Supporting the Blue Economy - SECOORA 2018 Annual Meeting

SECOORA Principal Investigator Abstracts

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Web Camera Applications Testbed (WebCAT)

Debra Hernandez, SECOORA and Mark Willis, Surfline

Web cameras are transforming how environmental monitoring is conducted. SECOORA and Surfline are deploying webcams to develop a Web Camera Applications Testbed (WebCAT) to confirm the use of video data for applications related to transportation and commerce, preparedness and risk reduction, and stewardship of coastal resources. In support of this project, webcams are being deployed in five locations within the SECOORA domain: Cape Hatteras, NC; Myrtle Beach, SC; St. Augustine, FL; Miami, FL; and near Tampa Bay, FL. The intended use cases for these cameras include: measuring wave run-up (U.S. Geological Survey); rip currents monitoring and model validation (NOAA's National Weather Service and National Ocean Service); counting whales (NERRS); and, assisting in beach safety and water quality efforts (University of South Carolina). In addition, the project team has engaged with local NOAA National Weather Service offices (NWS) on the camera deployments as they relate to operational protection of life and property. For example, the NWS office in Newport/Morehead City, NC plans to use the recently installed Cape Hatteras video camera to assist in their coastal flood warning operations.

Outcomes from this project will include a community workshop focused on sharing lessons learned, the development and analysis of data standards and algorithms by project partners so that methods for consistent video footage analysis can be evaluated across NOAA line offices and with other stakeholders, and an archive of video data for future use. In addition, this project will allow SECOORA stakeholders and the general public to monitor real time ocean conditions and hazards. The project will also allow for cost-savings by eliminating potential redundant/duplicative efforts by different programs to manage video data.

Project partners include: SECOORA, NOAA Integrated Ocean Observing System (IOOS), Surfline, NOAA Center for Operational Oceanographic Products and Services (CO-OPS), NOAA Office for Coastal Management National Estuarine Research Reserves, NOAA National Weather Service offices, University of South Carolina and Axiom Data Science.