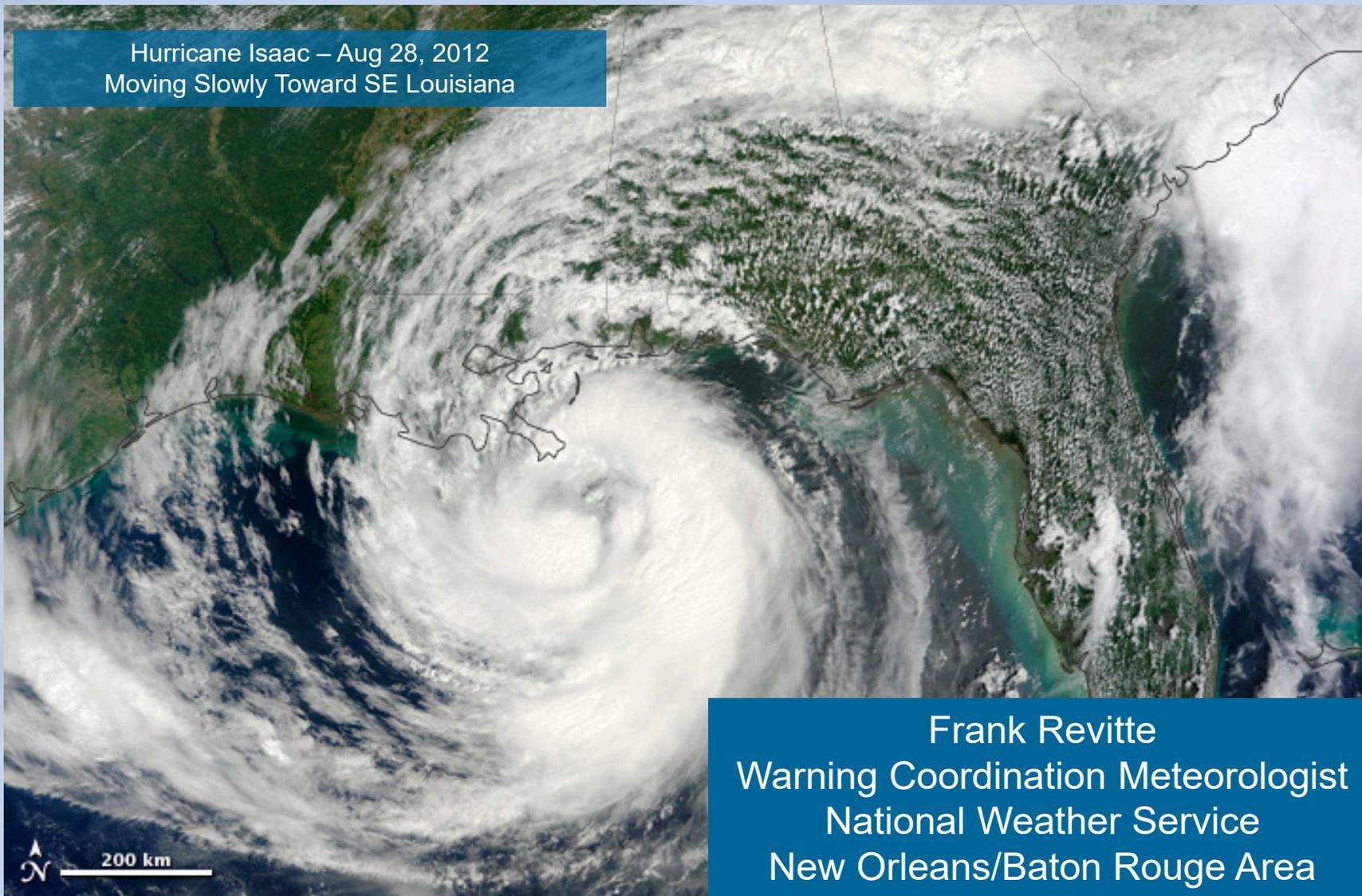




Extreme Weather Impacts



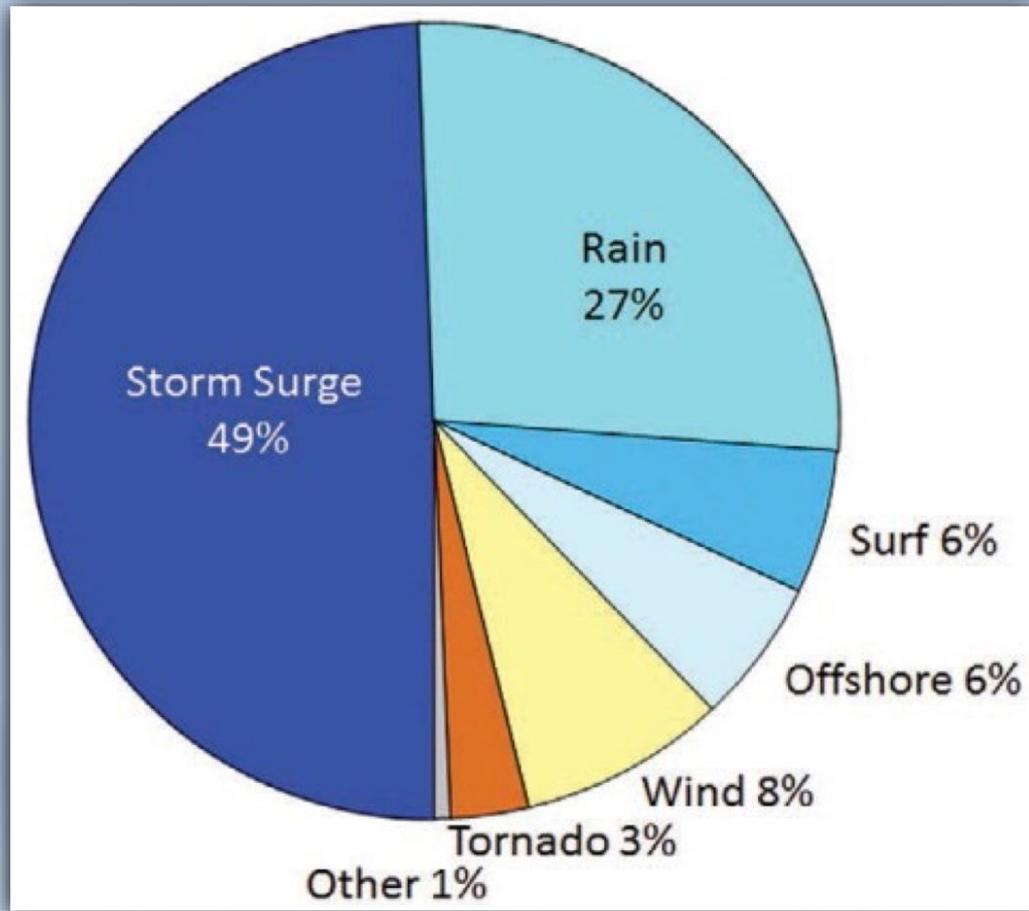
Hurricane Isaac – Aug 28, 2012
Moving Slowly Toward SE Louisiana



Frank Revitte
Warning Coordination Meteorologist
National Weather Service
New Orleans/Baton Rouge Area



