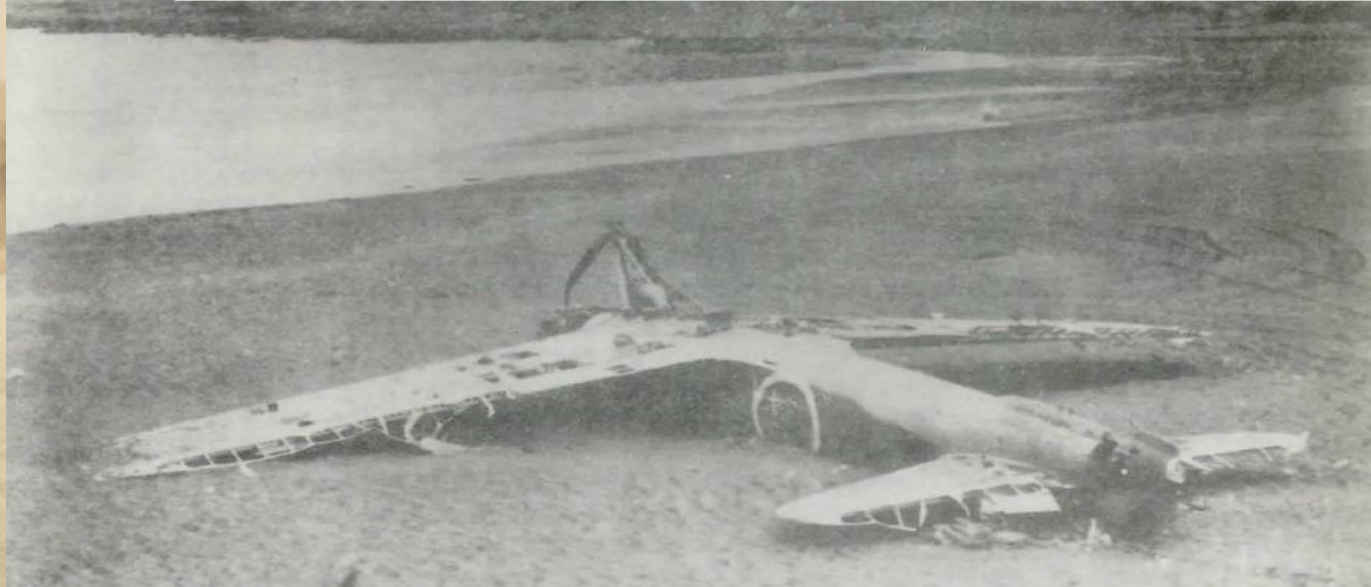
Handleman 1943. *Bridge to Victory*. Pg. 120



