

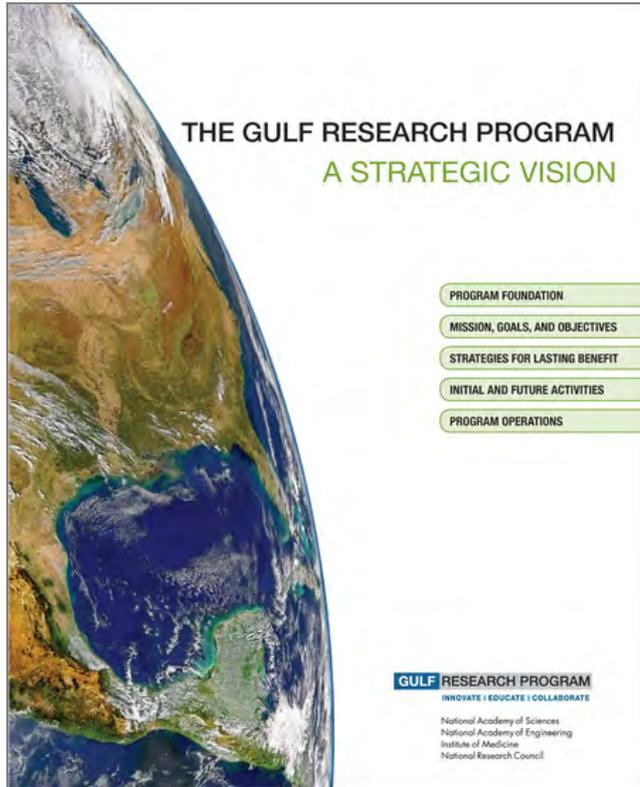


# The Gulf Research Program

- A 30-year, \$500 million program funded by the *Deepwater Horizon* criminal plea agreements
- Directed to operate in three realms:
  - Oil system safety
  - Environment
  - Human health
- Conduct activities in three areas:
  - Research and development
  - Education and training
  - Environmental monitoring



# The Planning Process



*A framework – mission, goals, objectives, and initial activities*

## The Advisory Group process

- 4 Advisory Group meetings in Gulf and DC
- 5 team listening meetings in the Gulf states
- 3 “Opportunity Analysis Workshops”
  - Education and Training
  - Environmental Monitoring
  - Resilience and Health
- Significant outreach – webinars, conferences, etc.
  - ∞ Working groups/conference calls

**Strategic plan released September 15, 2014**

## GRP will be future-oriented:

- Improve safety and environmental protection
- Improve understanding of human-environment connections and resilience
- Advance understanding of the Gulf of Mexico as a dynamic system

# Program Mission



... will work to enhance oil system safety and the protection of human health and the environment in the Gulf of Mexico and other U.S. outer continental shelf areas ...

to improve understanding of the region's interconnecting human, environmental, and energy systems and fostering application of these insights to benefit Gulf communities, ecosystems, and the Nation.

*A framework to guide ongoing conversations about Program themes, priorities, and activities*

# Program Goals

## Goal 1:

Foster innovative improvements to safety technologies, safety culture, and environmental protection systems associated with offshore oil and gas development.

## Goal 2:

Improve understanding of the connections between human health and the environment to support the development of healthy and resilient Gulf communities and ecosystems.

## Goal 3:

Advance understanding of the Gulf of Mexico region as a dynamic system with complex, interconnecting human and environmental systems, functions, and processes to inform the protection and restoration of ecosystem services in the Gulf of Mexico.



*Photo: Lophelia II 2012 Expedition,  
NOAA-OER/BOEM*



# Environmental Monitoring Supports all 3 GRP Goals

## Goal 1:

Foster innovative improvements to prevention, safety technologies, safety culture, and environmental protection systems associated with offshore oil and gas development.

