

THE LESSONS OF KATRINA – WHAT WE ALL SHOULD KNOW

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**Presentation for
Society of American Military Engineers
Fort Leonard Wood Post**

Missouri River/Texoma Regional Education and Training Conference

Panel 3 – Engineers in Support of Natural Disasters

October 3-5, 2006





- Katrina left New Orleans under water, creating the worst flood in American history and the most expensive disaster, causing \$24 billion in damage claims alone to the **National Flood Insurance Program**

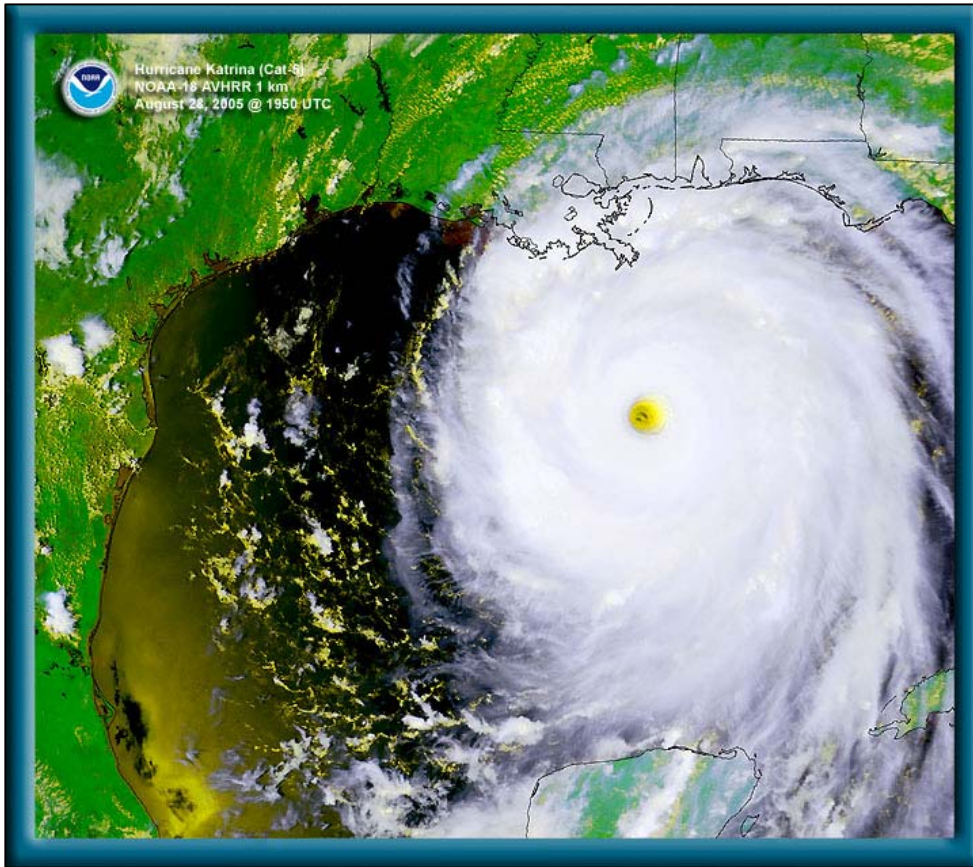
Part 1

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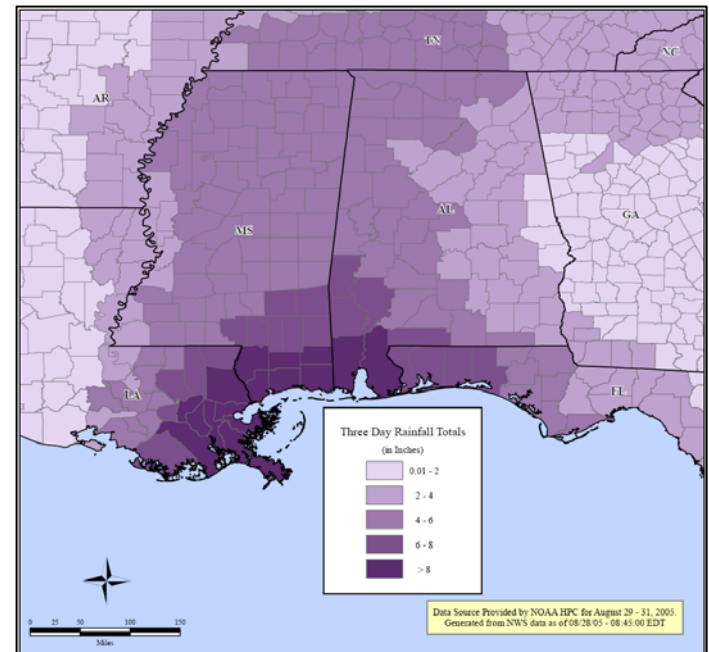
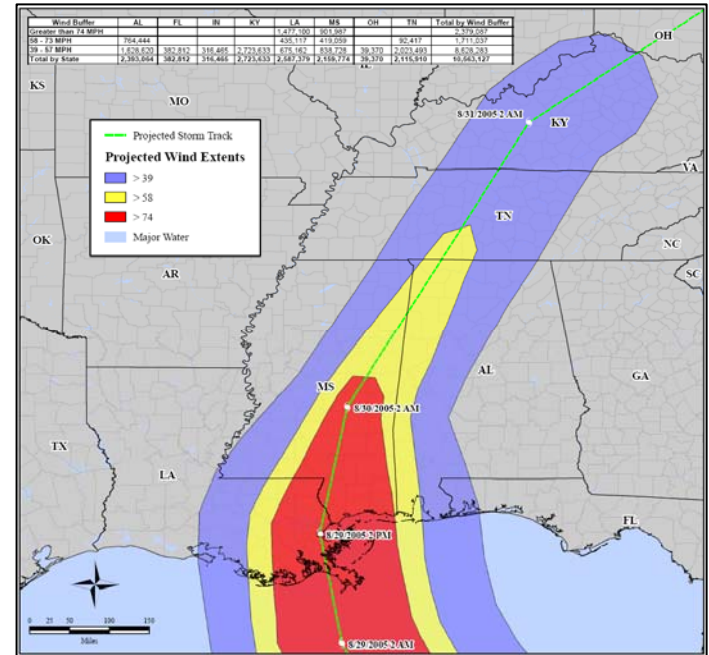
CATEGORY 5