Kenneth Hillman Photograph Collection, Anchorage Museum Archives

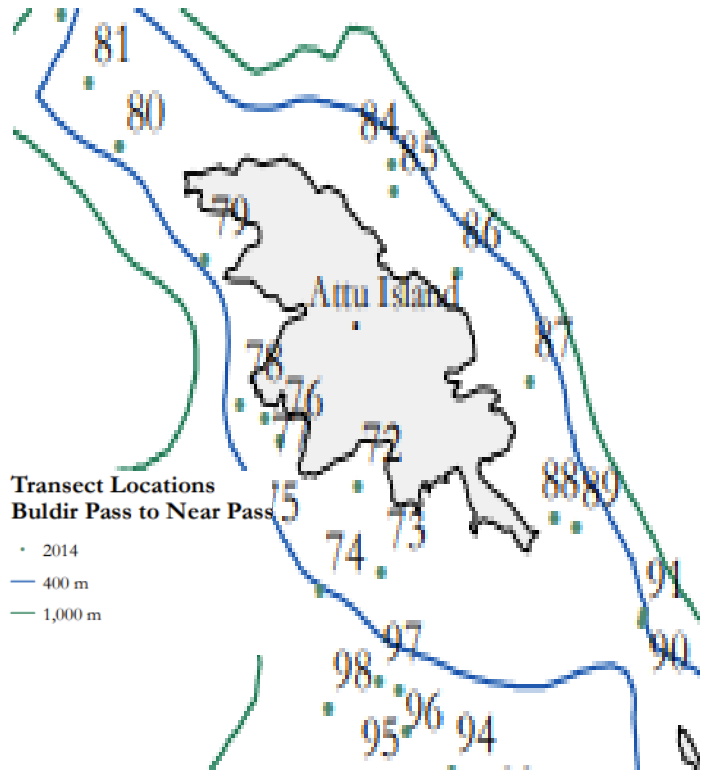


Ralph Gilmore Photo Album, University of Alaska, Anchorage Archives

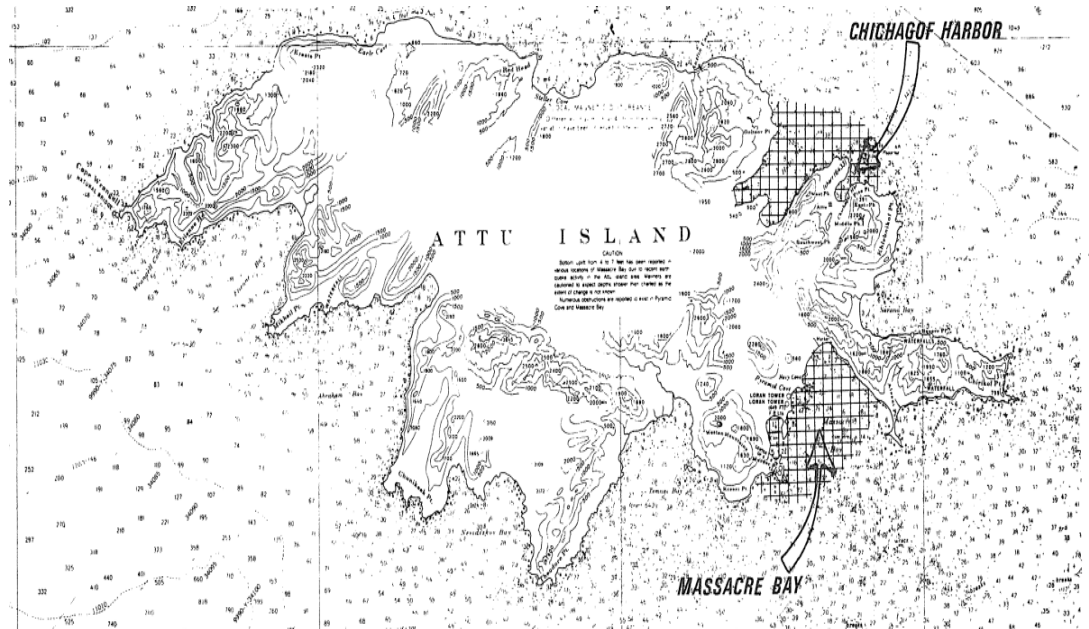


Western Defense Command 1943. *Intelligence Memorandum No. 8*. Pg. 30

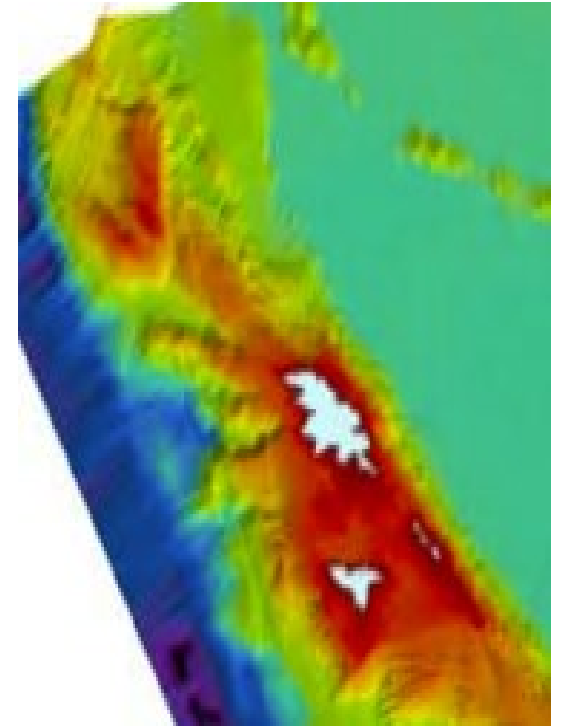
Previous Survey Projects



Goodard et al. 2017. Results of the 2012 and 2014 underwater camera surveys of the Aleutian Islands. Pg. 336

