



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



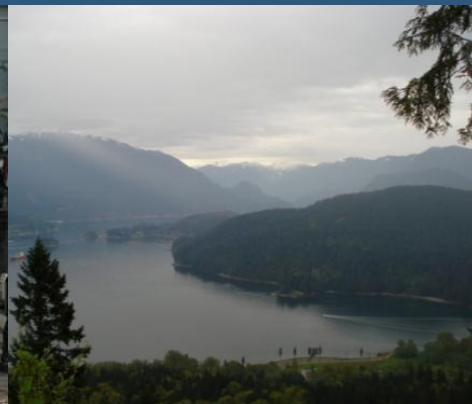
Committee on Marine Transportation System



NOAA National Ocean Service

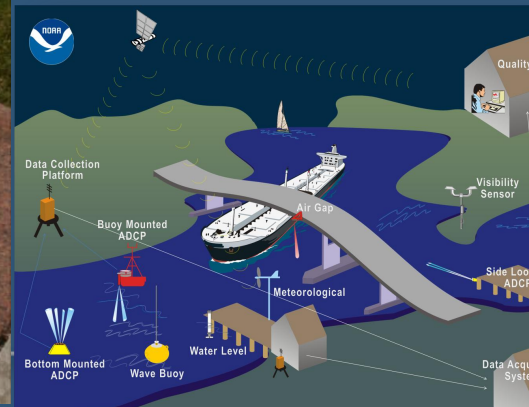
Positioning America for the future

- 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



Positioning

Modernizing the National Spatial Reference System



CORS



Height modernization

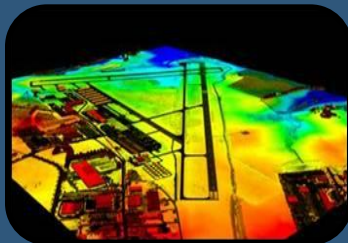


GRAV-D



COASTAL

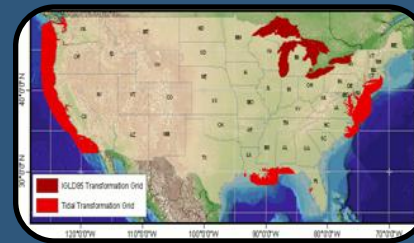
Products and Services



Airport surveys



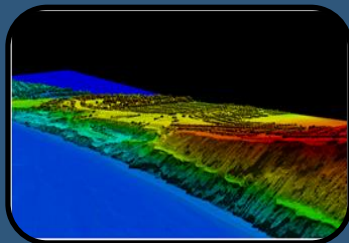
OPUS



VDatum



GPS satellite orbits



Shoreline mapping



State advisor program

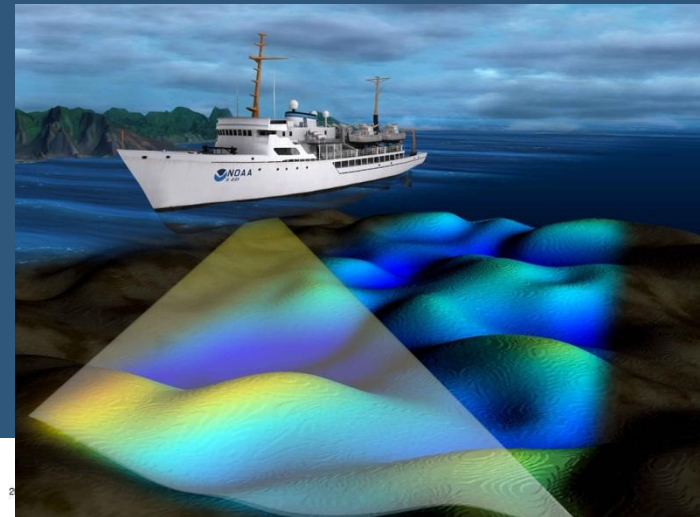
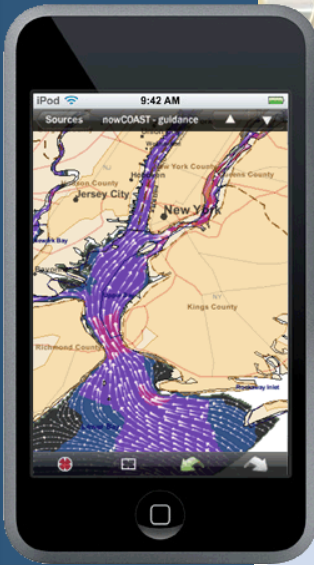



