

Gulf of Maine Ocean Data Partnership

Hosted by Gulf of Maine Ocean Observing System (GoMOOS)

2007 Work Plan

January 8, 2007, final

Member Organizations:

Bedford Institute of Oceanography
Centre for Marine Biodiversity
Coastal Ocean Observation and Analysis – UNH
Gulf of Maine Area Census of Marine Life
Gulf of Maine Council on the Marine Environment
Gulf of Maine Ocean Observing System
Gulf of Maine Research Institute
Huntsman Marine Science Centre
Maine Department of Marine Resources
Massachusetts Coastal Zone Management
New Hampshire Department of Environmental Services
NOAA – Coastal Services Center
NOAA – Northeast Fisheries Science Center
NOAA - Satellite & Information Service, National Environmental Satellite, Data, and Information Service (NESDIS), National Oceanographic Data Center (NODC).
St. Andrews Biological Station
Stellwagen Bank National Marine Sanctuary
Tufts University School of Veterinary Medicine/SEANet
USGS – Woods Hole Science Center
US Fish and Wildlife Gulf of Maine Program
University of Connecticut National Underwater Research Program
Wells National Estuarine Research Reserve
Woods Hole Oceanographic Institution
EPA/ORD/NHEERL/Atlantic Ecology Division (Associate)

Staff Support: Tom Shyka
Sylvia Most

Executive Summary

During 2007 the Partnership will continue work under the four topic areas identified in 2005 and 2006: Authority, Discovery, Accessibility and Interoperability. In addition the Partnership will make recommendations on its relationship to the developing Regional Association for the Gulf of Maine region.

- Authority: Partners are asked to continue to insure their authority for the data sets they will serve through the Partnership.
- Discovery: Partners are encouraged to continue registering their data sets in accord with the technical guidance provided by the Partnership. The Metadata Editorial Committee will review metadata entries and work with Partners to improve those entries where necessary.
- Accessibility: Partners are encouraged to implement the capability to serve their data sets using one of the recommended data sharing protocols.
- Interoperability: The two demonstration projects begun in 2006 will be continued in 2007. In addition two new projects will be initiated.
- Regional Association: Discussion sessions within the Partnership will be held during 2007 to develop a consensus on the role of the Partnership within or in relationship to the Regional Association.

Other Partnership Activities:

- Complete a Partnership guide for new and existing partners.
- Publish a Partnership Annual Update for 2006 Activities via email and the website.
- Operate a Partnership Metadata Editorial Committee for an ongoing review of metadata related to the Gulf of Maine.

Goals and Objectives

During 2007 the Gulf of Maine Ocean Data Partnership will continue to make progress on the four major components of successful sharing of data identified in 2005 and 2006: Authority, Discovery, Accessibility and Interoperability. In 2005 the major focus was on assisting the Partners with Authority and Discovery. In 2006 the focus shifted to Discovery and Accessibility. In 2007 the focus will be on Accessibility and Interoperability, with an ongoing activity to monitor and improve past efforts under Discovery.

In addition, the Partnership will consider and make a recommendation on its relationship to the developing Northeast Regional Association of Coastal Ocean Observing Systems, NERACCOOS.

Authority

The Partners are responsible for insuring they have the authority for any data they provide or serve as part of the Partnership, in accord with the criteria for Authority described in the Technical Guidance Document.

Discovery

With the training provided by the 2005 metadata workshop and the demonstration project for registering data, the Partners are now expected to register their relevant data sets in one of the national data clearing houses, in accord with the [Technical Guidance document](#). The Partners are encouraged to ensure their data sets are registered using appropriate metadata such that they can be migrated into the [Global Change Master Directory](#) (GCMD).

The GoMODP Metadata Editorial Committee (MEC) will annually conduct a detailed review of at least 10 percent of the metadata entries on the GCMD/ GoMODP portal. The MEC will use the results of these detailed reviews to advise and work with Partners in general on ways and means to improve their metadata entries. The MEC will also work with GCMD (Melanie Meaux) to assign metadata records to the GoMODP Partners thus facilitating routine reporting to the Executive Committee on the progress made by the Partners in registering data sets.

