

NOAA National Weather Service

*Your Lifeline for Hospital Weather
Information*

*Before Severe Weather Strikes
presentation to National Evacuation
Conference, Planning and Preparedness
for Vulnerable Populations and Public
Health Concerns
February 5, 2010*

*“But I’m not a Meteorologist” – Using
NWS Weather Information in Medical
Facility Preparedness*

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National Weather Service



NOAA National Weather Service

A Typical Year...



6 Atlantic Hurricanes



1,270 Tornadoes



5,000 Floods



**10,000 Violent
Thunderstorms**



**Drought and
Large Wildfires**



**500 Deaths
5,000 Injuries
\$14B in Losses**

Hospitals' Chief Complaints

Day to day weather products help minimize weather impacts

Flooding

- *Disabling backup generators*

Hurricanes

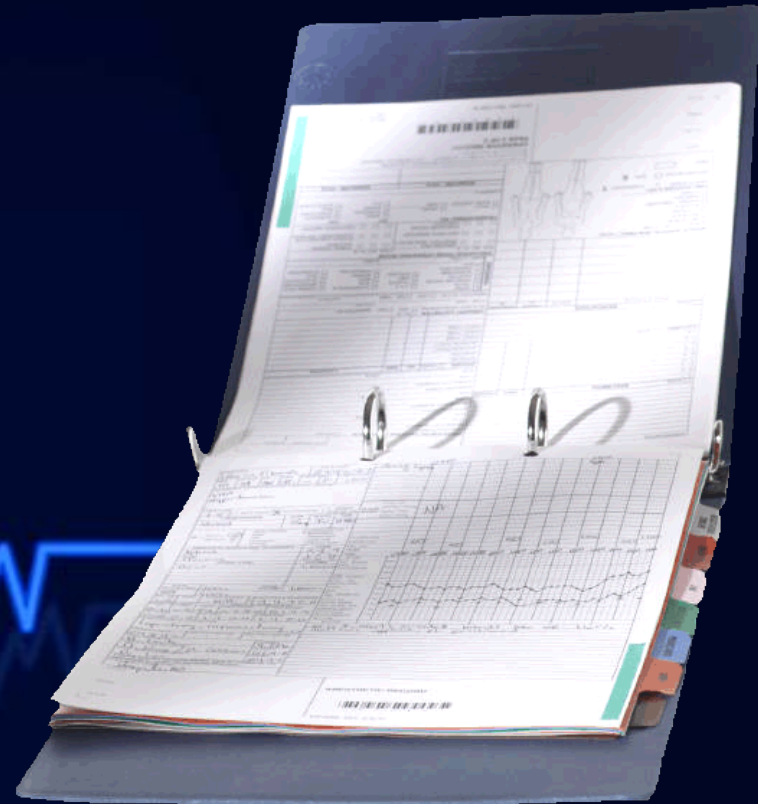
- *Surge capacity in ER*

Tornadoes

- *Power loss for high-priority patients*