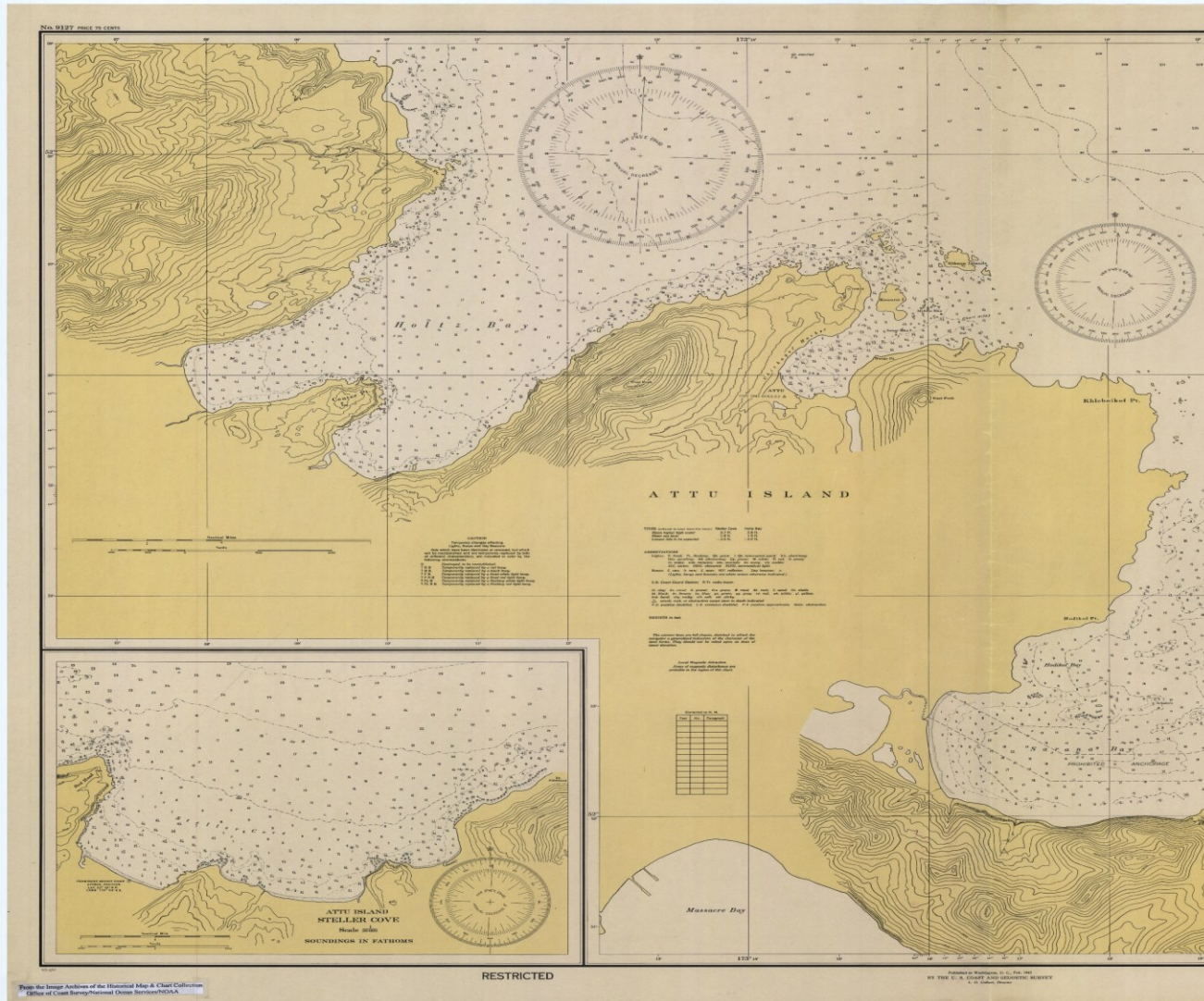


Simenstad et al. 1978. Nearshore Fish and Macroinvertebrate Communities of Attu Island, Alaska. Pg. 4

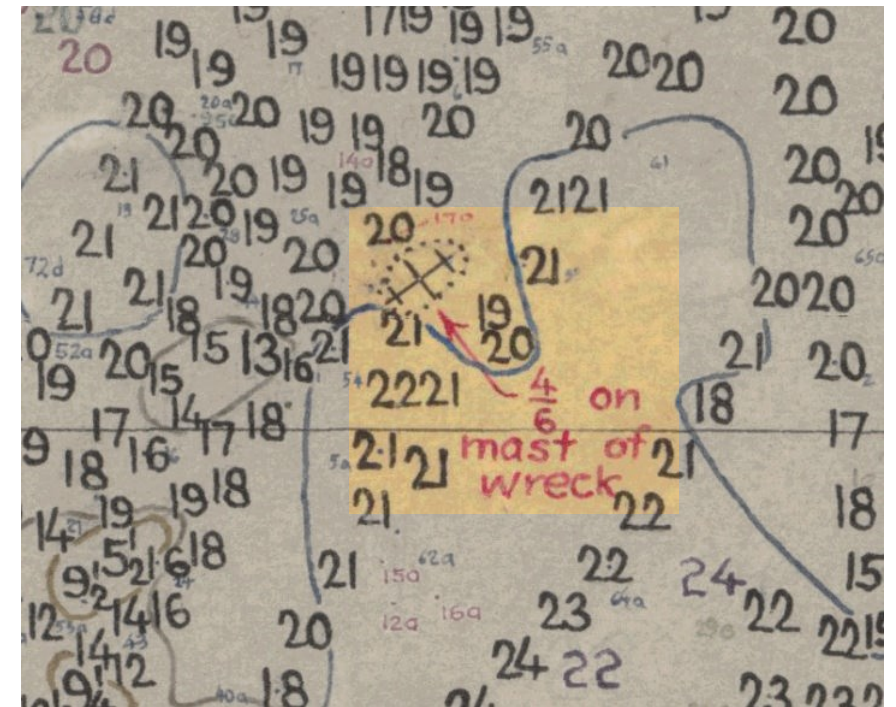
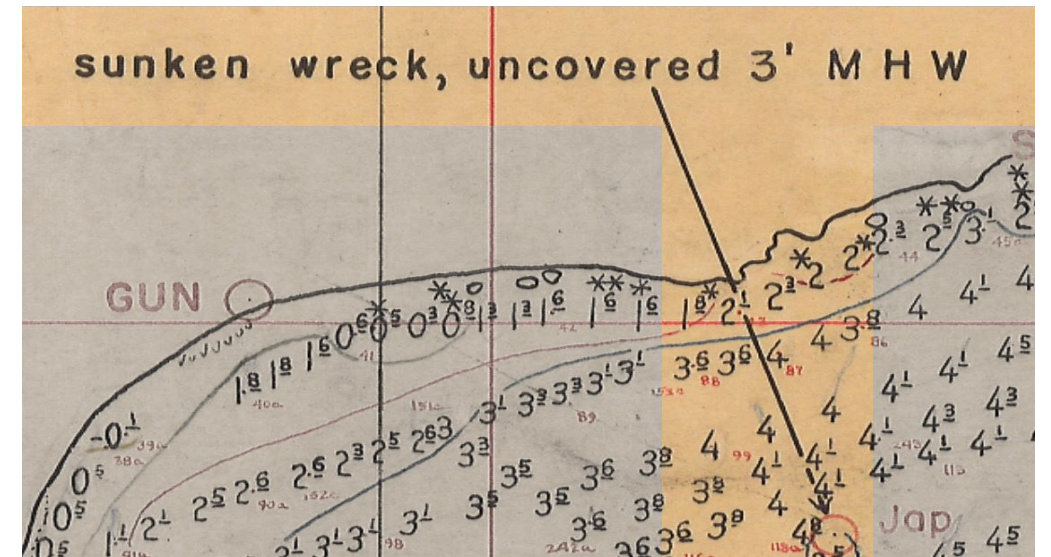