Emergency response imagery



Surveying and charting

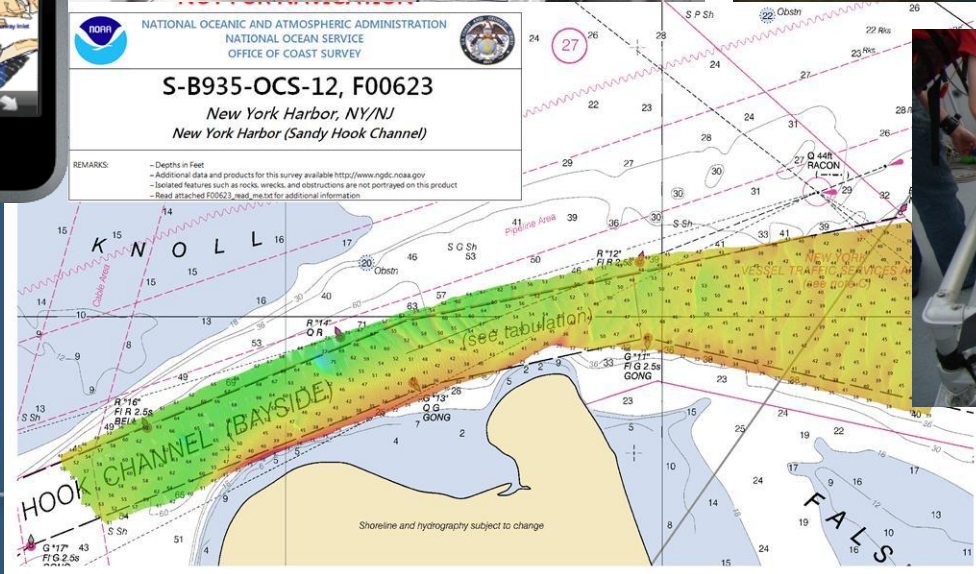
Making navigation safer and more efficient



 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
OFFICE OF COAST SURVEY

S-B935-OCS-12, F00623
*New York Harbor, NY/NJ
New York Harbor (Sandy Hook Channel)*

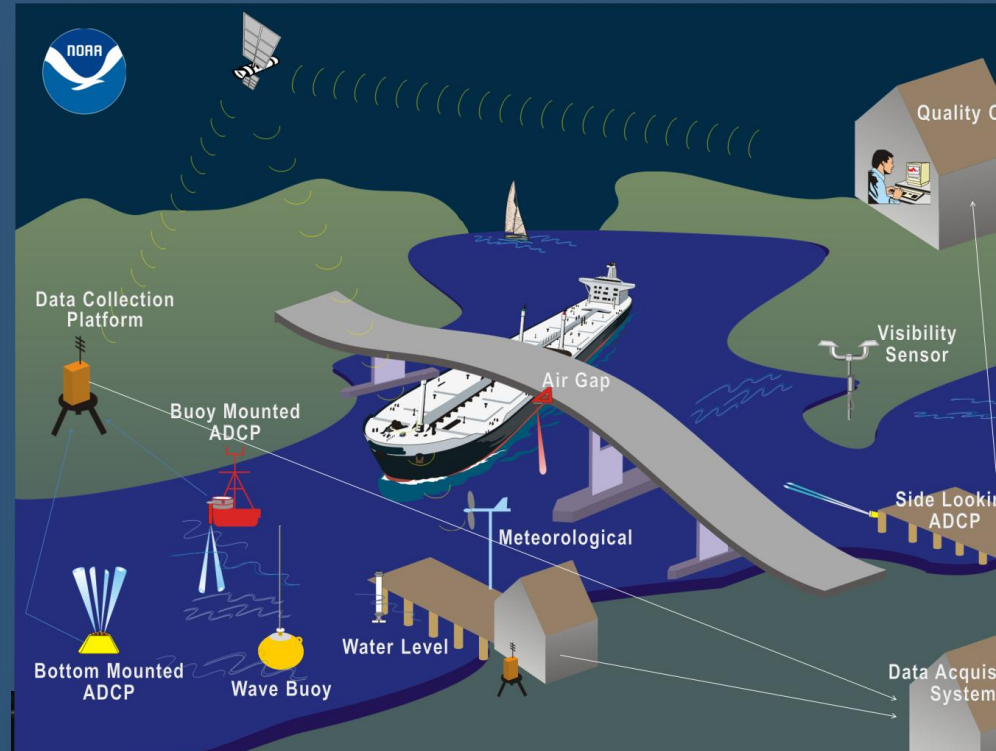
REMARKS: - Depths in Feet
- Additional data and products for this survey available <http://www.ngdc.noaa.gov>
- Isolated features such as rocks, wrecks, and obstructions are not portrayed on this product
- Read attached F00623_wad_wat.txt for additional information



