

National Geodetic Survey Director's Update to the HSRP

Brad Kearse
NGS Deputy Director
May 29, 2025

HSRP Meeting - Virtual



HYDROGRAPHIC SERVICES REVIEW PANEL

Outline

- **Update on NSRS Modernization**
- **Update on Operations:**
 - **Airborne Gravity operations**
 - **Coastal Mapping Program Updates**
 - **VDatum**



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NSRS Modernization Timeline

June 2025

Initial release of key data sets (Beta site)

Sep 2025

Second release of tools and services (Beta site)

Early 2026

Finalizing tools and service based on comments provided through the Beta site (Beta site)

Late 2026

FGDC Approval - Moving all data, tools and services into production
Modernized NSRS Deploys!



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Working with industry

(U.S. - Canada Industry Summit, 4/23-24/2025)



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Airborne gravity (Canada)

*NGA funded project

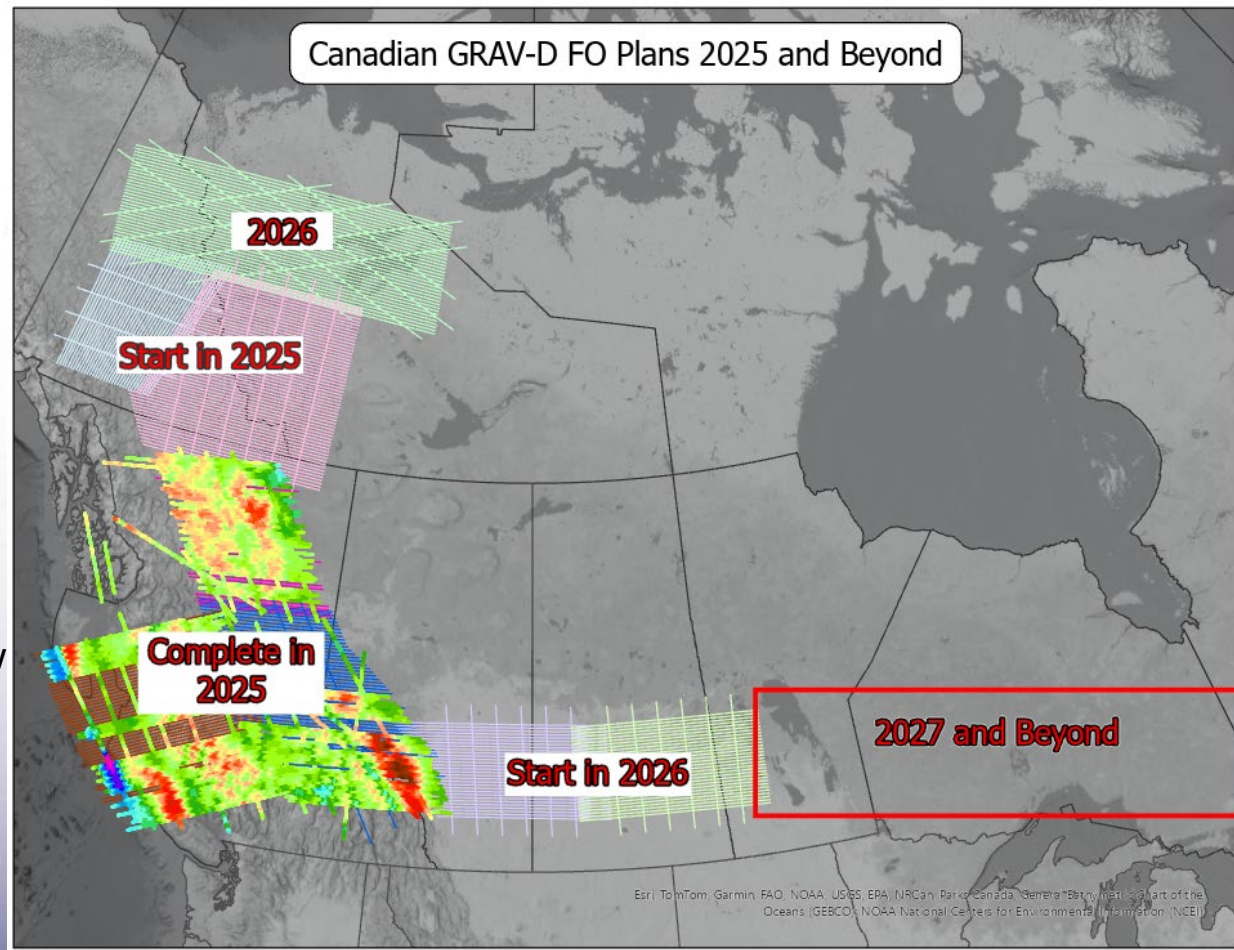
Complete blocks over the Canadian Rockies in 2025

