1.0 Opening

Joe Stinus, committee chair, welcomed members and guests. Self-introductions were made by each attendee. A list of attendees is given in Appendix A.

Based on materials distributed prior to the meeting, the overall purpose of the meeting was to review and update the previous Action Plan of the GCOOS Products and Services Committee (PSC) incorporating the newly created GCOOS Data Portal into actions such as providing the DMAC lists of products and services to further populate the portal.

2.0 Updates on Selected Related Activities

2.1 GOMA Action Plan II

Stinus reported on the August 2009 GOMA All Hands meeting where future activities to support the GOMA Action Plan II were discussed. He pointed to possible collaborations of the GCOOS PSC with GOMA, particularly their Ecosystem Integration and Assessment Priority Issue Team (PIT). Stinus presented [01_Stinus.pdf] the action items of this PIT.

GOMA is forming a data management committee consisting of technical and content representative from each of their six PITs. It is important that the GCOOS PSC is linked in a meaningful way with that GOMA data management committee.

2.2 NOAA’s Coastal Strategy

Stinus recommended review of the NOAA Coastal Strategy for areas of possible collaboration between NOAA elements and the PSC. It may be viewed at http://www.ppi.noaa.gov/PPI_Capabilities/Documents/Transition/Coasts_Strategy_Paper.pdf

Stinus noted places in the document at which plans specific to the Gulf of Mexico may be found.

3.0 General Discussion of Data and Products

Stinus had performed a preliminary survey of GCOOS Products and Services, which is given as Appendix B. It was noted that a number of the entries actually pertained to data rather than products or services.

Discussion of products and services led to a discussion of priorities for measurements (data) and products/services. Prior to the meeting Worth Nowlin had provided a table (Appendix C) showing integrated GCOOS stakeholder priorities for measurements and products based on GCOOS stakeholder workshops held and extant stakeholder issue papers.
4.0  Presentation on Storm Surge Modeling  

Mike Koziara (NWS/Slidell FCO) briefed [02_Koziara.pdf] attendees on the SLOSH model, including 2009 improvements and web site tools.

5.0  Review of 2007 PSC Action Plan and Recommendations  

The PSC Action Plan and Recommendations for 2007-2008, as formulated by the committee in November 2007, are given in Appendix D. These were reviewed by the committee. Regarding the action plan, it agreed that:

- Action items 1 & 2 are ongoing,
- Action item 3 was not carried due to lack of funding, and
- A first cut at action item 4 has been made by the GCOOS Office in terms of the Integrated GCOOS Stakeholder Priorities for measurements and products mentioned in Section 3.0 of this report.

Regarding the recommendations, it was agreed that:

- Item A.1 needs no action by the PSC,
- Item A.2 has been overtaken by events because second year funding was available,
- Items A.3 & A.4 have been modified to include vocabularies, and
- Items A.5 & A.6 are demonstrated in the EcoWatch tool.
- All recommendations in part B are ongoing.

6.0  Development of New PSC Action Plan  

6.1  Discussion and Actions to Provide Information  

This section began with discussion of the relationship between the PSC and the GCOOS DMAC Committee and Education and Outreach (E/O) efforts. Members believed that the E/O could be a strong marketing services for GCOOS products and services and could provide needed training as well. DMAC will help in identifying data requirements and sources that support P&S priorities.

The committee reviewed the list of Integrated GCOOS Stakeholders Priorities for Measurements and Products to identify three to four items that could be addressed within the next 12 months with the present level of funding/resources. All agreed that the highest priority item, improved bathymetry and topography in the coastal zone, was a very important item, but that it is one outside the scope of the committee. However, it was suggested that GCOOS-RA input to NOAA, USACE, and USGS might help direct survey efforts such as the National Mapping Program and the GoMA Integrated Coastal Survey Plan.

Improved products for managers of Harmful Algal Blooms was considered of high priority, but one already receiving attention and support in terms of the development of a Harmful Algal Bloom Integrated Observing System Plan for the Gulf of Mexico. The PSC hopes to assist in implementing this Plan when it is complete.
All committee members agreed to start populating the GCOOS Portal; PSC will provide DMAC with a list of “Products Needed”, and they in turn will help identify data sources and supporting tools with links and jump sites (Action). MMS will supply shape files, lease maps, coastal resources, city layers, etc. (Action). EPA will provide the Battelle website and point of contact info for the “North Gulf Inventory” (Action).