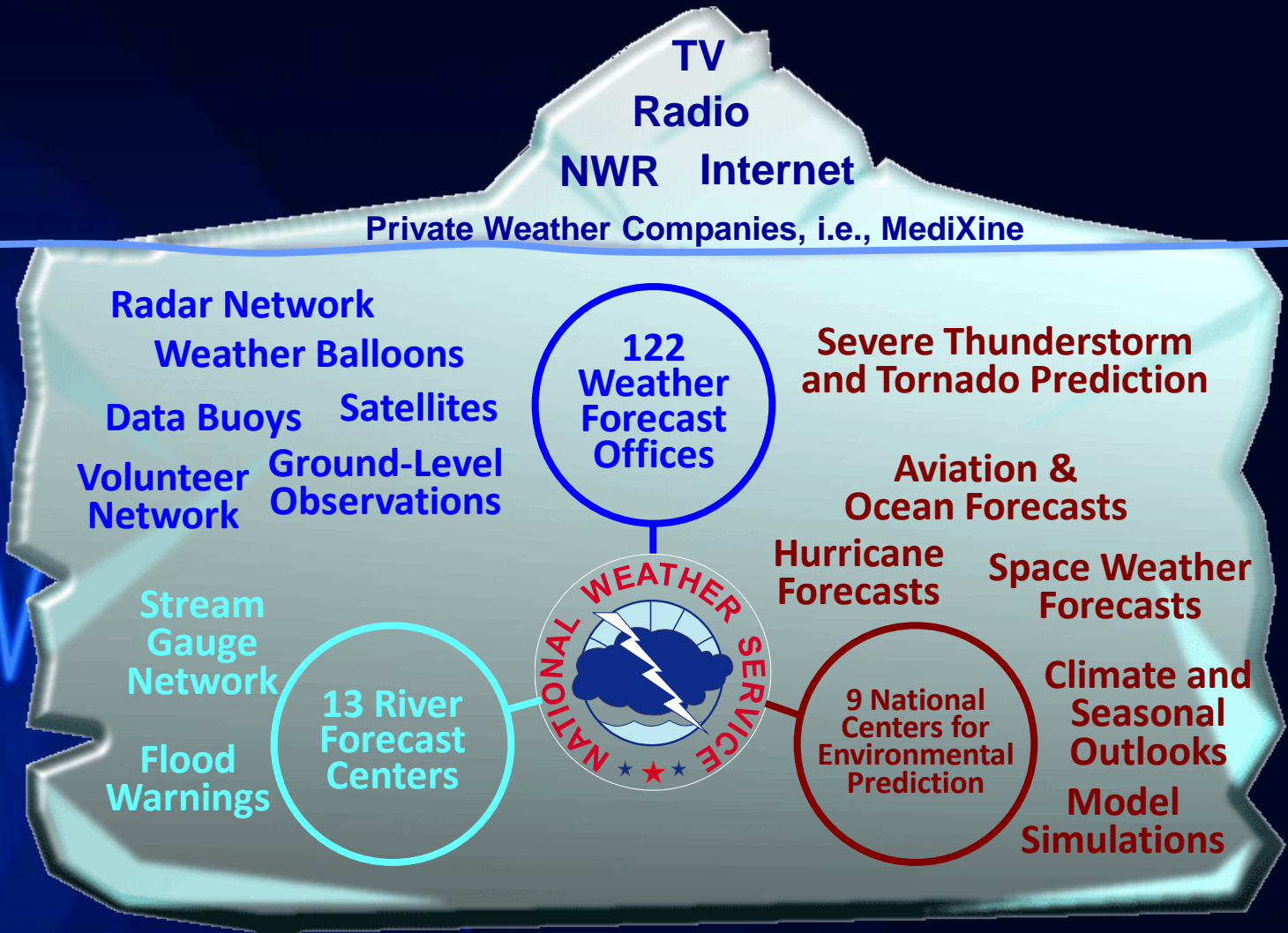
Wildfires

- *Smoke entering surgical suites*



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Many People Only See the Tip of the Iceberg...



Be Prepared!

NWS Products and Services

Hospital Using Weather Info

- Red Flag alerts –alert hospital to potential fire weather condition exists, begin adding staff before smoke fills freeways
- Issued Fire Weather Watches and Warnings to support decisions to begin patient evacuations
- Issued Smoke Plume Model from IMET Meteorologist for surgical decisions next day
- Hospitals using private sector weather info: Medixine Weather Alerts for COPD Patients - Reducing Rehospitalization Costs"

Hospital Not Using Weather Info

- Thinks they are safe distance from fire incident
- Smoke fills freeways preventing staff to obtain access to facility
- Smoke enters surgical suites during surgery
- Firefighters knock on door to inform need to begin hospital evacuation