Know Your Threats and Impacts



Tropical Cyclone Fatalities since 1963

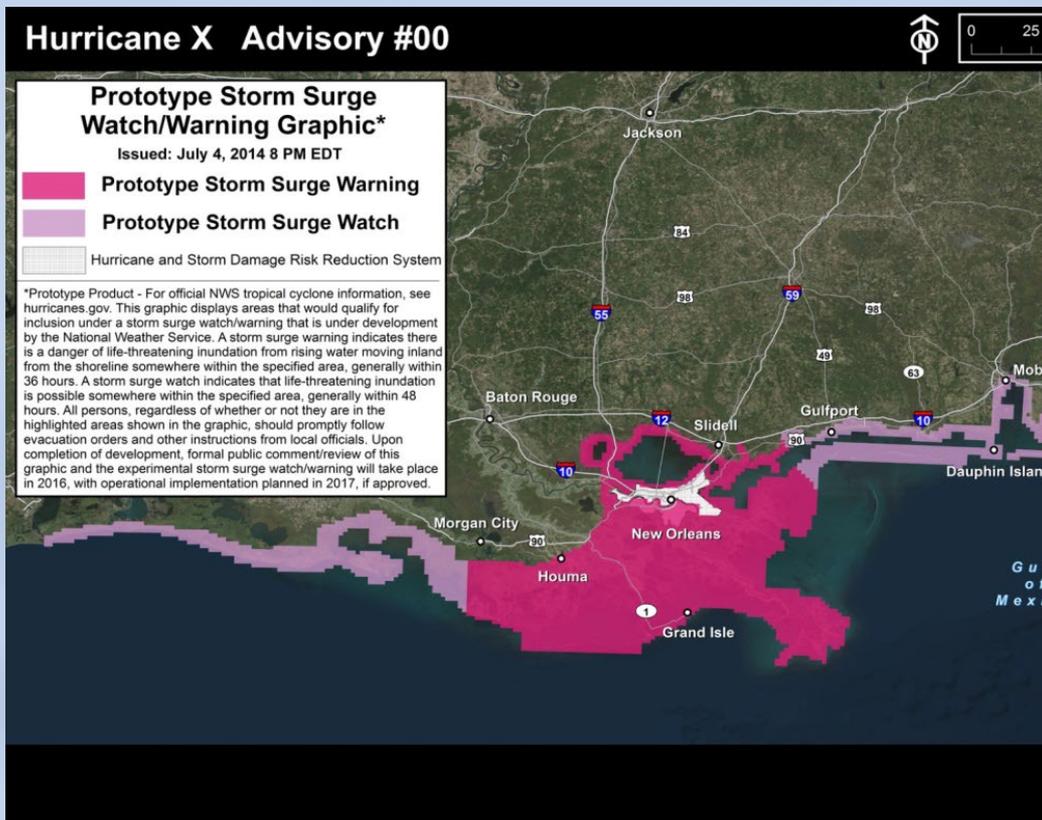
- **NWS Mission Statement**
- “Protection of Life and Property”
- Water related hazards ***storm surge*** and ***fresh water flooding*** (heavy rain) are the greatest threat to loss of life