Start blocks over Yukon and Northwest Territories in 2025

Complete large block over Yukon and Northwest Territories in 2026 with long range aircraft.

Start central blocks in 2026 (Below 53°N parallel).

2027 and Beyond move through Ontario.



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Emergency Response Imagery

National Geodetic Survey

NGS Home

About NGS

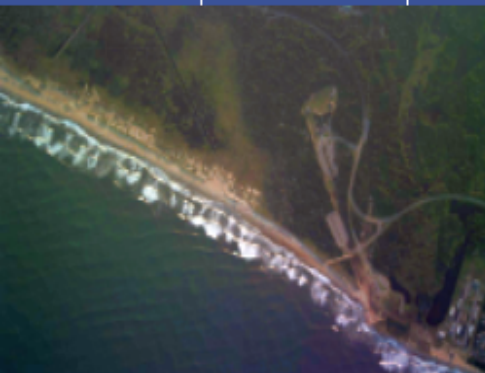
Data & Imagery

Tools

Surveys

Science & Education

Search



The imagery posted on this site was acquired by the **NOAA Remote Sensing Division** to support NOAA homeland security and emergency response requirements. In addition, it will be used for ongoing research efforts for testing and developing standards for airborne digital imagery.

Tips for navigating the Emergency Response Imagery Viewer.

Emergency Response Imagery:

Midwest U.S. Flooding (2025)

California Fire (2025)

Hurricane Milton (2024)

Hurricane Helene (2024)

<https://storms.ngs.noaa.gov/>

Navigation

National Geodetic Survey

Pre-Event Imagery

Contact Us

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NOAA aerial imagery

External



Loret...@resources.ca.gov

Feb 4, 2025, 7:38 PM



to me ▼

Dear Mike,

We were notified of the data you all collected and are very grateful for NOAA's provisioning of this critical data. It's been passed to CAL FIRE, Office of Emergency Services, and our Geological Survey teams for use in the response. If I may, I'd like to make a public announcement as to the availability of these data more broadly.

Thank you and your team for all you do.

Loretta (Lorie) Moreno | Environmental Program Manager

[Forest and Wildfire Resilience](#)

