

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

Marian Westley, Director

September 24, 2024



HYDROGRAPHIC SERVICES REVIEW PANEL

# Overview

- IGLD Update
- Coastal Inundation Dashboard
- Observing System Improvements
- NWLON Updates
- PORTS Program Updates
- NCOP Tidal Current Surveys



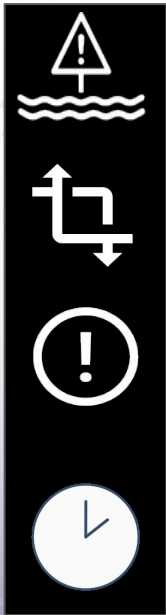
*Newly Rebuilt National Water Level Observation Network  
Station Ogdensburg, NY (8311030).*





# International Great Lakes Datum (IGLD) Updates

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**Update** - IGLD (2020) anticipated for release after rollout of NAPGD2022

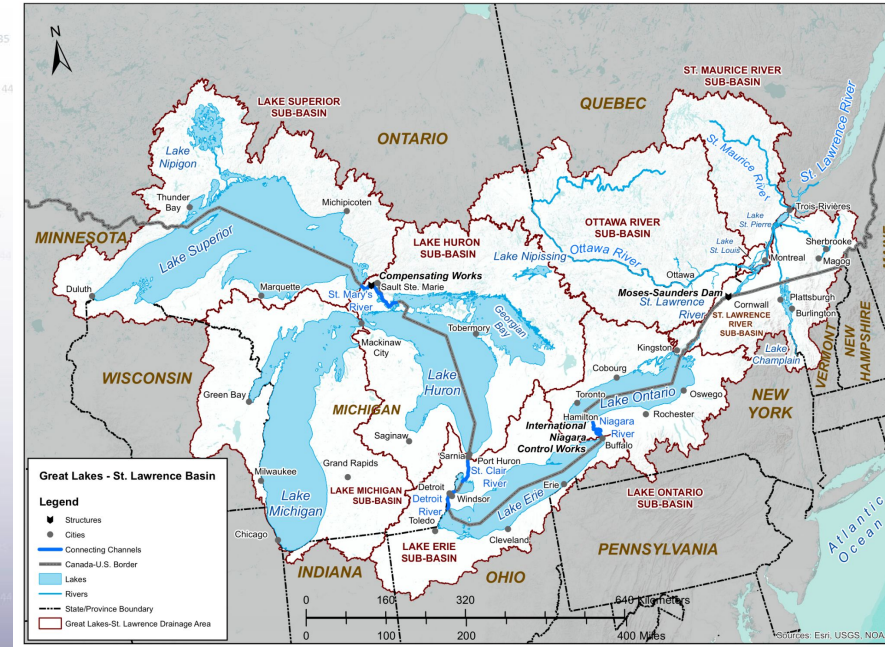
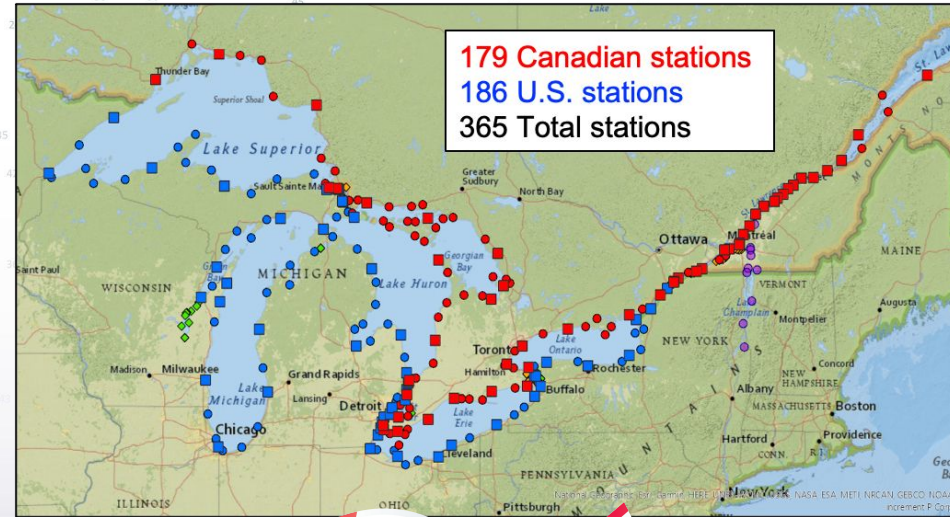