Physical Oceanographic Real Time System

PORTS[®] measures and disseminates observations and predictions

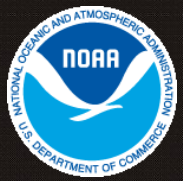
- Water levels
- Currents
- Salinity
- Air gap
- Meteorological parameters
- Visibility
- Waves



Physical Oceanographic Real-Time System[®]

PORTS[®]

- ★ Established PORTS (22)
- ★ PORTS in Progress (2)



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*

Estimating Economic Benefits from NOAA PORTS® Information:
A Case Study of Houston / Galveston



March 2007

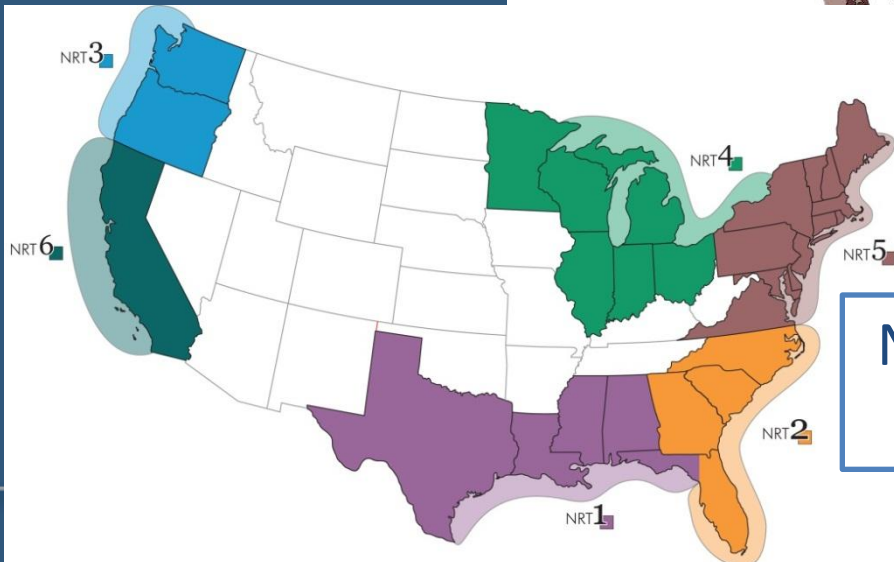
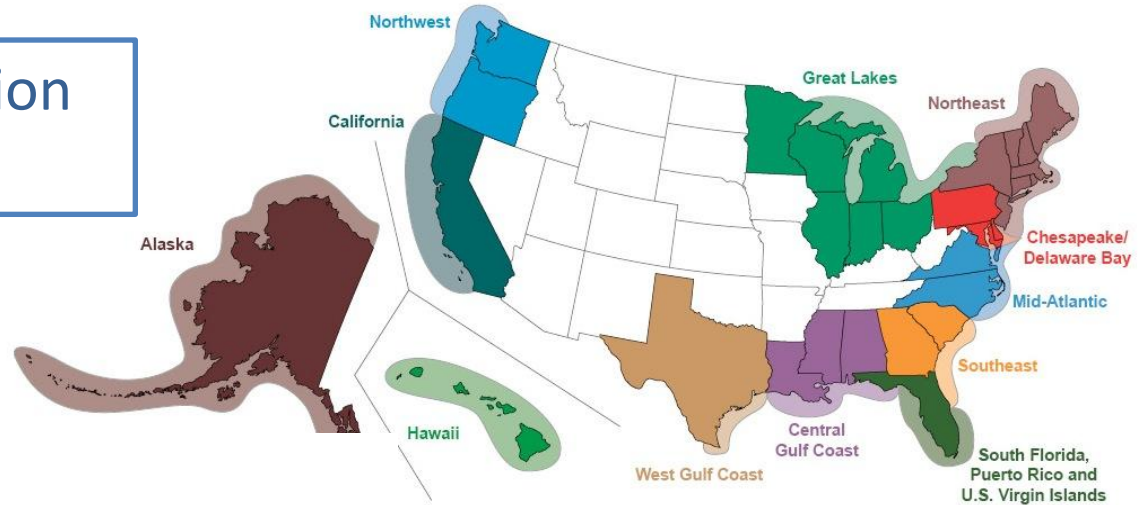
THE PORT OF HOUSTON AUTHORITY



