



Katrina
2005



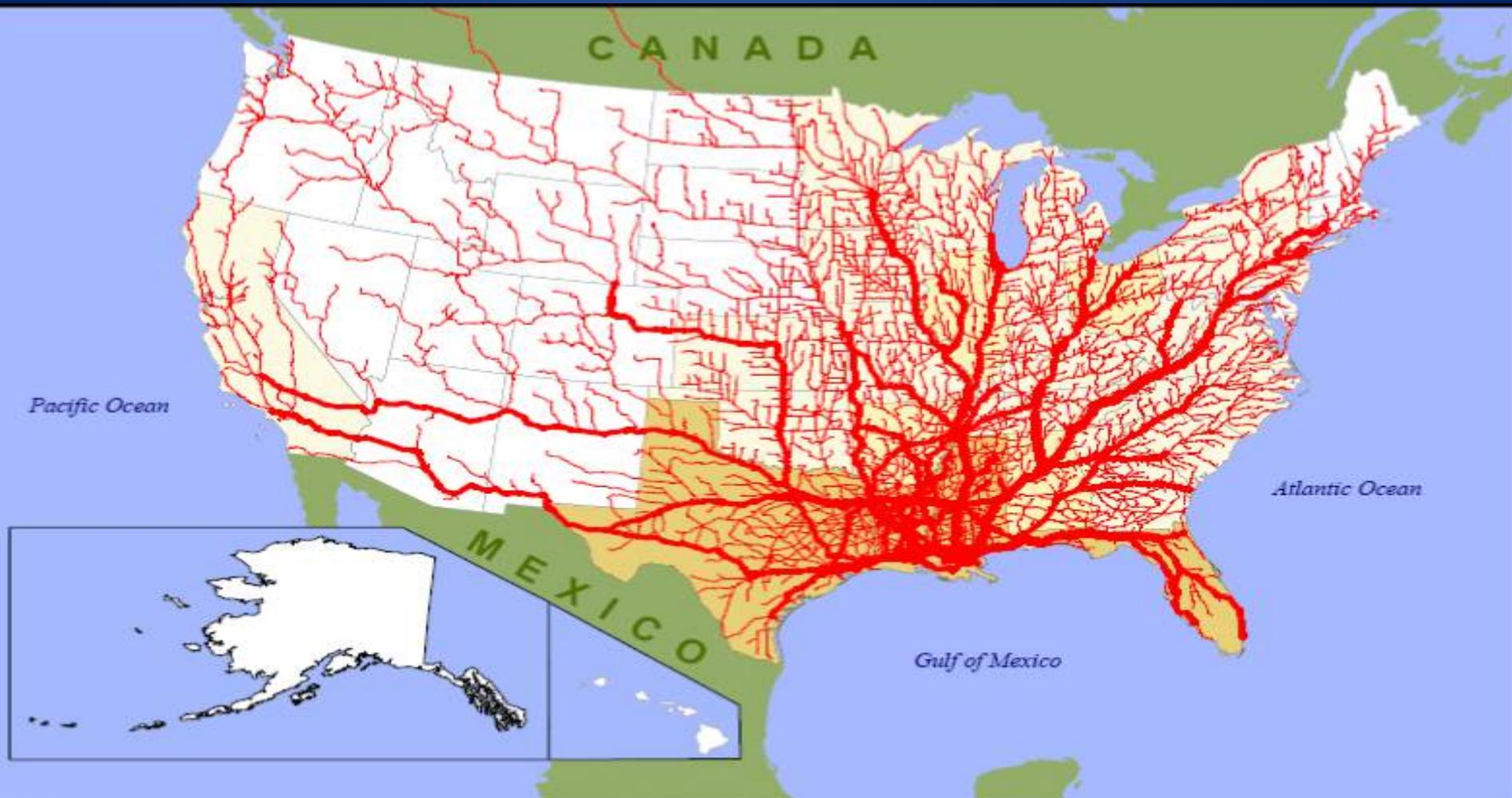
*Surveying the
aftermath*



Sandy
2012

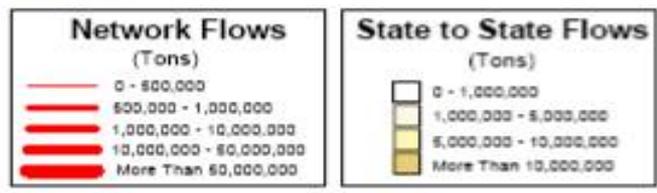


Fukushima
2015



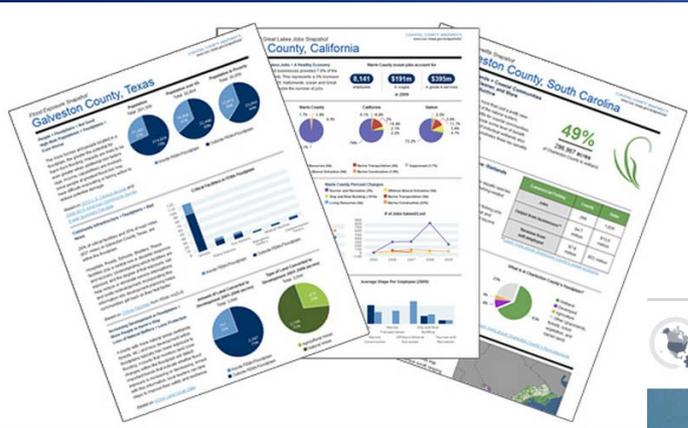
Total Combined Truck Flows
(1998)

