

# Spatially Speaking

## FGDC Monthly Update

VOLUME 2, ISSUE 4

APRIL 2008

### *Executive Summary*

### *IWG-OCM Strategic Action Plan Workshop*

#### UPCOMING EVENTS

**FGDC Coordina-  
tion Group Meet-  
ing Washington**

**April 1**

**National Geospa-  
tial Advisory Com-  
mittee meeting**

**April  
15-16**

**Association of  
American Geogra-  
phers Boston, MA**

**April  
15-19**

**FGDC Steering  
Committee Meet-  
ing, AIA Washing-  
ton DC**

**April 24**

**FGDC Coordina-  
tion Group Meet-  
ing Washington  
DC**

**May 6**

The Joint Subcommittee on Ocean Science and Technology (JSOST) established the Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM) in response to findings of the U.S. Ocean Action Plan and the 2004 National Research Council assessment of national coastal zone mapping and charting activities. The IWG-OCM seeks to facilitate the coordination and leveraging of data collection and mapping resources across the Federal sector as well as with State, industry, academic, and NGO mapping interests.

To guide collaborative efforts over the next three to five years, the IWG-OCM sponsored a three-day workshop in Fort Lauderdale, Florida, in February 2008 to begin development of a National Ocean and Coastal Mapping Strategic Action Plan. The 33 invited workshop participants represented various Federal and State agencies, academia, and regional, industry and professional organizations. Plenary workshop sessions were open to the public.

The IWG-OCM Co-chairs presented highlights of Federal ocean and coastal mapping activities. Representatives from Massachusetts, Florida and California provided a snapshot of current data collection and mapping activities, best practices and challenges. All presenters identified coordination, collaboration, and partnerships as keys to successful past and future efforts.

Workshop participants then agreed on the assumption the National OCM Community is a powerful force in advancing national ocean and coastal mapping. It was recognized that each agency or organization is dedicated to its own mission and work to achieve that mission. However, it was further recognized there is substantial common ground and by working together the community can leverage programs, share expertise, avoid duplication and better meet the needs for ocean and coastal mapping information and products.

Participants reached consensus on the core purpose of the community: to promote the efficient and effective development and application of ocean and coastal data collection and mapping to support informed decision-making. Three major initiatives were identified to move forward as a collaborative effort of the OCM Community. Each initiative was then explored and developed further. High-level action plans were developed that focused on objectives, priorities, resources, success factors, challenges, and next steps

**View the FGDC website at: [www.fgdc.gov](http://www.fgdc.gov)**

**IWG-OCM continued**

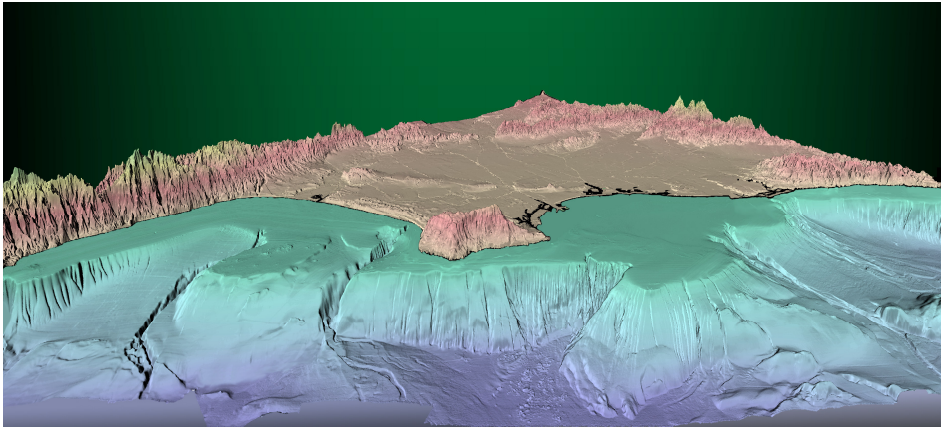
**1. Model of Success** – Develop a scalable project-oriented model that demonstrates the benefit of an integrated coastal and ocean mapping (IOCM) approach. Concurrent working groups focusing on development of a collaborative model and demonstration of a multi-agency integrated ocean and coastal mapping project are being established.

**2. Tool Development** – Identify and develop tools required to promote the efficient and effective use of ocean and coastal mapping to support informed decision-making. The first priority is to work to promote and develop the OCM national registry to include desired, proposed, planned, and completed data collection activities.

**3. Community Building** – Increase awareness, build advocacy, and support implementation of IOCM. An outreach working group is being established to implement the actions emerging from this initiative.

In addition, representatives from four Federal mapping agencies are drafting the National Ocean and Coastal Mapping Strategic Action Plan using, in part, the results of the workshop. The plan will be available for review in early June.

