



UNITED STATES DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

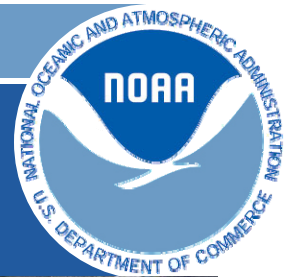


# Subcommittee on Disaster Reduction

## Hurricane Irene Summary

**Laura Furgione**

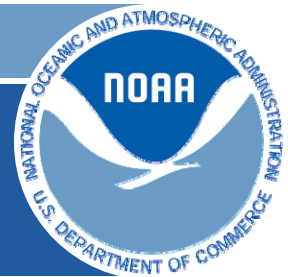
NOAA Deputy Assistant Administrator  
For Weather Service  
September 1, 2011



# Impacts

- Caused 41 deaths
- 3.5 million without power
- Grave flooding situation in VT (worst since 1927)
- Governors declare State of Emergency





# Hurricane Track

- \$750M Forecast
- Forecast on Target, Tues - landfall and landfall in NYC
- Top Winds at landfall - 85 MPH (Cat 1), NYC - 65 MPH

Hurricane Irene Track (click on link)

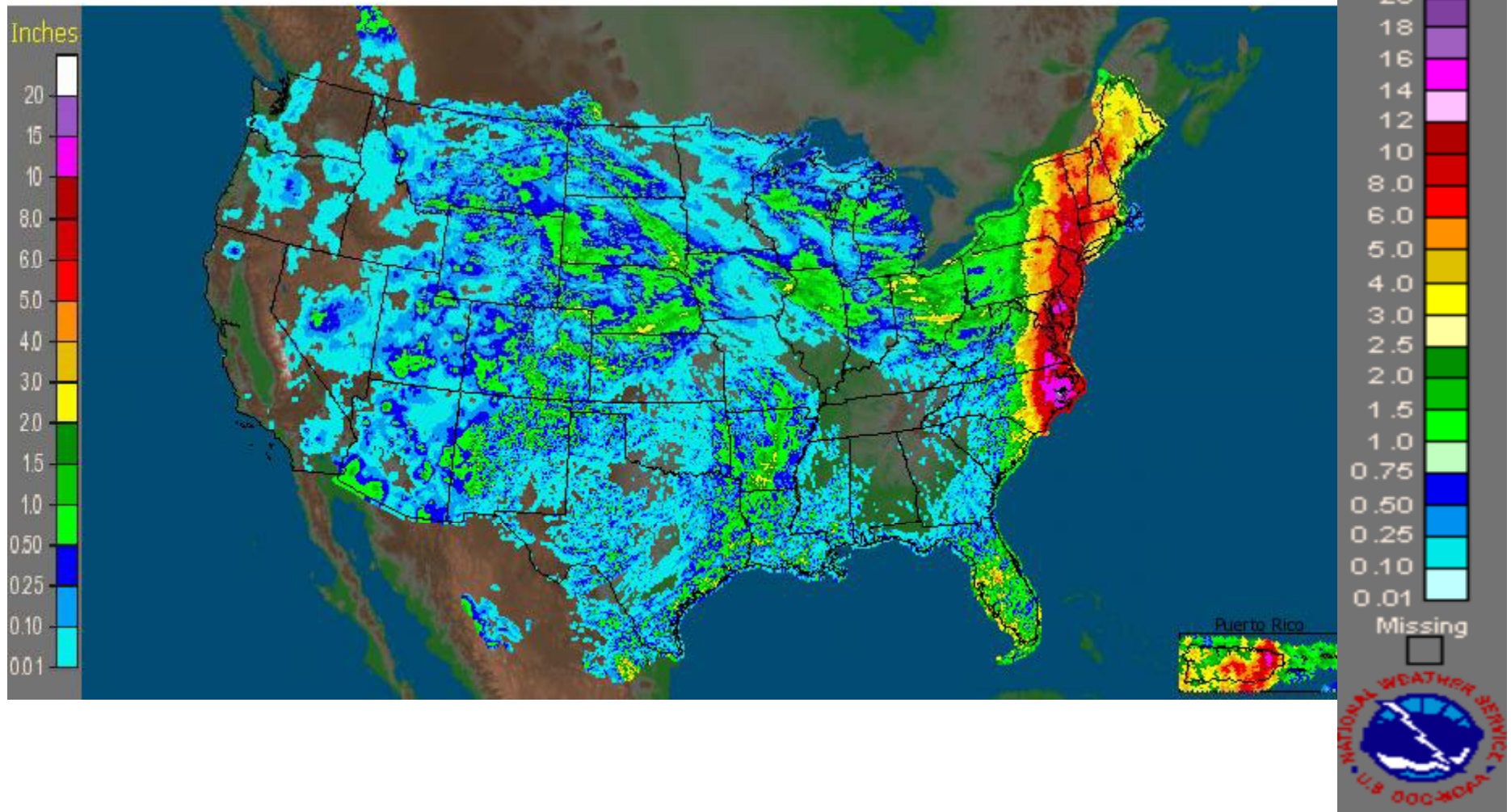
<http://www.nnvl.noaa.gov/MediaDetail.php?MediaID=821&MediaTypeID=2>