LOUISIANA



U.S. Department of Transportation
Federal Highway Administration
Office of Freight Management and Operations
Freight Analysis Framework

NOAA Data, Tools, and Services

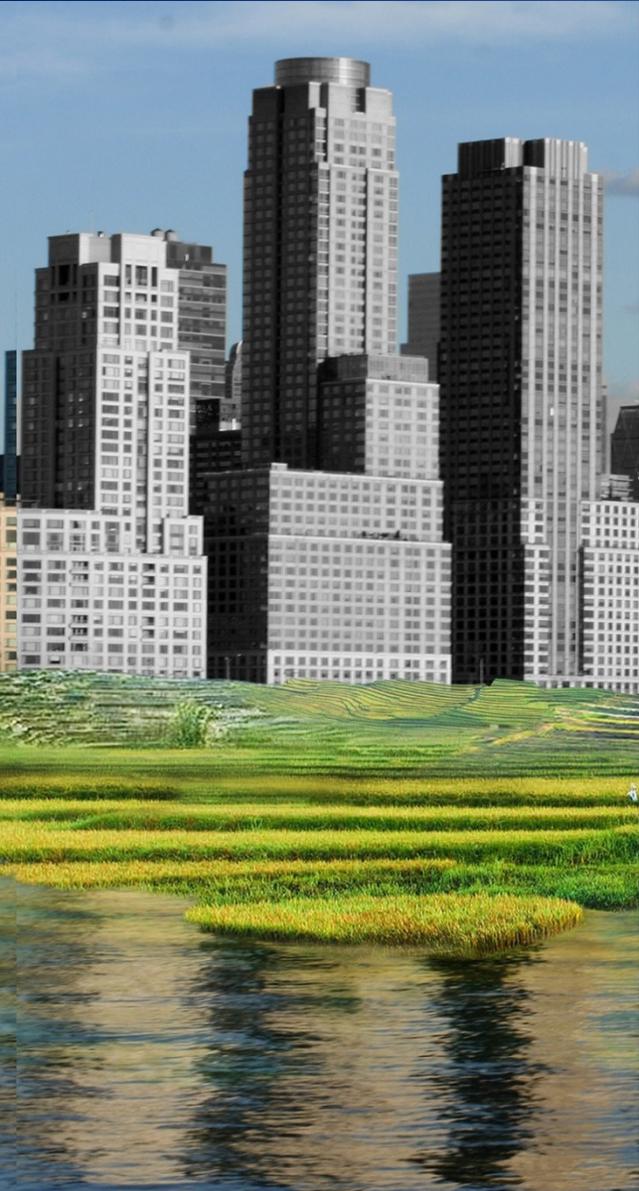


This screenshot shows the Coastal Flood Exposure Mapper web application. The top navigation bar includes 'Select', 'Map', 'Collect', 'Tips', 'Resources', 'Case Studies', and 'FAQ'. A sidebar on the left provides filters for 'Development', 'Critical Facilities', and 'Development Patterns'. The main map area displays a coastal region with red and orange overlays indicating flood exposure. A 'Hazard Storm Surge Scenarios' panel is visible at the top right of the map area.