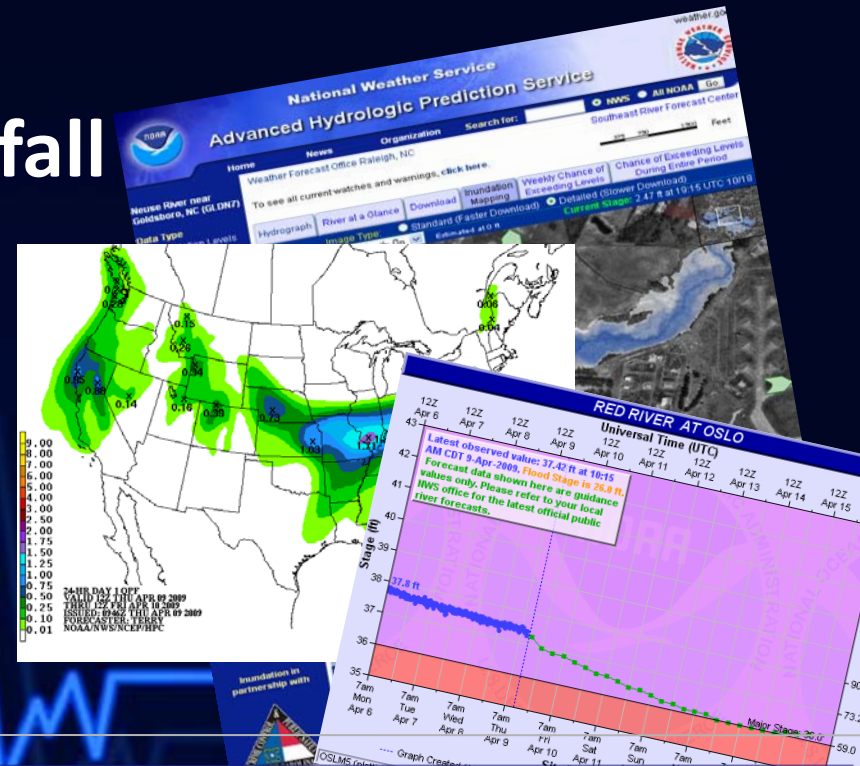
Be Prepared!

River and Flash Flooding

- Hydrographs
- QPF & Excessive Rainfall Forecasts
- Flash Flood Watches/Warnings
- River Flood Outlooks

This Will Help Your Hospital:

- » Improve decisions to evacuate ALL patients
- » Improve evacuation decisions when ALL patients are affected
- » Improve decisions to staff medical facilities prior to flooded bridges & roadways



Mercy Medical Center
Summer Flood of 2008 – Sandbagging hospital at night
Cedar Rapids, Iowa



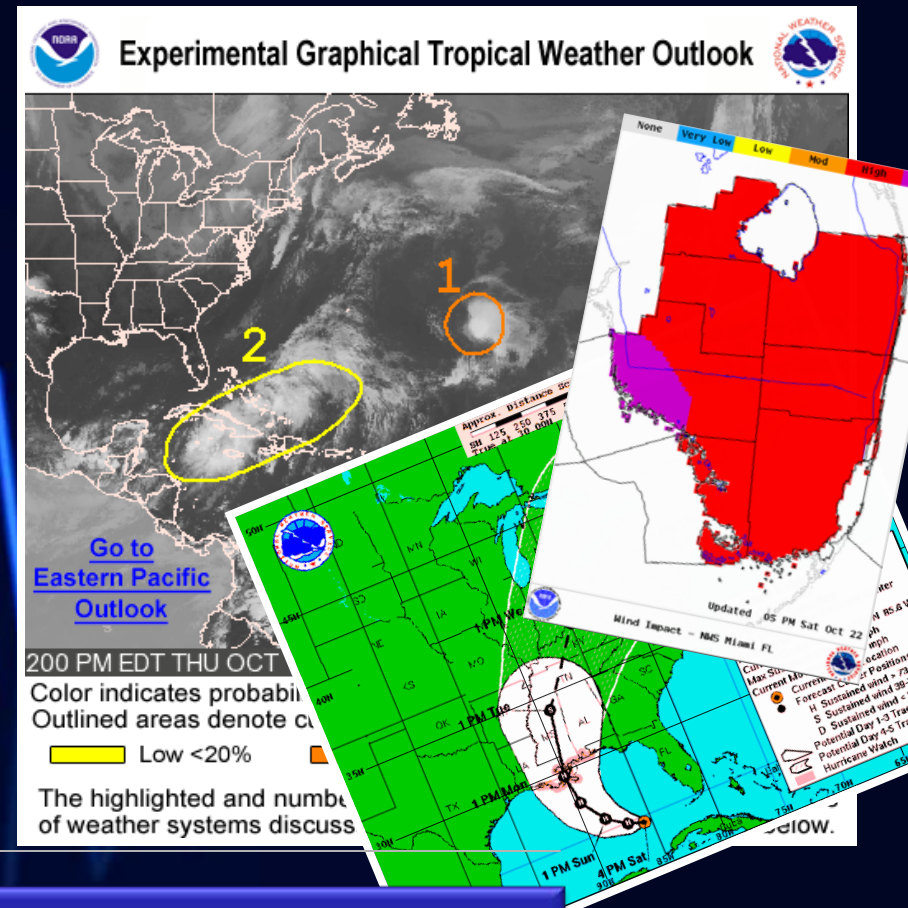
Be Prepared!