Regional planning and response

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

Regional Navigation Managers



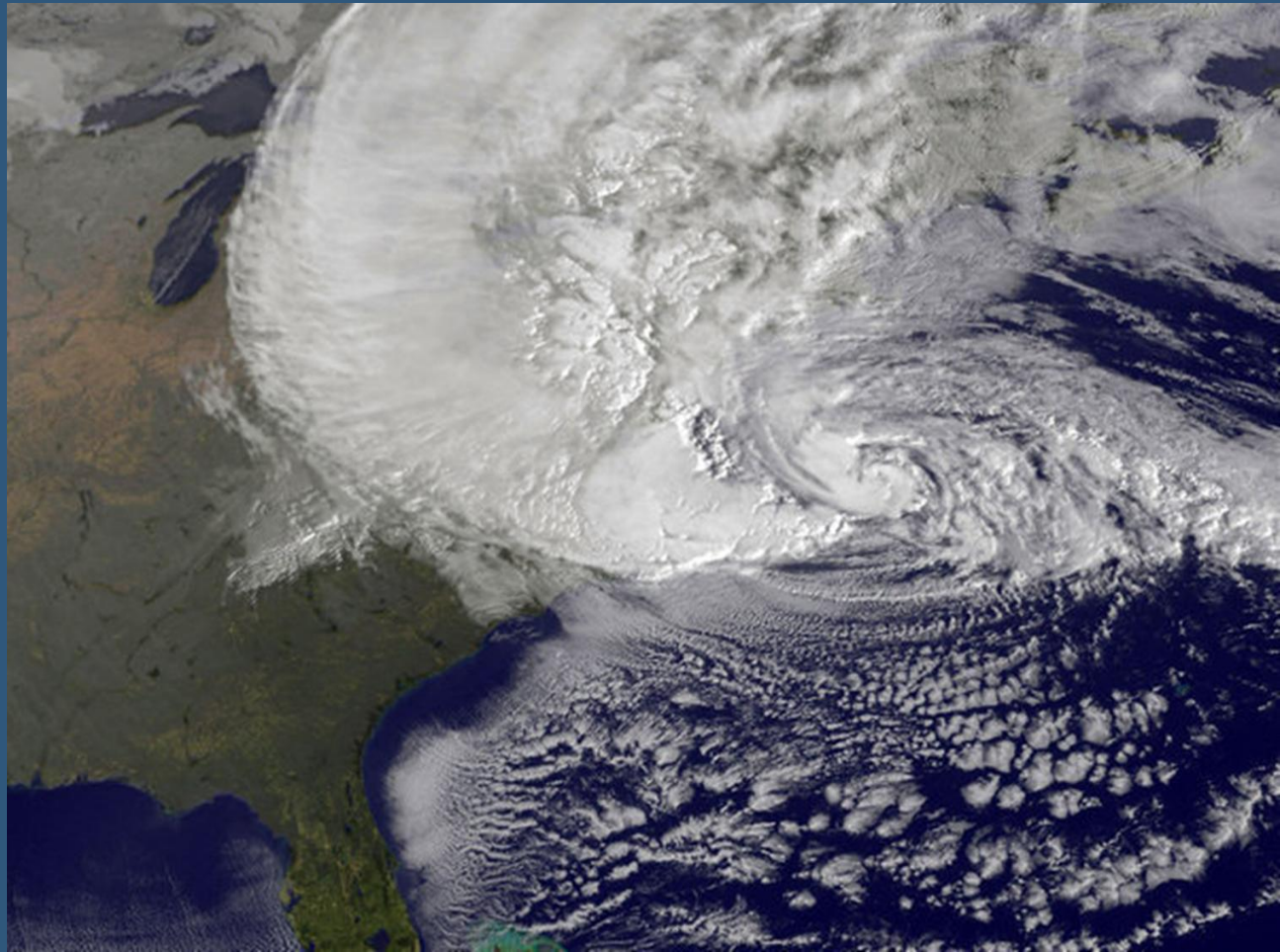
Navigation Response Teams



Working with HSCs, AMSCs, and ICCs