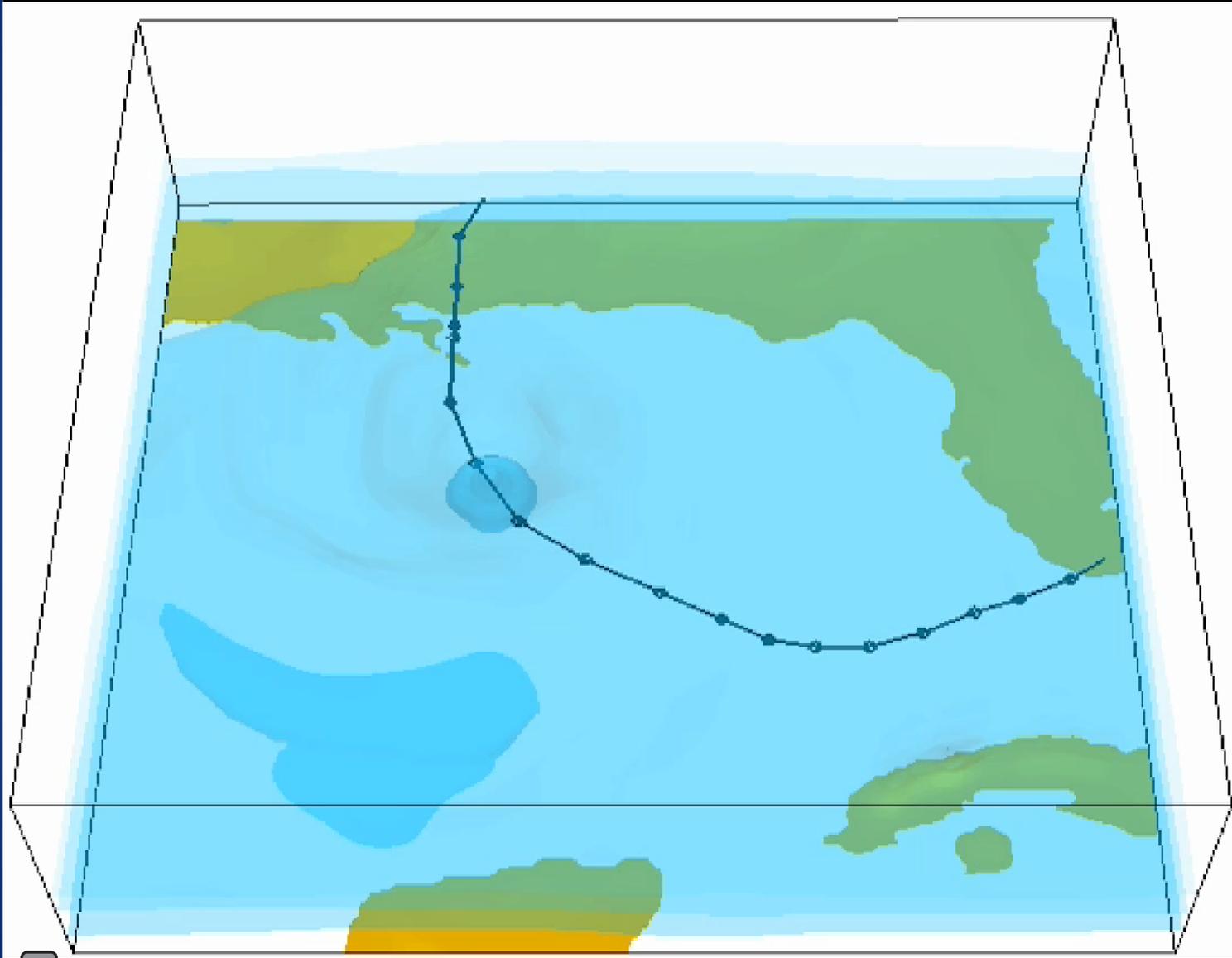
This screenshot shows the U.S. Climate Resilience Toolkit website. The header includes 'U.S. Climate Resilience Toolkit' and navigation links like 'Get Started', 'Taking Action', 'Tools', 'Topics', and 'Expertise'. The main content area features a large heading 'Meet the Challenges of a Changing Climate' and a list of five steps: 1. Identify the Problem, 2. Determine Vulnerabilities, 3. Investigate Options, 4. Evaluate Risks & Costs, and 5. Take Action.

This screenshot shows the 'Sea Level Rise and Coastal Flooding Impacts' web application. The interface shows a map of a coastal area with blue overlays indicating water depth and low-lying areas. A sidebar on the left includes a legend and an overview section. A video player at the bottom right shows a simulation of sea level rise at a specific location.

This screenshot shows the 'Historical Hurricane Tracks' web application. The interface shows a map of the United States with a large circular area highlighting the Northeast region. A sidebar on the left includes a list of hurricane tracks with dates and names. A video player at the top left shows a simulation of a hurricane track.