The GCOOS Education and Outreach Council representative will send a summary of their recent meeting in which products and services support was discussed (Action). The minutes will be forwarded to the PSC (Action).

6.2 Principal Actions

1. Using the Integrated GCOOS Stakeholder Priorities as guidance, the Committee decided to focus initially on developing additional information regarding four categories, with the understanding that the number may be expanded should additional funds become available. For each category, the committee first will prepare a one-page description of the topic area from the PSC perspective, present issues associated with the topic, types of observations that support or result from the theme, why the topic is important, and how to obtain existing products and services (e.g., via links or GCOOS Data Portal). These actions are due for completion by October 1, 2009.

These four initial topics will be:

- Models—surge, circulation, and other physical oceanographic. The preparation team consists of: Steve Morey, Pat Hogan, Steve Sempier, and Angela Sallis.
- Hypoxia—Public access to data, Phy. O. /physics, difference between sampling and monitoring. The preparation team consists of: James Hagy
- Extreme Weather—Stormsmartcoast.com like capabilities, surge and inundation, NEWIS. The preparation team consists of: Steve Sempier
- Beach Quality—What is monitored, why important, how to improve. The preparation team consists of: Steve Sempier, Julie Bosch, and Joe Stinus

2. These one-pagers will be posted on the GCOOS Portal and used by DMAC and E/O. This first step will help users to “enter” the portal with a better understanding of what is available, why it is important and how to use information related to the topic. The next step will be to build the white papers to seek funding from authorized/appropriated programs such as those of NOAA, EPA, GoMA, or IOOS.

7.0 Next Meeting and Closing

It was agreed that a reminder will be sent to PSC members in early January and a best time and venue for the next meeting of the committee will be selected.

The meeting was adjourned by the chair with thanks to the members and guests.
Appendix A: Attendees with affiliations

Julie Bosch (NOAA) DMAC Rep
Jim Hagy (EPA)
Patrick Hogan (NRL)
Matt Howard (TAMU)
Mike Koziara (NWS/Slidell FCO)
Alexis Lugo-Fernandez (MMS)
Patrick Lynett (TAMU)
Steve Morey (FSU)
Worth Nowlin (TAMU)
Jay Ratcliff (USACE), DMAC Rep
Pat Roscigno (MMS)
Angela Sallis (NOAA) Ed & Outreach Rep
Steve Sempier (MS/AL Sea Grant)
Joe Stinus (NOAA) PSC Chair
Ray Toll (SAIC)—meeting via teleconference
Appendix B: 2009 Products and Services Survey

Information Needs Identified in the
Gulf of Mexico Research Planning Process

Prepared for the GCOOS Products and Services Committee
July 2009

The purpose of the Gulf of Mexico Research Plan (GMRP) is to identify regional research priorities and develop a strategy to address these priorities through collaboration with agencies and organizations that conduct and use Gulf of Mexico-related research. The project is sponsored by the National Sea Grant College Program. The GMRP is rooted in stakeholder input, and workshops and a survey were the primary methods used to collect this input. More than 1500 people from 233 organizations, universities, and federal and state departments completed a survey to identify regional research priorities. Nearly 300 people from 77 organizations, universities, and federal and state departments participated in regional workshops.

This effort focused on identifying and prioritizing research needs for the region, however related needs were also identified. This report focuses on data, monitoring, mapping, and modeling needs identified in the survey and workshops. The raw workshop notes and survey responses with minor formatting are included in this report.

For more information about the Gulf of Mexico Research Planning effort or to share how you will be using the results of the GMRP please contact Steve Sempier, Gulf of Mexico Research Planning Coordinator, at stephen.sempier@usm.edu.