Zimmerman et al. 2013. Smooth sheet bathymetry of the Aleutian Islands. Pg. 35

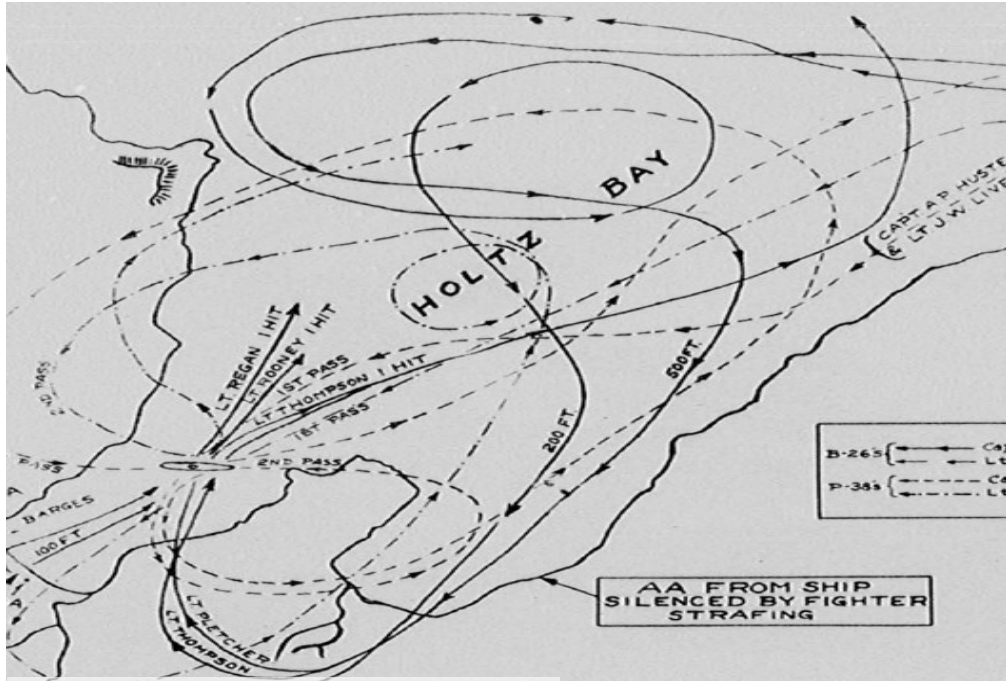
United States Coast and Geodetic Survey (1943-1947)



USCGS Chart 9127 (1945)



USCGS Smooth Sheets for H07014 (1944) and H06039 (1943-1947)



11th Air Force 1942. Intelligence Summary for November 26. Pg. 4

SECRET

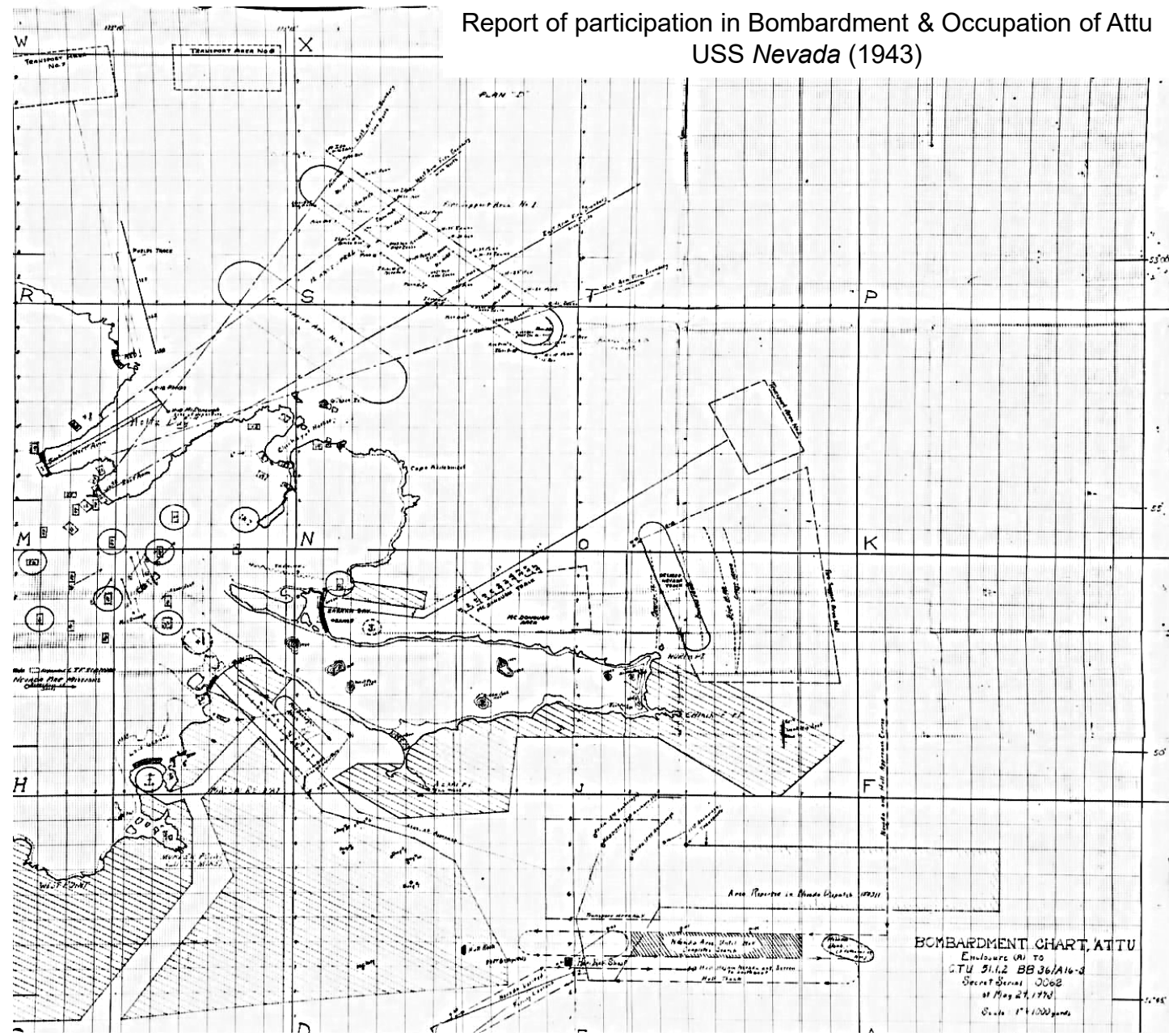
The wreck charted in lat. $52^{\circ} 58.9'$ long. $173^{\circ} 14.52'$ falling in depths of 46 fms. originates with bp. 38543 (1943). This wreck should be retained.