For more information and specific results of the workshop, visit <http://www.csc.noaa.gov/iwg/>



**Description:** Oblique view of the ocean floor offshore Los Angeles, California looking towards the east. Blue tones show the ocean floor, red tones show the land. Santa Monica Mountains are to the north (left) and the Palos Verdes Peninsula is the small mountainous region in the center of the image. Downtown Los Angeles is directly to the east of the Palos Verdes Peninsula. The offshore region shows numerous channels and canyons incised into the ocean floor. The offshore region was mapped by the USGS Pacific Seafloor Mapping Project during three separate surveys from 1996 to 1999. The area was mapped with a multibeam sonar system that is mounted to the hull of a ship. The land was created from USGS 7.5 minute DEM's.

## GRAV-D

**G**ravity for the **R**e-definition of the **A**merican **V**ertical **D**atum

**The era of using geodetic leveling for continent-scale vertical datum definition comes to an end.** The gravimetric geoid, long used as the foundation for hybrid geoid models, becomes the most critical model produced by the National Geodetic Survey (NGS). Before 2018, NGS proves that a 1-cm geoid is computable (or shows where it is not and why) and produces (in conjunction with other North American geodesists) the most accurate continent-sized gravimetric geoid model ever seen. The model covers, at the very least, the region extending from the North Pole to the Equator and from Attu Island to Newfoundland. This model then serves as the foundation for a new vertical datum for at least the conterminous United States, if not the entire North American continent. Similar smaller scale geoid-based vertical datum initiatives are undertaken for those United States territories which do not fall within the neighborhood of North America.

### GRAV-D continued

To fully support this work, an entirely modernized program of gravity observation, modeling, monitoring, analysis and dissemination (called "the GRAV-D project") is established within NGS. The gravity field becomes a monitored time-dependent part of the National Spatial Referencing System. The time-varying nature of the gravity field is considered in all products and services of NGS. The culmination of all of these efforts allows fast, accurate determination of heights through GPS, and thus truly represents "Height Modernization" as originally envisioned.

By 2018, a new geopotential datum (for orthometric and dynamic heights) is defined and realized through the combination of GNSS technology and gravity field modeling. In order to support users of NAVD 88, NGS will provide transformation tools between the new datum and NAVD 88 based predominantly on the few thousand measurements of GPS derived ellipsoid heights on NAVD 88 benchmarks. *For more information on GRAV-D, visit: [www.ngs.noaa.gov/GRAV-D](http://www.ngs.noaa.gov/GRAV-D)* Dru A. Smith, Ph.D.

## Indigenous Names Grant Awarded

The Hawaiian Geographic Information Coordination Council (HIGICC) has received a grant from the U.S. Geological Survey (USGS) NGPO (National Geospatial Program Office) to begin enhancing the Hawaii State Board on Geographic Names' (HBGN) web page (<http://www.hawaii.gov/dbedt/gis/bgn/>). In addition to some basic background information, the HBGN web page currently includes spreadsheets showing decisions made by the HBGN on Hawaiian place names.

In 1999, at the request of USGS, the HBGN began a process of reviewing every Hawaiian place name that appears on the USGS quadrangle maps for the purpose of adding diacritical marks to the names. Adding diacritical marks helps define a name as well as providing guidance on pronunciation.

Borrowing an idea that has been instituted by the Coeur d'Alene Tribe in Idaho, HIGICC prepared a grant proposal to USGS to fund an initiative to begin adding audio sound files to supplement the written place names on the existing HBGN web page. Representatives of the Coeur d'Alene Tribe have made a number of presentations on how they have included both written and audio versions of Native American names on their web site: <http://gis.cdatribe-sn.gov/NativeNames/>. This idea is now being applied to Hawaiian place names.

Both the Coeur d'Alene Tribe and the Hawaiian community are facing similar issues and interests with respect to preserving native place names and the correct pronunciation of those names. The internet is an effective means of helping to facilitate the preservation of native names. In addition to the actual pronunciation of the names, where applicable, video clips will be added to provide further context to the names. These

video clips may include legends or stories as to how a place was named, e.g., a video clip might be added to relate the story about Haleakala, which was said to be where the demigod Maui lassoed the sun. Video clips of kupuna (elders) explaining name origins may also be used to enhance the HBGN web page.

To carry out this project, HIGICC has hired Renee Louis, who recently defended her dissertation entitled: "Hawaiian Placenames: Storied Symbols in Hawaiian Performance Cartographies." Ms. Louis, who is an HIGICC member, has also been instrumental in helping the HBGN in their efforts to review the Hawaiian place names. *Article originally published in the HIGICC newsletter, March 2008, vol. 2, issue 1, [www.higicc.org](http://www.higicc.org)*