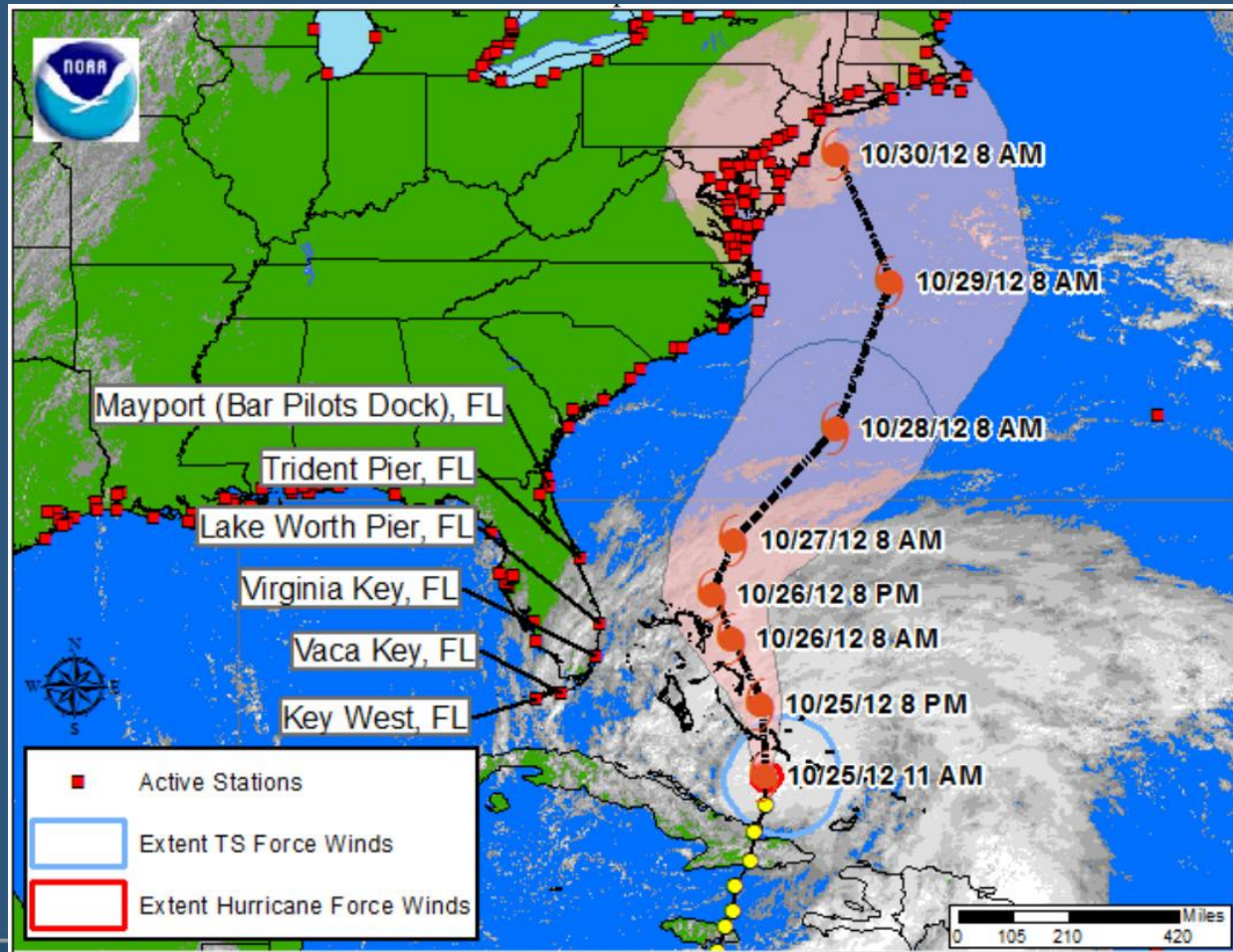


NOAA responds to Sandy



Storm Quicklook gives essential info

CO-OPS' storm QuickLook integrates water level info with the National Hurricane Center projected storm path.

