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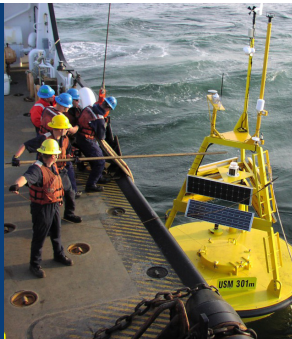
Instead of operating our own in-water assets such as buoys, autonomous vehicles, radar systems and water-quality monitoring tools, we collaborate with and provide grant support to on-the-ground investigators who develop and implement data collection using their own systems. This allows us to leverage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

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.

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.

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**

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SUPPORTING TEXAS ENERGY, ENVIRONMENT AND PUBLIC HEALTH

ENERGY

Offshore oil & gas exploration and production has a $12.8 billion impact on Texas's economy each year. Understanding and accurately forecasting meteorological and oceanic conditions, especially currents, is critical to safe navigation and efficient operations.

PUBLIC HEALTH

Beach and food safety advisories from toxic algae and marine-borne pathogens cost coastal economies millions in lost revenues. In 2000, Galveston Bay suffered from a toxic algae bloom that exceeded $10 million in losses. Hundreds of jobs were lost.

ENVIRONMENT

Texans identified the need to improve water quality as a key priority following the Deepwater Horizon explosion. An oil spill in Galveston Bay in March 2014 closed the Port of Houston for four days, costing $1.2 billion in lost commerce and had negative impacts to the Bay's billion-dollar fishing industry.

The Texas Gulf Economy

The Texas coastal GDP is $348.6 billion annually; Texas ranks among the nation's top five destinations for Americans who swim, fish, dive and enjoy coastal resources like beaches and wetlands.

- $12.8 billion in oil & gas exploration & production
- $1.6 billion tourism/ recreation
- $2.8 billion commercial fisheries sales
- $595 million commercial shipping

GCOOS is the heart of data collection for the Gulf's ocean and coastal waters — collecting thousands of data points and ensuring that they are reliable, timely and accurate before disseminating to all who need it (gcoos.org/products). These data support 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 would:

- More accurately measure and forecast ocean currents to efficiently direct emergency response following contaminant spills, resulting in quicker cleanup and fewer financial and environmental losses. Coastal radar would also improve weather forecasts and promote safer navigation. In Coast Guard rescue operations, data from these systems have been shown to reduce search areas by 66%. (Investment: $300,000)

- Expand a Beach Conditions Reporting System to Texas that would provide real-time information on coastal water conditions. The system has been proven effective at providing rip current warnings, hazardous marine life notices and reducing health impacts from toxic algae in Florida, benefitting both the tourism industry and public health. (Investment: $100,000)

- Improve water quality data collection that supports early warning for toxic algae blooms. There is great need by seafood producers and harvesters to track the spread of potentially toxic waters to shellfish beds. Early detection and warning can save millions of dollars and protect public health — and safeguard the $260 million Texas shellfish industry. (Investment: $355,000)

- Improved coverage and accuracy of water level predictions — particularly in low-lying coastal areas and at ports. Better predictions could also save lives and money. For example, Texans were paid $696 million in flood claims in FY 2015-2016. (Investment: $245,000)

The additional funding would allow us to further leverage and expand our partnerships with Texas institutions and organizations, such as: Texas OneGulf, Texas A&M, Harte Research Institute, Texas Automated Buoy System, Texas General Land Office, Texas Sea Grant and others.