Data Needs

- Ocean data collection needs to go up by a factor of at least ten...for starters.
- Emphasize improved use and accessibility of existing data and research in addition to conducting new research and generating additional data. Much existing data is underutilized and often inaccessible. In particular, unnecessary restrictions are often placed on the use of and access to fisheries dependent data.
- Temporal/spatial gaps in data > hard to fill in gaps—need to coordinate monitoring and data management across diverse topics to get ecosystem approach (e.g., expand SEAMAP surveys).
- Need a better understanding of data (available / accessible) and how to get it.
- Pool evaluation data.
- Identify data sources - archived, real-time, and other.
- Access to existing data -- ex: fisheries, all sorts of data.
- Data mining from individual researchers.
- Centralized database for existing data & models.
  - Inventory of existing data (e.g. fishing licenses, alligator catch data, to bldg permits).
- Gather and synthesize existing data from state / federal / university sources.
  - Lots of existing research.
- Need clearinghouse (GOMA Habitat Identification team is working on this for habitat).
- Centralized shoreline / topography data location to facilitate research.
- Website portal for available technology.
- Database of technical and human resources available to support field research.
- Need standards, metadata process to help organize & manage data (e.g. NASA working on "COAST" (coastal online assessment & synthesis tool) intended to facilitate harmonization of data, synthesis).
- Standardize data measurements (establish standards).
- Standards and protocols for data management.
- Data consistencies from ocean to land.
- Continuous data.
- Develop comprehensive database in real time (IOOS) and integrate existing HAB information.
- Expand collection baseline data - OOS.
- Historical baselines for comparison to climate change.
  - Identify, enhance, and support.
  - Current baseline data.
  - Gathering for comparisons.
- Vibrio baseline data.
- Need more coastal and subsurface geological data.
- Tie tidal datums together across Gulf.
- Get post-Katrina baseline data then follow with regular data collection.

**Monitoring Needs**

- Long-term coastal change detection.
- IOOS.
- Increase monitoring and data collection (sea-level rise, surface elevation tables) long-term monitoring.
- Integrated Ocean observing systems that can be available for public, industry, and academic use.
- The need for a coastal observing system that is both cost effective and operationally viable.
- Real time ocean observing infrastructure in the western Gulf of Mexico.
- It follows that we need better support capabilities in order to work in the Gulf of Mexico, for instance, fixed platforms and logistical capabilities that researchers can occupy for extended periods to accomplish a broad spectrum of investigations.
- Near-bottom currents in deep water along and outside the Sigsbee Escarpment. Nature, stability and origin of mega furrows.
- Real-time monitoring sensor nets of the coastal ocean and marine resources.
- Develop robust monitoring and assessment programs, considering not only estuaries but also the offshore portion of the coast. Socioeconomic and human health, aspects must be included.
- Establish an interdisciplinary observation and sensing capacity for the GOM including observing systems (salinity, dissolved oxygen, water temperature, wind, wave height,
etc.) that integrate sensors (sonar, infrared, acoustics), telemetry (radio, satellite, telephone), and biochemical analyses (elemental isotopic, genetic).

- Continued and enhanced monitoring of the GOM through coastal ocean observation networks, satellites and increased monitoring of the deeper GOM. It is critical to have high quality long term time series for most of the aforementioned priorities.
- Critical need to address languishing observing systems. Sustainability of and maintenance of observing systems. Ensuring adequate cross-pollination of research communities within the NGI and Gulf of Mexico study groups, including GOMA, OOS's, etc.
- There is a huge discrepancy of knowledge between the Mexican and American part of the Gulf of Mexico. I think that there should be an agenda for Mexico which ensures that basic knowledge will be gathered and that long term monitoring is established.
- Experiments set up but we are not monitoring - right people and right parameters.
- On the ground data collection / monitoring needs to be increased; also need to coordinate.
- Increased instrumentation and coordination of oceanographic data and real time access.
- Low cost, real-time observation systems.
- Monitoring data - Gulf wide database.
- More sensors in Gulf of Mexico.
- High accuracy reference network.
- Accurate near-shore wave data.
- Add gauging stations in tidal plains to monitor water quality and quantity.
- Development of "plug-and-play" sensor technologies to assist with beach health initiatives and shellfish bed management.
- Improved and more monitoring efforts in the near shore estuarine environment to enhance and calibrate existing coastal hydrodynamic models.
- Further research and monitoring efforts to move towards effective ecosystem-based management of marine resources.
- Development of Integrated Ocean Observing Systems and their related technologies for long range and long term monitoring of the ocean environment as well as quantitatively measuring the impacts of climate change and human interaction.
- Develop consistent and complete long-term monitoring programs for natural resources of the coastal and marine areas of the Gulf.
- Develop a long term strategy of monitoring of biodiversity (along with environmental change).
- Develop a series of indicators, including biomarkers, of ecosystem structure, function and resilience.
- Aggressive funding for COOS efforts in Florida…
- Tidal and storm surge modeling updated elevation data (heights/depths) for intertidal coastal areas shoreline maps referenced to multiple vertical datums. Integrate metadata. Better coordination between feds and state and local stakeholders on ocean and coastal mapping activities.
- Monitoring the changes in water temperature of the gulf and its impact on the impact on the ecosystem biodiversity. Monitoring the rising of water in the ocean as the results of global climatic changes and it is impact on the coastal areas.
- The development of long term ecological monitoring in the coastal zone to support development of complex ecosystem models.
Mitigation plans for oil spills, wastewater and anthropogenic and natural hazards need to be updated/incorporate real-time COOS information. Growth and development come at a high cost—we can talk about 'monitoring' all we want, but until the real problems are addressed (too many people tapping into limited resources, not living green, seriously undereducated citizens) environmental quality will continue to deteriorate.