A Japanese ship lies 740 meters east of signal Ball in $4\frac{1}{2}$ fathoms, $\frac{3}{4}$ feet of it is visible above the water.

(9) The wreck in lat. $52^{\circ} 51.37'$, long. $173^{\circ} 13.68'$ has not been charted.

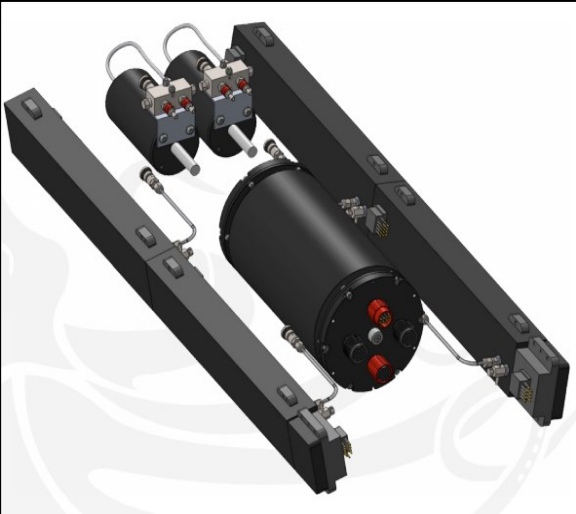
Wreck of "Dellwood"- A yellow marker buoy is shown at wreck of the S.S. "Dellwood" in Lat. $52^{\circ} 46.11'$ Long. $173^{\circ} 18.15'$. A boom of the ship shows above the surface. Marker buoy removed June 29, 1944 Boom gone

Report of participation in Bombardment & Occupation of Attu
USS Nevada (1943)

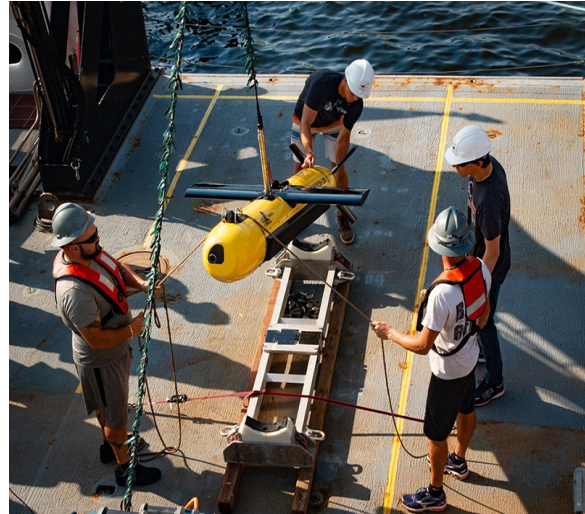


Excerpts from Hydrographic Survey reports by United States Coast and Geodetic Survey (1943-1947)

Synthetic Aperture Sonar (SAS)

