

Interagency Working Group On Ocean And Coastal Mapping

OCM Inventory Project Oct. 2007- Dec. 2010

Fran Lightsom, Chair of Project Team
“The Way Forward” workshop at NGDC
January 12, 2011

U.S. Department of the Interior
U.S. Geological Survey



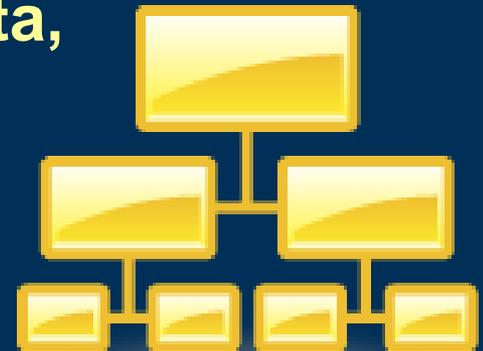
MMS



**US Army Corps
of Engineers**

Recommendations from Sept. 2007 workshop:

- Establish Interagency Project Team to manage the initiative and develop the long-term project plan.
 - 10/30/2007, representatives of MMS, NOAA, USACE, and USGS formed Project Team.
 - Project Team set goals and defined project scope.
 - Project Team developed charters for three working groups: Technology, Metadata, Communication.



Initial Project Team Goals:

1. Users of the OCM Inventory have a high degree of confidence that all of the submitted ocean and coastal geospatial *data are discoverable*, including planned, in-progress, and completed data acquisitions. (Discoverability requires portal functionality, metadata quality, and user education and support.)
2. All Federal agencies are *successful in submitting* all appropriate (publically available and publically funded ocean and coastal geospatial) data, and activities, to the inventory.



Initial Project Scope:

- The Ocean and Coastal Mapping Inventory will offer a *clearinghouse for data* and interpretive information, and a *registry of completed and projected mapping activities* via a single web portal. The inventory will reduce duplication of mapping efforts and facilitate cooperative mapping activities and data accessibility.
- The inventory will provide *up-to-date information about planned and completed mapping activities* in an activity registry.
- The activity registry will include *federally funded activities that fund/collect/provide data* within the scope of the inventory, and *federally funded activities that use or need such data*.
- The inventory will be inclusive for *all types of geospatial data, and also non-geospatial data that describe the solid earth* (for example, aerial photographs and seismic profiles).
- The IWG-OCM Inventory will include the *US Exclusive Economic Zone*, extended continental shelf areas claimed under the Law of the Sea, and the *Great Lakes*. On land, it will include regions that fall within the *U.S. coastal zone*.

Recommendations from Sept. 2007 workshop:

- Encourage the use and testing of the GOS portal to identify needed enhancements for the OCM Inventory.
 - Identify the technical requirements and features needed to enhance the GOS portal.
 - Request an OCM representative on the GOS Technical Team.
 - Adopt and use the GOS Oceans and Coasts Community as the primary communication vehicle for the OCM Community of Practice.
- **GOS has been actively involved since Dec. 2007.**



Recommendations from Sept. 2007 workshop:

- Report individual agency decisions and actions to support the development of the inventory by 12/2007.
 - The workshop agencies sent representatives to a Dec. 2007 meeting at which the OCM Inventory working groups were formed and started work.
 - At second meeting of the working groups in Jan. 2008, we decided that the inventory consisted of all GOS records within our geographic boundary.
 - Later, NOAA created a shape file defining the geographic boundary.
 - Later, GOS implemented the boundary as a filter.



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Geographic Definition of OCM in GOS



Recommendations from 2007 workshop:

- Use all seven sections of FGDC-compliant metadata.
 - At the second meeting of the working groups in Jan. 2008, we adopted the metadata requirement of GOS.
 - This decision is consistent with our definition of the OCM Inventory as everything in GOS that is in the geographic region.
 - Our concern was also to encourage participation, especially for planned/needed data acquisitions.

