

Center for Operational Oceanographic Products and Services

2010 Activities

Richard Edwing, Acting Director

Hydrographic Services Review Panel

May 6, 2010

*“Turning operational oceanographic data into
meaningful information for the Nation”*

Pigeon Point Lighthouse, California

HYDROGRAPHIC SERVICES REVIEW PANEL



HSRP Most Wanted - Recommendation #1

“Aggressively Map the Nation’s Shorelines and Navigationally Significant Waters.”

Mapping and Charting Support Services

Hydrographic Surveys

FY2010

- 41 projects planned
 - 2 completed
 - 8 in progress

FY2011

- Approx. 30 projects planned

Shoreline Mapping

FY2010

- 4 projects planned
 - 1 in progress



**“Aggressively Map the Nation’s Shorelines and
Navigationally Significant Waters.”**

Continued

Station Upgrades

FY2010

- 14 planned
- 3 completed

FY2011

- 2 Sentinels planned
- 4 stations planned



Hardened Station at Apalachicola, FL

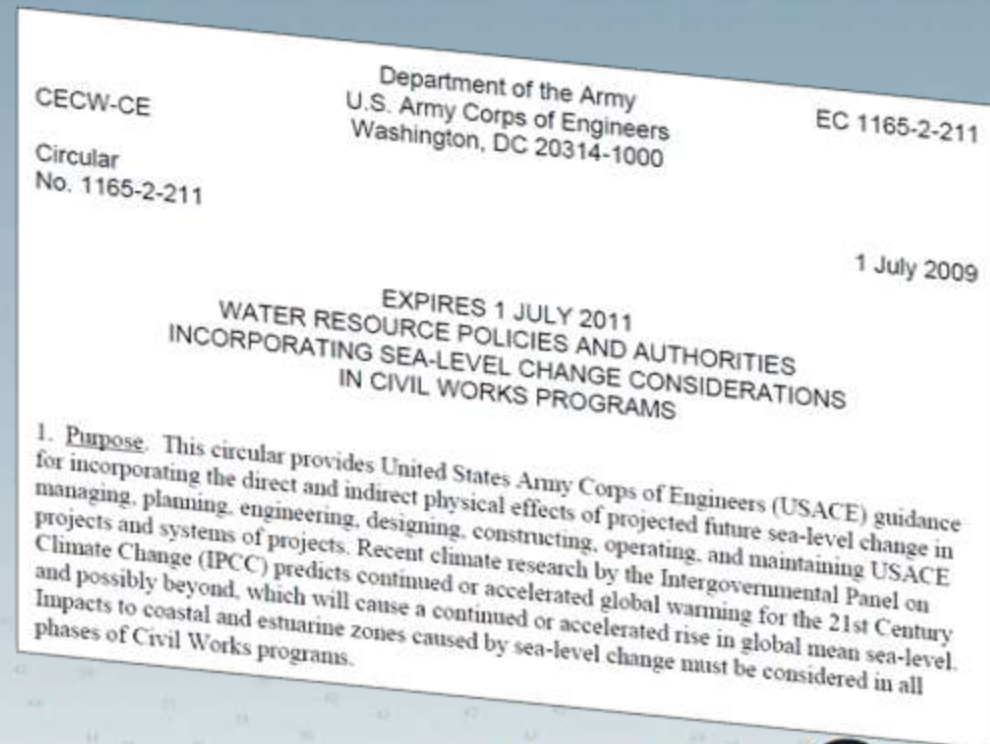
HSRP Most Wanted - Recommendation #2

“Integrate Coastal Mapping Efforts and Ensure Federally Maintained Channels, Approaches, and Anchorages Are Surveyed to the Highest Standard.”

NGS and CO-OPS Collaborative Effort Supporting US Army Corps Of Engineers

USACE Kick-Off Workshop

- Procedures to Evaluate Sea Level Change Impacts, Responses, and Adaptation
- Interim guidance policy issued in July 2009



HSRP Most Wanted - Recommendation #2

“Integrate Coastal Mapping Efforts and Ensure Federally Maintained Channels, Approaches, and Anchorages Are Surveyed to the Highest Standard.”

Continued

VDatum Program

FY2010 Surveys

- Maine
- Massachusetts
- Alaska

FY2011 Surveys

- Georgia
- Puerto Rico



HSRP Most Wanted - Recommendation #3

“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.”

