Center for Operational Oceanographic Products and Services (CO-OPS): Updates and Outlook

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Overview

- **CO-OPS Leadership Updates**
- CURBY Deployment Potomac River
- PORTS[®] Program Updates
- NWLON Enhancements
- Coastal Ocean Reanalysis (CORA)
- Sea Level Calculator
- Other Updates of Interest



Newly Rebuilt National Water Level Observation Network Station Ogdensburg, NY (8311030).



In situ observations -in support of DC recovery

Station Info -

Summary



PORTS®: qr0301 Potomac River at DCA 3 Days Currents

Meteorological Obs.

Phys. Oceanography

PORTS[®]

Tides/Water Levels -

Composite







PORTS[®] Program Updates

FY25 New PORTS®

- Hudson River Estuary PORTS: Established in January 2025
- Pearl Harbor- Honolulu PORTS: Established in May 2025

FY25 Enhancements so far:

- San Francisco Bay PORTS: New water level station installed at the Port of West Sacramento
- Tampa Bay PORTS: Added one new visibility station (Cut-D Inbound Rear Range)
- Lower Mississippi River PORTS: Added one new current meter off Southwest Pass and integrated a new CDIP Wave Buoy (Chandeleur Islands SE, LA)
- MyPORTS: Added Great Lakes Water Level Stations into the MyPORTS tool for route planning in the Great Lakes

CO-OPS Air Gap Policy

- Issued October 2024
- Applied consistency to all new and legacy installs
- Public facing letters standing for every bridge air gap system
- Three main points of the policy
 - 1. Dual / redundant systems reduces data down time
 - 2. Relative co-location between equipment and 'air gap reference' point *reduces error on readings*
 - 3. Partners need to work with bridge owners if additional infrastructure (platform) is needed



New PORTS[®] in the works FY25: Establish Boston Harbor, MA FY26: Establish Seattle, WA



NWLON Updates: Ogdensburg, NY

- Total rebuild needed as part of end of service life recapitalization project.
- Ongoing continuous status and operational communication with NYPA, USACE, and Canadian stakeholders has been maintained.
- Summer 2024 Final Configuration: Elevated insulated fiberglass shelter, Two shaft angle encoder fiberglass wells for CO-OPS and New York Power Authority (one each), MWWL, dual pressure sensors, Meteorological sensors, and CORS (Designation: OGNY).
- 1-minute data made available to NYPA to meet international obligation until NYPA installs their equipment.







NWLON Updates: Cape Vincent, NY

- Station relocation and install was funded by BIL in Cape Vincent, NY (9052000)
- The MWWL sensor is the Primary sensor with a dual Paros Backup. Ice eaters were also installed to mitigate buildup
- New station is located inside the St Lawrence Seaway Pilots boathouse.
- The new station also includes a full MET package (WT, AT, Winds, RH, Baro)
- Completed 11/21/24.





PANEL

EW

Coastal Ocean Reanalysis (CORA)

Gulf Coast, Atlantic, and Caribbean

Delivers 40+ years of modeled, historical water level and wave information every 500 meters along the U.S. Coast

CORA is a collaborative, community-based model effort designed to:

- Leverage historical observations from NOAA's NWLON through a coupled, assimilated modelling approach
- Provide a more complete and consistent picture of changes in water levels and flood frequencies through time
- Develop a nationwide dataset that better serves more coastal communities
- Supports the development of the next generation of NOAA coastal flood prediction systems

Data now available through the Tides and Currents website.



Sea Level Calculator

Go-to resource for local data and information

Co-developed by NOAA CO-OPS and the Office for Coastal Management Development guided and informed by users

Features:

- Combined functionality of existing tools in one website
- Updated, best-available data from NOAA and 2022
 Sea Level Technical Report
- Easily shareable local data, maps, and graphics **Five Quick Views:**
 - Future Sea Levels
 - Changes in Flood Frequency
 - Extreme Water Levels
 - Sea Level Trends
 - Seasonal Variation





Other Updates of Interest

- National Current Observation Program (NCOP): Survey will be conducted in Newport, OR from May Aug. 2025
 - **OceansMap:** is a new tool that integrates real-time observations with OFS forecasts to provide up-to-date assessments of ocean conditions. **It was launched in beta testing mode on Tides & Currents in 2024.**
- CDIP Wave Buoys: Coastal Data Information Program (CDIP) is an extensive network for monitoring waves and beaches along the coastlines of the United States. CO-OPS has an agreement with CDIP to pull wave buoy data into various PORTS[®]. CO-OPS and CDIP are actively working to expand this agreement to allow CO-OPS to pull the CDIP wave data into Coastal Inundation Dashboard (CID).
- **Coastal Inundation Dashboard:** <u>Quick start user guide</u> is available now. Improved Multi Station view was recently added to create a shareable link to view water levels at up to 20 stations across a geographical area on a single



HYDROGRAPHIC SERVICES REVIEW PANEL

Questions?