

GCOOS: INVESTING IN LIVES, JOBS AND ECONOMIES IN THE GULF STATES

Online at GCOOS.org



The Gulf of Mexico Coastal Ocean Observing System (GCOOS) is the Gulf of Mexico regional component of the U.S. Integrated Ocean Observing System (IOOS). We are the only comprehensive data collection and dissemination center for coastal and ocean data in the Gulf.

GCOOS leverages a small budget – just \$2 million – into big results by coordinating information gathered by federal, state and private partners running nearly 2,000 sensors in coastal waters to the deep ocean. We ensure that all data is timely, reliable, accurate and available to everyone – from weather forecasters to Coast Guard first responders – to ensure a healthy, productive ocean and resilient coastal communities for the Gulf’s 14 million residents and the \$234 billion annual economic benefit it provides to the U.S. economy.

Instead of operating our own in-water assets such as buoys, autonomous vehicles, radar systems and water-quality monitoring tools, we collaborate with and provide grant support to on-the-ground investigators who develop and implement data collection using their own systems. This allows us to leverage our limited dollars to increase partnerships with local and state organizations

IMPROVING OUR CAPABILITIES

While progress has been made toward a fully developed Gulf observing system, the 2010 Deepwater Horizon Oil Spill, hypoxia and continued toxic algae blooms impacting fisheries and tourism provide vivid examples of the ocean observing needs that still exist in the Gulf of Mexico. And despite billions of dollars available from many funding sources in the post-DWH era, no money has been allocated for sustained real- and near-real time observations.

Return on investment in GCOOS:

- Safer & more efficient marine operations
- Reduction in coastal hazards
- Healthier ecosystems & living resources for a more robust economy
- Healthier & safer communities



Gulf-wide that are using professional and citizen scientists to develop a comprehensive data system that benefits users and supports jobs and local economies.

In addition to data collection and distribution, we conduct education and outreach activities to equip the public to use and make decisions about the economic and environmental health of our Gulf of Mexico.

By sharing the responsibilities for fully implementing a Gulf-wide observing system, each Gulf state is making an investment that protects lives, jobs and economies.

14 MILLION people call the U.S. Gulf coast home.

TX LA MS AL FL would be ranked as the world's **7th** largest economy for Gross Domestic Product if they were their own country.

The economic impact of the Gulf of Mexico on the nation's economy is **\$234 BILLION ANNUALLY**

We're vulnerable to strong currents, hurricanes and flooding of nationally significant infrastructure – ports, refineries, petroleum reserve facilities.

11 of the nation's top **20** U.S. ports (by tonnage) are in the Gulf of Mexico.

The Gulf's oil and gas industry produces **44%** of the nation's crude, **43%** of the dry natural gas and more than **50%** of the liquid natural gas.

The Gulf's commercial fishery sales: **\$24 BILLION**



PROTECTING LOUISIANA'S LIVES, ENVIRONMENT AND ECONOMY



LIVES

Storm events in Louisiana – from hurricanes like Katrina and Rita and the unprecedented August 2016 rain – have killed many Louisianans and left others dealing with the aftermath of catastrophic flooding. Survivors are still reeling from the disruption to their lives and livelihoods and the state is dealing with billions of dollars in damages.



ENVIRONMENT

Louisiana is losing a football field of coast every hour – its land loss is the highest in the nation. Combined with some of the highest rates of relative sea level rise in the world, the state faces serious threats to its drinking water supply, wetlands, fisheries habitats and migratory corridors for diverse species.



ECONOMY

The state's economy, intricately linked to the ocean, is a vital national resource. The Port of South Louisiana is the largest tonnage port district in the Western Hemisphere, accommodating more than \$150 billion in U.S. imports and exports. Port Fourchon – with its single access road subject to inundation and flooding – and nearby facilities supply 90 percent of the nation's outer continental shelf oil and gas industry service needs. Louisiana waters support 25 percent of all U.S. seafood production and its economic impact is worth \$2.2 billion in sales to the state.

GCOOS is the heart of data collection for the ocean and coastal waters of the Gulf of Mexico – collecting thousands of data points from sensors and ensuring data are reliable, timely and accurate before disseminating to all who need it (gcoos.org/products). These data support the tools and technology that help protect public health, ensure safe and efficient navigation and jobs tied to the blue economy. While GCOOS has a well-established infrastructure, additional tools are needed to improve public health and safety and decrease economic losses.

A \$1 million investment will allow GCOOS to leverage and expand existing resources and partnerships to help Louisiana implement aspects of its Coastal Master Plan, including:

- An improved coastal radar network that enhances weather forecasts, resulting in safer navigation and decreases downtime for industries that rely on the Gulf for their livelihood – including the oil and gas industry. When Hurricane Katrina shut 20% of the U.S. refinery capacity, gas prices nationwide soared 45-cents a gallon. (Investment: \$680,000)
 - Improved coverage and accuracy of water level predictions to better pinpoint flood impacts and enable more efficient and timely road closures and evacuations. Better predictions could help avoid closing the only road to Port Fourchon, resulting in a 100-time return on investment. Better predictions could also save lives and money. For example, Louisianans were paid \$804 million in flood claims in FY 2015-2016. (Investment: \$100,000)
 - Improved water quality metrics, which is critical to planning, implementing and assessing restoration and water diversion efforts. (Investment: \$190,000)
 - Bringing the Beach Conditions Reporting System to Louisiana, which saves lives and reduces ER visits by providing real-time information on water conditions – rip currents, hazardous marine life, toxic algae. (Investment: \$30,000)
- Our Louisiana partnerships: The Water Institute of the Gulf, Louisiana State University, Barataria-Terrebonne National Estuary Program, Louisiana Universities Marine Consortium, Tulane University and the University of Louisiana at Lafayette.