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Metadata_Standard_Version: FGDC-STD-001-1998
Metadata_Time_Convention: local time
Metadata_Extensions:
Online_Linkage: http://www.esri.com/metadata/esriprof80.html
Profile_Name: ESRI Metadata Profile
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Recommendations from 2007 workshop:

- **Get other agencies and academia involved and engaged in this initiative.**
 - **A representative of EPA at our meetings.**
 - **Regular information exchange with representatives of the Smithsonian and OBIS-USA.**
 - **Briefings to the Gulf of Mexico Alliance, the National Geospatial Liaisons, and ESRI Users Conferences.**
 - **Advice and assistance from the GEBCO Sub-Committee on Undersea Feature Names (SCUFN), NASA Global Change Master Directory, National States Geographic Information Council (NSGIC)**
 - **Outreach materials: Fact Sheet, FAQ, introductory letter to Senior Agency Officials for Geospatial Information.**



Project results: Changes to GOS

- Use of geographical filters to better quantify and discover data in ocean and coastal areas, including the spatial boundary of the OCM collection.
- “Special collections” defined within the GOS overall collection. A user can search for data only within the OCM Inventory (or another of the special collections).
- “GOS Search Widget” that enables customized searching the GOS collection from an external site.
- At Oceans and Coasts Community within GOS: featured inventories, key resources, a calendar of events, and a library of guidance about participating in the OCM Inventory.



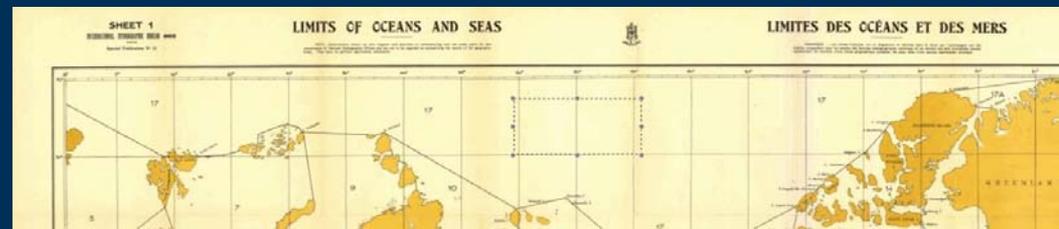
Project results: Additions to GOS

- During FY2008, over 25,000 records from the Ocean and Coastal Mapping (OCM) community were added.
- Many of these were field activity records.
- Major contributors include:
 - NOAA National Geophysical Data Center
 - USGS Coastal and Marine Geology program
 - NOAA National Coastal Data Development Center