# Accumulated Rainfall from Irene

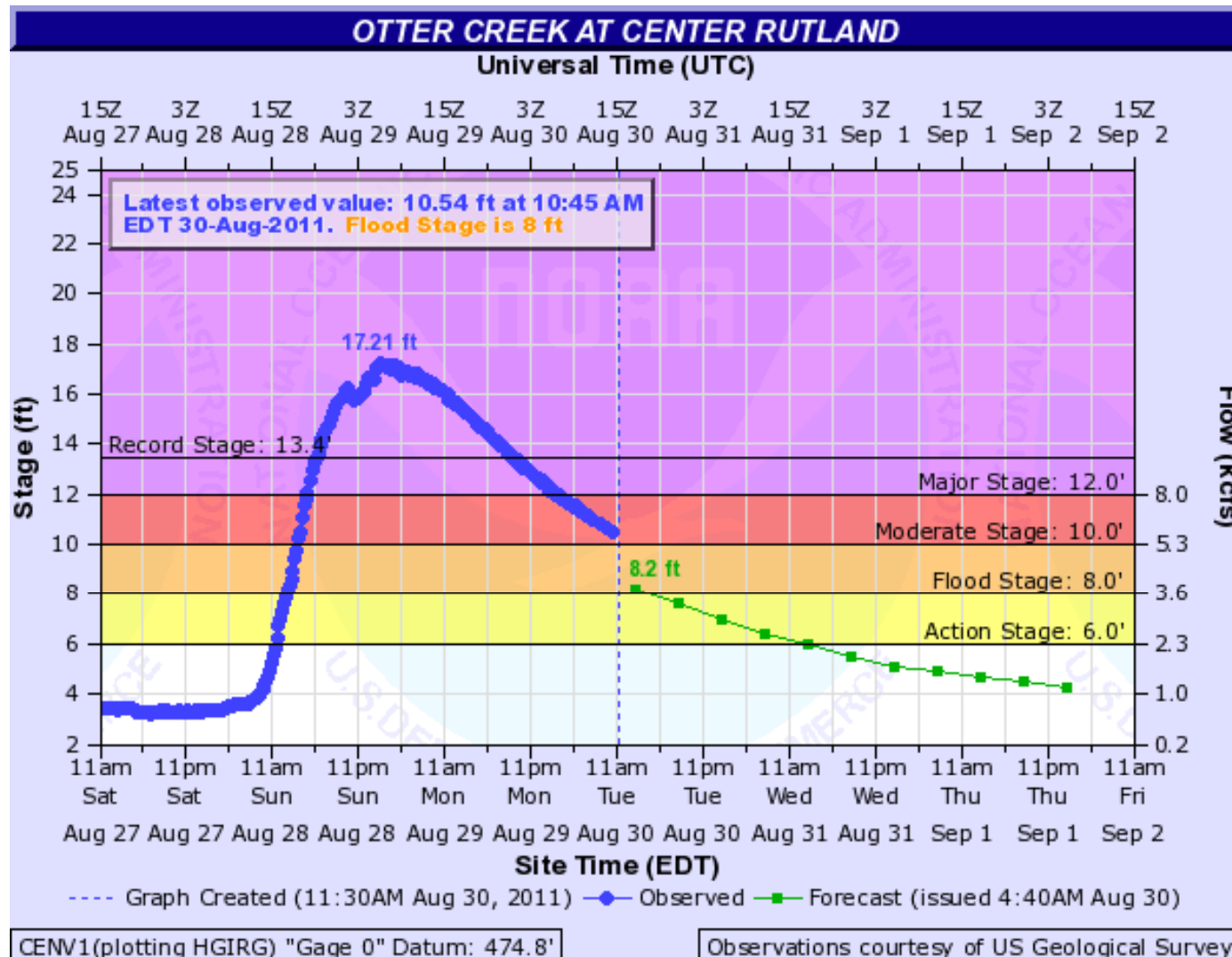
CONUS + Puerto Rico: Current 7-Day Observed Precipitation  
Valid at 8/30/2011 1200 UTC- Created 8/30/11 19:41 UTC