Data collection: parameters monitoring water quality, hydrodynamics, hydrology.

Water quality and nutrient run-off.
  - Need synthesis of monitoring information.

Integration and real-time display of monitoring data.

Need monitoring information so that we can educate communities on the effect of management changes.

Need observing systems - presence, abundance, location & environmental conditions, and baseline oceanographic info.

Need for marine information systems in inland waters (AIS).

Encourage application of source tracking technology in Gulf of Mexico.

Need for adaptive management and monitoring of coastal restoration. Need for comprehensive monitoring of ecosystem health through sustained observations, including harmful algal blooms, coastal eutrophication and hypoxia.

Monitoring of coastal hypoxia—need regional assessment to understand magnitude of problem.

Need to monitor parameters (i.e. oyster monitoring only 2 parameters).

More monitoring programs.
  - Health issues.
  - Elevation.

Have tidal datums in Gulf detected a rise in sea levels? If so, why?

Mapping Needs

Large scale mapping efforts.

Detailed resource mapping in GIS.

Inventory of conditions, land use, natural resources and habitat.

Complete inventories of existing resources to understand what the extent of the impacts will be.

Inventory of marine establishments/services/operations in the Gulf of Mexico (GIS).
  - Aquaculture/seafood/fisheries.
  - Transport/shipping.
  - Recreational.
  - Government operations.
  - Economic impact.
  - Water/non-water dependent.

Inventory of coastal infrastructure.

Mapping inventory (Mississippi).

The GoM falls within the EEZ of three nations. Over the mid-term, there should be a cooperative international effort to map critical habitat and human use patterns to develop comprehensive spatial governance schemes.
— Coordinated effort to determine the distribution of ocean habitats, fauna and flora that use them, and associated productivity levels.
— Need for detailed bottom mapping to include bottom lithology & geochemistry, sediment type, and associated habitats. This baseline would then be used to assess the responses to upland watershed change dynamics, near-shore and estuary trends, and coastal response to sea-level change.
— More detailed mapping of the bathymetry and offshore geology of the western Gulf of Mexico.
  - Development of seamless bathymetric-topographic datasets for use with coastal inundation/storm surge modeling and prediction.
  - Development of a Gulf-wide coastal sediment database to better identify sediment sources for beach and wetland restoration projects.
  - Development of better sediment transport and sediment budget tools to improve implementation of regional sediment management plans.
— Mapping & benthic habitat needed.
— Need for improved coastal mapping and detailed bathymetry.
— New, near shore bathymetric surveys in the western Gulf of Mexico.
— Higher and higher resolution bathymetry / LIDAR (better data).
— Support:
  1) Radar, bathymetry - fill gaps.
     • Increase range - landward; develop means to measure seaward.
     • Satellites going offline - more gaps in ability to monitor on large scale (e.g., location of loop current).
  2) More refined scale - spatial and temporal to make cross-connections.
     • DM (Database management) protocol/central distribution DMAC (Database Management Analysis Center).
— High-resolution comprehensive geophysical, habitat, bathy mapping continental shelf.
— Better bathymetric data for region.
— See Steve Junes for bathy data.
— Florida Bathy.
— Develop all information and data for use in coastal restoration and to maximize restoration rate while minimizing to the extent potential adverse effects.
— General biosurveys - who is there INVASIVE SPECIES!! - (including introduction and monitoring and prevention).
— Mapping deep-sea/cold water coral.
— Accurate topography.
— Expand elevation data knowledge - more frequent surveys and more density.
— Florida- DEM- Redelineate SLOSH.
— More LIDAR, more often.
— High resolution maps of shelf and slope exist for TX and LA, and these need to be extended around the Gulf. Requires multibeam. Good educational tools as well.
— Expand bi-annual shoreline data orthophotography collection to include Mississippi Sound and wetlands shoreline.
— Info GIS-based geodatabase of various discipline data.
— GIS navigational layer identifying navigational rules, distribution and changes (10 speed zone).
— Map available safe harbors.
— Identify safe harbors, how many exist, and how many are needed.
— Inventory of natural resources.
— Mapping of physical and biological habitats with 21st century technology.
— Environmental inventory (species & habitat).
— Habitat maps for the region-terrestrial / aquatic / marine.
  - Hydrodynamic models - sub-regional levels.
  - Local subsidence rates across region.
  - Enhance information networks.
— Map oyster reefs throughout Gulf of Mexico.
— Regional coordination of sea grass mapping / EFH mapping.
— Basic information on Florida west shelf benthic communities, what's out there -- natural ledge communities.
— Information on availability of sediments - where & when.
— Have sand resources pre-identified.
— Assessment, mapping, surveying deepwater resources (e.g., Pulley's Ridge).

