Filling the Gap: SECOORA Members Partnering to Affordably Increase Observations and Build Capacity Along the Florida East Coast

Primary Investigators:
Lynn Leonard & Chris LaClair (UNCW)
Jordon Beckler (FAU HBOI)
Katie Nguyen (NOAA NWS)
Joy Young (FACT Network)
Charlton Galvarino (Second Creek Consulting)

Partners:
David Sharp (NOAA NWS)
James Oppenborn (St. Lucie County)
Overview of the Project

1) Enhance meteorological, oceanographic, wave & ecosystem information at two data sparse locations on the Florida east coast.

2) Support established stakeholder needs
   **Partners:** NWS, FACT, St. Lucie County
   **Others:** USACE, Boat/surfing/diving communities, scientific institutions (HBOI, ORCA, FOS), marine rescue

3) Provide data & address SECOORA priorities:
   **Coastal Hazards & Climate Variability:** wave modeling, sediment management, NHC/NWS storm prediction, GS intrusions, fog, ocean rescue, marine warnings
   **Marine Operations:** wave buoys w/in HFR footprints (validation), near inlets, river entrances, model hindcasts, commercial shipping (Port Canaveral), commercial fishing, surf forecasts (specific gap)
   **Ecosystems:** acoustics tracking, sea turtle nesting, natural (ECA), artificial, & deep reef (Oculina Banks) function; Platform for EOVs: biogeochemistry, OA, HABs, Harmful discharges (turbidity/contaminants)
Accomplishments & Timeline

- All purchasing complete – no major supply chain issues!
- Buoys delivered mid-July
- Fabrication/assembly of power/sensing/datalogger systems started
- Began permitting with USACE, USCG AToN permit to follow.
- Site visits planned, pending weather window

- FAU visit to UNCW next week for equipment/operations training
- Buoys assembled & shipped & burn-in beginning mid-August
- Telemetry activated late Fall 2023
- R/V Hogarth deployment likely late Fall or Early Spring
- Engagement with stakeholders/end-users ongoing
Challenges and Looking Ahead

- No major issues yet!

- Platform leveraging discussions with scientists: “Extend” IRLON system offshore, In situ holographic microscope, full ADCP, benthic monitoring platform

- Buoy visits planned for FAU oceanography classes (next-generation)

- Planned dissemination, working with FAU HBOI outreach office:
  - Data stream demonstrations to local Ft. Pierce end-users
  - Daytona Chamber of Commerce & nearby municipalities