



NOAA's Navigation Services in Support of Harbor Safety

David M. Kennedy
National Oceanic & Atmospheric Administration
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AAPA Harbors & Navigation Committee Meeting



NOAA National Ocean Service

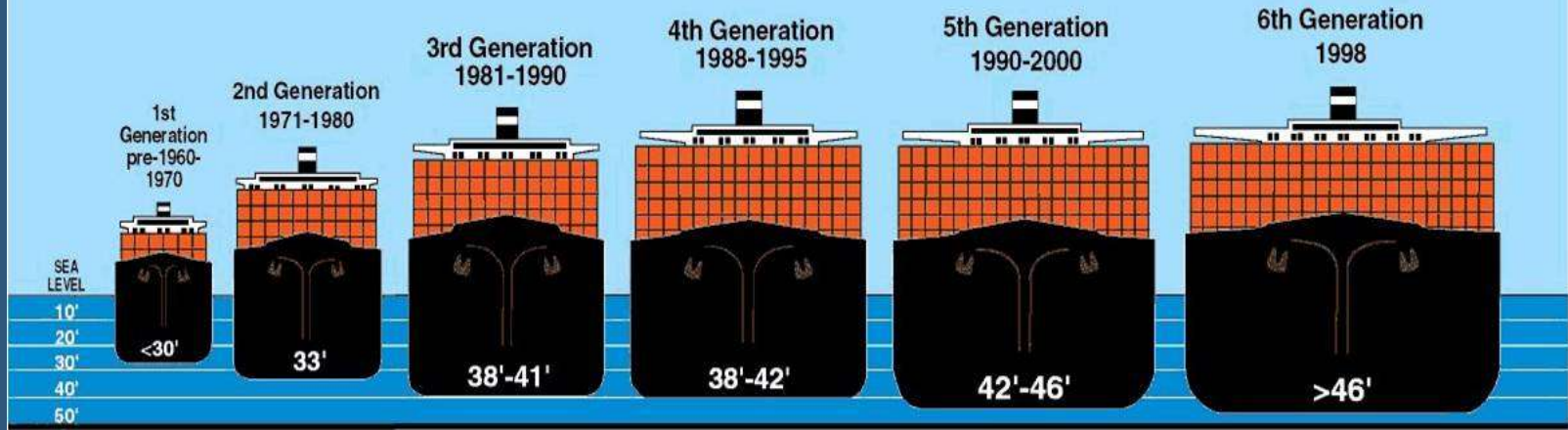
Positioning America for the Future

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

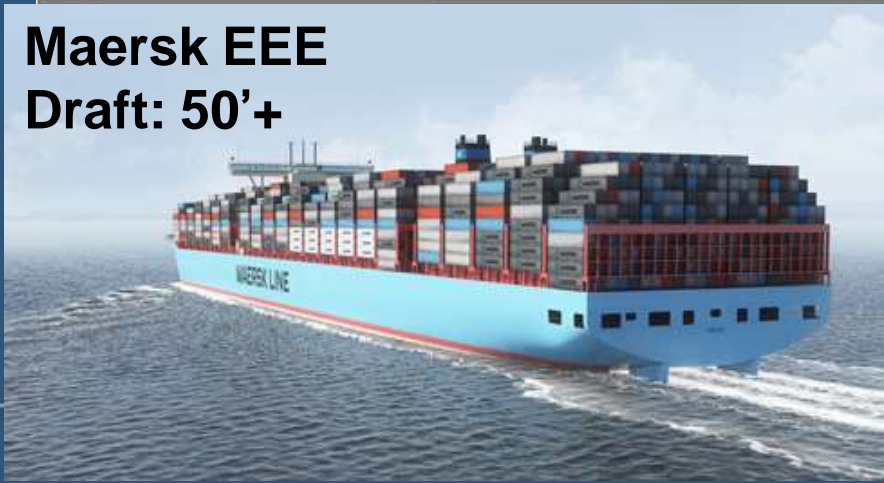


Providing accurate, precise, and up-to-date data for a dynamic transportation system

Evolution of Container Ships



Maersk EEE
Draft: 50'+



Safe, strong and efficient commerce

- Global positioning
- Water levels, tide predictions, and other ocean observations
- Nautical charts
- Reopening ports after storms