Updating Tidal Current Predictions

FY2010

- Long Island Sound, CT/NY (38)
- Dutch Harbor, AK (Unimak, Akutan) (24)
- Glacier Bay and Cross Sound, AK (11)

FY2011

- Hawaii (30)
- Boston (38)
- Mobile Bay (6)
- Homer, AK (4)* *Energy Project*



HSRP Most Wanted - Recommendation #3

“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.”

Continued

Operational Coastal Models

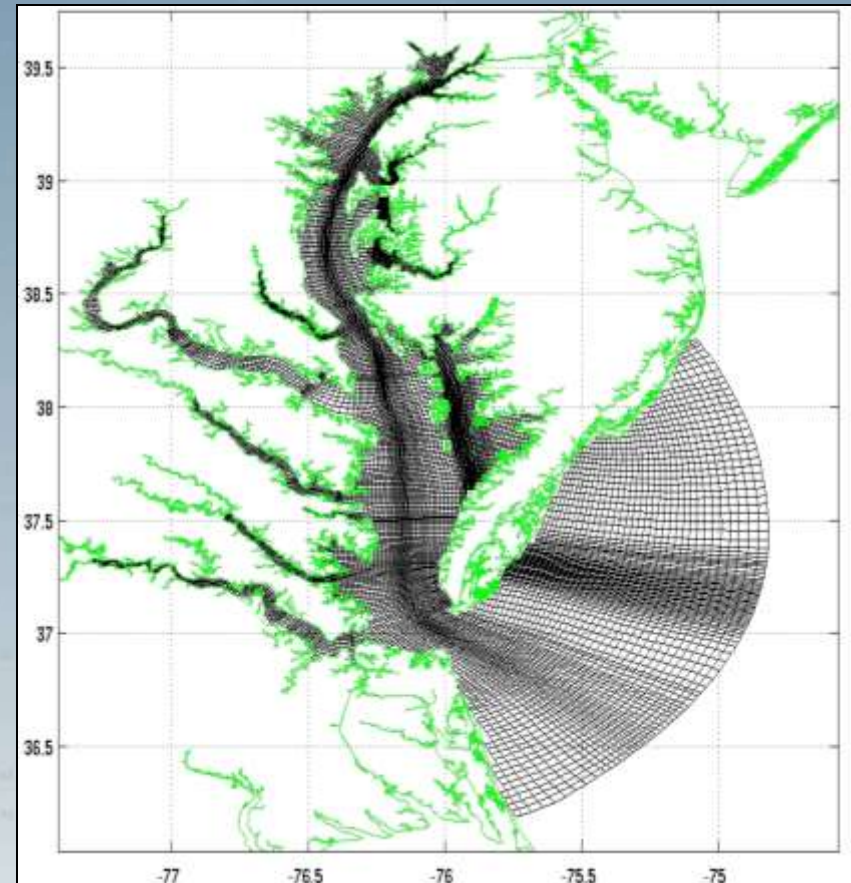
Nine Existing Operational Forecast System Models

FY2010 New and Improved Models

- Chesapeake Bay (*improved*)
- Delaware Bay
- Tampa Bay

FY2011

- Northern Gulf of Mexico



HSRP Most Wanted - Recommendation #3

“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.” *Continued*

Physical Oceanographic Real-Time System® PORTS®

FY2010 Expansion

- New London (21 PORTS®)

FY2011

- Humboldt Bay ?
- Jacksonville ?



“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.” *Continued*

Columbia River PORTS® Economic Study

- The primary vehicle for the dissemination and use of Columbia River PORTS® information is the **LOADMAX** system of river stage (water level) forecasts
- Quantifiable benefit from Columbia River PORTS® data is estimated at about **\$6.4 million/year**
 - Estimated **\$4.9 million** in direct annual economic benefits attributed to PORTS ®
 - Another **\$1.5 million** in annual benefits are less easily traced but may be linked to PORTS®



Benefits:

- Increased cargo carried per transit
- Reduced delays
- Reduced risk of groundings and collisions
- Improved environmental planning and analysis