Tropical Storms and Hurricanes

- Tropical Cyclone Impact Graphics
- NHC Outlooks, Watches, Warnings
- Graphical Tropical Weather Outlook

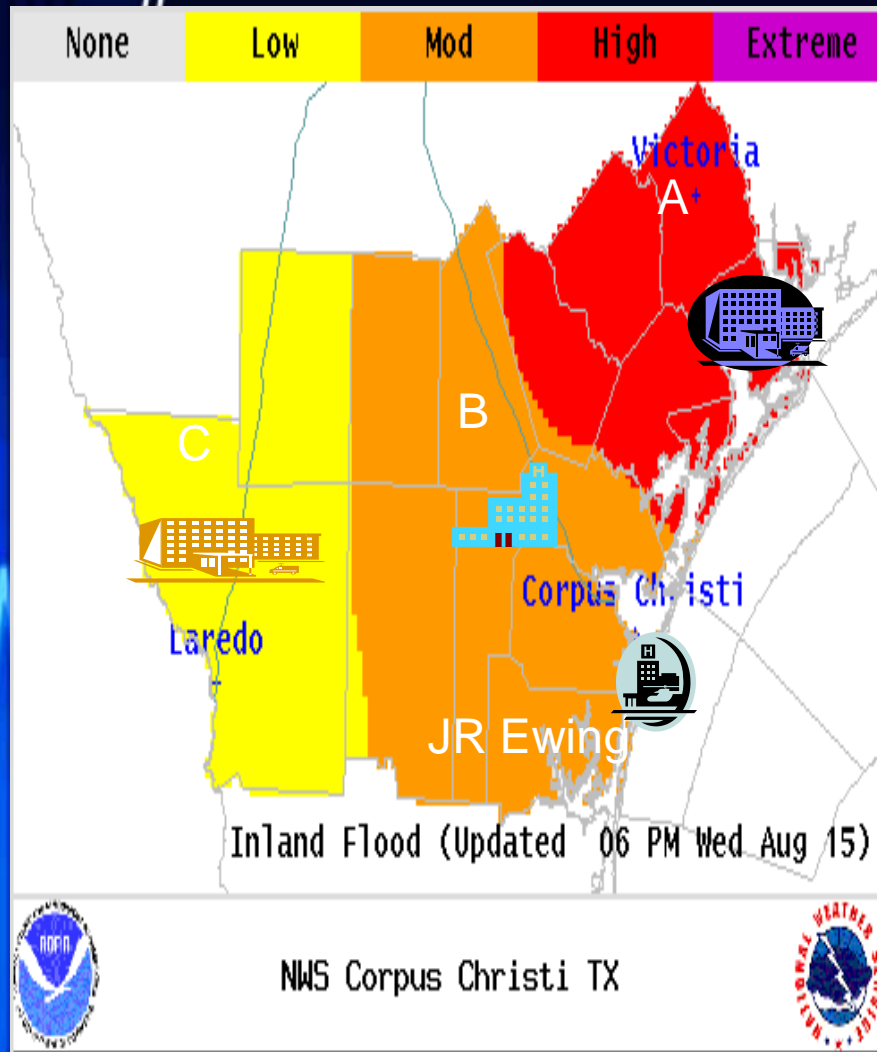
This Will Help Your Hospital:

- » Improve staffing decisions prior to onset of tropical and hurricane force winds
- » Improve decisions to begin airvac/ground transport