Mobile: 916-813-4501



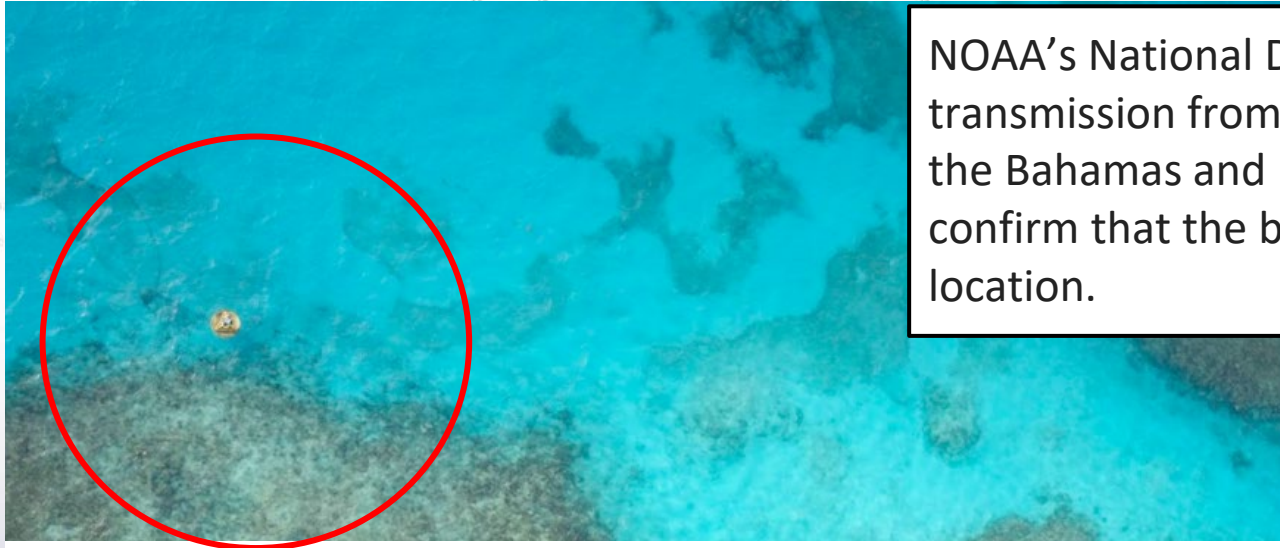
Program and

eral public do

Download Contact



Recovery support - Weather Buoy



NOAA's National Data Buoy Center lost transmission from a weather buoy just north of the Bahamas and requested the help of NGS to confirm that the buoy is still in the same location.

Hi Everyone!

On behalf of NDBC I want to say a big thank you to everyone who contributed to making this happen! I know one buoy doesn't seem like a that big of a deal, but with this verification, we can now confidently contract a ship to recover it safely. It will be returned home to us here in Mississippi where it will get any needed repairs and then get re-deployed to continue making a big difference in the weather/maritime communities. We couldn't have made this happen without all of your help. The efforts made to accomplish this mission have been noticed and are certainly very much appreciated! Thanks again and great job!

Very Respectfully,
Megan

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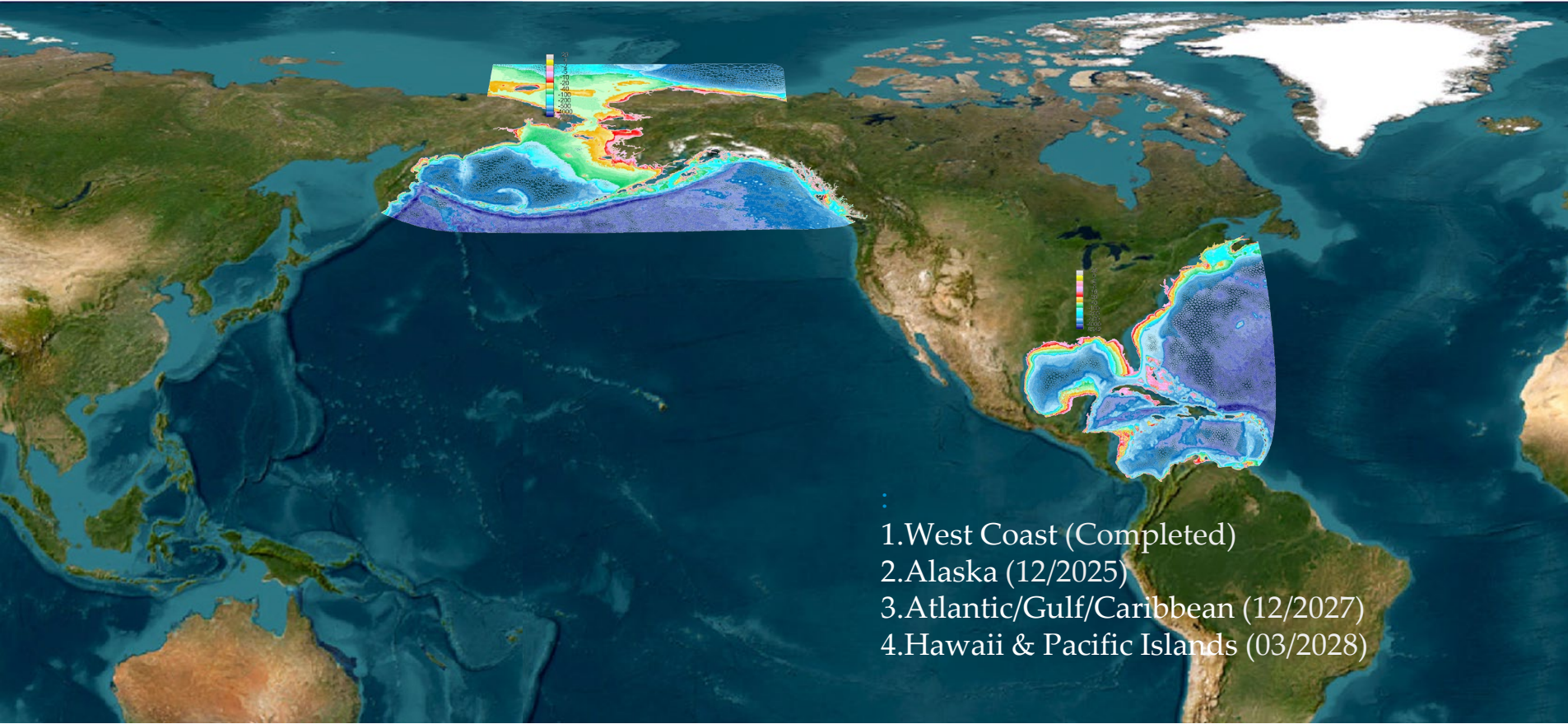