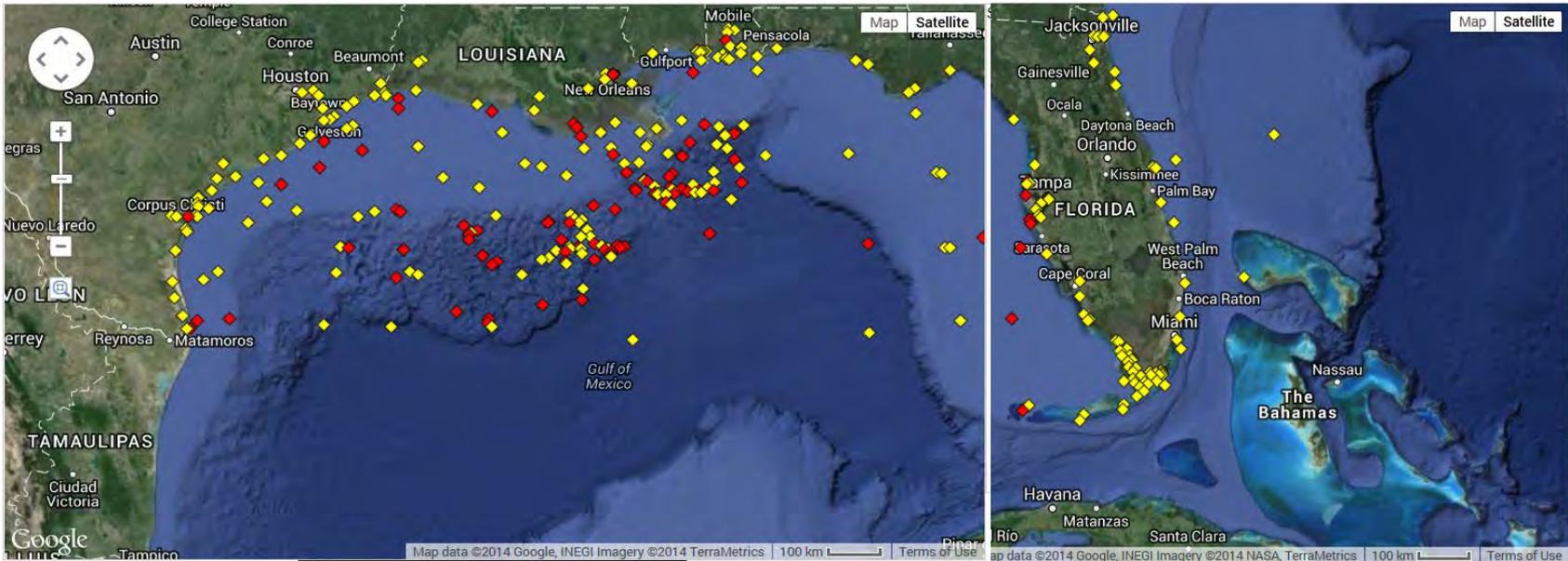
## Goal 2:

Improve understanding of the connections between the environment and human health to support the development of healthy and resilient Gulf communities and ecosystems.

## Goal 3:

Advance understanding of the Gulf of Mexico region as a dynamic system with complex, interconnecting human and environmental systems, functions, and processes to inform the protection and restoration of ecosystem services in the Gulf of Mexico.