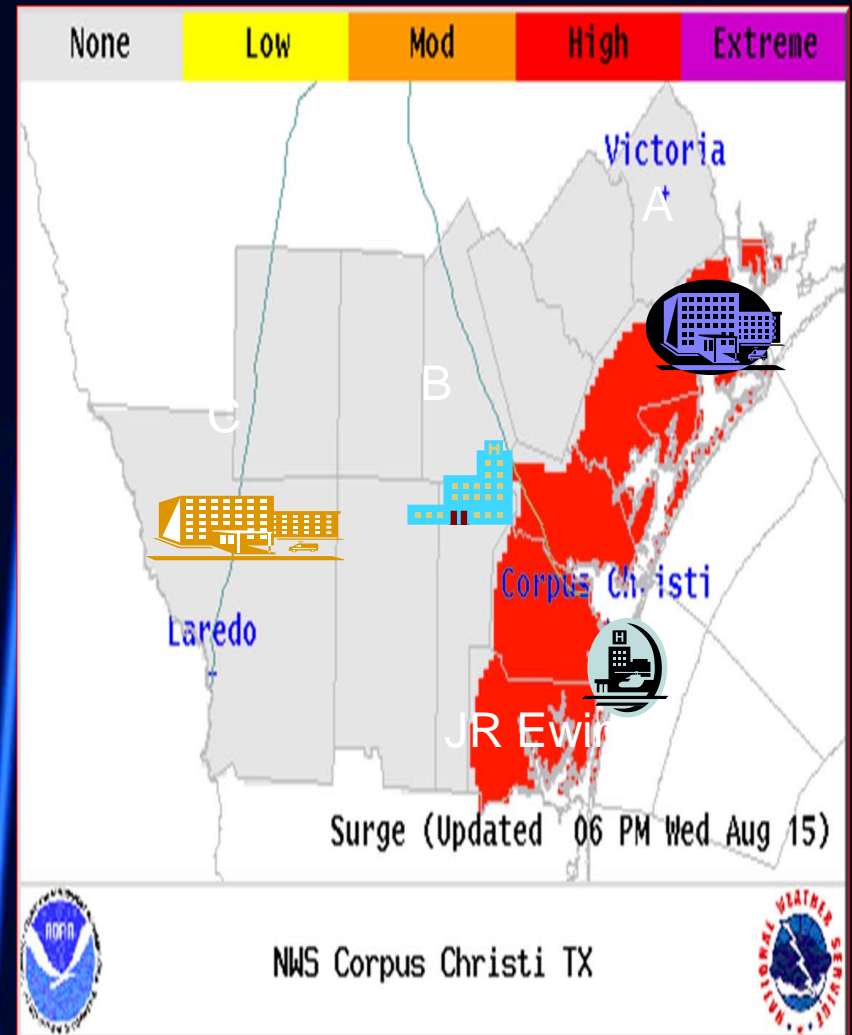


Examples of New Graphics and How They Can Be Utilized

Inland Flooding Impact



Coastal Flooding Impact

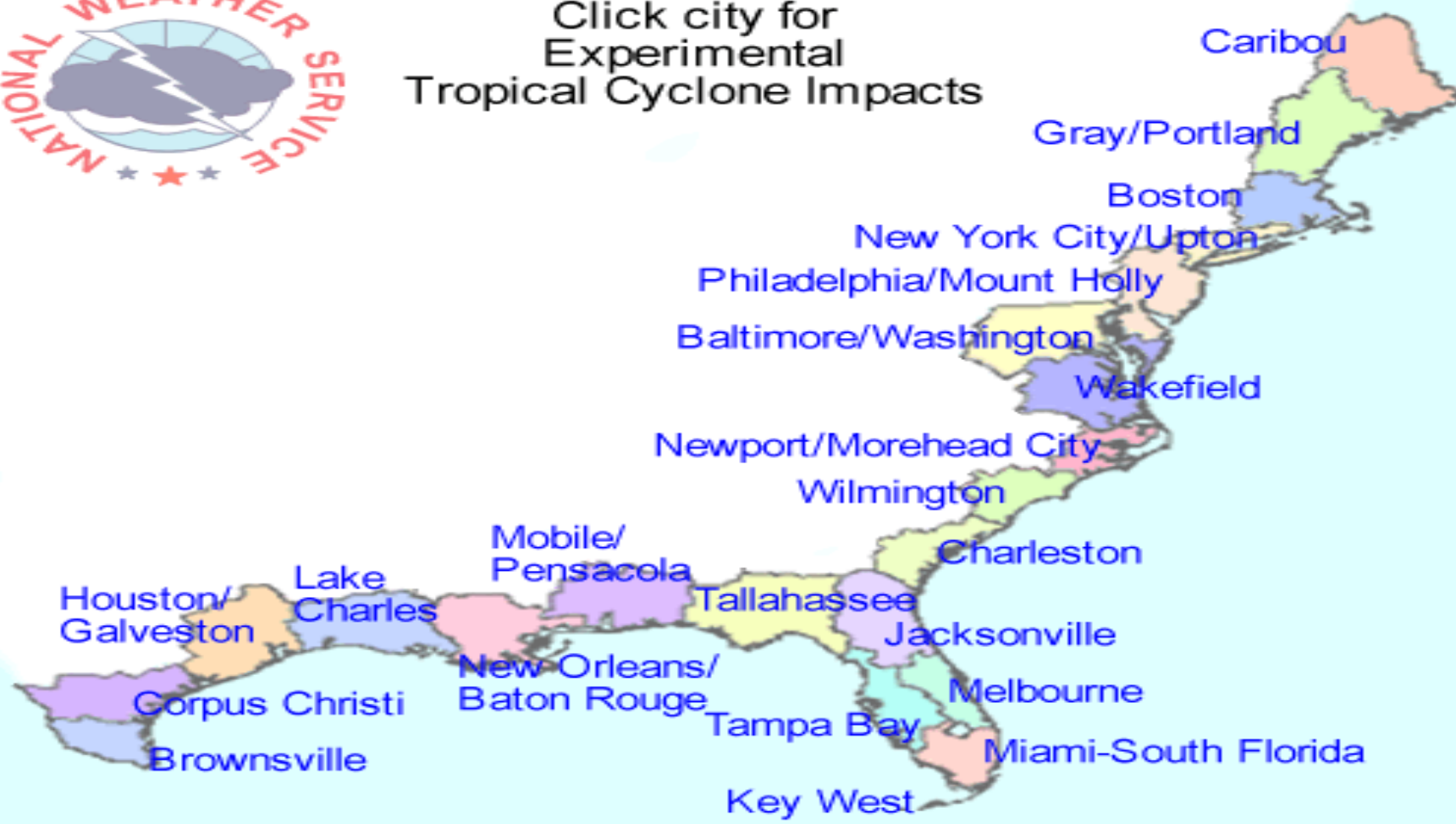


<http://www.weather.gov/os/tropical> or <http://www.weather.gov/ghls>

Current US East Coast Forecast Offices



Click city for
Experimental
Tropical Cyclone Impacts



Tropical Cyclone Impacts Graphics

New 2010 Updates

1. Newly added in Western US: San Juan, LA-Oxnard and San Diego NWS Local Weather Forecast Offices