MODELS NOW DEPICT HURRICANES IN DETAIL

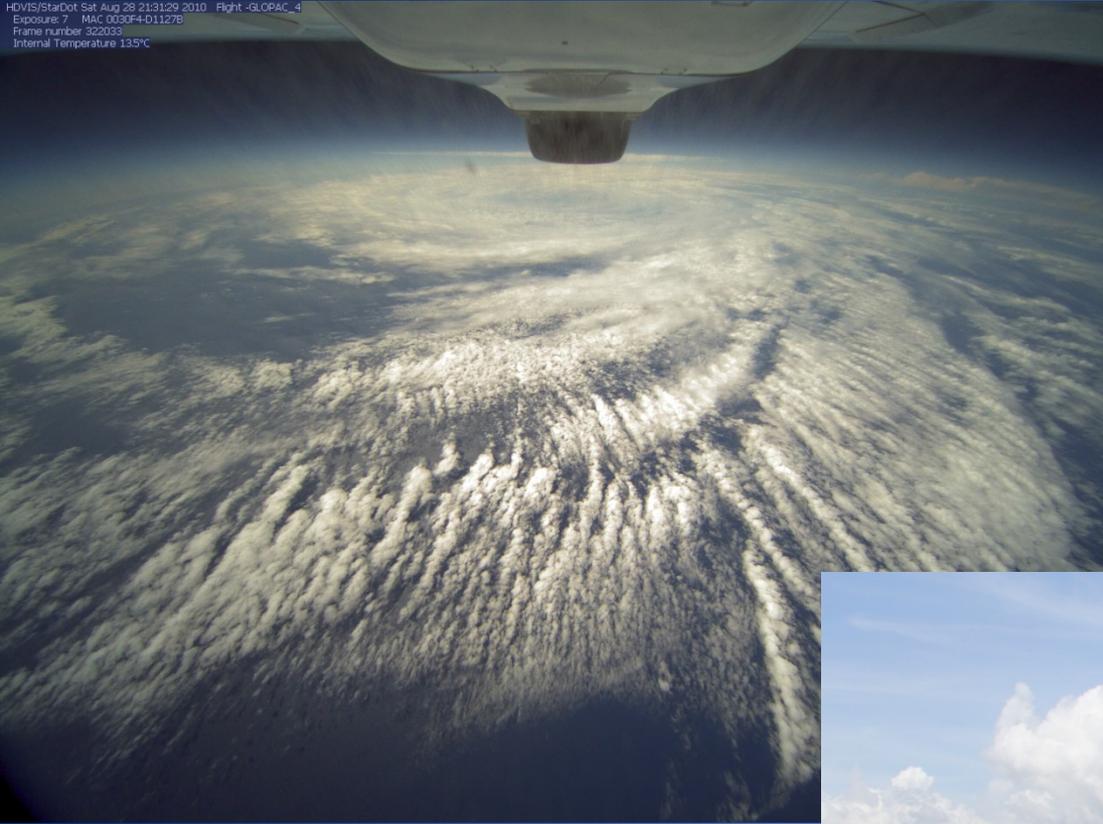


WORLD'S 1st GLOBAL MODEL FOR YEAR-TO-YEAR HURRICANE ACTIVITY

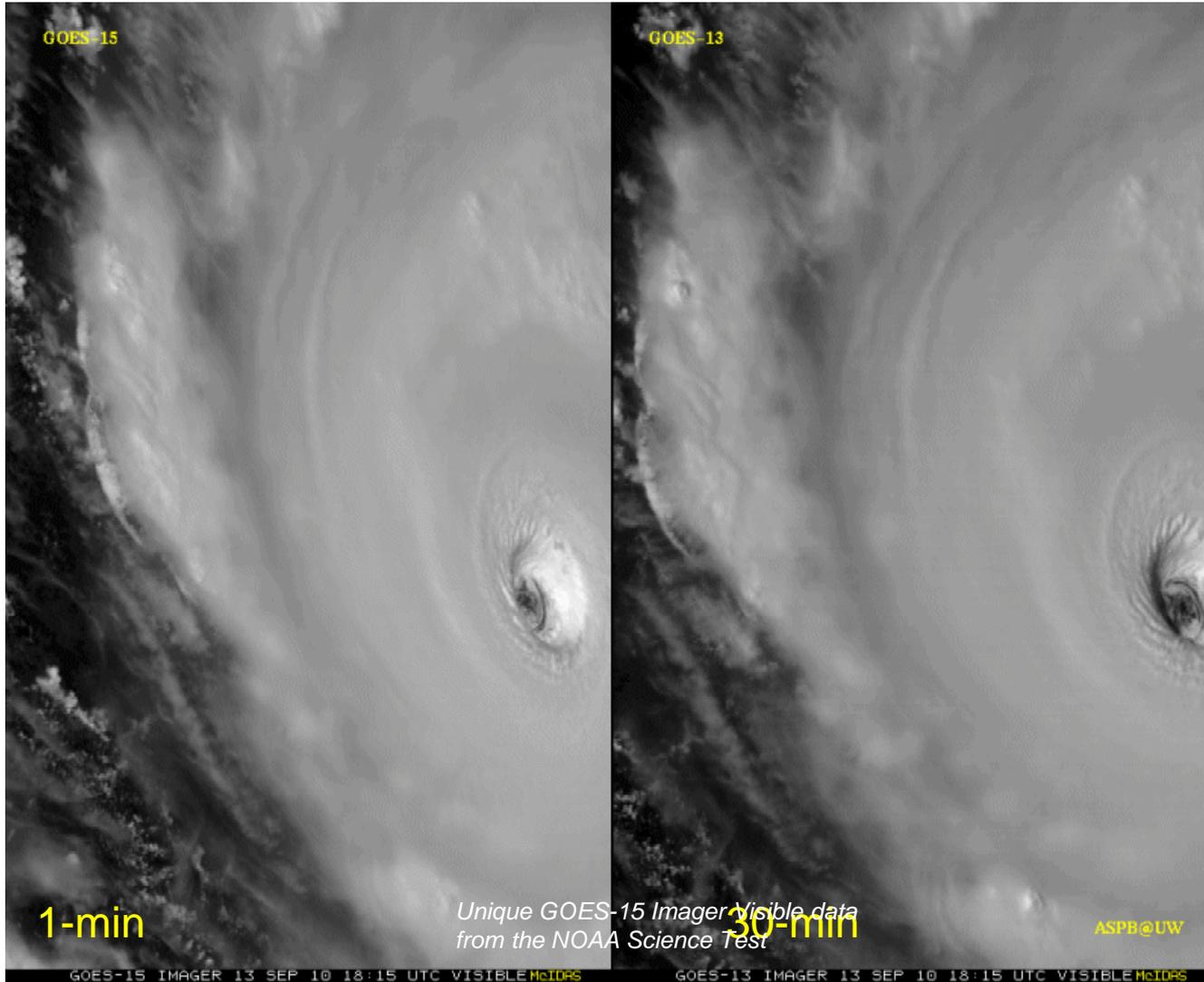