Image: Great Lakes waterways, credit: International Joint Commission



# International Great Lakes Datum (IGLD) Updates

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- Low Water Datum recomputation analysis complete; will be submitted to Coordinating Committee for review in early 2025

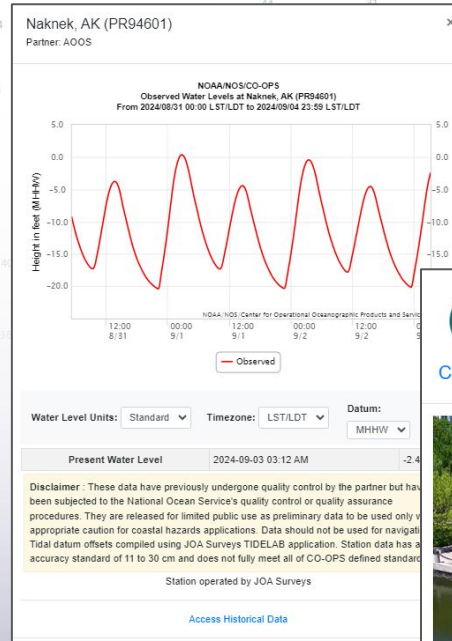


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# Coastal Inundation Dashboard Updates

Recently added two new map layers to [Coastal Inundation Dashboard](#).

- Partner Stations** - Displays latest data from select partner water level stations supported by IOOS Regional Associations to augment CO-OPS water level network for real-time coastal flood monitoring. Data available for 3 stations in the southeast and 1 in Alaska with more to be added.
- Coastal Webcams** - Displays 17 locations where real-time camera and video imagery along the coast is available for tracking on-the-ground flood impacts in real-time. Users are taken to the camera page on the [WebCOOS](#) application where they can view the latest images and real-time video feed.



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WebCOOS

Camera Location: Charleston Harbor, SC

Click for latest webcam images and video

Description - This camera is positioned on the Charleston Branch Pilots pier overlooking Charleston Harbor, the Cooper River and nearby infrastructure, and is co-located with the nearby NOAA NOS CO-OPS tide gauge. It is a partnership between CO-OPS, the Charleston Branch Pilots and the WebCOOS team to monitor sea state and coastal flooding.

Partners: NOAA/CO-OPS, Charleston Branch Pilots Association

[More Info and Data](#)

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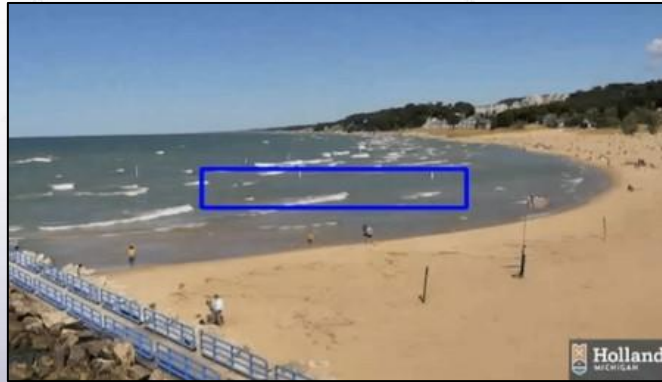




