NOAA Navigation Services in Support of Ports & Harbors

Rear Admiral Gerd Glang
Director, Office of Coast Survey
National Oceanic & Atmospheric Administration

AAPA Winter Meeting
Oxnard, CA
January 15, 2013
NOAA announces leadership changes

Dr. Jane Lubchenco

David Kennedy

Holly Bamford
Budget uncertainties in FY13 & beyond
Positioning America for the future

- Safe, strong and efficient commerce
- Prepared and resilient communities
- Vital and productive environments
Safe, strong and efficient commerce

- Global positioning
- Predicted, real-time and forecast tides, currents, and other ocean observations
- Nautical charts
- Rapid maritime response after storms
Surveying and charting

Making navigation safer and more efficient
PORTS® measures and disseminates observations and predictions

- Water levels
- Currents
- Salinity
- Air gap
- Meteorological parameters
- Visibility
- Waves
Physical Oceanographic Real-Time System®
PORTS®

Established PORTS (22)

PORTS in Progress (2)

- Port of Anchorage
- Cherry Point
- Humboldt Bay
- Lower Columbia River
- San Francisco Bay
- Los Angeles/Long Beach
- Pascagoula
- Gulfport
- Lake Charles
- New Orleans
- Mobile
- Jacksonville
- Charleston
- Narragansett Bay
- New Haven
- New York/New Jersey
- Delaware Bay
- Chesapeake Bay
- Northern Gulf of Mexico OFS
Benefits of PORTS®

Houston / Galveston

- 60% reduction in tugs and tows groundings
- 50% reduction in ship groundings
- Estimated $20.1 million in annual economic benefits

Statistics based on economic studies by Hauke Kite-Powell, Woods Hole Oceanographic Institution
Regional planning and response

Hydrographic vessels survey ports and channels, searching for shoaling and submerged debris.

Regional Navigation Managers

Navigation Response Teams
Working with HSCs, AMSCs, and ICCs
NOAA responds to Sandy
Storm Quicklook gives essential info

CO-OPS’ storm QuickLook integrates water level info with the National Hurricane Center projected storm path.
Navigation managers embed in ICC

NOAA teams coordinated surveys of the Port of NY/NJ. Also worked with USCG in Hampton Roads and Delaware Bay.
NOAA deploys survey assets

Response Assets and Locations

- **NRT5**
  - Thomas Jefferson
  - Surveying ship channels, anchorages, and berths
  - In New York Harbor

- **NRT2**
  - Surveying ship channels, and ferry berths/routes

- **Bay Hydro II**
  - Surveying ship channels
  - In Hampton Roads area

- **Ferdinand Hassler**
  - Surveying deep draft ship channels
  - In Hampton Roads area

Created by Office of Coast Survey
01 November 2012
0900 EDT

Rapid Maritime Response
Rapid surveys sped reopening of ports

Port of New York & New Jersey

Hampton Roads
Officials use imagery in recovery plans

“Before” and “after” shots of Sandy’s destruction along the New Jersey shoreline
Damage Assessment: Motiva Spill

White boundary shows model prediction of area of possible visible sheens and impacted shorelines through 11/1/2012 12:00

Details:
- Model is initialized with a spill occurring at the Motiva location overnight on 10/27-10/28 (specified as 6-hour continuous release but it is unknown over what time frame it actually occurred)
- Currents are from the NOAA CO-OPS New York Harbor model
- Winds are from a NDBC buoy near Elizabeth, NJ

National Oceanic & Atmospheric Administration
Coastal resiliency
Final Recommendations Of The Interagency Ocean Policy Task Force
July 19, 2010