Positioning

Modernizing the National Spatial Reference System



CORS



Height Modernization

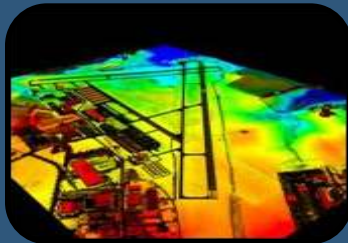


GRAV-D



COASTAL

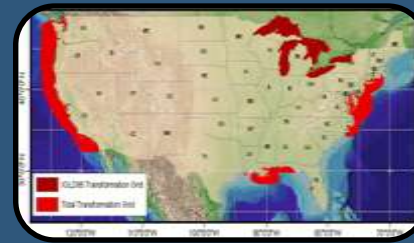
Products and Services



Airport Surveys



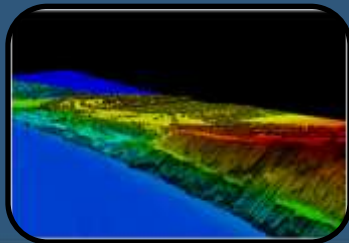
OPUS



VDatum



GPS Satellite Orbits



Shoreline Mapping



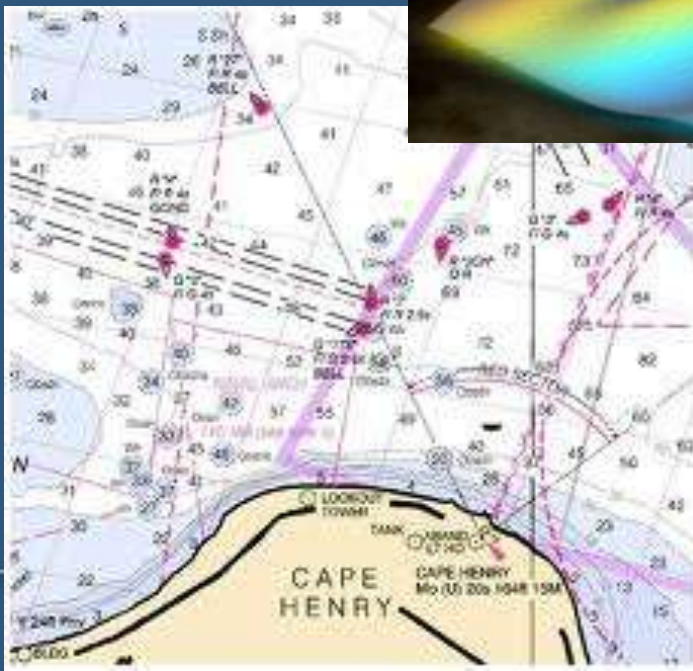
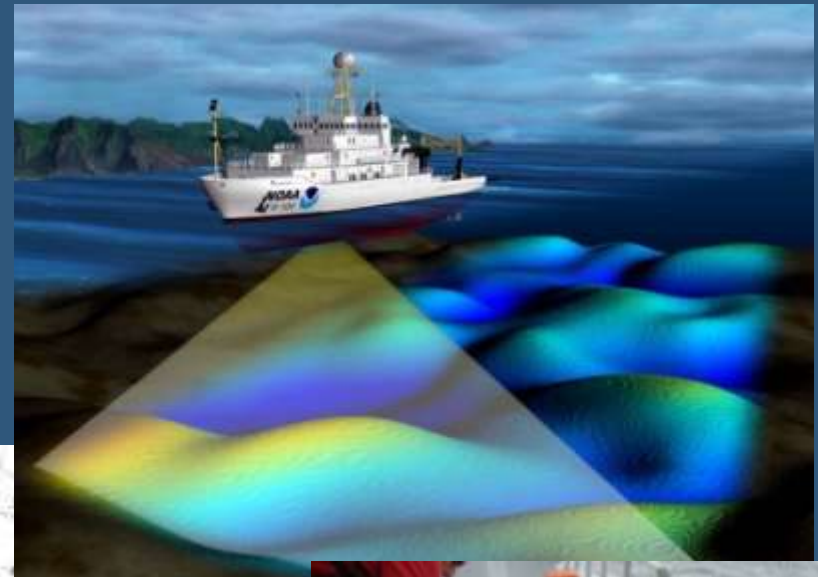
State Advisor Program



