Gulf of Mexico Coastal Ocean Observing System

Worth Nowlin
Implementing the GCOOS Build-Out Plan

1. Prioritize the Elements for Implementation Planning

2. Determine a Viable GCOOS Build-Out Financing Strategy
Priorities for implementation of the GCOOS-RA Build-out Plan based on likely sources of funding
• It seems unlikely that the IOOS RAs will receive substantial monies for operational observing systems in the near term. Assuming that to be the case, my suggestion is that our RA continues to focus in the near term on: determining stakeholder needs, obtaining and serving data sets, obtaining, making and serving products, and education and outreach activities. We should aggressively support others in proposing to expand the Gulf base of operational measurements. We should encourage federal and state agencies to enhance their operational observing systems and provide our thoughts on how and where.
• It is with those understandings that I suggest grouping the elements of the GCOOS-RA Build-out Plan into several levels, with the lowest numbered level being those elements of higher priority for implementation by the RA. Note that I use a realistic consideration of available funding as part of the criteria for ordering.
Level 1: Data management element
Education and outreach element

These activities now receive our highest priority and should continue to do so. We expect the RA to obtain the funding for these elements. (In addition to operational observing systems the Gulf of Mexico Research Initiative will involve some monitoring, measurements and modeling, and we should entrain those data as feasible.)
Level 1.5: Satellite observations and products

This element constitutes a special situation for implementation. GCOOS has no control over satellite observations. There are multiple sources for most products produced from such observations. However, GCOOS can affect the production and distribution of some of these products tailored for the Gulf region through encouragement and limited financial support.
Level 2:  Bathymetry-topography element  
Enhanced PORTS element  
Water level element  

Plans for these elements were developed by federal agencies or jointly by GCOOS and such agencies. The agencies will implement as funding permits. GCOOS should closely track progress.
Level 2.5  Hypoxia monitoring element

Plans for the shelf waters of this element were developed by federal agencies jointly with the Gulf community of researchers. Plans for the state waters are under development by state agencies through GOMA, with input from GCOOS. GCOOS should continue to provide input and should consider ways to encourage development of the time series moorings and AUV monitoring network associated with both the shelf and state waters.
Level 3:

- Beach quality monitoring element
- Ecosystem modeling element
- HABIOS element
- Physical modeling element*

These are elements that GCOOS has been or is active in initiating to some extent. They are elements that likely will not move forward without GCOOS promotion and encouragement.

*(GCOOS DMAC intends to emphasize Gulf modeling this year by bringing more attention to Gulf models through our web pages.)
Level 4: HFR element*
    AUV element*
    GCOOS moorings element
    Ecosystem parameter monitoring element
    Monitoring river discharge element
    Autonomous meteorological measurements
    Adaptive aircraft measurements

Implementation of these elements will require considerable sums of money or implementation by federal/state agencies. Because we do not anticipate access to large financial resources in the near future, GCOOS should approach appropriate agencies and discuss our build-out plan with a view to encouraging their implementation of portions of the plan.

*(It is possible that the HFR & AUV elements should be moved to a higher priority.)*
Actions needed by the Board

• Agreement on the implementation order.

• Agreement on a schedule for delineation of GCOOS implementation activities for each element.

• Agreement on who will oversee the delineation of GCOOS activities and implementation of each element.