Storm Surge Watch/Warning

a formal NWS product addressing storm surge threat



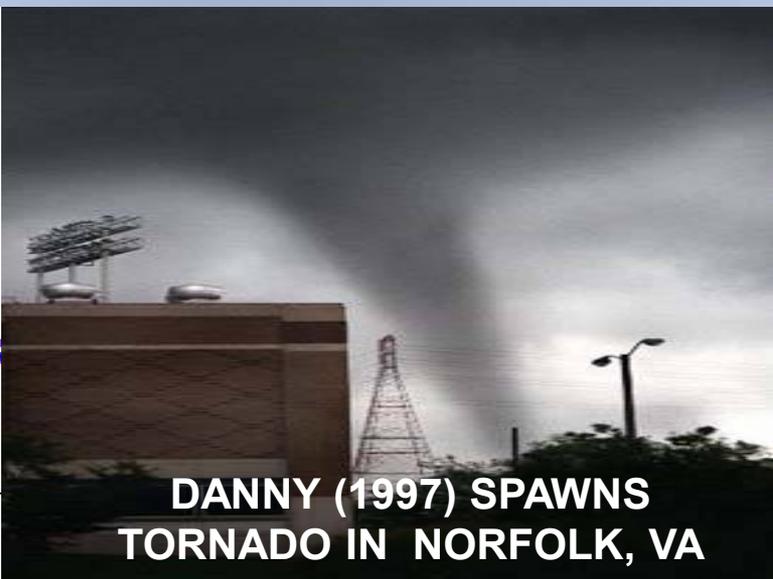
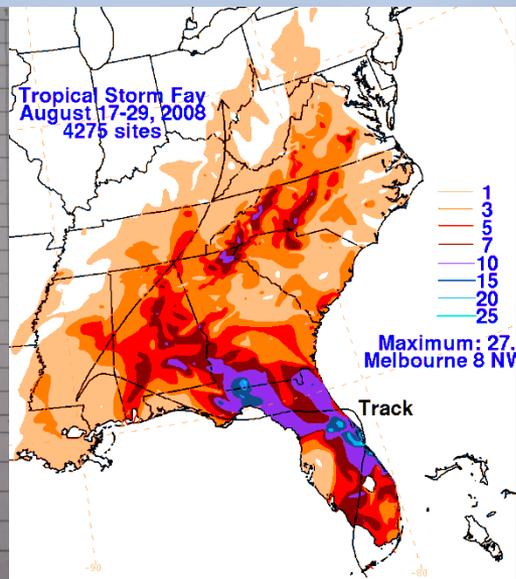
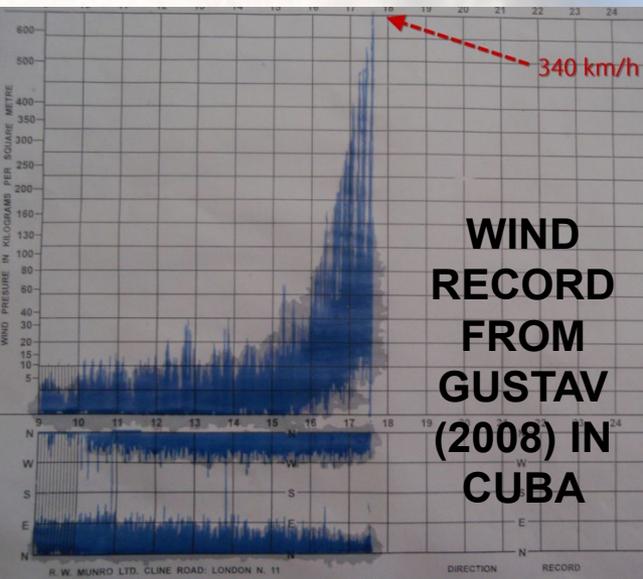
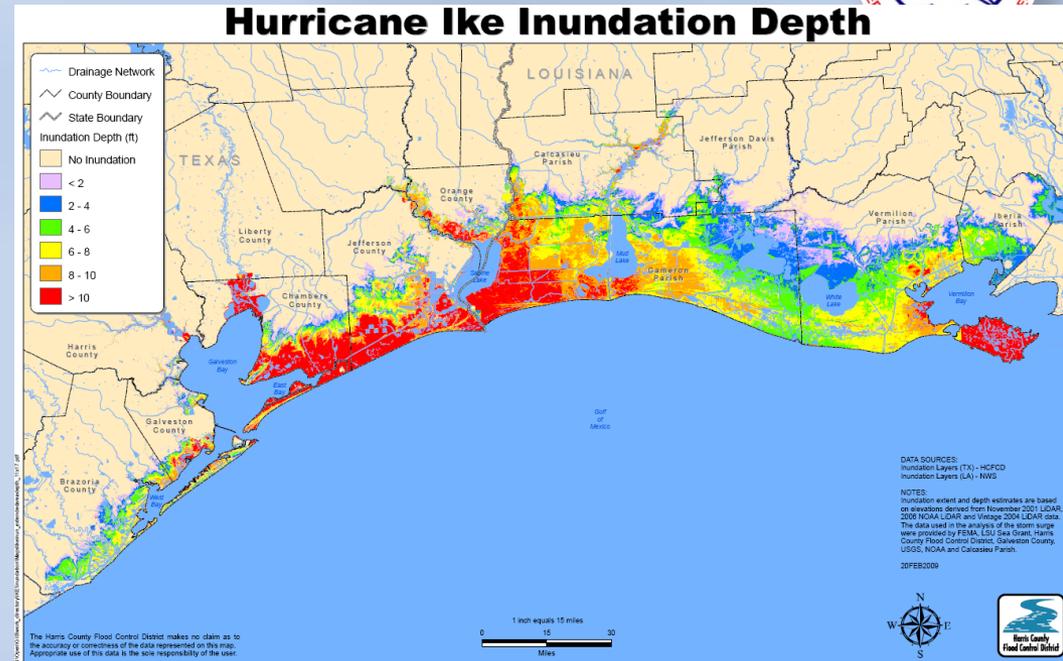
- **Storm Surge Watch** – there is a **possibility** of life-threatening storm surge inundation within 48 hours
- **Storm Surge Warning** – there is a **danger** of life-threatening storm surge inundation within 36 hours