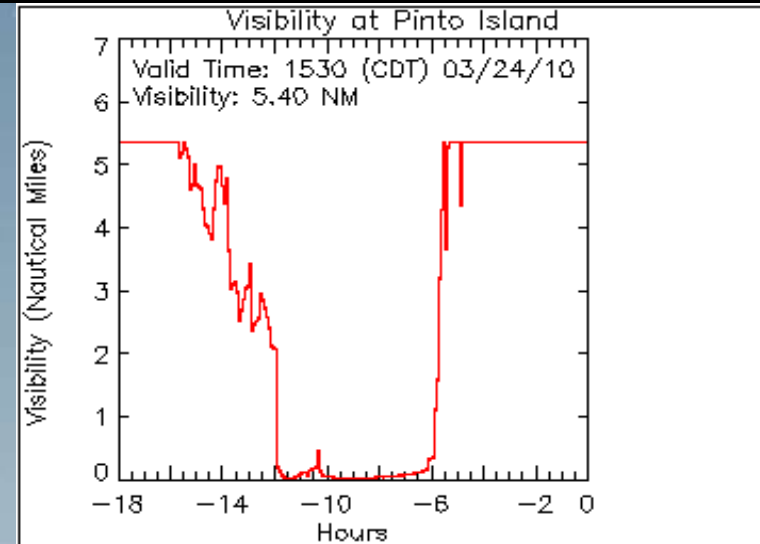
HSRP Most Wanted - Recommendation #3

“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.”

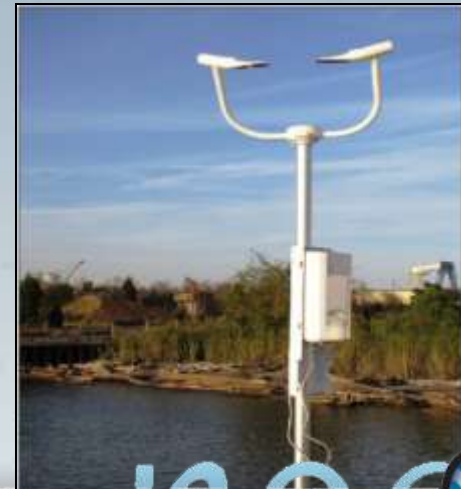
Continued

Technology Infusion: Visibility

- Photo taken at the trade center in downtown Mobile, looking south down the ship channel:
- 3/24/10 ~8:30am CDT
- Episode: 00:00 to 10:30 CDT



3/23 21:30 – 3/24 15:30 CDT

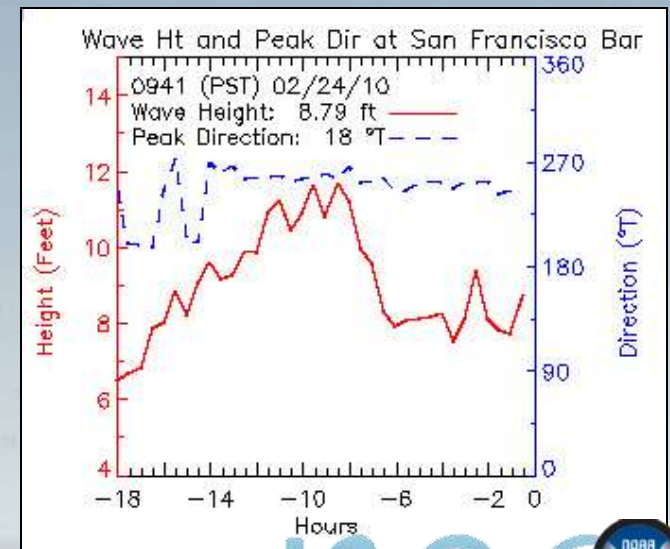
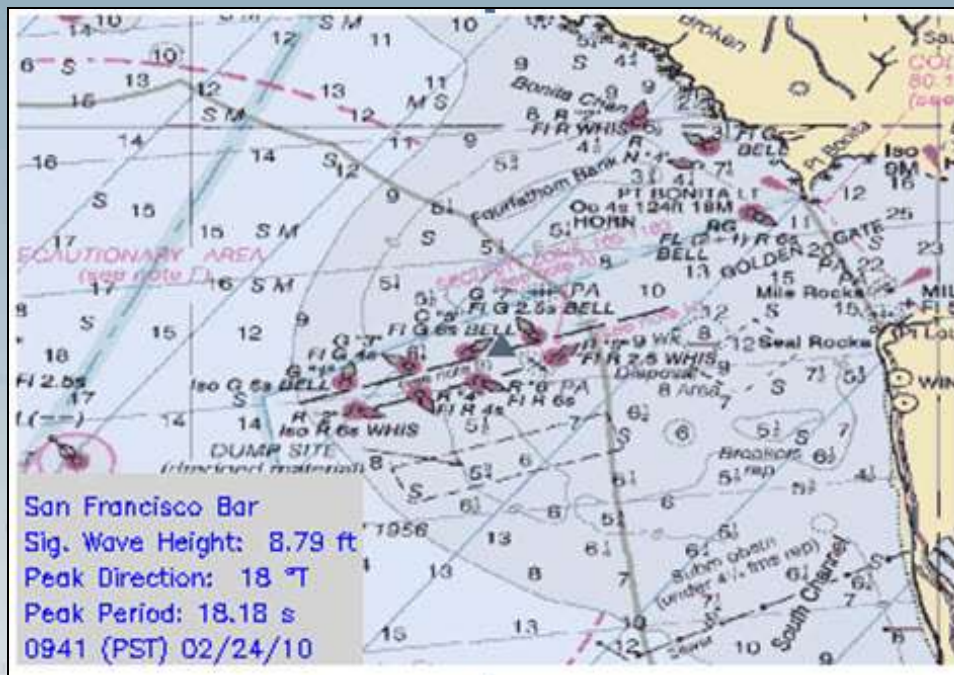


