Footage from a Miami, FL camera installed as part of the WebCOOS pilot project.

WebCOOS: Webcam Coastal Observation System

Web cameras or webcams are a low-cost coastal observing platform transforming how community environmental monitoring is conducted. Webcams can address significant gaps in the nation's ability to monitor and accurately forecast various weather, ocean, ecological, and public health hazards.
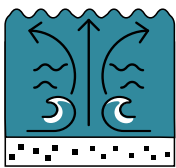
The Webcam Coastal Observation System (WebCOOS) is a community supported low-cost webcam coastal observing network, which provides valuable imagery and tools for scientists, communities, and local coastal managers to make decisions.

WebCOOS webcam located in Folly Beach, SC installed by University of South Carolina.

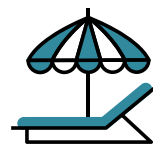## How can web camera data help your community?

Below are a few examples of how webcam data is transforming coastal monitoring.

Identify Rip Currents
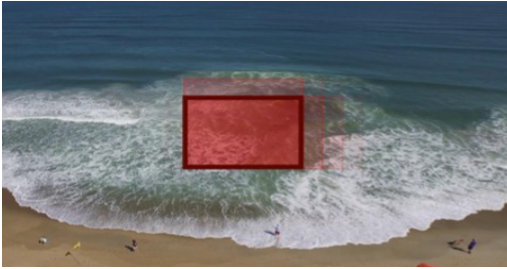
Study Beach Erosion

Monitor Beach Usage

Flood Monitoring

Expanding the Network

The WebCOOS network has expanded from an initial pilot project to a current total of 20+ cameras in the Southeast and other regions of the U.S. We are working to expand to other coastal regions across the country.

Communities interested in webcams can partner with SECOORA and their local IOOS Regional Association to either provide existing webcam streams or install a webcam in location of interest.

How are webcam data being used?

Identify Rip Currents

Machine learning can identify rip currents from webcam imagery.

This information can be used to inform the public of rip current dangers and improve NOAA rip current forecasts.

Study Beach Erosion

Detected shoreline

Baseline

Algorithms have been developed to identify shoreline positions from webcam imagery.

This information can identify potential dune erosion or overwash events, infrastructure risk and limitations to beach access.

Monitor Beach Usage

Machine learning tools can count objects in a given area - including beach activities such as number of visitors.

This allows coastal managers to see how busy a location is during different times of the day, season, or year for planning and safety purposes.

Flood Monitoring

Public access to webcam imagery provides real-time monitoring and visualization of coastal flooding.

This helps to document flooding impacts and provide real-time information for local communities.

Next Steps

Interested in getting involved? Need a question answered? Contact us today!

Email: webcoos@secoora.org

Website: https://webcoos.org/

SECOORA
SOUTHEAST
COASTAL OCEAN OBSERVING
REGIONAL ASSOCIATION

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