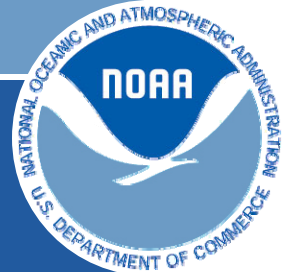
# Hurricane Irene Record Flooding

28 Rivers Gauges were MAJOR flood stage Monday Aug 29  
 19 Rivers Gauges indicated record water levels during the event.





NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



# BACKUP SLIDES



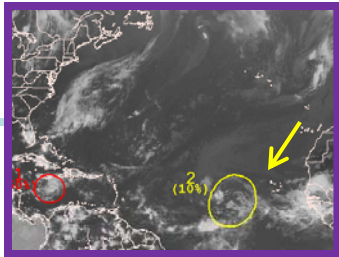
# Hurricane Irene 2011

## Significant Eastcoast Landfalling Hurricane Timeline



**Aug 17 (Wed)**

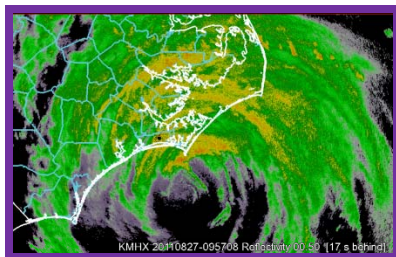
Tropical Disturbance monitored near W. Africa



- GOES/POES satellites diagnose structure
- NOAA and HFIP research models run

**Aug 27 (Sat)**

1<sup>st</sup> Landfall  
Cape Lookout, NC



- Continual briefings to key state and local officials
- Local impact warnings issued (tornadoes, flash flooding, etc)

**Aug 20 (Sat)**

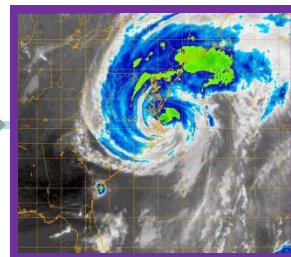
Tropical Storm Forms  
Named Irene



- NHC tasks Hurricane Hunters (NOAA/USAF)
- Coordination with emergency management partners

**Aug 27 (Sat) & Aug 28 (Sun)**

Landfall in NJ and NY



- Continual briefings to key state and local officials
- Impacts spread across NE

**Aug 22 (Mon)**

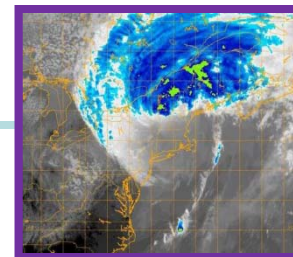
1<sup>st</sup> Hurricane of 2011  
(Category 1 on SSHS)



- NHC Director augments staffing for Hurricane Liaison Team
- GOES Rapid Scan activated

**Aug 28 (Sun)- Aug 29 (Mon)**

Storm Weakens and becomes post-tropical



- Flood warnings issued as flash flooding and rivers sell past flood stages

**Aug 25 (Thu)**

Cat. 2 Hurricane *within 48-72 hours of landfall in NC*



- NHC Director activates Network Media Pool
- Coastal radars in storm mode
- NOAA provides on site staffing at EOCs