HSRP Most Wanted - Recommendation #3

“Modernize Heights and Implement Real-time Water Level and Current Observing Systems in All Major Commercial Ports.” *Continued*

Technology Infusion: Waves

- Partnership with USACE and SCRIPPS to integrate wave buoy data into PORTS®



“Strengthen NOAA’s Navigation Services Emergency Response and Recovery Capabilities.”

Preparing for Extreme Events

**National Water Level Network
stations with meteorological
sensors**

FY2010

- 20 planned
- 6 completed
- A total of 185 stations of the 210 water level stations will have meteorological sensors



Ludington Lighthouse, Michigan

“Strengthen NOAA’s Navigation Services Emergency Response and Recovery Capabilities.”

Continued



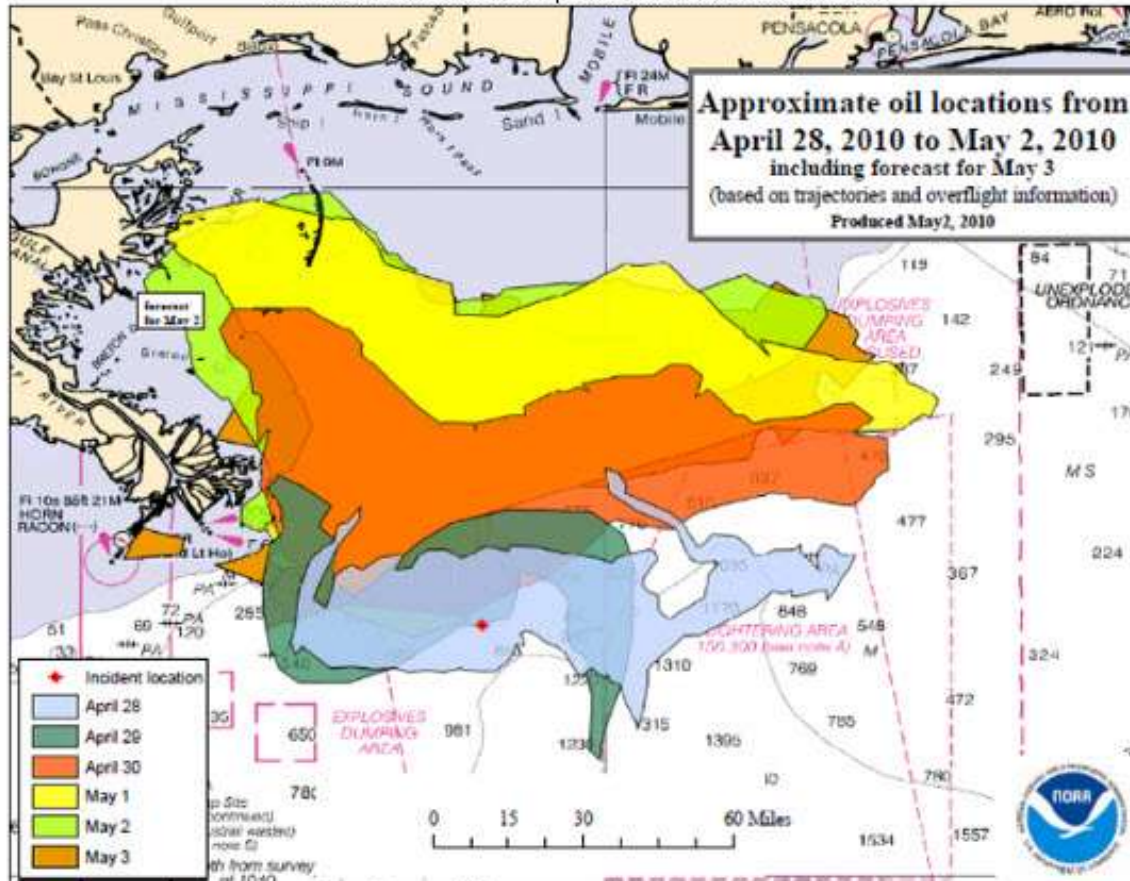
Oil Spill Response



Remnants of GULF_OF_MEXICO_OIL_SPILL QuickLook
Posted: 11:00 CDT 05/02/2010