HURRICANE

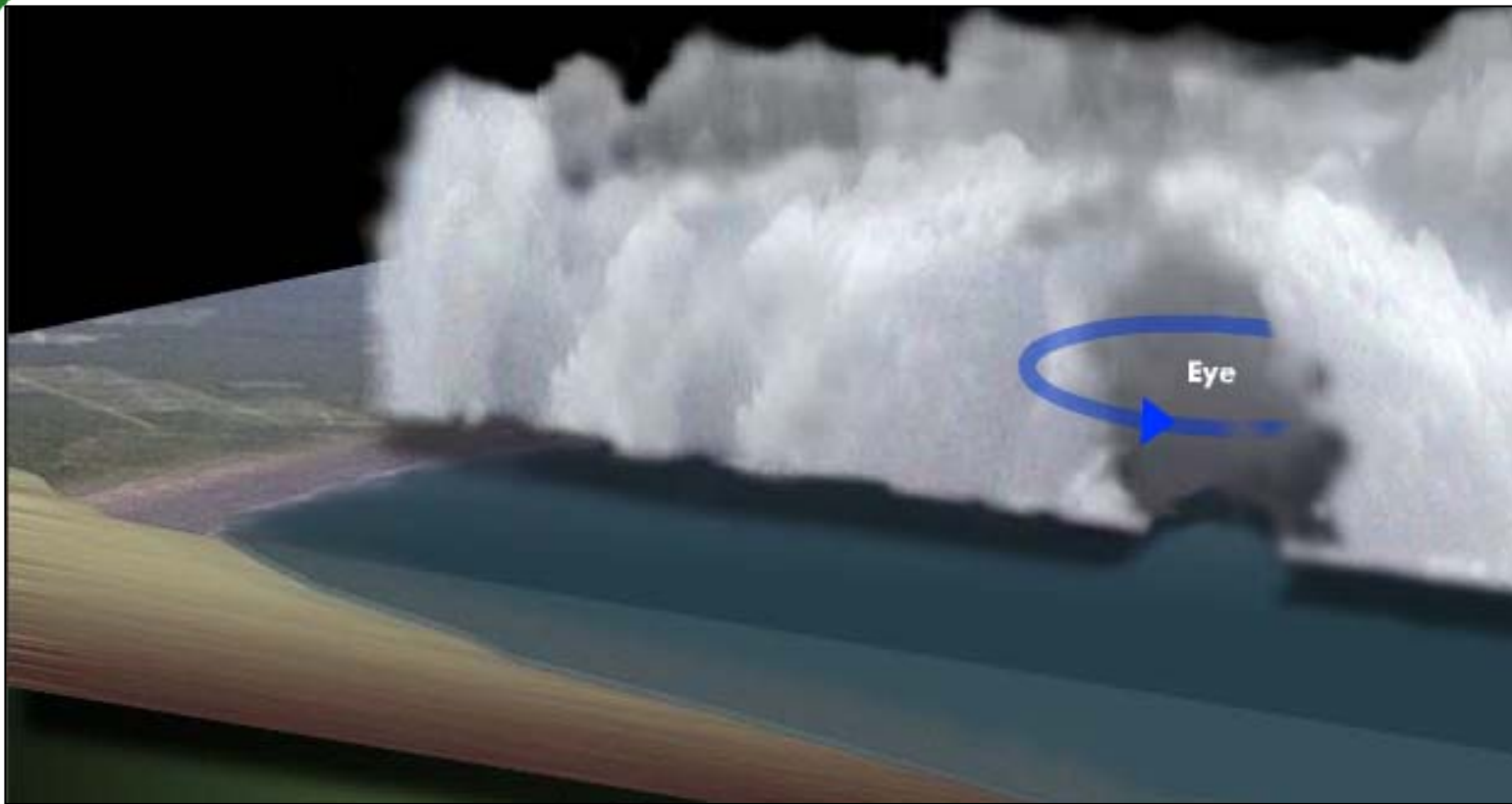
Hurricane Katrina



Hurricane Katrina swept across southern Florida and lost momentum, then gained speed and water, showing the second lowest barometric pressure ever recorded. The predicted storm surge was 18 to 28 feet; a record for New Orleans.