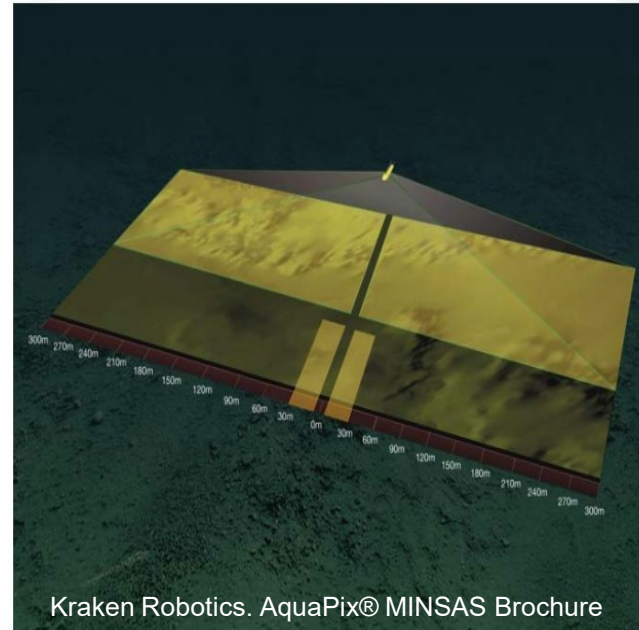


Kraken Robotics. AquaPix® MINSAS Brochure

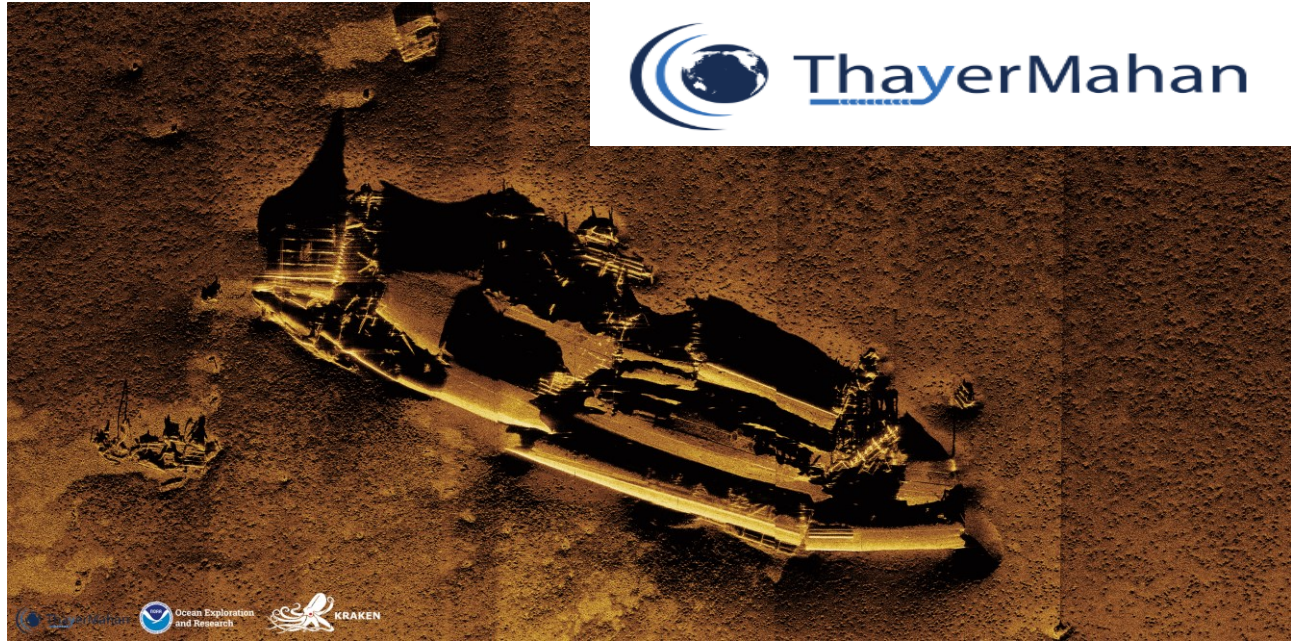
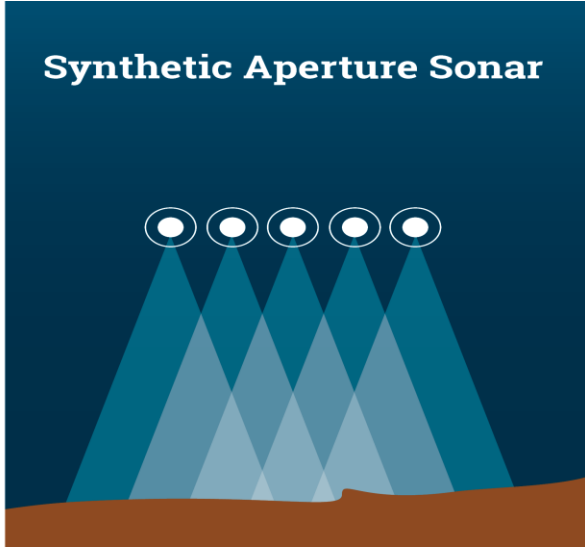
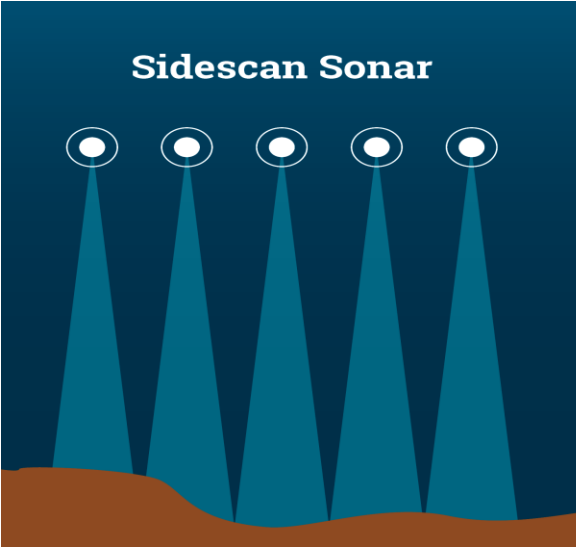
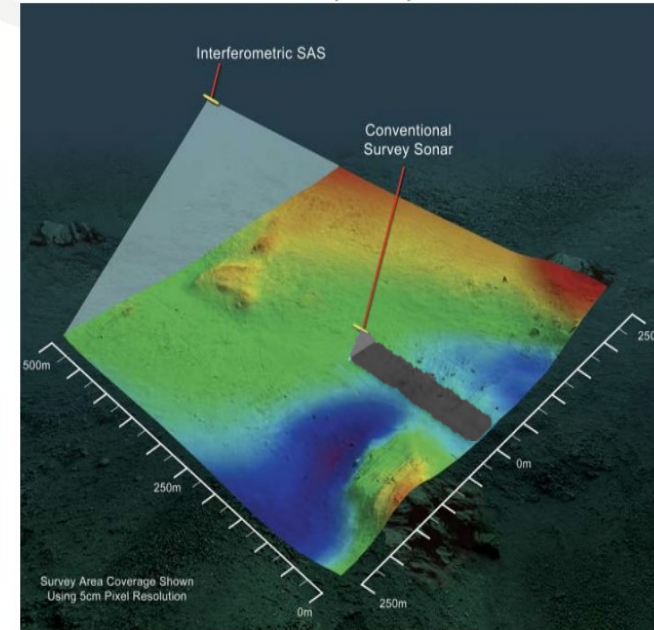