2. Due to quiet 2009 year, received limited feedback on text improvements, looking for feedback from medical community on storm surge warnings
3. Newly added mouse-over feature allows general to county level focus area
4. Watch has been extended to 48 hours; warning has been extended to 36 hours
5. Saffir-Simpson (SS): will transition into SS Hurricane Wind scale; all references to storm surge will be removed from the SS Scale.

Charity Hospital during Katrina Aug 2005



Houston Medical Center, August 2005



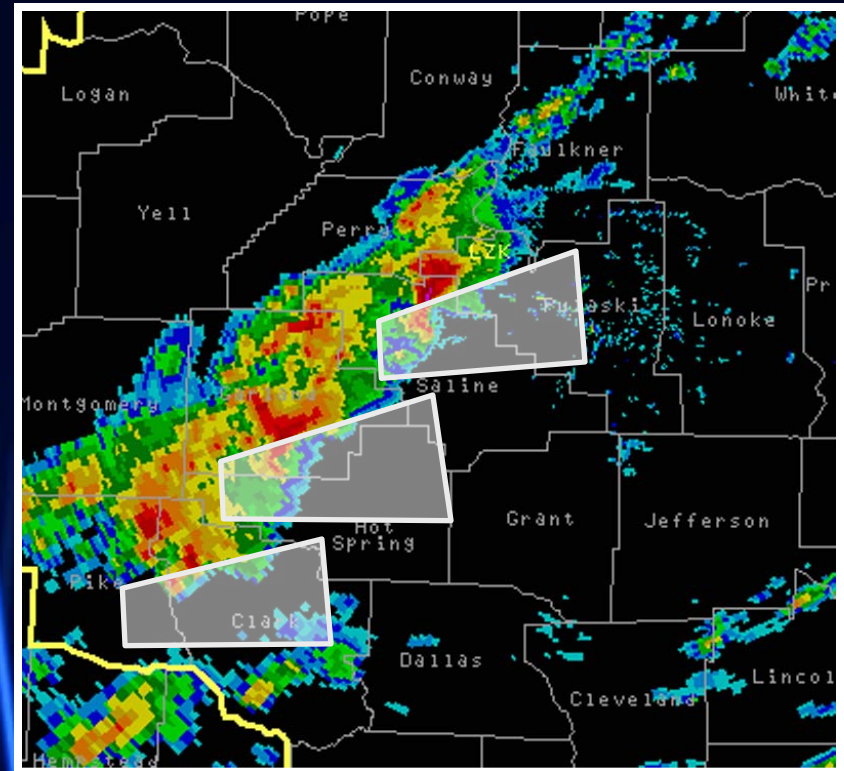
Be Prepared!