UNMANNED AIRCRAFT COLLECT WEATHER DATA IN DIFFICULT PLACES

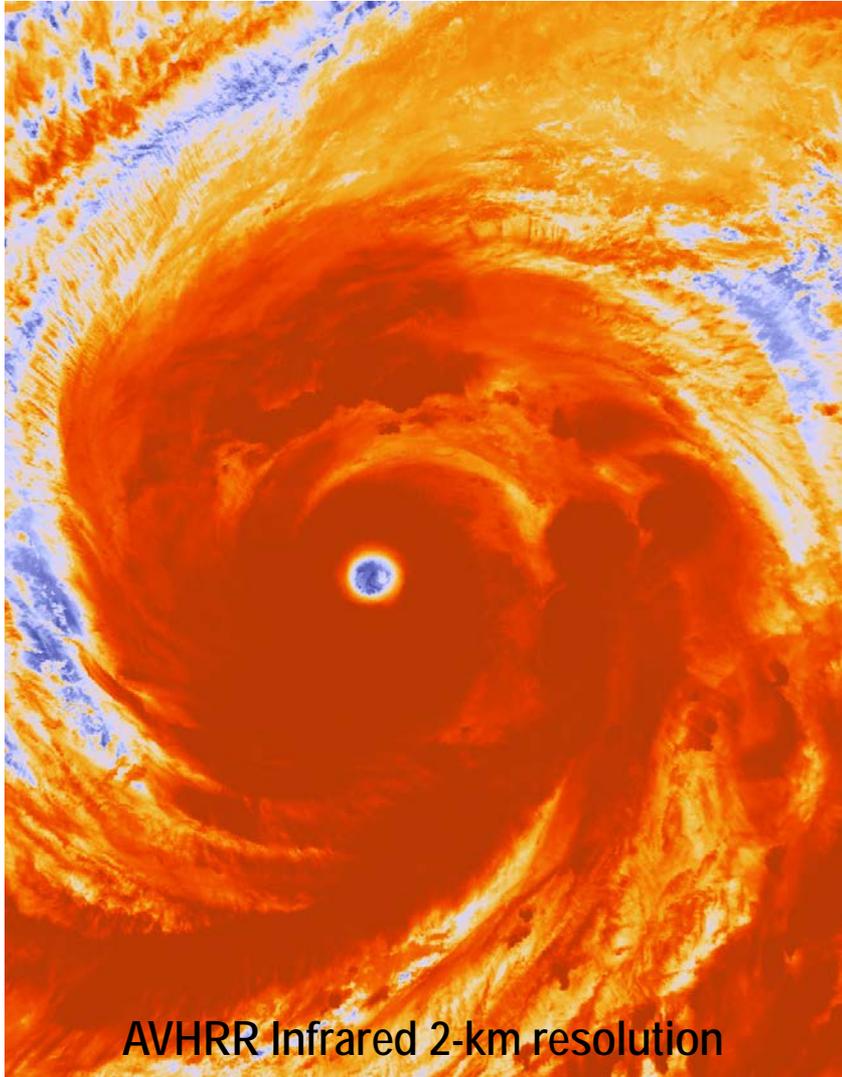
HDTV/StarDot Sat Aug 28 21:31:29 2010 Flight -GLOPAC_4
Exposure: 7 MAC 0030F4-D11276
Frame number 322033
Internal Temperature 135°C