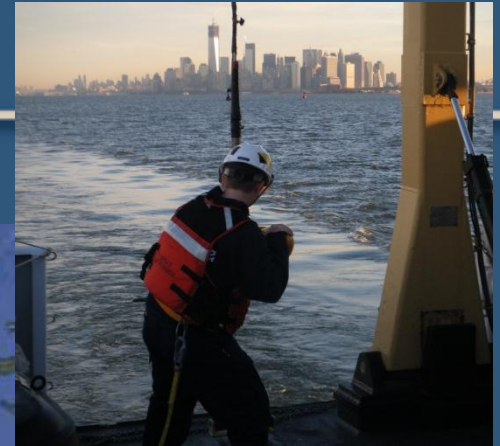


Navigation managers embed in ICC

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
NRT2  **Thomas Jefferson**
Surveying ship channels, anchorages, and berths
In New York Harbor

 **Potawaugh**
Surveying ship channels,
and ferry berths/routes

Bay Hydro II  **Ferdinand Hassler**
Surveying ship channels
In Hampton Roads area
Surveying deep draft ship channels
In Hampton Roads area

Created by Office of Coast Survey
01 November 2012
0900 EDT

Rapid Maritime Response

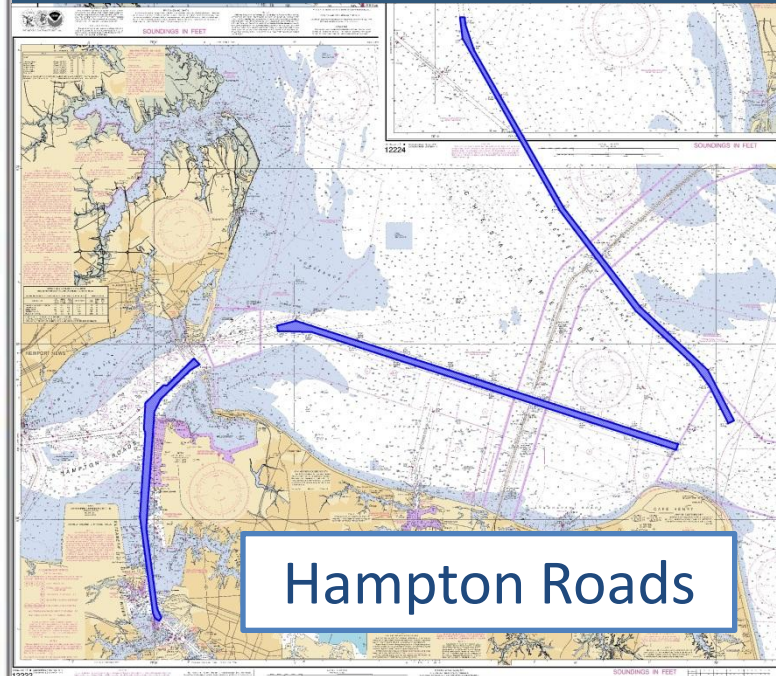


Rapid surveys sped reopening of ports

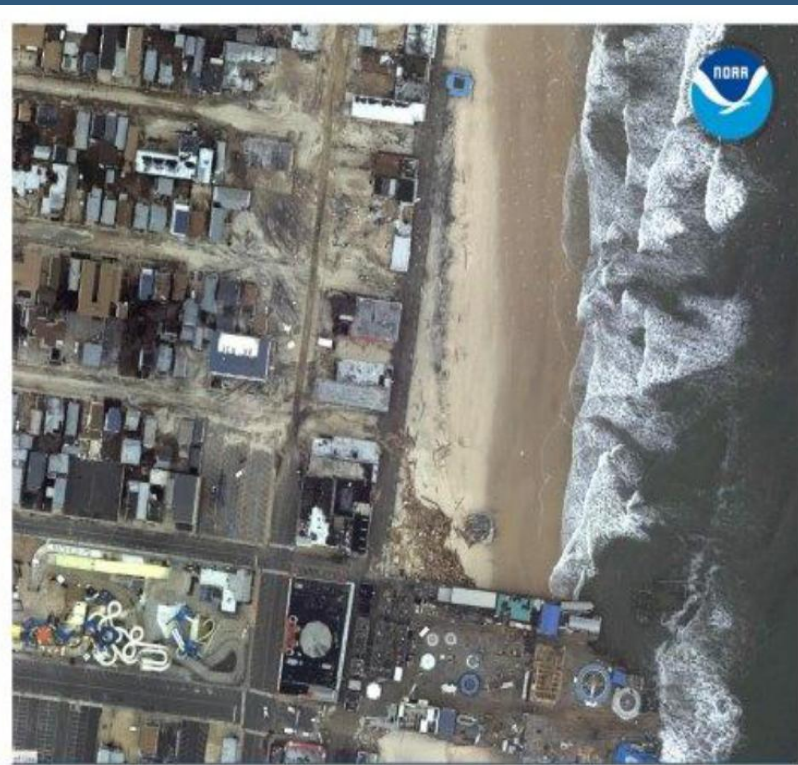
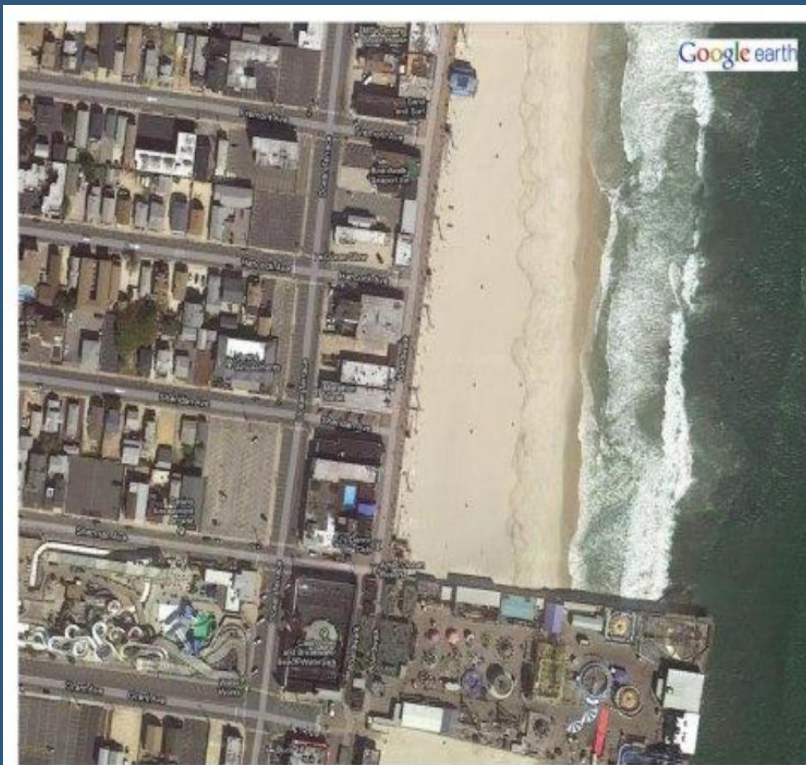
Port of New York & New Jersey