Emergency Response Imagery

Surveying and Charting

Cutting-edge technology and innovative products



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[®]

★ Operational PORTS (20)

★ FY2012 PORTS (3)



Benefits of PORTS[®]

Houston / Galveston, TX

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

Tampa Bay, FL

- 10% reduction in recreational distress calls
- 50% reduction in ship groundings
- Estimated \$10.1 million in annual economic benefits

New York / New Jersey

- Over 50% reduction in ship groundings
- Estimated \$13.2 million in annual economic benefits

Lower Columbia River, OR, WA

- Estimated \$7.6 million in annual economic benefits

Estimating Economic Benefits from NOAA PORTS[®] Information:

A Case Study of Houston / Galveston

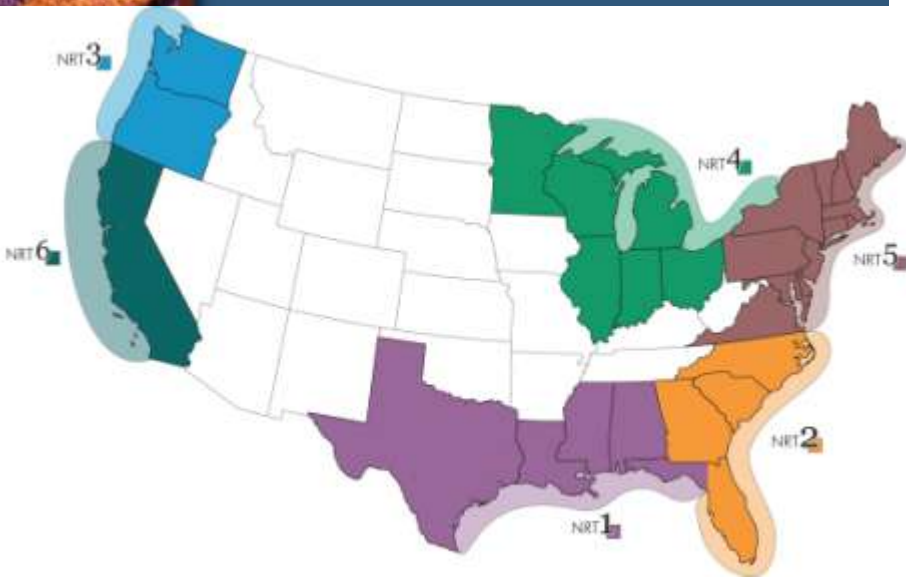


Statistics based on economic studies by Hauke Kite-Powell, Woods Hole Oceanographic Institution

Regional Planning and Response

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

Regional Navigation Managers provide on-the-ground coordination between NOAA, other Feds, and port officials



Navigation response teams and NOAA survey ships, if available, conduct surveys



NOS Engagement in HSC/AMSCs

Purpose/Benefits:

- Maintain relationships w/ other Feds, Port, and State officials
- Report on Dangers to Navigation and other hydro survey findings
- Involvement in Port Maritime Infrastructure Recovery Plans
- Provide updates or solicit needs/feedback on PORTS
- Solicit stakeholder input on survey needs and priorities
- Provide info on status of surveys and nautical chart updates
- Serve as liaison between maritime community and other NOAA offices (e.g. Weather, Fisheries, Sanctuaries)
- Educate stakeholders on NOAA products and services

Coastal Resiliency

Infrastructure vulnerability to:

- Coastal storms (e.g. hurricanes)
- Storm surge inundation
- Sea level rise
- Tsunamis

Solutions:

- Decision-support tools for infrastructure planning, risk assessment, and collaboration
- Technical assistance
- Training
- Management strategies for adaptation, risk communication, hazard response/recovery



Summary

- NOAA provides support for safe, strong, and efficient maritime commerce and ensures our Nation's economy keeps moving.
- NOAA continues to work with the other Federal agencies and our partners to improve regional harbor safety and support safe, strong and efficient maritime commerce.





QUESTIONS?

Thank You.

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NOAA