NOAA and NOAA Partnership Stations Relative to the Storm

Storm Analysis



Special QuickLook Notice: Issued for the purposes of presenting data in the affected region of the Gulf of Mexico Deep Horizon Oil Spill only.

This special QuickLook will be updated once per day at approximately 11:00 CDT.

Image courtesy of [NOAA Office of Response & Restoration \(OR&R\)](#). For more information, please see [OR&R Emergency Response page for the Deep Horizon Incident](#) and [OR&R's Incident News page](#).

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to [Mean Lower Low Water](#) are:

Grand Isle, LA: Next predicted high tides are 1.33 ft (0.40 m) at 05/02/2010 12:32 CDT and 1.25 ft (0.38 m) at 05/03/2010 13:16 CDT.

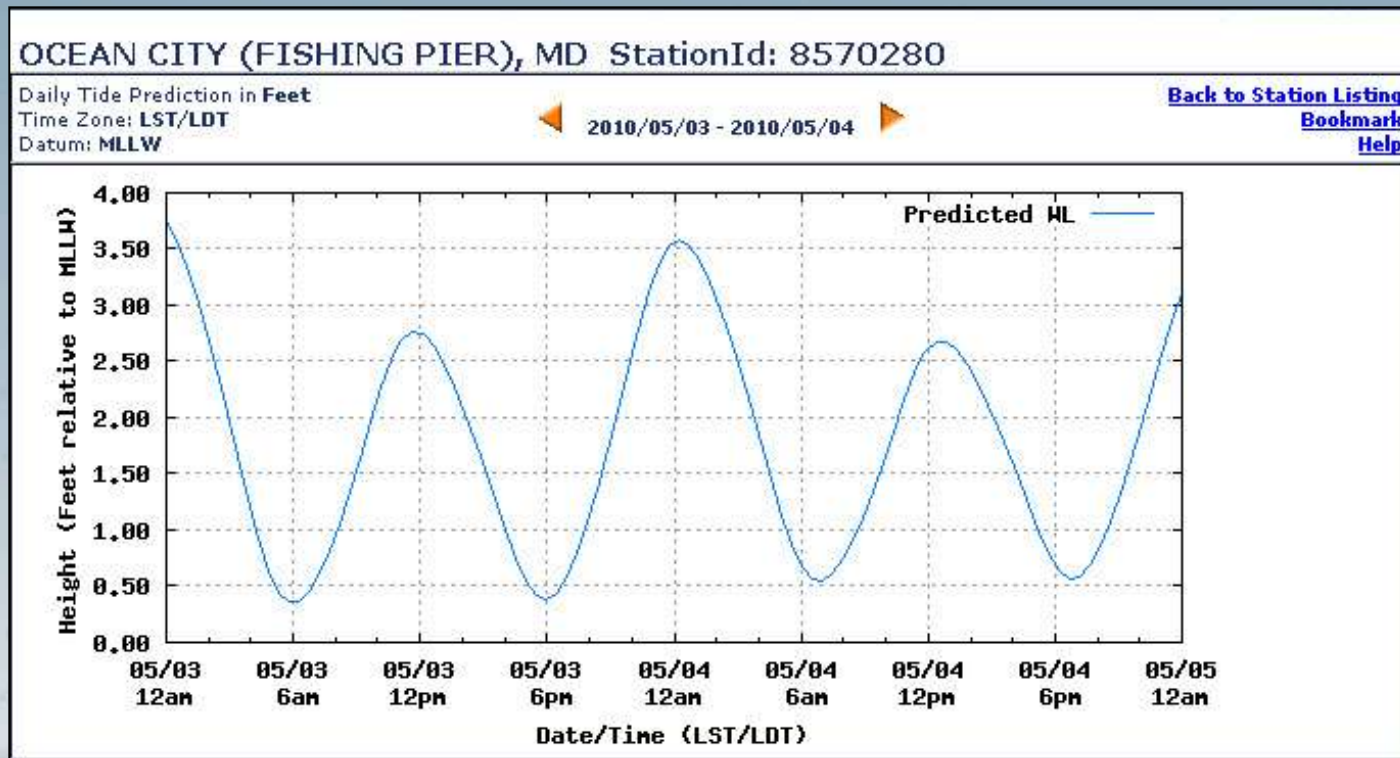
Pilots Station East, LA: Next predicted high tides are 1.40 ft (0.43 m) at 05/03/2010 11:37 CDT and 1.27 ft (0.39 m) at 05/04/2010 12:16 CDT.