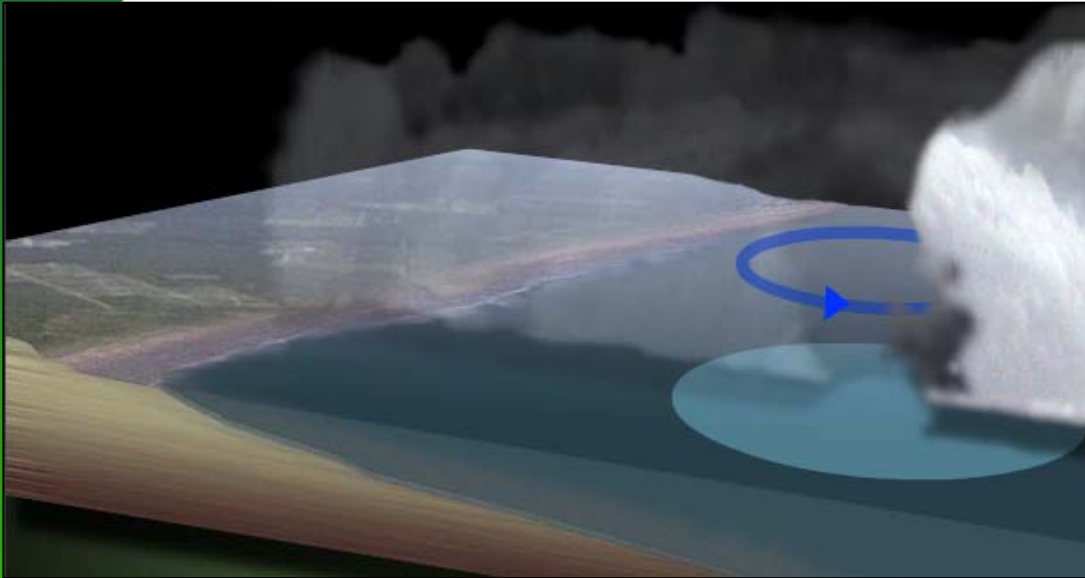


Data Source Provided by NOAA HPC for August 29 - 31, 2005
Generated from NWS data as of 08/28/05 - 08:45:00 EDT

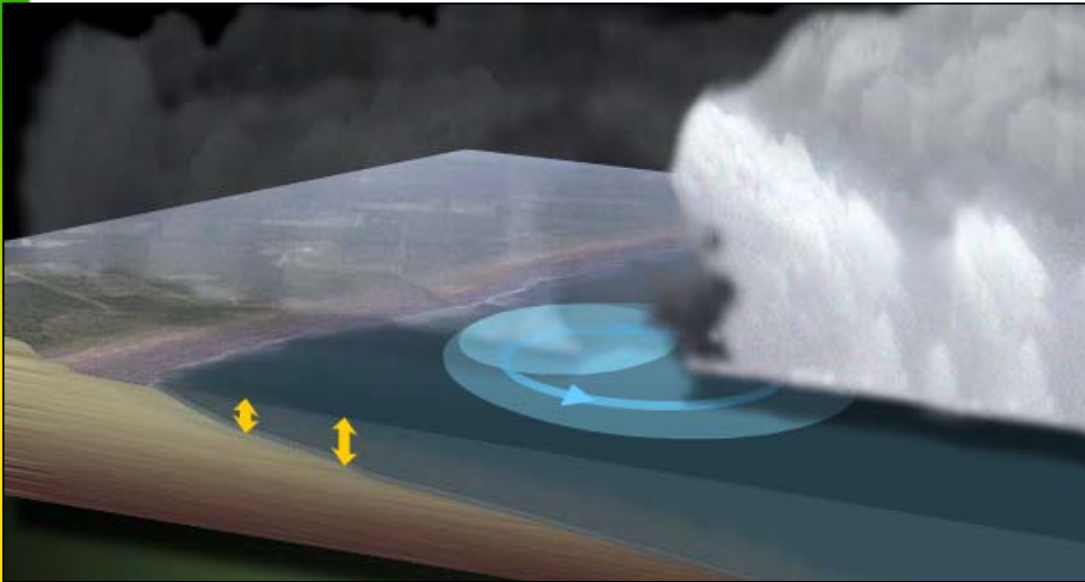


- **Storm or tidal surges** are caused by lifting of the oceanic surface by abnormal low atmospheric pressure beneath the eye of a hurricane. The faster the winds, the lower the pressure; and the greater the storm surge. At its peak, Hurricane Katrina caused a surge **53 feet high** under its eye as it approached the Louisiana coast, triggering a storm surge advisory of 18 to 28 feet in New Orleans (image from USA Today).