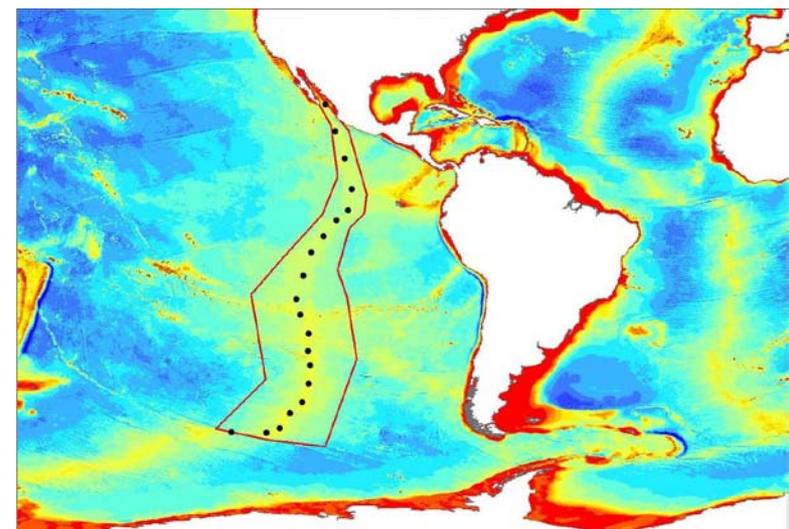
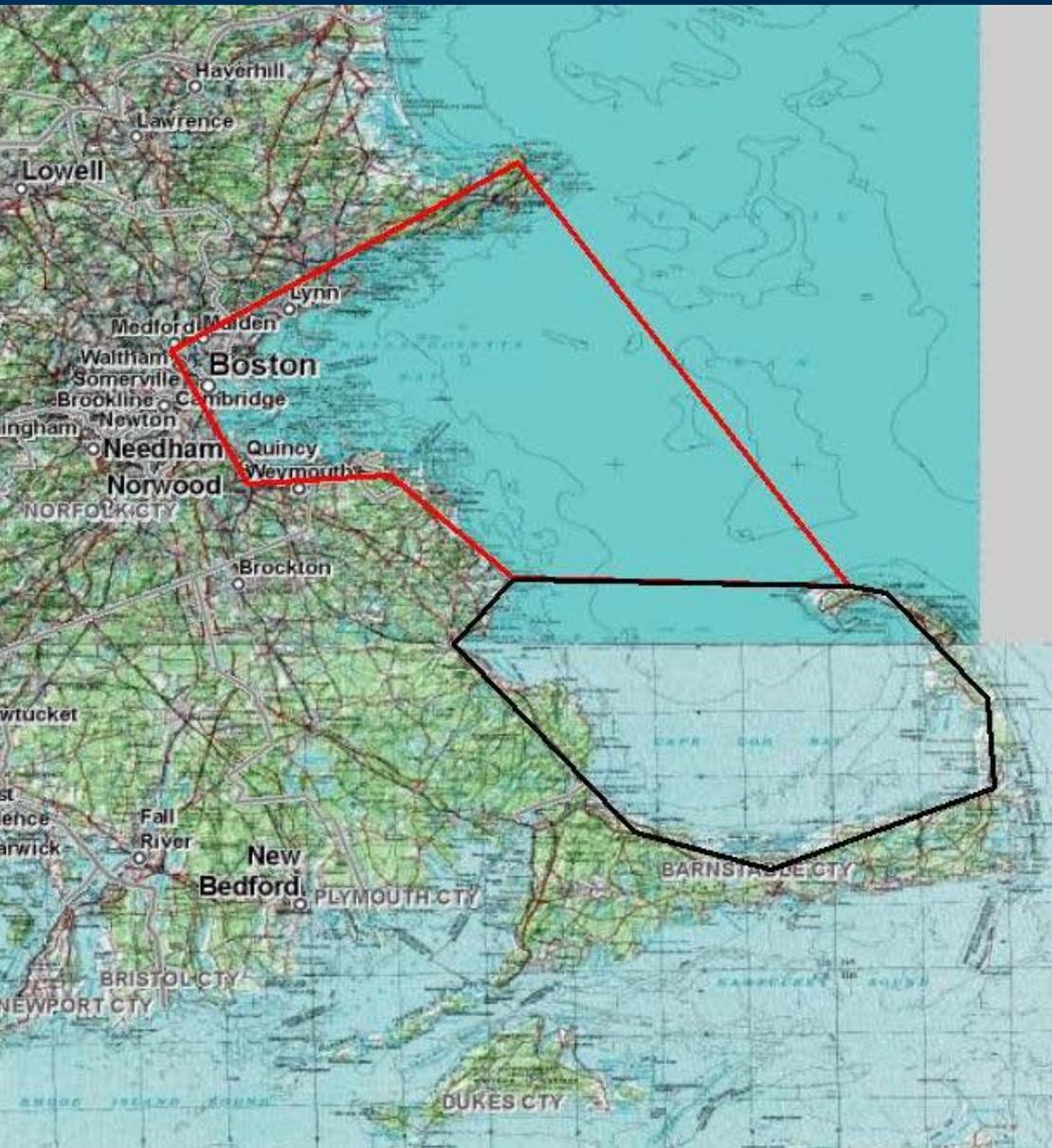


Project results: Gazetteer Project

- The GOS gazetteer lacked OCM place names.
- An ongoing Marine Gazetteer Enhancement Project at USGS is coordinating with GEBCO/SCUFN and also complying with U.S. BGN policies and practices.
- A marine gazetteer with spatial extents (for oceans and seas, undersea features, coastal landforms and waterways, and administrative units) will improve online information services
- The spatial extents are not precise but instead are intended to assist information retrieval.
- Many gazetteer owners and online information services are interested.