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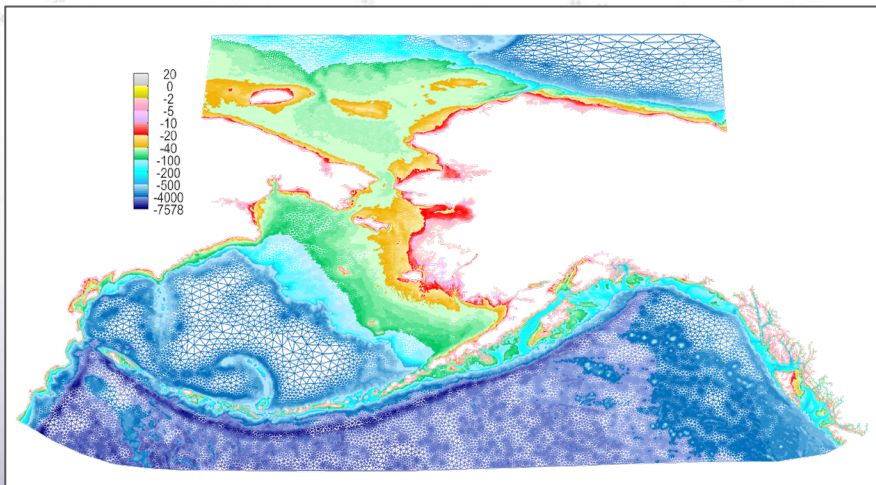
VDatum Modeling Updates: Coverage and Projects

Modernization: Regional Modeling Approach for U.S. coverage

OCS/CSDL/CMMB



VDatum Modeling Updates: Coverage and Projects Alaska (Delivery date 12/2025-1/2026)



5,015,327 nodes; 30m min resolution; 10m locally

completed two key milestones:

- (1) Mesh development
- (2) Model calibration w/ tides assimilation

Next steps:

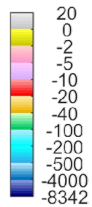
- (1) Spatially Varying Uncertainty
- (2) Bounding Polygons and Marine Grids