Storm Surge



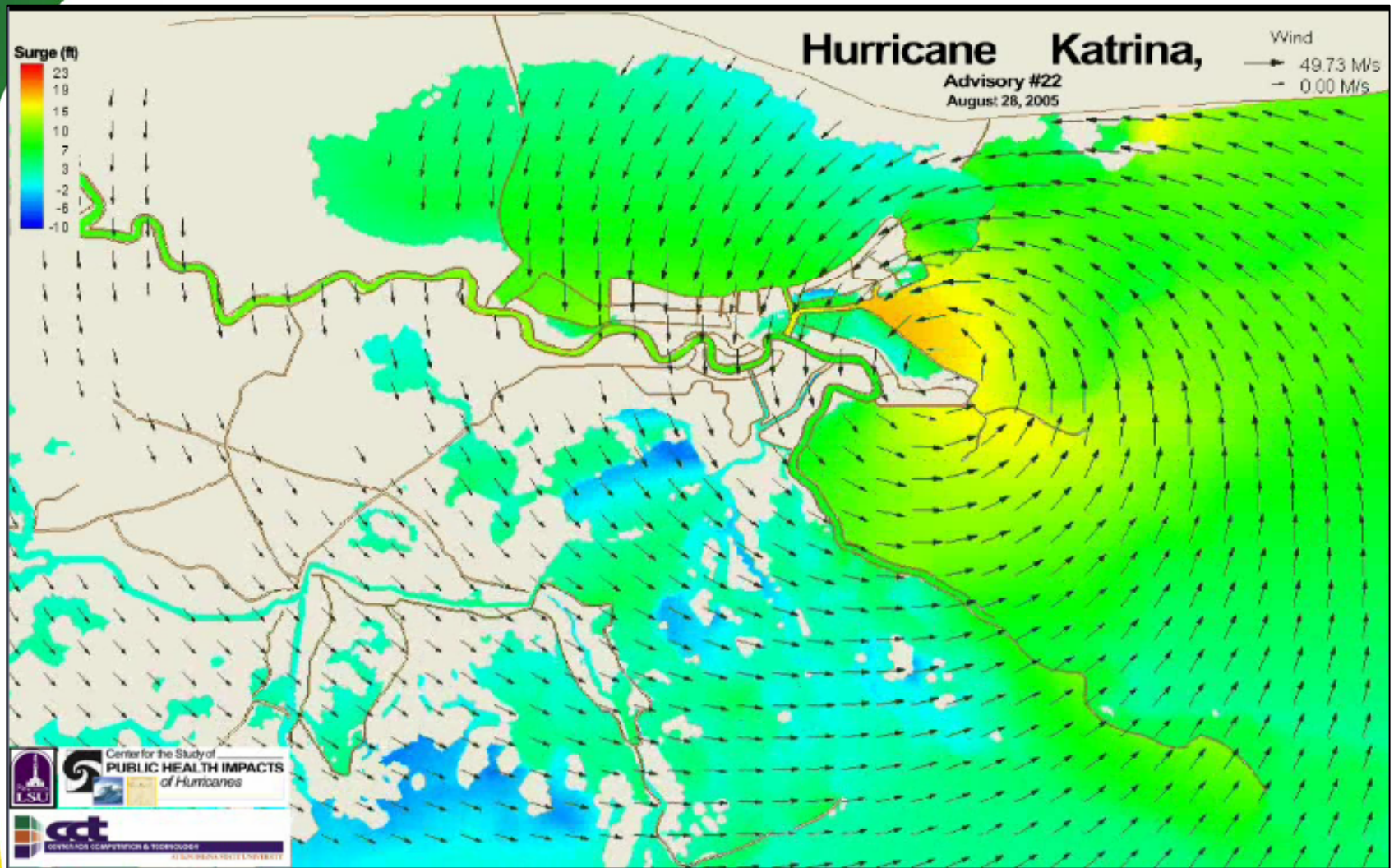
- The surge effect is minimal in the open ocean, because the water falls back on itself
- As the storm makes landfall, water is lifted onto the continent, locally elevating the sea level, much like a tsunami, but with much higher winds



Katrina makes Landfall

- Historically, there haven't been but a handful of **Category 4 or 5** hurricanes that have ever been photographed making landfall.





- **Computer model of the cyclic cell creating storm surges of greater than 18 feet as Katrina made landfall over the Mississippi Delta**