Long Term Response and Recovery

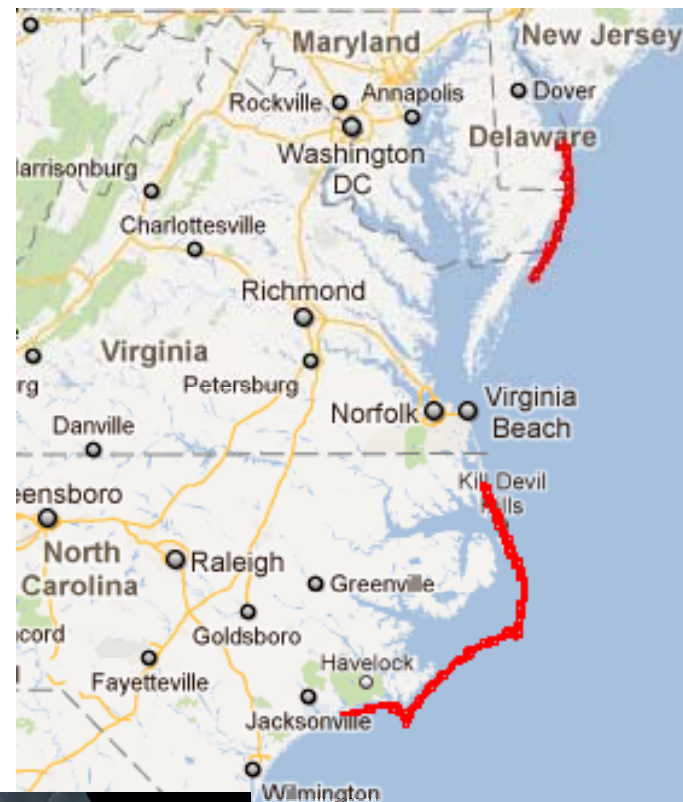


- OMAO deploys aircraft for NGS
- NRTs deployed
- NMFS assess fishery impacts

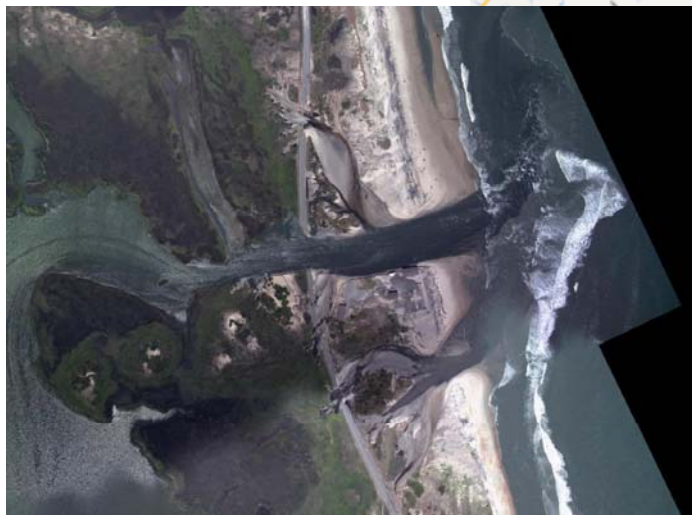


## Aerial Damage Surveys:

- *King Air (N68RF)* provided overview imagery collection for coastal damage assessment surveys
  - *Surveys conducted August 28-present*
  - *Red lines to right indicate imagery collected, processed, and distributed to date*



UDSA Photo (Before)



NOAA Photo (After)

Highway-12 near Rodanthe at Outer Banks, NC





# NOAA Restoration and Response for Hurricane Irene

## Navigation Surveys:

- *Navigation Response Teams (NRT)* provided hydrographic sonar scanning to detect obstructions and other navigational hazards at request of Coast Guard
  - Completed preliminary scan of Norfolk sound & Mouth of Chesapeake Bay
  - Teams standing by awaiting tasking for New York Harbor and Cape Cod Canal
- Ferdinand Hassler surveyed channels at the entrance to Chesapeake Bay.
  - Cleared concerns in several channels and around tunnel islands
  - Reported numerous navigation aids off station
- Bay Hydrographer II surveying detailed approaches of the Norfolk Naval Shipyard
  - Addressed the Navy’s concern for moving deep draft vessels back into port.