NOAA Office of Ocean Exploration and Research, 2019 Technology Demonstration.

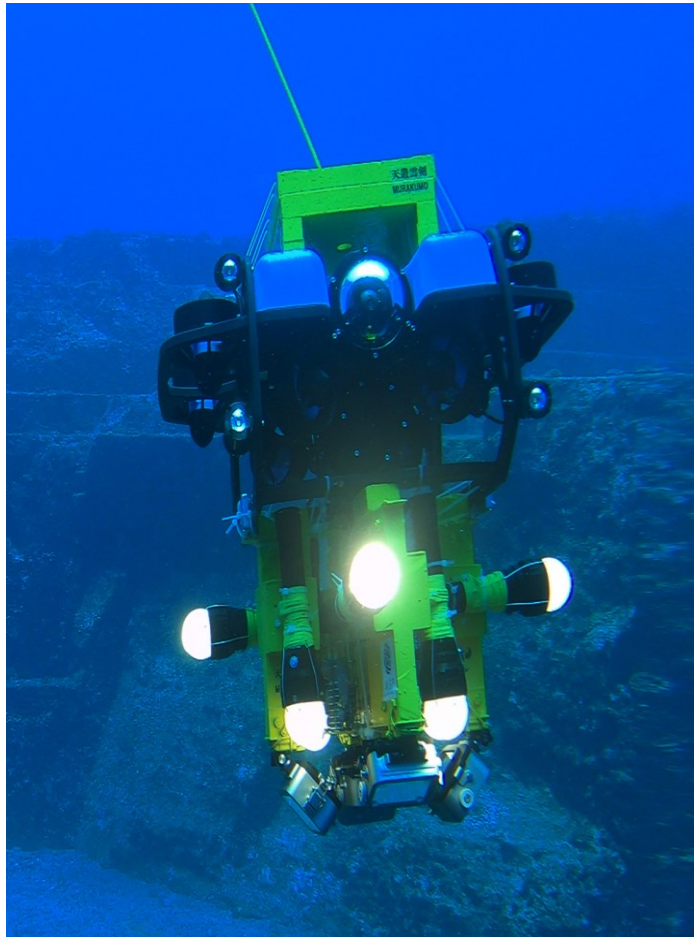
SAS swath vs SSS swath



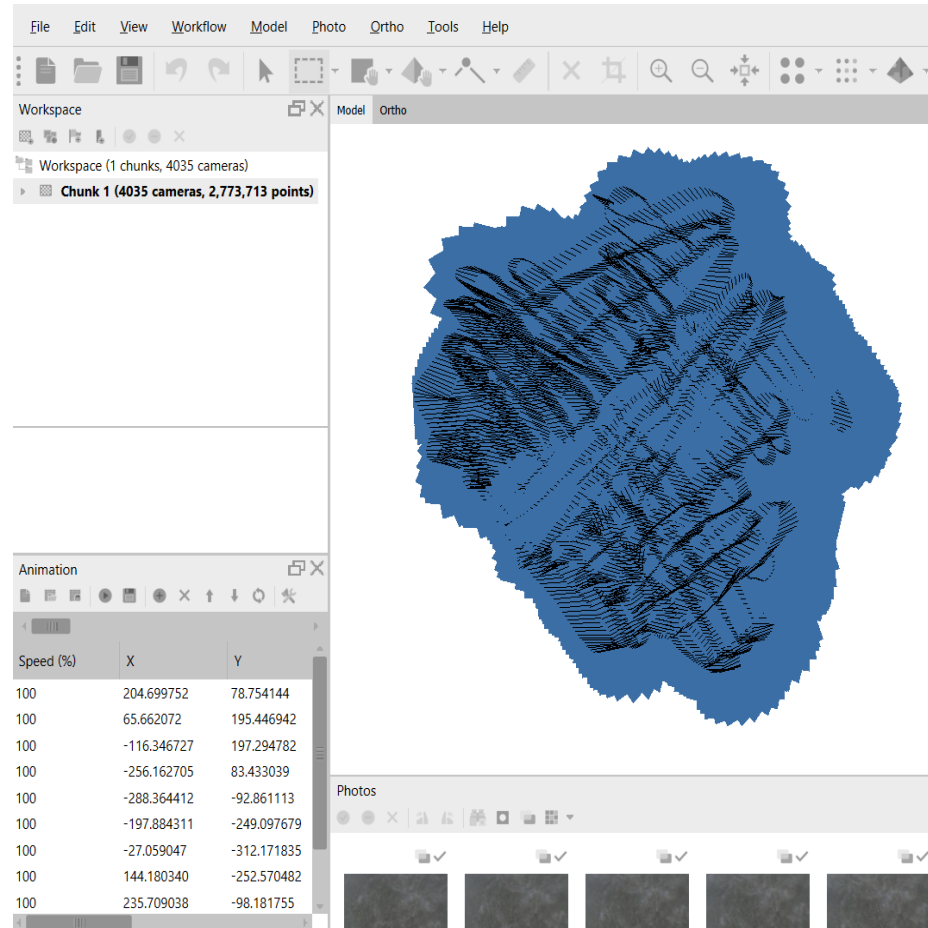
Interferometric Bathymetry vs Multibeam



3D Photogrammetry



World Scanning Project's underwater 3D scanning robot, MURAKUMO®

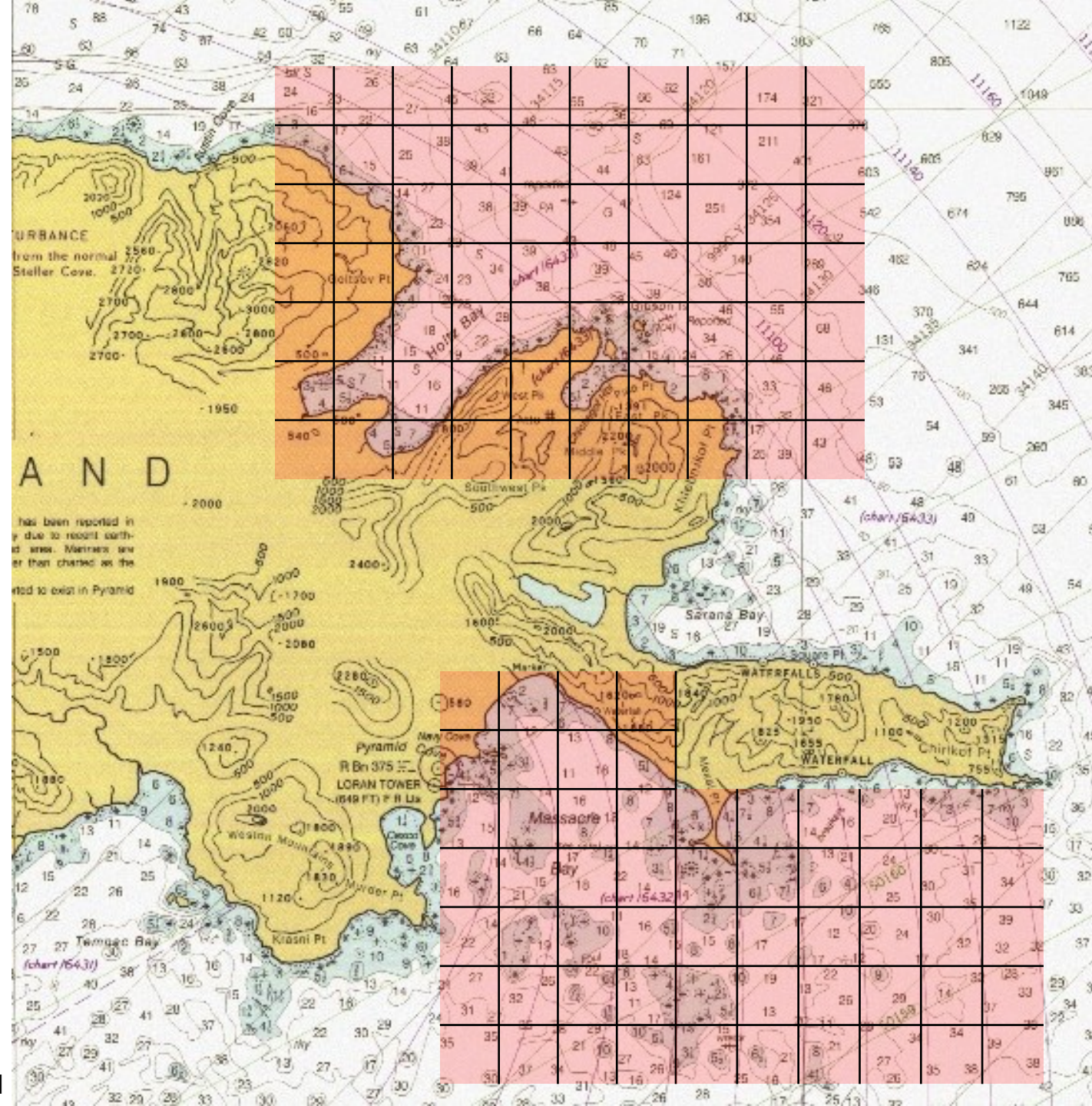


Agisoft Metashape 1.8.4 Interface. Original Work by the Author.



The Data

- Locational data paired with imagery to create a geospatial record of underwater cultural heritage
- Useful for archaeological research, public outreach, and follow up studies
- Data may also be useful for biologists studying the Aleutian benthic environment and assessing substrate colonization by sponges and corals.
- Assess the feasibility of artificial reefs in supporting coral and sponge diversity.
- Data can be made available for others to use



Thank you to our project partners



And

The Conference Organizers!



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