GOES-15 Science Test

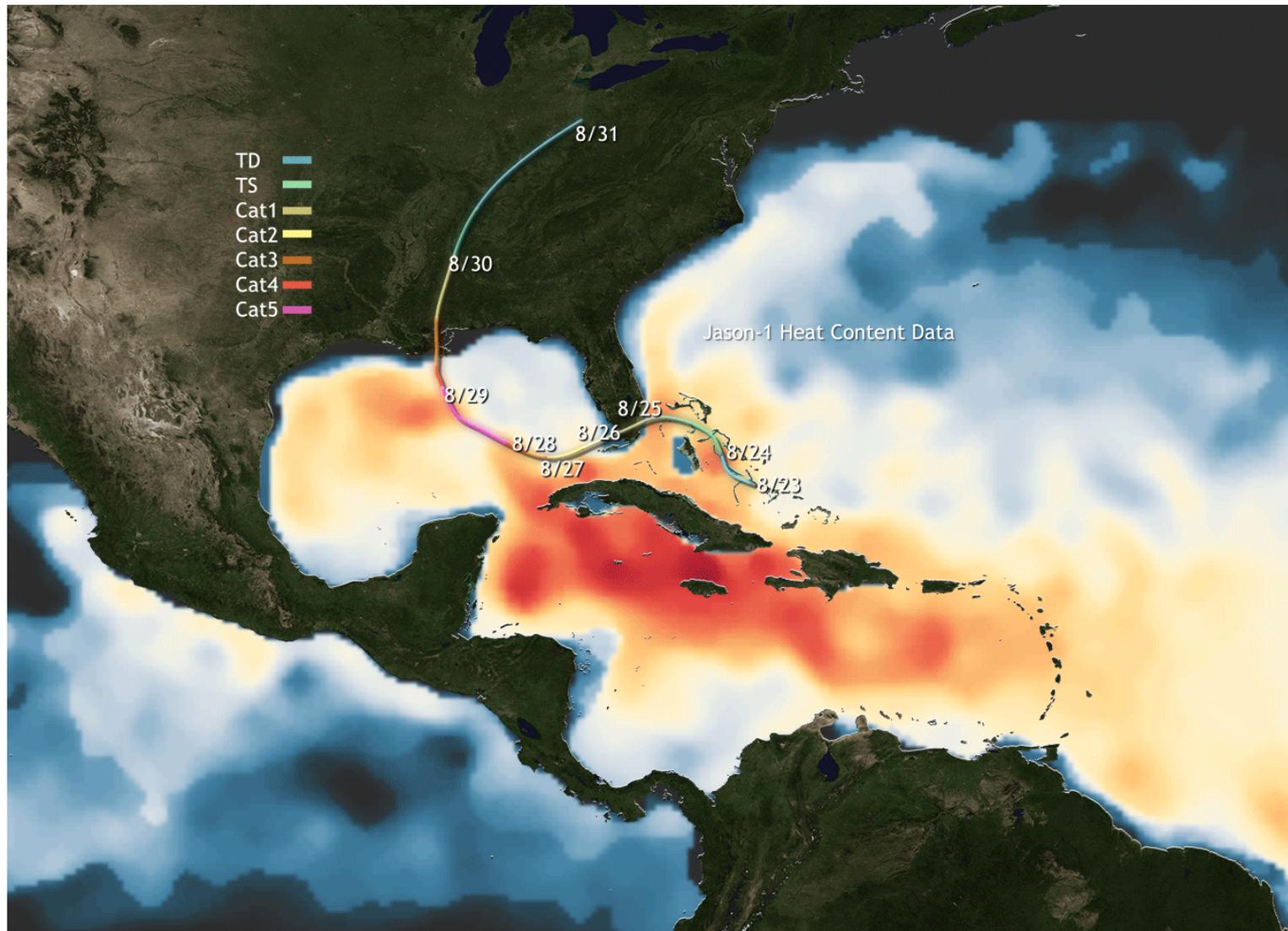


AVHRR vs. VIIRS



Super Typhoon Vongfong, October 2014

Hurricane Katrina Intensification + OHC



Continuation of Satellite Altimetry Data





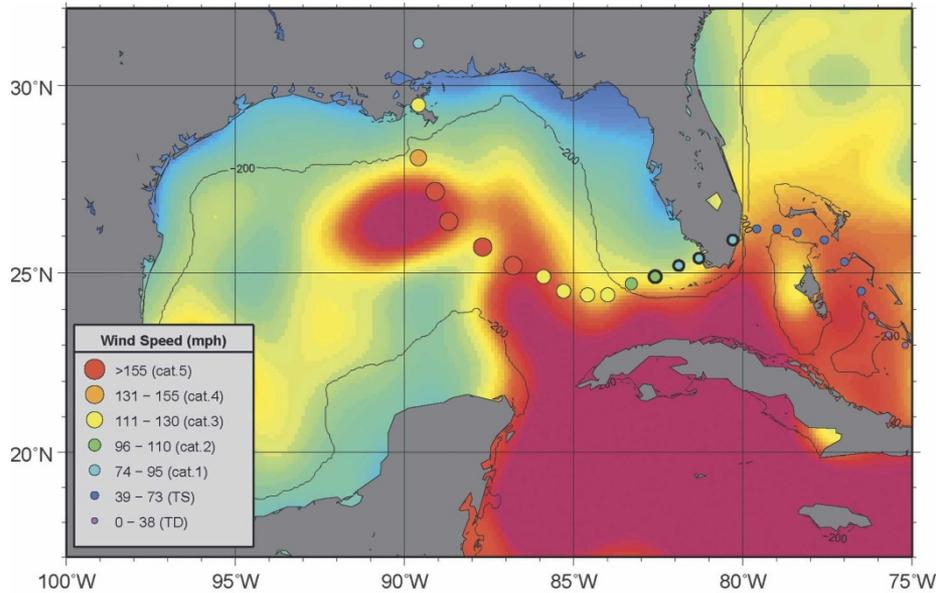
Hurricane Katrina Track Forecast: 2005 Actual Vs. 2015 With Upgrades