**Modeling Needs**
— A complete, high resolution bathymetry set, a marine data type that can handle the multidimensional characteristics of the marine/biogeochemical environment, use of a marine data model that can help integrate data and information in differing formats, measurements, scales, and languages, across the many different disciplines, and a portal for ALL that information.
— Ensure that any "models" or other data generated is user friendly and highly assessable to environmental consultants. These professionals need high quality, easy to find data to give their clients (whether private of government) the very latest and best in ocean resource research findings.
— Getting known research results, models, programs, and tools to the hands of people that need it.
— Spend more efforts translating this information to those that need it.
— Forecasts required - drives, instrument demands.
— Results of predictive models and level of success.
— Long-term data modeling.
— Strong support for the development of ecosystem-based modeling tools for management.
— Models to look at human-use trends and effects on ecosystems data gap analysis to couple existing models.
— Forecast and develop solutions to environmental impacts of increasing human population density along the Gulf Coast.
— Modeling the environment.
— Integration of ocean biological and physical models with ocean observations.
— Real-time environmental data collection, analysis, model building.
— Development of high resolution coastal physical and ecosystem models that can address natural variability, extreme events and climatic changes and support long term observational monitoring networks for model validation.
— Capability to use interactive modeling to assess impacts (natural and man-made) on coastal system behavior/conditions.
— Predictive models of hurricane strike & surge.
— Need 3-D patterns of currents in GOM.
— Estuary, coast, offshore linkages; modeling the linkages.
— Accurate subsidence.
— Effects of climate change on coastal restoration and coastal development.
— What is current situation?
  - What would change with sea-level change and higher temperatures?
— Measure interaction between sea surface temperature (SST) and ecology.
— Develop model of what a successful resilient community is.
— Risk assessment.
— Hypoxia prediction.
— Model (not pure economic) to assist business decisions.
— Modeling shipping channels.
## Appendix C: Integrated Stakeholder Priorities