Use an All Hazards Approach

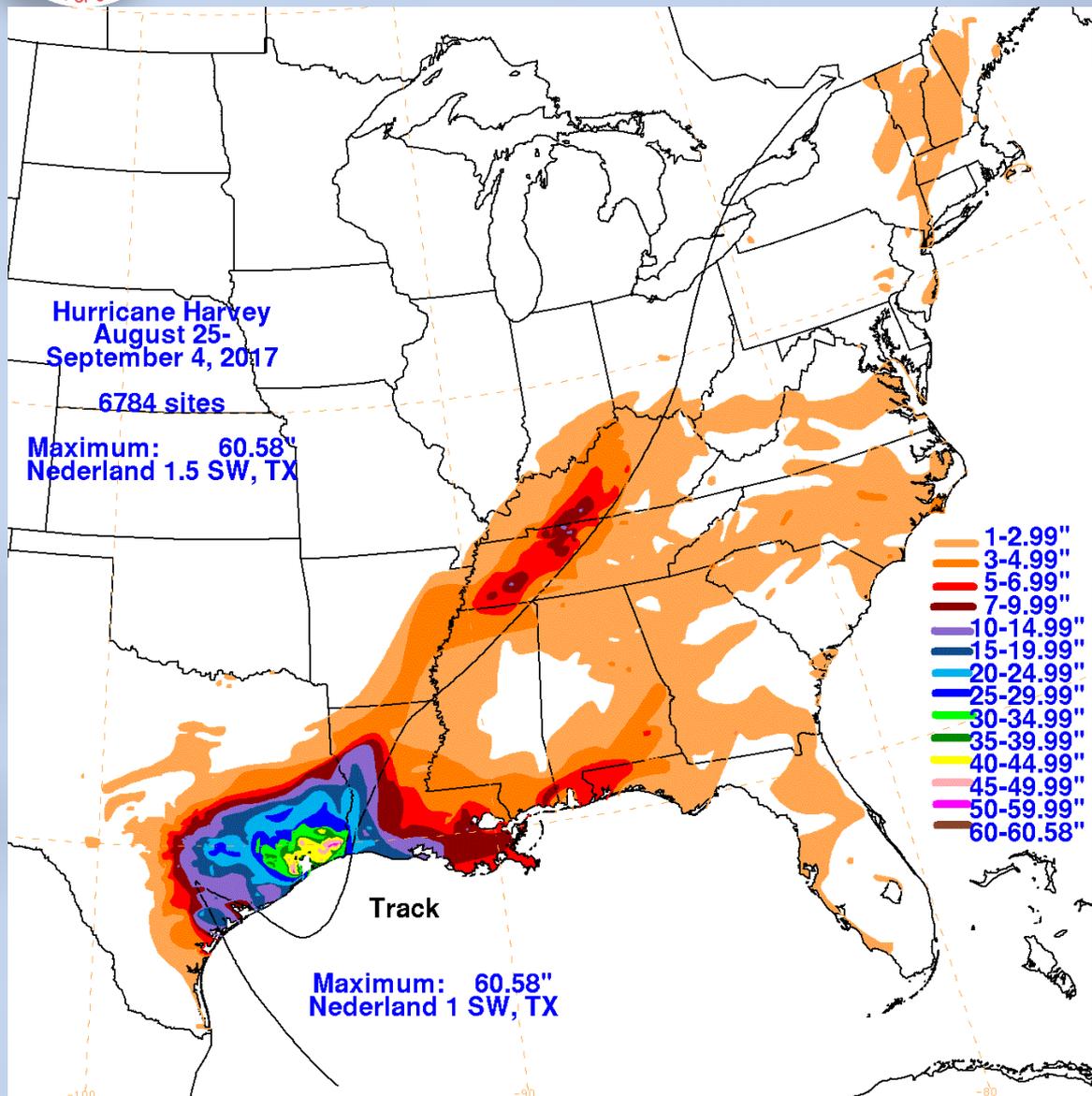


- Winds
- Storm surge
- Rainfall and inland fresh water flooding
- Tornadoes





2017 Hurricane Harvey



- **Landfall Intensity was a Category 4**