Polygons for information retrieval



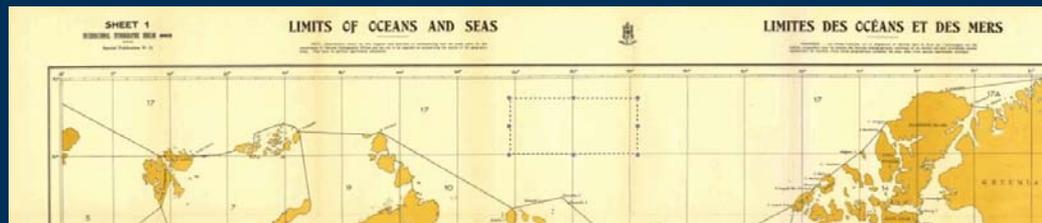
2010 Vision: Map Once, Use Many Times

Many organizations in government, academia, and the private sector are engaged in mapping ocean and coastal regions of the U.S. Even greater numbers of organizations and individuals are users of ocean and coastal geospatial data. Through the use of Geospatial One-Stop (GOS), these organizations and individuals are able to discover existing data that might meet their requirements and thereby reduce their need to expend resources to reacquire these data. Organizations and individuals are able to identify others who have similar needs for new data and can establish mapping partnerships that meet both organizations' needs.



Lessons Learned: Good Approaches

- The Geospatial One-Stop project office is very responsive to requests from user communities for new search indexes, filters, output formats, web services, and assistance in publishing metadata.
- No appropriate gazetteer of named ocean regions is available; one is being created in cooperation with the OCM Inventory Project.



Lessons Learned: Subset Success

- Developing geospatial polygons to define the geographic boundaries of the ocean and coastal community's area of interest is a successful way to define the ocean and coastal records within a more inclusive catalog.
- The advantages of a comprehensive catalog can be combined with responsive user interfaces by using a single central catalog server, such as that provided by GOS, that can be accessed by focused web sites that serve the particular needs of community.



Lessons Learned: GOS Obscurity

- The National ocean and coastal mapping community (those who acquire and/or use data) is surprisingly unaware of Geodata.gov.
- Anecdotally, many in the Federal mapping community are unaware of the OMB requirement to register planned geospatial data acquisitions in GOS Marketplace or of the utility of this registry.
- GOS has been subsumed by Data.gov, which is apparently also unaware of the prior utility of this registry.



Lessons Learned: Participation

- Progress on the OCM Inventory requires commitment from all the agencies that require access to ocean and coastal geospatial data; the vision cannot be achieved by volunteers from a small number of agencies.
- Widespread participation in submitting information to a common catalog is essential for success. Participation may be increased by employing a catalog which is already in widespread use.



Lessons Learned: Metadata Issues

- Many who are active in ocean and coastal mapping need assistance in producing geospatial metadata and setting up metadata repositories that can be harvested by a central catalog.
- Complete geospatial metadata increases the utility of existing data sets; however, complete metadata associated with data acquisition plans is impractical. Requiring complete metadata, even for existing datasets, discourages some groups from participating.
- Data need to be categorized by more than one ISO theme, for example “Ocean” and “Elevation.”

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Lessons Learned: Plans Evolve

- **Managing submissions to a catalog of planned data acquisitions is more complicated than managing a catalog of existing data. Plans need to be registered early enough so that coordination of efforts is possible, updated as they change, and removed when the activity is completed or cancelled. Existing agency processes generally do not include registering plans with a catalog.**



Lessons Learned: Metrics

- The number of items in the catalog is not a good measure of progress. Items can be consolidated, or errors can be corrected that cause the count to go down.
- A good measure of success is the increase in the number of individuals who use GOS to discover needed data.



What now?

- Do the previous goals, scope, and vision match the requirements of the OCM Integration Act and the National Ocean Council?
- Is the GOS approach going to be workable, now that GOS is part of Data.gov?
- How can the inventory get the agency support and broad participation it needs?