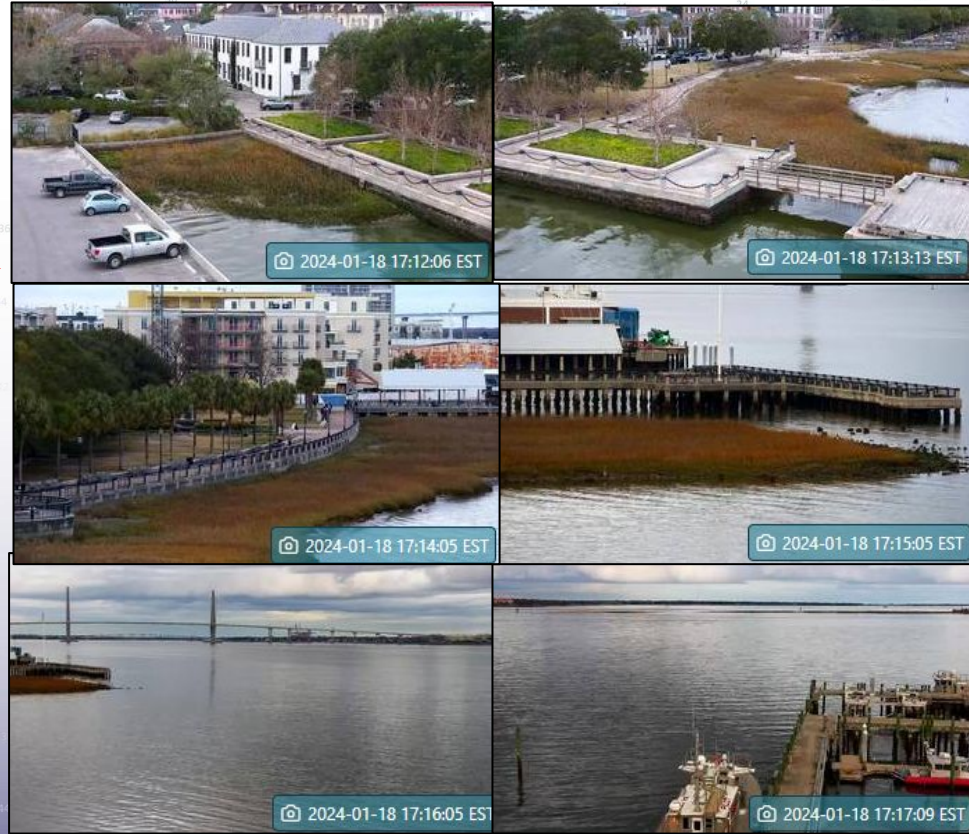
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New high-resolution WebCOOS webcams at NWLON stations supports improved risk communications and coastal planning.

- Every minute the camera switches between **6 different viewing angles** while capturing a still image.



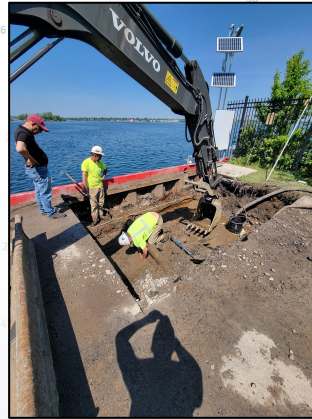
A still image from the high-resolution WebCOOS webcam located at Holland, MI. The video shows the detection of a rip current (blue box) using Artificial Intelligence at Holland Beach, MI.



# NWLON Updates: Ogdensburg, NY

## Progress Made

- 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.
- MWWL radar with backup pressure sensors working well. COET is continuously monitoring performance.
- Full station installed August 2024.