**TABLE 1**
INTEGRATED GCOOS STAKEHOLDER PRIORITIES AS OF 31 MAY 2009

<table>
<thead>
<tr>
<th>Priority Product or Data</th>
<th>Stakeholder Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain accurate bathymetry and topography with consistent vertical control between data sets in the coastal zone, including locations of shorelines.</td>
<td>Emergency managers, surge modelers, recreational boaters (bathymetry and shorelines), urban planners and developers, insurance industry (topography and shorelines), oil and gas, marine transportation (shorelines and navigationally significant waters, especially federally mandated channels, approaches, and anchorages)</td>
</tr>
<tr>
<td>Improve coverage of real-time currents in the coastal zone and navigable estuaries using HF radars as primary technique.</td>
<td>Marine transportation, recreational boaters, oil and gas sector, Coast Guard SAR</td>
</tr>
<tr>
<td>Improve real-time, offshore meteorology measurements (V, P, T, H).</td>
<td>Oil and gas sector, Coast Guard SAR, surge modelers, HABs monitoring, recreational boaters</td>
</tr>
<tr>
<td>Improve forecasts and nowcast models of sea lever, winds, and waves; this requires added real-time measurements.</td>
<td>Recreational boaters, oil and gas sector, Coast Guard SAR, storm surge modelers, emergency managers</td>
</tr>
<tr>
<td>Improve hurricane severity forecasts.</td>
<td>Emergency managers, oil and gas sector, recreational boaters</td>
</tr>
<tr>
<td>Improve forecasts and nowcasts of surface currents offshore.</td>
<td>HABs tracking, oil and gas sector, Coast Guard SAR</td>
</tr>
<tr>
<td>Improve severe weather monitoring, forecasting, and dissemination.</td>
<td>Oil and gas sector, recreational boaters, HABs tracking and fate</td>
</tr>
<tr>
<td>Enhance measurements of water quality parameters.</td>
<td>Oil and gas sector, recreational boaters, HABs detection and fate</td>
</tr>
<tr>
<td>Implement a modern, real-time current and water level observing system in all major ports.</td>
<td>Marine transportation, recreational boaters</td>
</tr>
<tr>
<td>Establish coastal storm surge/inundation maps for mitigation planning (not real time).</td>
<td>Oil and gas sector, insurance, real estate, planners, emergency managers</td>
</tr>
<tr>
<td>Improve information on and forecasts of visibility.</td>
<td>Coast Guard SAR, recreational boaters</td>
</tr>
<tr>
<td>Produce upper ocean profiles of temperature, salinity, and currents.</td>
<td>Oil and gas sector, recreational boaters (near artificial reefs and at major diving locations)</td>
</tr>
<tr>
<td>Produce reliable forecast maps of three-dimensional currents offshore.</td>
<td>Oil and gas sector</td>
</tr>
<tr>
<td>Improve real-time forecasts of coastal inundation.</td>
<td>Emergency managers, general public</td>
</tr>
<tr>
<td>Increase number of stations monitoring HABs.</td>
<td>Public and animal health officials, HABs monitoring network</td>
</tr>
<tr>
<td>Improve data and product dissemination techniques taking into account the sophistication of the user.</td>
<td>Requirement of all sectors</td>
</tr>
</tbody>
</table>

Action Plan

1. Reconstitute membership
   a. GCOOS Board to solicit interest from stakeholders
   b. Russ Beard to contact (1) DMR for proxy for Joe Jewel, (2) Mobile Bay Chamber of Commerce, and (3) NGI representative
   c. Rost Parsons and Joe Stinus to contact Fisheries and Sea Grant
   d. All members suggest: NGO, Port Authority, Offshore Terminals nominees
   e. GCOOS Office to ask missing PSC members about their continued interest
   f. GOALS
      10 to 12 members; one from each state; membership to emphasize stakeholders; links with Stakeholder Council & Education/Outreach Council

2. Catalog current products and services available through or affiliated with GCOOS
   a. Joe Stinus to draft solicitation email, including an example or two
   b. GCOOS Office to send to GCOOS list serve and additional names provided to Ann Jochens
   c. Not a data inventory
   d. Inputs to Joe Stinus and Rost Parsons for compilation
   e. Continual collaboration with GOMA focus areas, e.g., habitat.

3. Review and distill existing gap analyses relative to products and services
   a. Rost Parsons to provide documents listing by mid-February, including GCSC, GOMA, Hypoxia Task Force, GCOOS Stakeholder Conferences, GCOOS internal requirements (e.g., socio-economic study) and Mississippi State University analysis of best data sets for socio-economic indicators for Gulf
   b. Ann Jochens to arrange posting of studies on GCOOS web site when received.
   c. Rost Parsons to identify a volunteer or give assignment to review each study (from committee membership and GCOOS Board)
   d. Russ Beard will send socio-economic white papers (NRC benefits of observing systems) to committee
   e. Rost Parsons will collate

4. PSC to provide list of potential integrated product categories
   a. Derived from portal data streams
   b. Based on stakeholder requirements and gaps; cost/benefit
   c. Examples:
      Now Cast
      Data assimilation into models
      Tropical weather for 2008 season (weather committee members)
      http://www.ncddc.noaa.gov (click CSIDE icon)
Recommendations

A. PSC Recommendations Regarding the GCOOS Data Portal
   1. Utilize NOAA Services (NESDIS) IT requirements (e.g., security). Interoperable with Regional Ecosystem Data Management. NOAA will ensure archival services at appropriate national data center. Integrate West Coast processes into GCOOS data portal.
   2. Plan for operation and maintenance if no 2nd year funding is available.
   3. Focus on select data streams for year 1—utilize ontologies (e.g., NOAA SMECS)
   4. Ergonomics – lessons learned from SEACOOS
   5. Mash-up approach – distributed data not necessarily stored at GCOOS
   6. Modular – different scales of delivery/products

B. PSC Recommendations Regarding High Priority GCOOS Projects
   1. Link projects to data portal effort where possible.
   2. Initially select projects with highest cost/benefit ratio.
   3. PSC to provide list of potential integrated product categories.