



Pacific Islands Ocean Observing System

Our mission is to provide easily accessible and reliable ocean observation and forecasting data to keep Pacific Island communities safe, support livelihoods and lifestyles, and sustain coastal and ocean resources.

Ocean Data Types:

- Biological- chlorophyll; animal tracking
- Chemical- pH, CO₂, dissolved oxygen, turbidity
- Physical- wave height, direction and period; water temperature, salinity, pressure, velocity; air temperature, wind speed, rain, humidity, pressure

Relevant Tools:

- Real Time Portal, pacioos.org/voyager

Description: Data portals integrate real-time observations, forecasts and historical records, revealing climate variability and long-term trends. Ocean temperatures, sea level, and the saturation state (ocean acidification) are among the many climate variables that can be accessed through coastal ocean data portals. Using real-time observations, teachers can link their curricula and lesson plans to events in the news.

- Data Download, pacioos.org/data_access

Description: All PacIOOS data is accessible through a variety of data servers

- Educational Resources, pacioos.org/outreach

Description: Find regional information, ocean fact sheets, lesson plans, and other educational materials

Regional Example:

Explore PacIOOS' interactive mapping platform 'Voyager' with our lesson plan! Guiding questions will help students to identify ocean observation and forecasting data that is relevant for our daily lives as Pacific Islanders.



PacIOOS' region includes all U.S. Pacific Islands: Hawai'i, Marshall Islands, Federated States of Micronesia, Palau, Guam, CNMI, American Samoa and U.S. Pacific Remote Island Areas



PacIOOS participates in community outreach events to increase ocean literacy from K to Gray.

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Waves



Temperature



Wind



Currents



Water Level



U.S. Integrated Ocean Observing System (IOOS®)

Our Eyes on the Ocean, Coasts, and Great Lakes

Ocean Data Types:

- Biological- chlorophyll
- Chemical- pH, CO₂, dissolved oxygen
- Physical- wind speed and direction, ocean currents, wave height and period, air temperature, water temperature, salinity, air pressure, and water level.
- Biodiversity – Species presence/absence/abundance: phytoplankton, zooplankton, fish, coral, marine mammal, sea turtles, and more.

Relevant Tools:

- Data Catalog: <http://data.ioos.us/>

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- Data Tools: <http://www.ioos.us/>

Access the IOOS Data Catalog and data tools, such as the Data Assemble Centers (DACs), the Environmental Sensor Map, the Coastal and Ocean Modeling Testbed, and much more.

- Educational Resources:

<https://ioos.noaa.gov/community/education/>

Description: Access to ways to use real data in the classroom, lesson plans, and links to regional resources.

Description:

IOOS is our eyes on the ocean, coasts, and Great Lakes. We are an integrated network of people and technology gathering observing data and developing tracking and predictive tools to benefit the economy, the environment, and public safety at home, across the nation, and around the globe.



U.S. IOOS is the national integrated ocean observing system, working with Regional Associations across the U.S., Caribbean, and Pacific.



U.S. IOOS Director Zdenka Willis talks to ocean observing students about their presentations while visiting Rutgers University.

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