Shell Beach, LA: Next predicted high tides are 1.67 ft (0.51 m) at 05/02/2010 16:54 CDT and

“Disseminate NOAA’s Hydrographic Services Data and Products to Achieve Greatest Public Benefit.” *Continued*

NOAA Tide Predictions

- Official NOAA tide predictions for nearly 3,000 locations easily accessible via the Web
- Provides customizable tide predictions



“Disseminate NOAA’s Hydrographic Services Data and Products to Achieve Greatest Public Benefit.”

HYDROGRAPHIC SERVICES REVIEW PANEL

OCS provides

- Hydrodynamic Model
- Bathymetry
- GPS Tide Buoy
- CTD AUV

CO-OPS provides

- Meteorological
- Storm Surge WL
- PORTS WL & Currents
- Survey of Currents

NGS provides

- Aerial LIDAR surveys
- Terrestrial LIDAR surveys
- RTK GPS
- Surface Elevation Table observations to develop high accuracy geodetic control networks within each NERRs



“Disseminate NOAA’s Hydrographic Services Data and Products to Achieve Greatest Public Benefit.” *Continued*

ARRA \$2.5M Stimulus Funding Update

CO-OPS Water Level Processing Interface (CWLPI)

- Purpose is to construct web-accessible tools that will provide CO-OPS and CO-OPS contractors with the capability to load data into the CO-OPS database and to process the data according to established specifications using CO-OPS provided programs
- Contract was awarded in September 2009. Work started in the first quarter of FY2010.
- The first major milestone - stakeholder approval of the Software Requirements Documentation (SRD) was accomplished by 3/31/2010. The next major milestone is to complete the system Design Documentation by 1/31/2011.
- Project delivery planned for September 2012. Contract ends in August 2014.

CO-OPS Budget

\$ Thousands	2007	2008	2009	2010	2011 Request
Base	\$23,781	\$26,134	\$28,808	\$29,249	\$29,715
Earmarks	\$3,004	\$1,315	\$0	\$599	\$0
PORTS O&M		[\$1,410]	\$2,498	\$3,796	\$0
Supp	\$1,000	\$0	\$0	\$0	\$0
HAB				\$571	TBD
TOTAL	\$27,785	\$27,449	\$31,306	\$34,215	\$29,715

- PORTS® O&M funding dropped from FY11 President's Request



Center for Operational Oceanographic Products and Services 2010 Activities

Questions

HYDROGRAPHIC SERVICES REVIEW PANEL



noaa