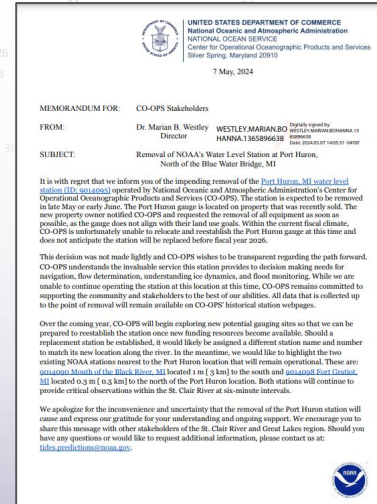




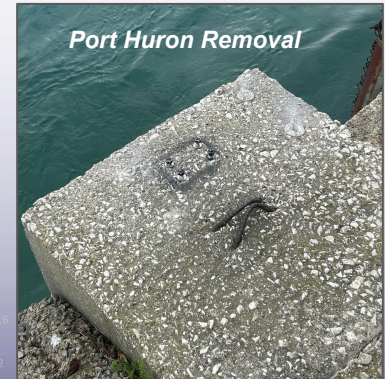
# NWLON Updates: Port Huron, MI - Removal

Station supported: maritime navigation, water level regulation, ice forecasting, flood monitoring and mitigation, data collection for IGLD (2020)

- Installed December 2022 to replace >20-year NWLON station 9014096 Dunn Paper, following planned demolition of the Dunn Paper location
- Declared operational April 2023
- Designed to be temporary and installed to quickly re-establish gauging at this location
- Following a property ownership change, in January 2024 CO-OPS was told to remove the temporary station
- Late June 2024 - 9014095 Port Huron was removed
- Key stakeholders were notified and engaged in efforts to maintain the Port Huron gauge
- No plans currently to replace the station



Memo sent from CO-OPS Director

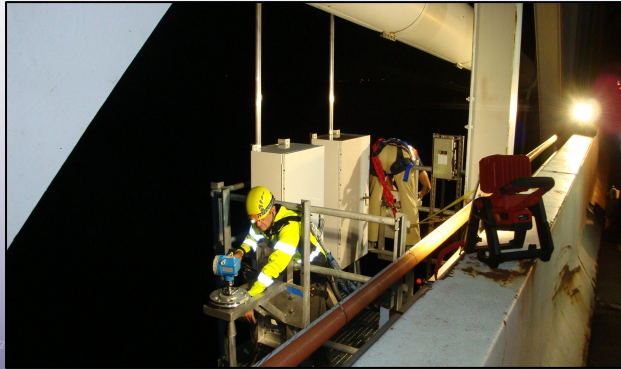
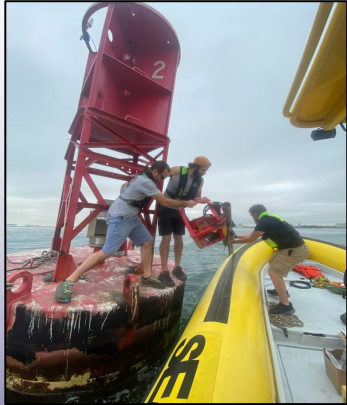




# PORTS® Program Updates

## FY24 Enhancements

- **Port Everglades, FL:** 2 Buoy mounted current meters
- **Jacksonville:** 1 Buoy mounted current meter
- **Chesapeake Bay North:** 1 New Air Gap system
- **Chesapeake Bay South:** Reinstall Salinity sensor
- **Mobile Bay, AL:** 1 Side Looking current meter
- **Port of Anchorage, AK:** Integrate CDIP Wave Buoy
- **Corpus Christi, TX:** Relocate Side Looking current meter
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## Implementing Air Gap Policy

- Apply consistency to all new and legacy installs (19 total systems)
- Every bridge structure is different
- Public facing letters standing for every bridge air gap system
- Dual / redundant systems - *reduces data down time*
- Relative co-location between equipment and 'air gap reference' point - *reduces error on readings*
- Partners need to work with bridge owners if additional infrastructure (platform) is needed
- Will be signed and publicly available in early October

### New PORTS® in the works

**FY25:** Complete Pearl Harbor-Honolulu, HI

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# NCOP Tidal Current Survey Update