New Project:

Data Suitability Testing: Starting in late 2006, the Metadata Editorial Committee (MEC) will work with the GoMC-GeoConnex Nutrient/Contaminant Project to devise ways and means whereby selected metadata entries can be systematically scored and ranked against end-user defined suitability criteria. Initial implementation will be conducted in the form of a limited trial using the 'R' statistical programming environment. If this trial proves to be feasible, then development of web ready implementation will be considered.

Additional partners added to the Metadata Editorial Committee in 2007 to expand expertise in the following areas:

- Biological Resources - Margaret Hunter
- Harmful Algae Blooms - Linda Mercer
- Water Quality - John Shipman
- Inundation - Ann Ball

Accessibility

The accessibility of data sets is a critical requirement for a successful IOOS. A number of technologies to enable that access are identified in the TGD and some of those are continuing to evolve. In preparation for making their data sets accessible, Partners should work towards standard vocabularies within their data sets. This involves utilizing existing lists or developing a crosswalk from an existing list to the Partner's proprietary list.

Partners who have the necessary technical expertise should implement one of the suggested access protocols for their data. As resources allow, the Partnership will assist Partners in setting up these capabilities for their data sets.

The technical committee will undertake an assessment of accessibility of the datasets currently registered on GCMD.

A workshop on web services may be conducted Spring 2007 by the partnership. The format would be similar to the metadata workshop held in 2005. Additionally, a technical expertise survey is being conducted by the technical committee to create a resource list for partners to find help in implementing various technologies.

Interoperability

The Partnership will continue the two demonstration projects initiated in 2006 and initiate two additional projects.

Ongoing Projects:

Shrimp Project: The initial goal of the shrimp project was to provide the latest shrimp survey and catch data, and the relevant oceanographic data, to the Northern Shrimp Technical Committee to assist the Committee in formulating its advice/recommendations for management of the shrimp

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stock. A variety of technical and logistical problems arose during 2006. The goal for the project was revised, with the goal now to provide retrospective data on catch and ocean conditions to the Committee. This revised goal will be the focus of activities during 2007.

Monitoring Locations Application: The goal of the Monitoring Locations application is to provide a web-based mapping tool showing the locations where environmental monitoring is being done and provide information on the responsible organizations and the parameters being monitored. During 2007 the project will be completed in static form and then efforts will be made to use data access capabilities, where they have been implemented, to make the monitoring location product dynamic.

New Project:

Exchange network Project: A proposal has been submitted to the Environmental Protection Agency to support implementing the Exchange Network protocol for interoperability of data sets from a number of Partners in the region. If funded, work on the project will be initiated in 2007. A data exchange schema will be developed; nodes and node clients will be established; and a sophisticated web application to display and retrieve the data will be implemented. This exchange capability could be used to make the Monitoring Locations application, described above, dynamic.

Regional Association

The coastal IOOS ultimately will be supported and operated through local Regional Associations that will be members of a national federation of Regional Associations. For the Gulf of Maine area the Regional Association is NERACOOS. The capabilities being developed by the Data Partnership are a fundamental component of the regional IOOS and, therefore, are critically important to the Regional Association. The structure and governance of NERACOOS are still being designed, and the relationship of the Data Partnership to NERACOOS has not yet been determined. Two (of many) possible alternatives would be 1) for the Data Partnership to remain a separate entity under the umbrella of NERACOOS or 2) for the capabilities of the Data Partnership to be subsumed formally within NERACOOS and the Partnership itself ceasing to exist. The structure and governance of NERACOOS will be determined by the fall of 2007. The Data Partnership can play an important role in the deliberations leading up to that determination.

To inform the Partners about the various alternatives for NERACOOS and to discuss the relationship of the Data Partnership to NERACOOS, informal discussion sessions for the Partners will be held quarterly (nominally in February, May and August). By the end of September the Data Partnership will provide NERACOOS its recommendations for the role of the Data Partnership within the Regional Association.