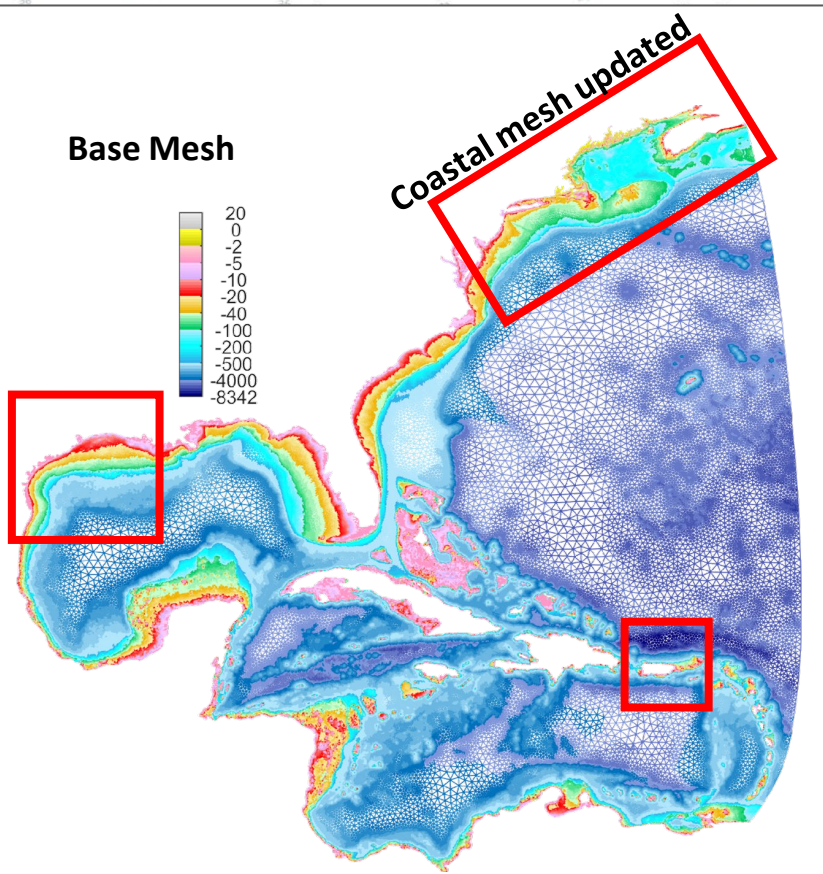
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East Coast VDatum Project Updates (Atlantic and Gulf)

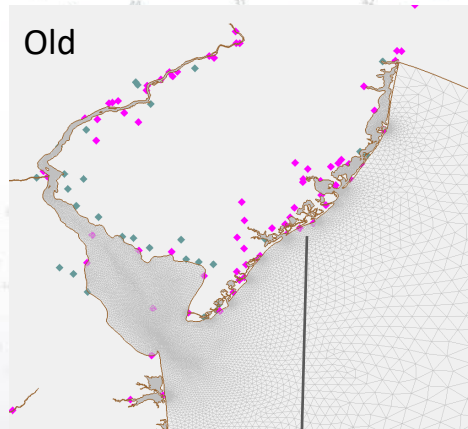
Base Mesh



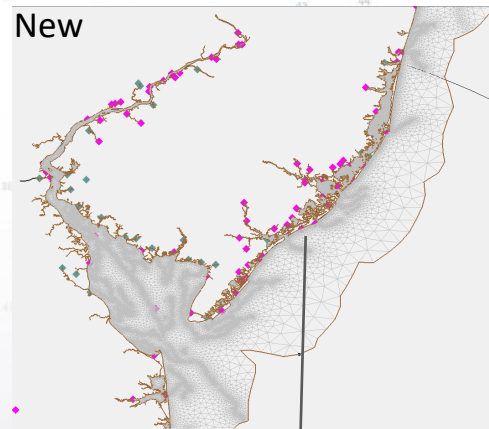
Coastal mesh updated



Old



New



Shoreline mismatched



Improved: Coverages in rivers

Thank you for your all your support!

The Circle of Life A new geoid is born



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