## Charleston Harbor Tidal Current Survey

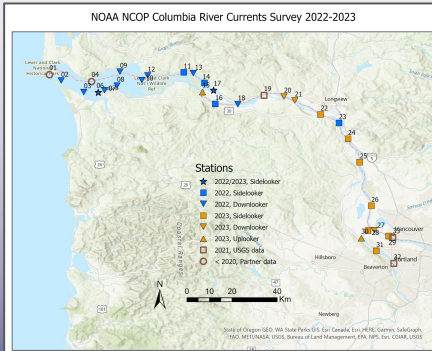
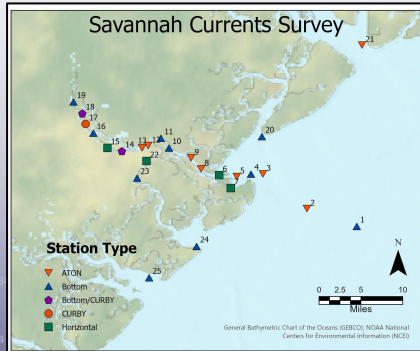
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## Savannah River

- Field work completed in 2023
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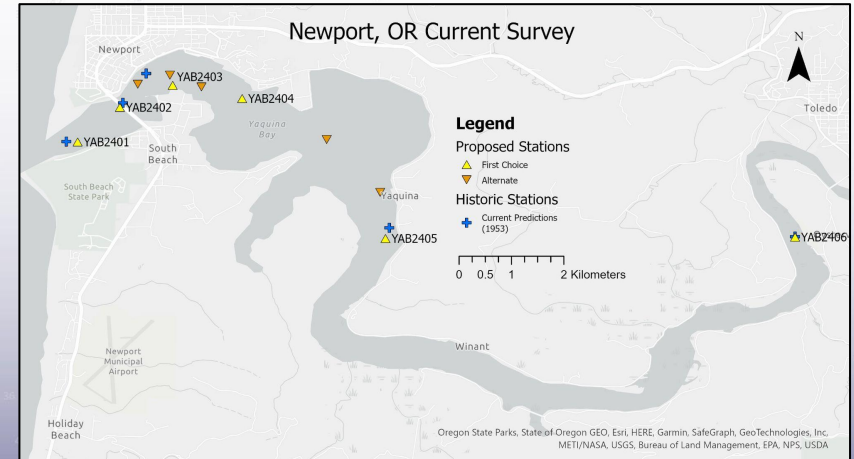
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## FY25 Plan:

- **Survey: Newport, OR**
  - Deploy ~6 ADCPs
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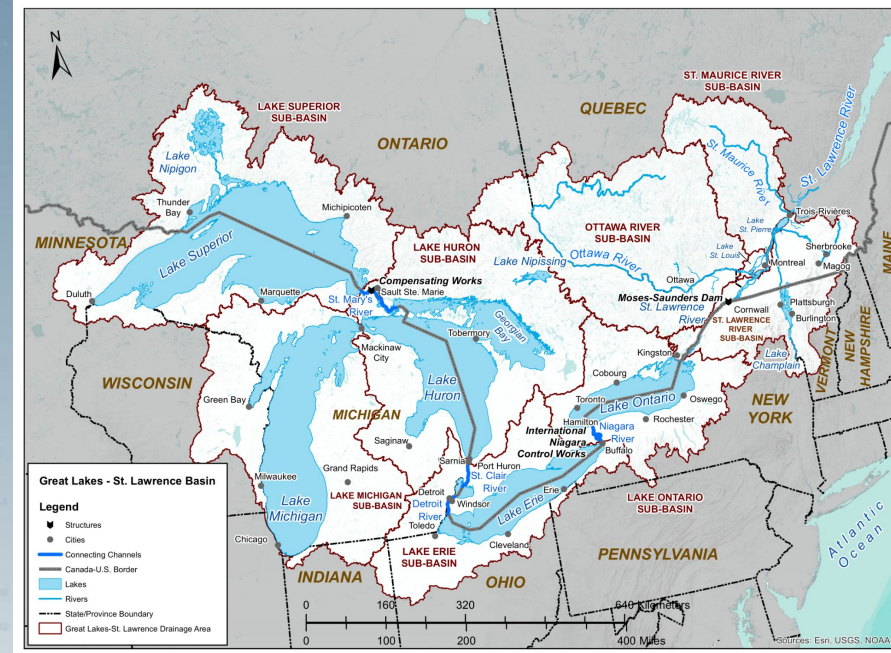
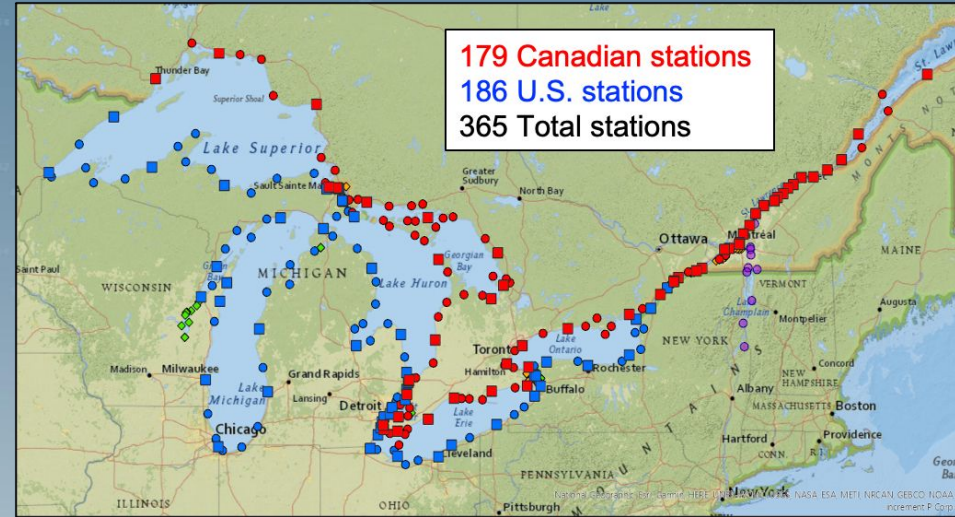


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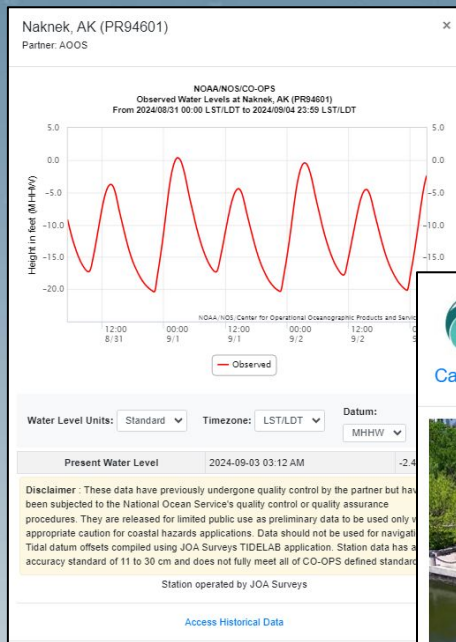


