Gulf of Mexico
Coastal Ocean Observing System
(GCOOS)

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The ocean observing system

International Global Earth Observing System of Systems (GEOSS) includes the Global Ocean Observing System

U.S. contribution to GEOSS is the Integrated Earth Observing System of Systems (IEOSS)

The Integrated Ocean Observing System (IOOS) is the ocean component of IEOSS

The Gulf of Mexico Coastal Ocean Observing System is one of 10 COOS’s that comprise the IOOS
GCOOS Status

- Formal MOA established in January, 2005
- Currently 43 signatories to the MOA
- Board of Directors elected in June, 2005
- First BOD meeting in Houston in August, 2005
- Business Plan Reviewed by Board
- Boards and Committees established
GCOOS Board of Directors

Private Sector representatives
- Cortis Cooper, ChevronTexaco
- Alfred Prelat, The Boeing Company
  * Raymond Toll, Science Applications International Corporation
  Jan van Smirren, Fugro GEOS

Governmental representatives
  * Robert (Buzz) Martin, Texas General Land Office
  Chris Oynes, Minerals Management Service
  * Don Roman, University of Southern Mississippi

Academic representatives
- Mark Luther, University of South Florida
  * Worth Nowlin, Texas A&M University
  Nancy Rabalais, Louisiana Universities Marine Consortium

Education and Outreach representatives
  * Mike Spranger, Florida Sea Grant Program
  Sharon Walker, J.L. Scott Marine Education Center & Aquarium

* Executive Committee
GCOOS Stakeholder Council

Vern Asper (A) University of Southern Mississippi
Stuart Burbach (P) Retired, Pogo Oil
David Buzan (G) TX Parks & Wildlife Department
Tricia Clark, (P) Skaugen Petro Trans
Cort Cooper (P) Chervon
Jim Feeney (P) Horizon Marine
Tom Fry, (P) NOIA
Tom Gustafson, (A) Nova Southeastern University
Paul Kelly, (P) Rowan Industries
Chris Oynes, (G) Minerals Management Service
* Robert Stickney, (A/G) Texas Sea Grant
Kerry St. Pé, (G) Barataria-Terrebonne Estuary Program
Dave Yeager, (G) Mobile Bay Estuary Program
GCOOS Education and Outreach Council

**Alabama**
- John Dindo, Dauphin Island Sea Lab
- Lloyd Scott, Mobile Bay School District
- Margaret Sedlecky, Weeks Bay NERR
- Lee Yokel, Mobile Bay NEP

**Florida**
- Mike Spranger, UF/Florida Sea Grant
- Gary Lytton, Rookery Bay NERR
- Chris Verlinde, Santa Rosa County Extension
- Charlene Mauro, Navarre High School

**Out of Region**
- Rusty Low, UCAR-DLESE

**Louisiana**
- Jessica Katler, LUMCON
- Dianne Lindstedt, LSU Sea Grant
- Jean May-Brett, LA Dept. of Education

**Mississippi**
- Sharon Walker, J.L. Scott Marine Center
- Joe Swaykos, Stennis Space Center
- Jennifer Buchanan, Grand Bay NERR

**Texas**
- Rick Tinnin, University of Texas
- Ralph Rayburn, Texas Sea Grant
- Rob Smith, Shell Inc.
- Lisa Spence, NASA
GCOOS Workshops

Integrated Data Systems for Oceanography
31 October-2 November, 2000     Stennis Space Center, MS

NVODS Workshop for Managers of Coastal Observing Systems
14-15 January, 2003     Stennis Space Center, MS

Private Sector Interests in IOOS: Focus on GOM and SE U.S.
2-4 March, 2004     Houston, TX

HABs: GCOOS Role in Detection, Monitoring, and Prediction
13-15 April, 2004     St Petersburg, FL

Formation of a GCOOS Education and Outreach Council
29-30 November, 2004     Biloxi, MS

