

What is IOOS?

The Integrated Ocean Observing System (IOOS) is a coordinated network of people and technology that work together to generate and disseminate continuous data on our coastal waters, Great Lakes, and oceans. By collecting and bringing data together in ways that ensure the information can be used with other data sets, IOOS makes a broader suite of data available to scientists, allowing them to develop a more complete characterization of our oceans and coasts for improved understanding of global climate variability and extreme weather and natural hazards.

Global Component

IOOS is the U.S. contribution to the Global Ocean Observing System, or "GOOS." GOOS is a global system for sustained ocean observations designed to improve weather forecasts and climate predictions. GOOS is also the ocean component of an even larger system, known as the Global Earth Observation System of System (GEOSS). Through GEOSS, NOAA is working with its federal partners, more than 70 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

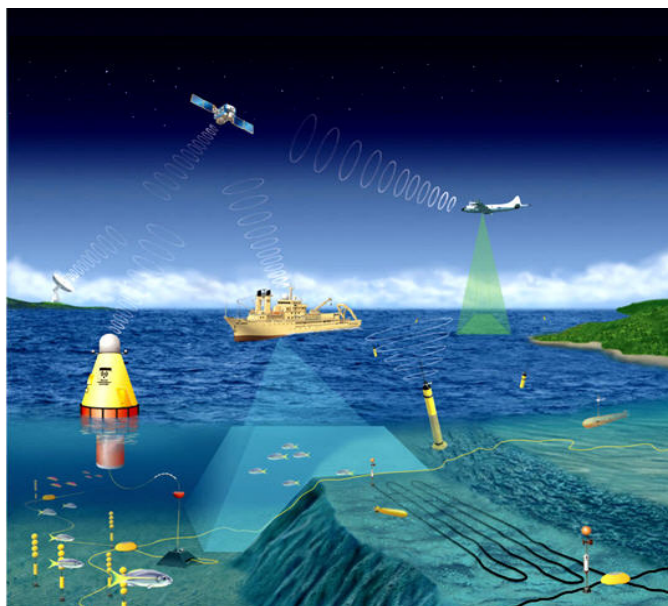
National Coastal Component

The national coastal component of IOOS includes U.S. observations, products, and services provided by a number of Federal agencies to monitor and manage the Great Lakes and entire U.S. coastal ocean environment. The coastal component also includes a network of 11 non-Federal Regional Associations of Regional Coastal Ocean Observing Systems that expand observing coverage to provide data of particular interest to local communities.

IOOS Sub-systems

According to the U.S. IOOS Development Plan, the process of linking observations to the development of useful, environmental information requires "a managed, efficient, two-way flow of data and information among three essential sub-systems." These sub-systems include:

- **Measurement Data:** Ocean observations collected from systems in the water, as well as land-based, airborne, or satellite platforms;
- **Data Management and Communications (DMAC):** The primary mechanism to integrate collected IOOS data so that they are compatible with one another and accessible to users; and
- **Modeling and Analysis:** Decision-support tools and services delivered to users, including related socio-economic research, outreach, training, and education.



Through these sub-systems, IOOS links observations decision-makers and other users to provide data and information needed to improve the nation's ability to achieve seven societal goals:

- Improve predictions of climate change and weather and their effects on coastal communities and the nation;
- Improve the safety and efficiency of maritime operations;
- Allow more effective mitigation of the effects of natural hazards;
- Improve national and homeland security;
- Reduce public health risks;
- Allow more effective protection and restoration of healthy coastal ecosystems; and
- Enable the sustained use of ocean and coastal resources.

To Learn More About IOOS:

Phone: (301) 427-2421

Email: noaa.ioos.webmaster@noaa.gov

<http://ioos.noaa.gov/>