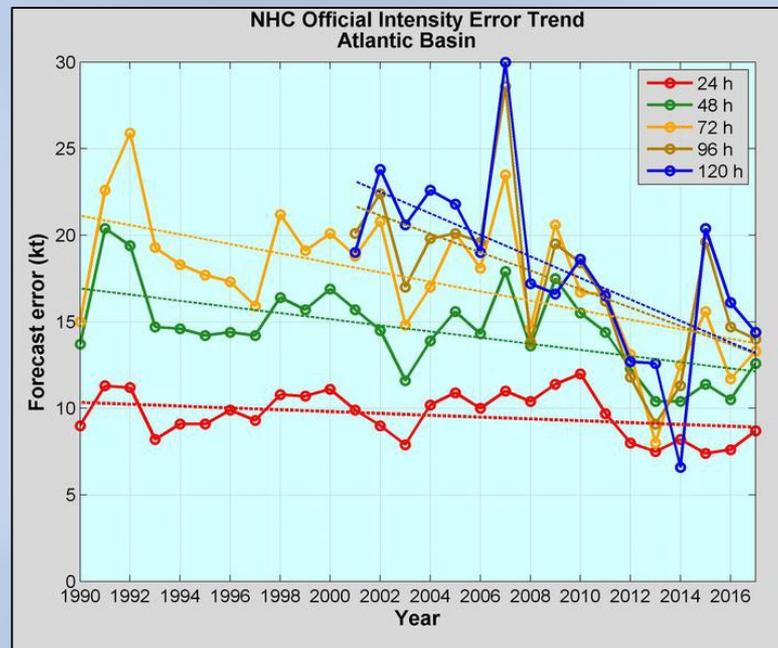
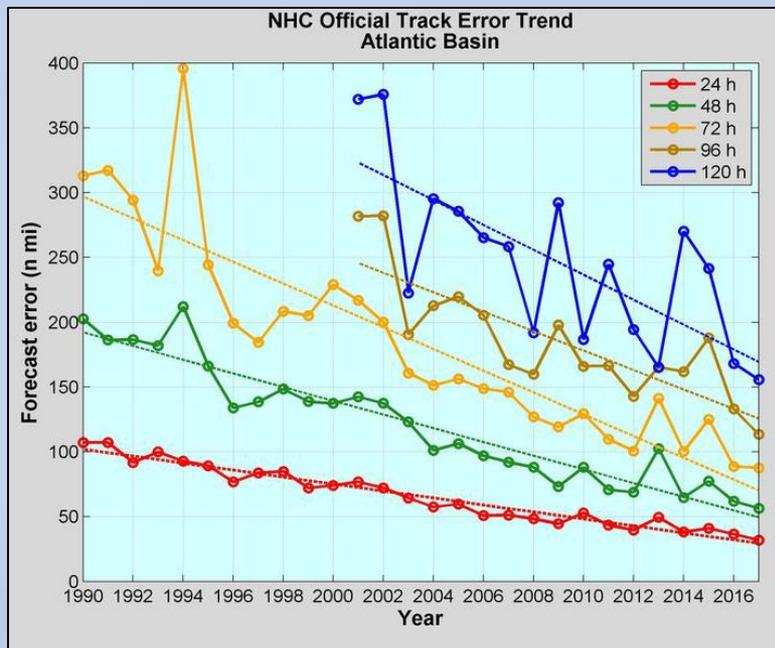
- Estimated wind 130mph east of Rockport Tx

- **However** most of the *extreme rainfall/flood damage* from