Hampton Roads



Officials use imagery in recovery plans

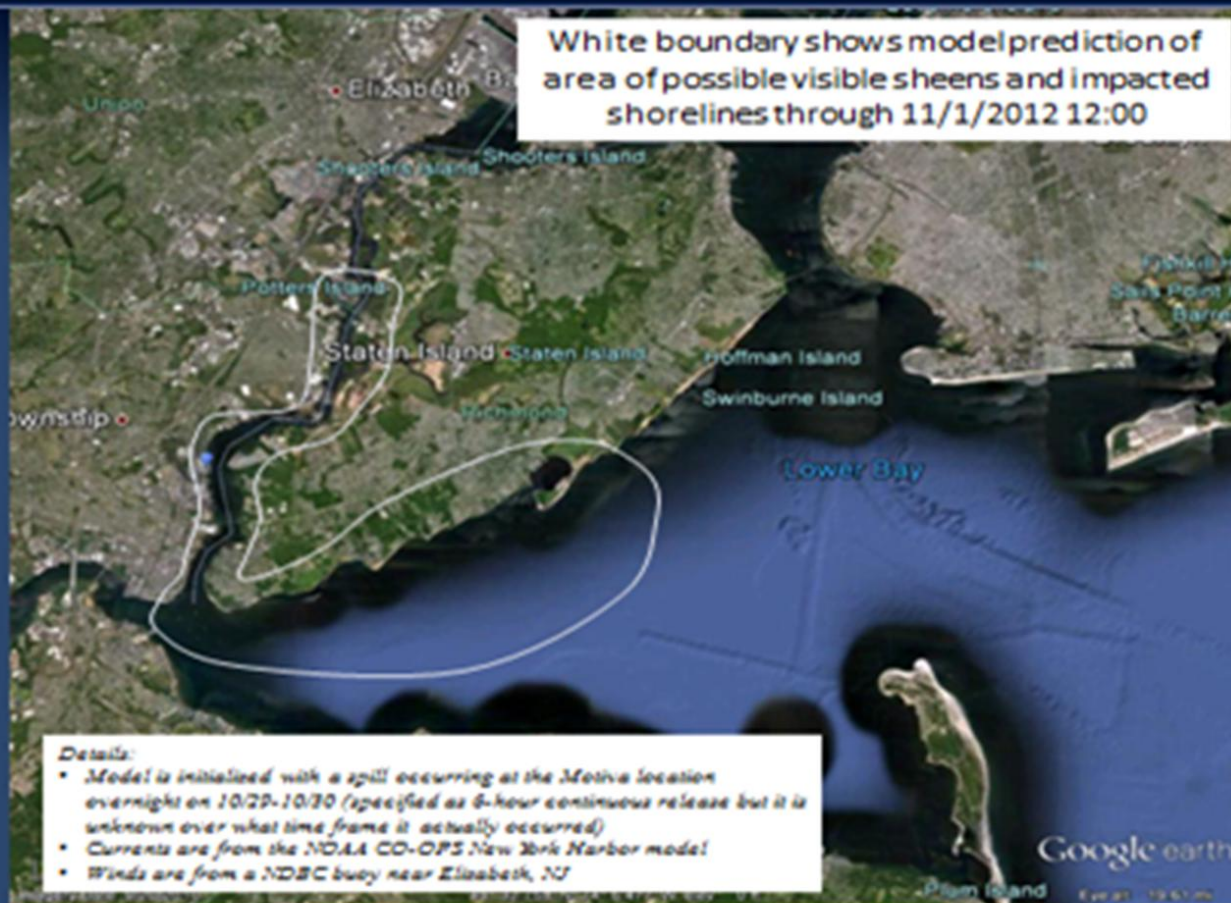


“Before” and “after” shots of Sandy’s destruction along the New Jersey shoreline



Damage Assessment: *Motiva Spill*

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

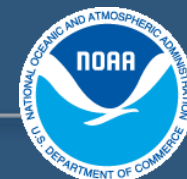


Details:

- Model is initialized with a spill occurring at the Motiva location overnight on 10/29-10/30 (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 NDSC buoy near Elizabeth, NJ



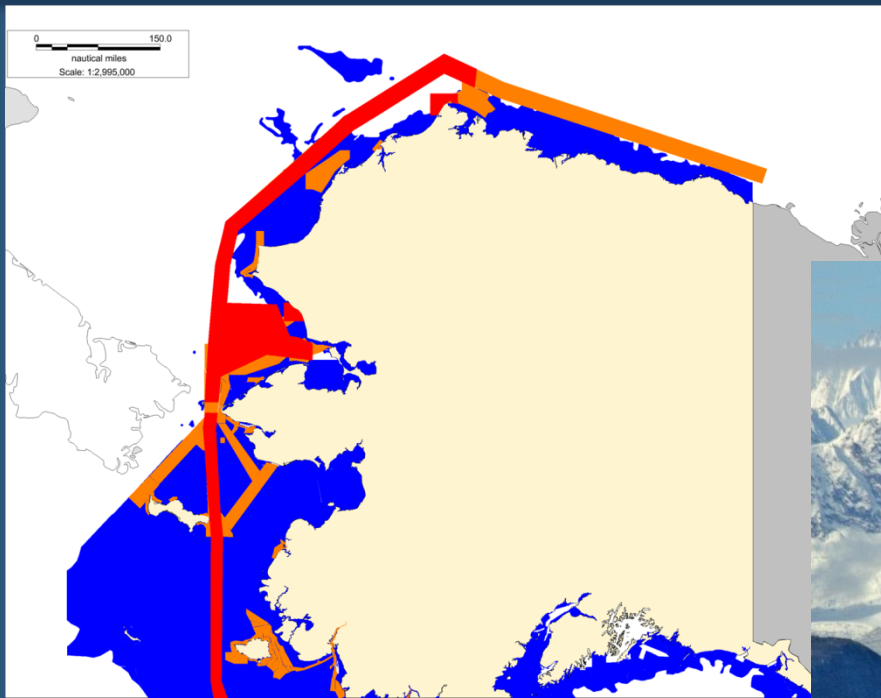
National Oceanic & Atmospheric Administration



Coastal resiliency



NOAA & the Arctic



- 2013 Planned Surveys
- Arctic Priorities
- NOAA Hydrographic Survey Priorities



National Ocean Policy



THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

*Final Recommendations
Of The
Interagency Ocean Policy
Task Force
July 19, 2010*