# Significant Monitoring Capacity Exists

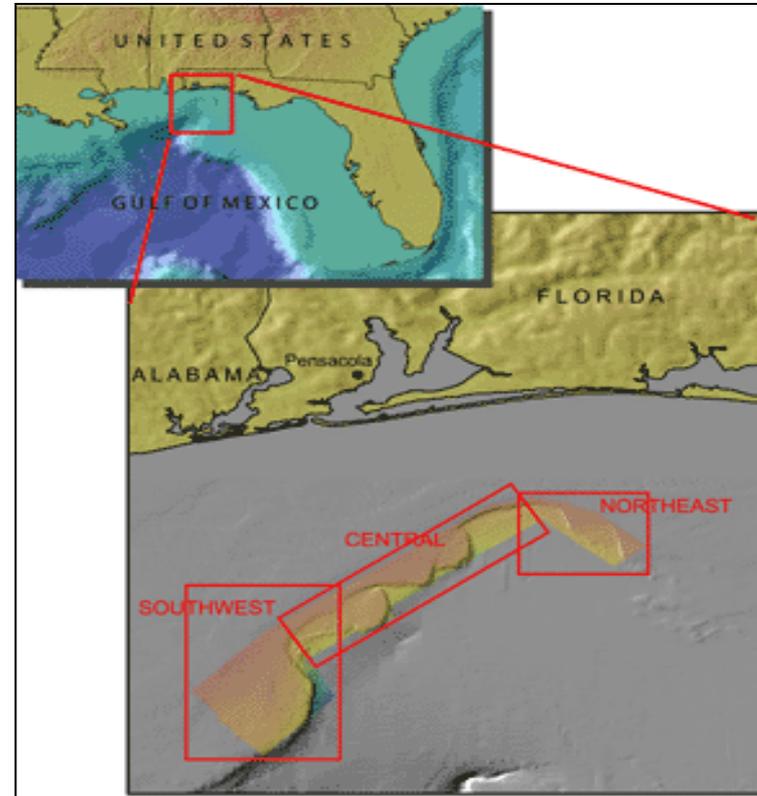


e.g., NOAA national data buoy and monitoring stations (subsurface currents, temp, salinity)

- Current capacity is fragmented, purpose-focused
  - e.g., 334 living marine resource monitoring programs
  - Commercial and recreational fish stock assessments (NOAA)
  - Harmful Algal Blooms (county/state/federal)
  - Hypoxia (30-year LUMCOM study)
- The *DWH* spill highlighted a need develop region-wide baseline data

# Opportunities

- Providing scientific leadership on critical gaps:
  - Synthesis and integration
  - Deep sea environments
  - Ecosystem-based approaches
- Advancing technology
- Supporting regional approaches
- Human capacity building



Seafloor map of the Head of the De Soto Canyon developed by using high-resolution multibeam echosounders (MBES)



# Initial Environmental Monitoring Activity

## **Integration and synthesis of monitoring data to demonstrate the untapped potential of existing long-term environmental observations and monitoring data**

A competition for projects that identify and synthesize existing data, related to either deep ocean-coastal connections or ecosystem services modeling, to advance understanding of the Gulf ecosystem.

- Emphasis on projects that lead toward outputs that inform decision making, translation into human benefits, or other actionable outcomes.
- Awardees would be supported to define data needed to address the research question, identify existing data, location and access to the data, identify parties necessary for collaboration, and demonstrate the feasibility of the project.
- Encouraging projects that integrate data from different disciplines.
- Some awardees may receive additional funding to process and integrate the data or expand the project.



# Initial R&D Competition: Exploratory Grants

**Small “seed grants” to explore and catalyze innovative ideas, approaches, methodologies, and/or collaborations**

**To be announced in 2014 (awarded in 2015):**

- Approaches for Effective Education and Training of Workers in the Offshore Oil and Gas Industry
- Linking Ecosystem Services Related to and Influenced by Oil and Gas Production to Human Health and Wellbeing

**Expected to be announced in 2015 (awarded in 2016):**

- Scenario Planning and Decision Support for Oil-Spill Response
- Connecting Environmental and Health Data for Transdisciplinary research, Monitoring, and Syntheses
- Building Resilience in Human and Environmental Systems



# Initial Education Competition: Fellowships

**First contribution to capacity building in the Gulf**

**to help prepare a future generation of professionals prepared to work at the intersections of oil system safety, environmental resources, and human health and to think holistically about the region's challenges.**

• Three initial activities:

○ *Early-Career Research Fellowships*

○ *Science Policy Fellowships*

○ *Christine Mirzayan Science and Technology Policy Graduate Fellowship program*

- Open to a broad range of disciplines, including the social and behavioral sciences, health and medicine, engineering, the earth and life sciences, and relevant interdisciplinary fields.
- Gulf-focused, includes mentoring and professional development; develop a network/cohort over time



# Contact Information

Gulf Research Program  
[gulfprogram@nas.edu](mailto:gulfprogram@nas.edu)

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[www.nas.edu/gulf/vision](http://www.nas.edu/gulf/vision)

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