Harvey occurred when it was a Tropical Storm.





Understand the weather forecast information and associated accuracy

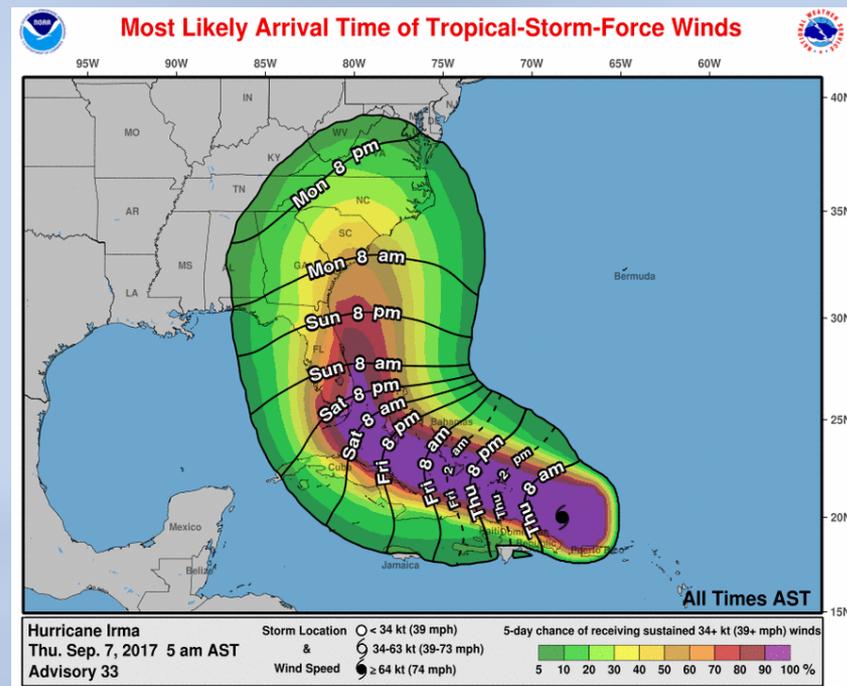
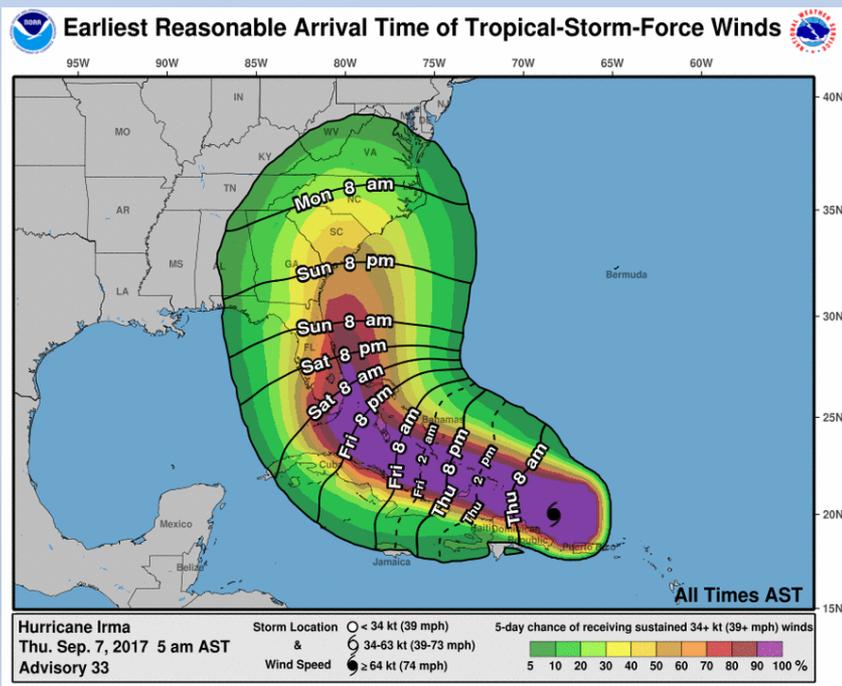