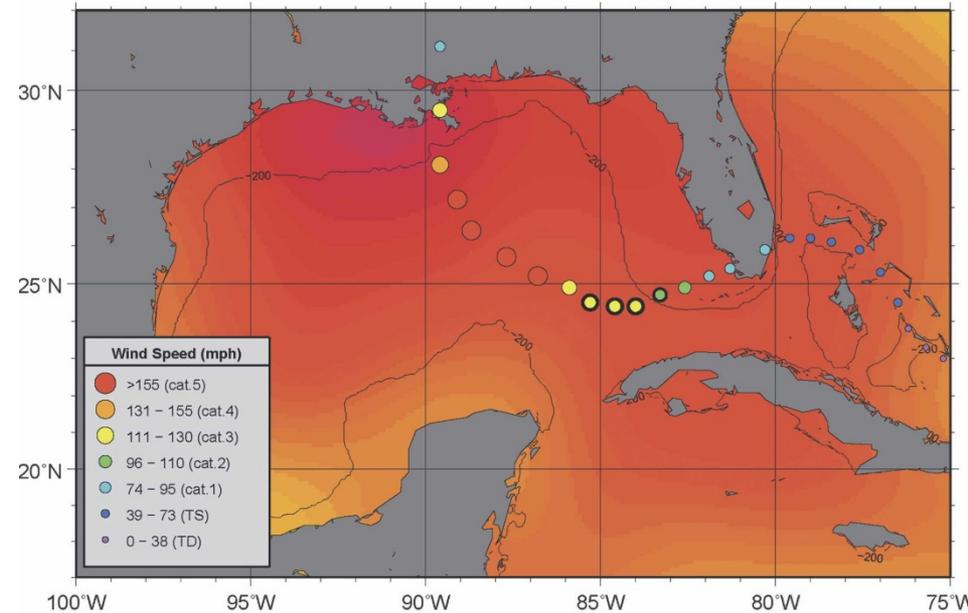


Jason 1 Satellite Data: Katrina Intensity over Gulf of Mexico

Heat Capacity



Sea Surface Temperature

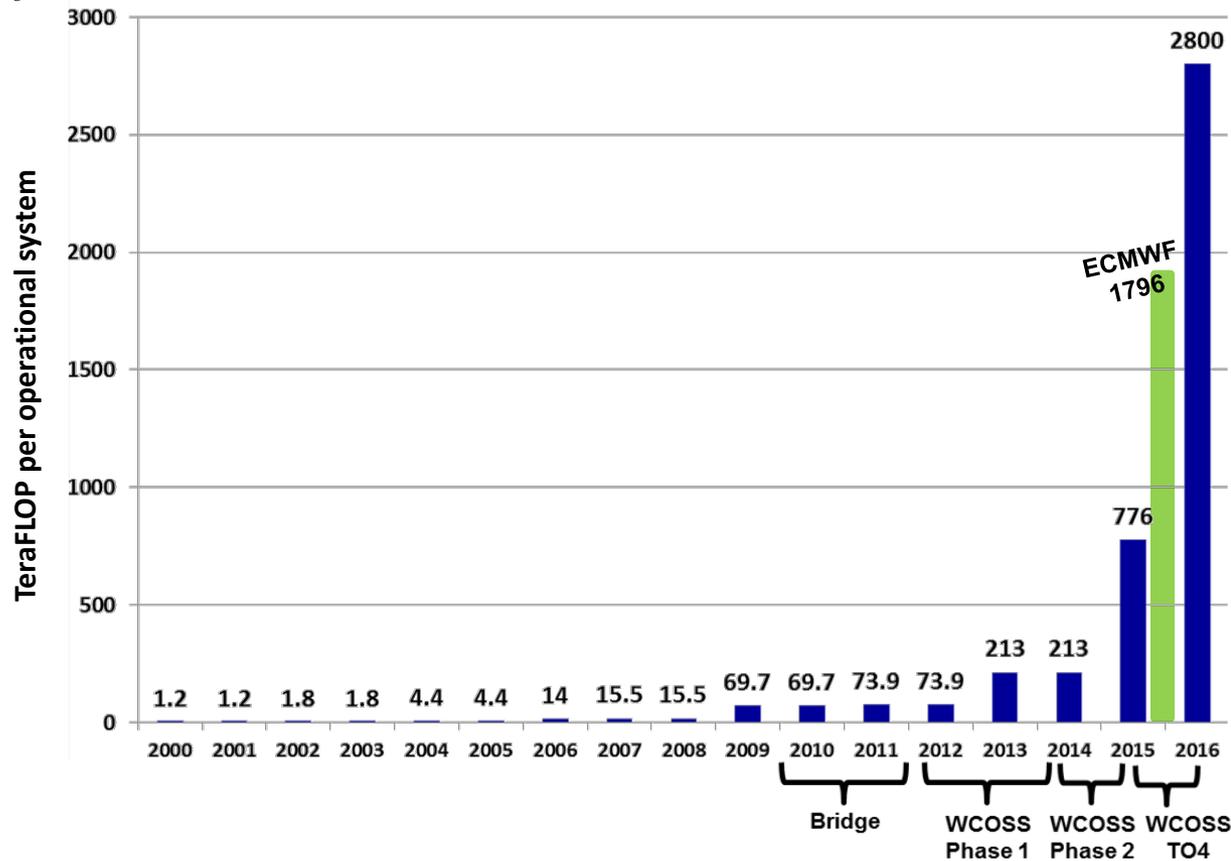
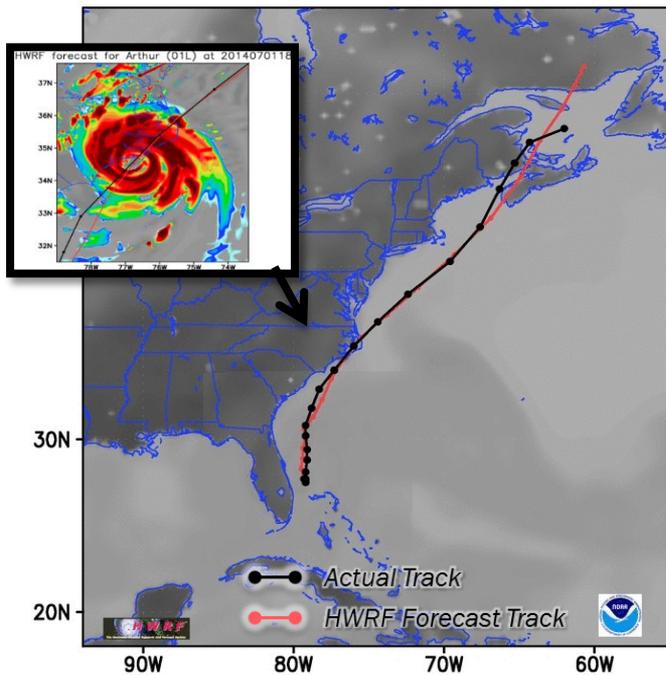