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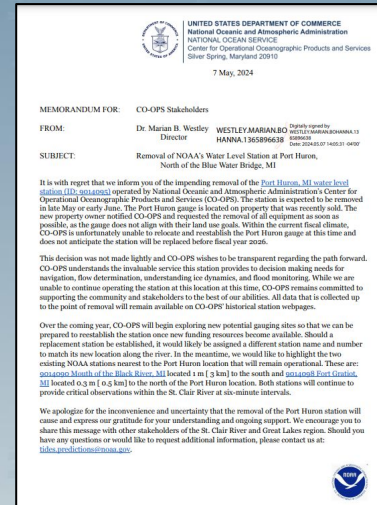
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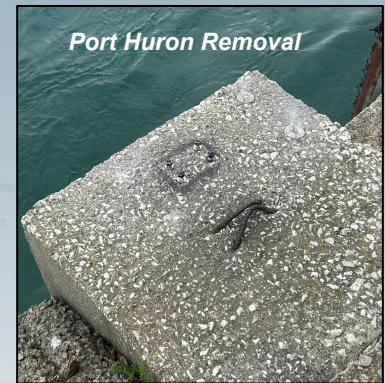
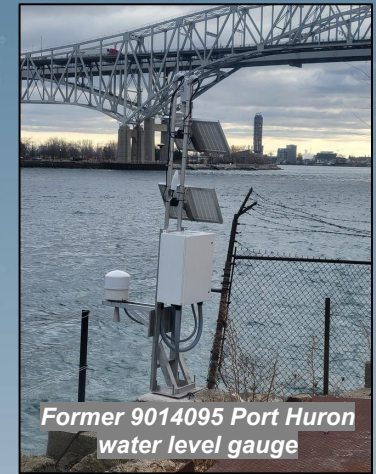
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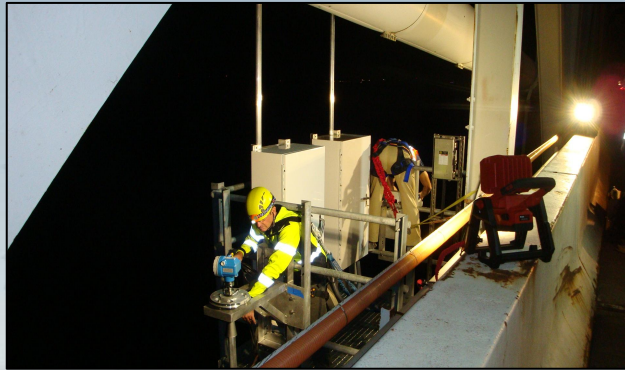




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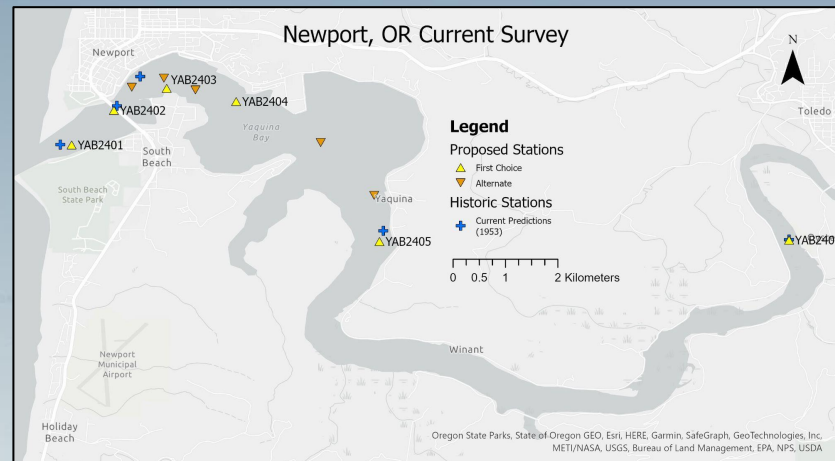
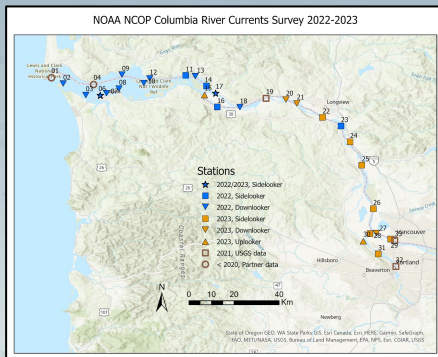
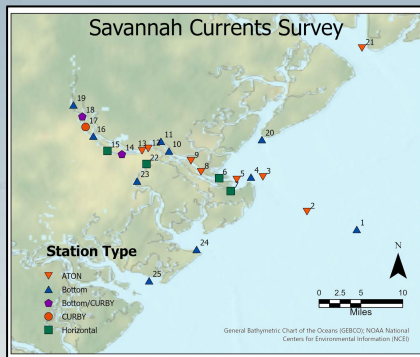
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