- **Hurricane Track Forecast** have improved greatly over the past 20-30 years.
 - A 3-day forecast today is about as accurate as a 1-day forecast was in the 1990s
- **Hurricane Intensity Forecast** have improved only modestly during the past 25 years.
 - 48 hour forecast error is about 1 Saffir Simpson Category
- Weather Forecasts/Warnings are not perfect!
- Use appropriate tools to account for current state of science.





NHC Arrival of Tropical Storm-Force-Winds Graphics



- Primary graphic depicts the “**earliest reasonable**” time window that individuals can safely assume will be free from tropical-storm-force winds
 - no more than a 1 in 10 chance of onset before this time
- A secondary graphic shows the “**most likely**” arrival time – the time before or after which the onset of TS-force winds is equally likely



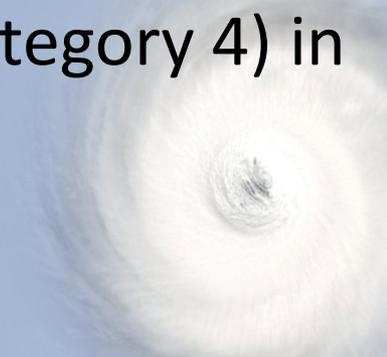
Have a *Realistic* Plan

Five-day plans are great, but you won't always have five days of lead time on the Gulf Coast



Hurricane Michael 2018

- Wasn't classified as a tropical storm until about 72 hrs before landfall as a category 5 hurricane
- Intensified from 75 mph winds (category 1) to 130 mph winds (category 4) in 42 hours





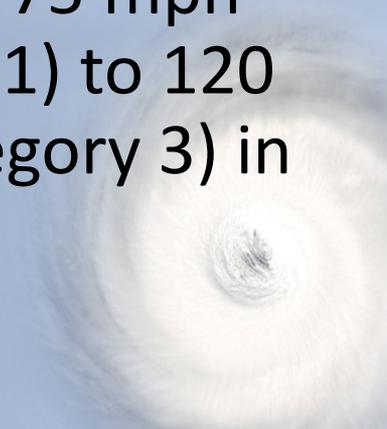
Lead Time is Great, but...