Development of a Governance Structure
24-25 January, 2005     New Orleans, LA
GCOOS Workshops

Oil and Gas Production and related industries
2-4 November, 2005       Houston, TX

Stakeholder Council and Board of Directors Meeting
10-13 January, 2006       Mobile, AL

Education and Outreach Council Meeting
24-26 April, 2006       Ocean Springs, MS

Storm Surge Workshop
24-25 January, 2007       New Orleans

Stakeholder Council and Board of Directors Meeting,
5-7 March, 2007       New Orleans
Oil and Gas Production and related Industries Workshop
Identified High Priority Needs

**Product Needs**
- Hurricane Severity Forecasts
- Surface current forecast maps
- Measurement & Product archive
- Operation maps of SSTs
- Forecast maps of winds & waves
- 3-D current forecasts on shelf
- Probability maps of bottom hazards

**Measurement Needs**
- Hurricane severity model improvement
- Operational satellite altimeters (r/t)
- Operational satellite radiometers (r/t)
- Operational satellite wind (QuikSat)
- Improve hurricane severity forecasts (r/t)
- Offshore meteorology (real-time)
- Marine mammals and sea turtle sightings
- High resolution coastal bathymetry, topography, and subsidence rates
GCOOS Education and Outreach Council

Hire Education and Outreach Coordinator

Conduct Needs Assessment of Stakeholders (with GOMA EEN)

Develop annotated catalog of GCOOS current/future products and users

Create education and outreach products to used in localized programs (i.e. powerpoint, fact sheets, flyers, display boards)

Coordinate regional workshop for Sea Grant, NERRs, and NEP
Why Sea Grant in Leading Role?

- Established relationships with coastal clientele
- Track record of two-way transfer of information and research topics
- Infrastructure in coastal states & research institutions
- Expertise in formal and non-formal education
Commercial Fishing

- Water temp
- Salinity
- Currents
- Zooplankton
- Weather
Recreational Fishing and Boating

- Water Temp
- Salinity
- Currents
- Zooplankton
- Weather
Coastal Communities

- Water levels
- Storm flooding
- Sea level rise
Oil and Hazardous Waste Spill at Sea

Currents
Beachgoers

- Waves
- Rip currents
- Tides
Commercial Shipping

- Wave data
- Winds
- Currents
- Tides
Beach Communities

- Waves
- Rip currents
- Sand for beach nourishment
Military

- Coastal navigation
- Search and rescue
- Environmental hazards
- Coastal zone mgt
- Logistics and training
- Homeland security
Welcome to GCOOS

What is GCOOS and the GCOOS-RA?

Many organizations and individuals are concerned with sustained observations and/or products and services based on such observations from the estuaries and Exclusive Economic Zone of the Gulf of Mexico. A group of these entities have signed a resolution agreeing to form a Gulf of Mexico Coastal Ocean Observing System (GCOOS) beginning with the integration of existing observing system elements and the sharing of non-commercial and non-proprietary data and products. You are welcome to join the signatories to this resolution. General agreement has been reached on a GCOOS mission statement or vision. This regional system will be a part of the U.S. sustained and Integrated Ocean Observing System (IOOS).

The Memorandum of Agreement for the GCOOS Regional Association (GCOOS-RA) became effective on 25 January 2005. Qualified individuals are encouraged to become Parties by signing the MOA either on behalf of their organizations or as an individual. This Regional Association provides formal governance of GCOOS. The GCOOS Business Plan is in preparation. On June 22, 2005, ballots were counted and the initial Board of Directors of the GCOOS-RA was elected. Members of the Board represent the distribution of private sector, government, academia, and education and outreach Parties to the MOA.

An ongoing series of meetings and workshops are being held as part of the development of this Gulf of Mexico Coastal Ocean Observing System. Key meetings held to date have dealt with: an integrated data system for the Gulf of Mexico; the mission, initial building blocks, and tentative organization for GCOOS; a meeting to consider next research activities in the Gulf to support socioeconomic needs; the private