Current Status of Supercomputer

Increased HPC capacity to 2.8petaFLOPs (for primary and backup, respectively - for a total of 5.6 PF) by the end of CY 2015

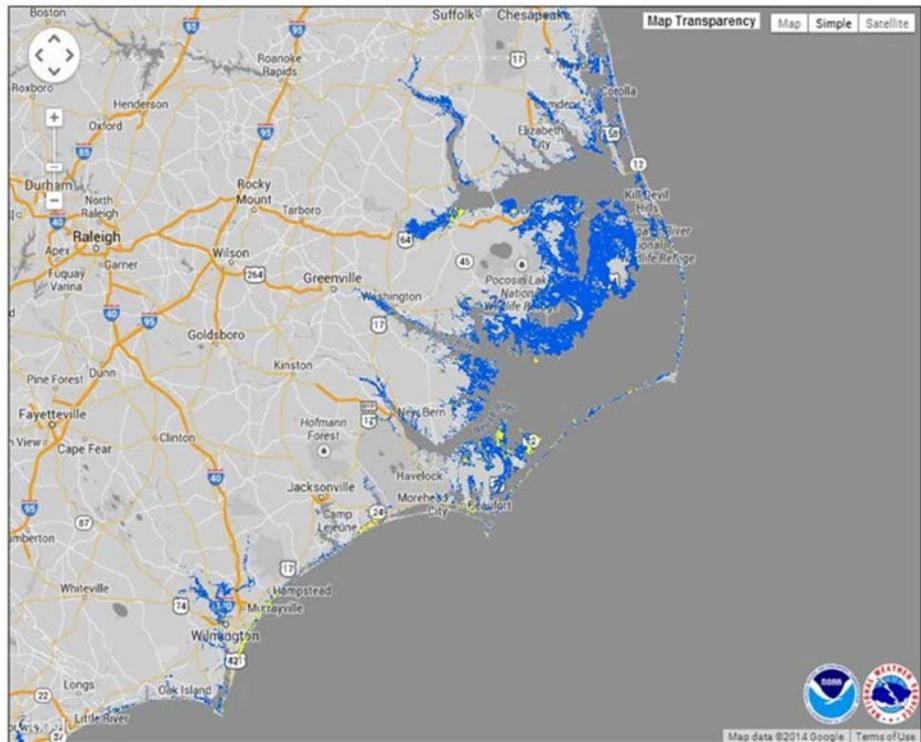
HWRP Forecast Track & Forecast Radar Reflectivity for Hurricane Arthur (18z 01 JUL '14)





Surge Maps for Hurricane Arthur

NHC Experimental Potential Storm Surge Flooding Map
Hurricane ARTHUR (2014) Advisory 10
From 05 AM EDT Thursday July 03 to 10 AM EDT Sunday July 06



Potential Storm Surge Flooding*

- Up to 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground

*Displayed flooding values indicate the water depth that has about a 1-in-10 (10%) chance of being exceeded.

Experimental Potential Storm Surge Inundation GIS datasets will not be disseminated during the 2014 Atlantic Hurricane Season.

National Weather Service
National Hurricane Center

Home News

Prototype Storm Surge Watch/Warning Graphic*

Hurricane Ryan Advisory 24
Valid From: Sun Aug 23 2009 00 UTC until Wed Aug 26 2009 05 UTC

Local forecast by "City, St" or "ZIP"

Alternate Formats: Text, Mobile, Email, RSS, About Alternates

Cyclone Forecasts: Latest Advisory, Past Advisories, Audio/Podcasts, About Advisories

Marine Forecasts: Atlantic & E Pacific, Gridded Marine, About Marine

Tools & Data: Satellite, Radar, Analysis Tools, Aircraft Recon, GIS Datasets, Data Archive

Development: Experimental, Research, Forecast Accuracy

Outreach & Education: Prepare, Storm Surge, About Cyclones, Cyclone Names, Wind Scale, Most Extreme, Forecast Models, Breakpoints, Resources, Glossary | Acronyms, Frequent Questions

Our Organization: About NHC, Mission & Vision, Staff | Q&A, Visitors | Virtual Tour, Library Branch, NCEP | Newsletter

Contact Us: Comments

0 30 60mi

Earthstar Geographics | Esri, DeLorme

Prototype Storm Surge Watch/Warning

- Prototype Storm Surge Warning
- Prototype Storm Surge Watch

*This graphic displays areas that would qualify for inclusion under a storm surge watch or warning system currently being developed by the National Weather Service. A storm surge warning would mean that there is a danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours. A storm surge watch would mean that life-threatening inundation is possible somewhere within the specified area, generally within 48 hours. All persons, regardless of whether or not they are in the highlighted areas shown in the graphic, should promptly follow evacuation orders and other instructions from local officials.

National Weather Service - Since 1870