Five-day plans are great, but you won't always have five days of lead time on the Gulf Coast



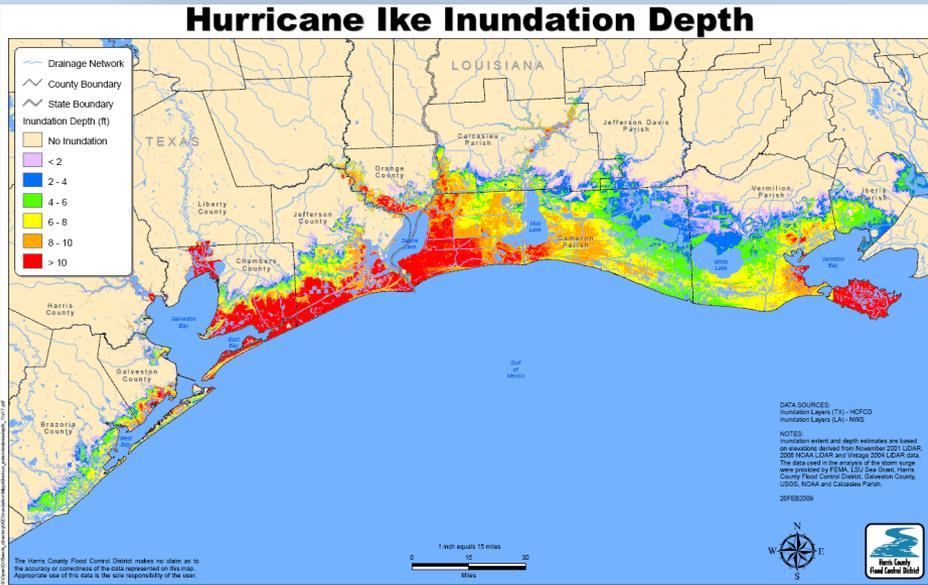
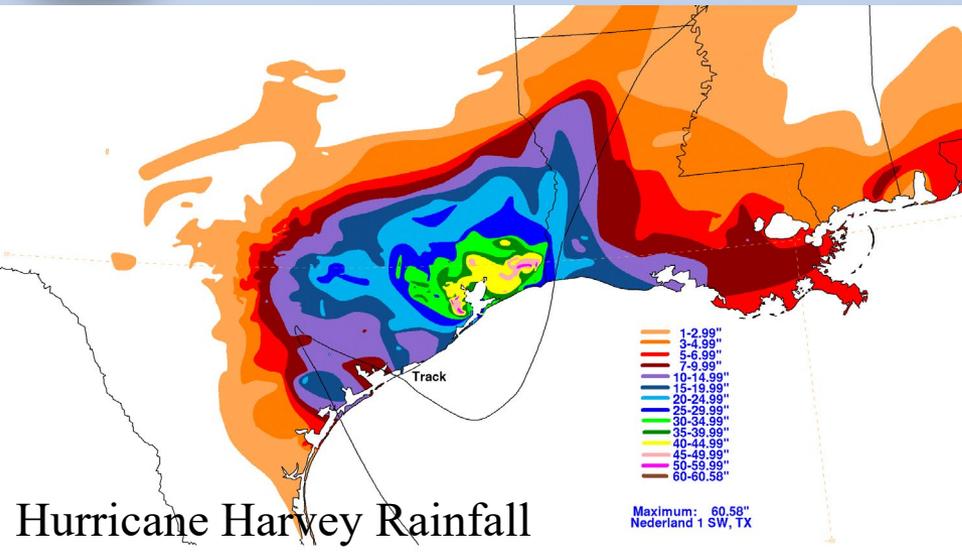
Hurricane Camille 1969

- Wasn't classified as a tropical storm until about 80 hrs before landfall as a category 5 hurricane
- Intensified from 75 mph winds (category 1) to 120 mph winds (category 3) in 24 hours

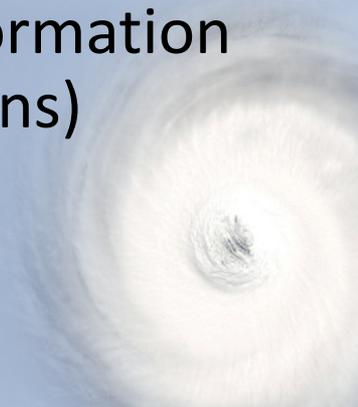




Extreme Weather Impacts



- Understand the Weather Hazards that impact your location.
- Have an All Hazard Approach
- Understand the weather forecast and warning information that can help you prepare (strengths and limitations)
- Have a realistic plan





National Weather Service Resources

- National Weather Service
 - Web site will show local NWS Office
 - www.weather.gov
- NWS Storm Prediction Center
 - Severe Thunderstorms/Tornadoes
 - www.spc.noaa.gov
- NWS National Hurricane Center
 - www.nhc.noaa.gov
- NWS Weather Prediction Center
 - Heavy Rainfall/Winter Weather
 - www.ncep.wpc.noaa.gov