Tornadoes and Severe Thunderstorms

- SPC Outlooks & Watches
- Storm-Based Warnings
- Storm Spotters

This Will Help Your Hospital:

- » Improve staffing decisions before severe weather strikes
- » Improve patient evacuation decisions prior to power loss
- » Use NWS watches & warnings to initiate emergency plans



Sumter Regional Hospital after EF-3 tornado

Americus, Georgia

03/04/2007



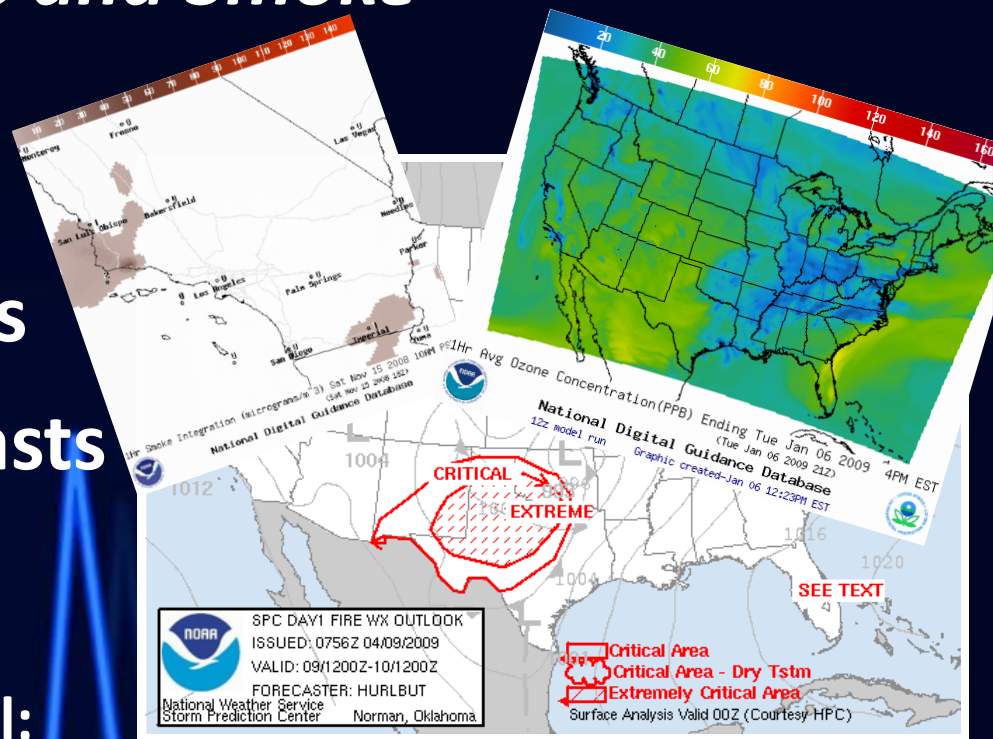
Be Prepared!

Wildfires and Smoke

- SPC Fire Weather Outlooks
- Red Flag Warnings
- Air Quality Forecasts
- Smoke Forecasts

This Will Help Your Hospital:

- » Improve staffing decisions before smoke affects freeways
- » Improve evacuation vs. shelter-in-place decisions for medical facilities
- » Improve decisions to cancel surgeries or use HEPA filters prior to smoke entering surgical suites



Wall of Fire Approaching Olive View Medical Center, Burbank,
California
November 2008



Thanks

Questions?

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