



# Coast Guard Sector New Orleans



Hydrographic Services Review Panel

*January 25, 2006*



# Presentation Overview

- Introduction
- Discussion of NOAA support in:
  - Waterways Management
  - Pollution Response
  - Wreck and Debris Removal

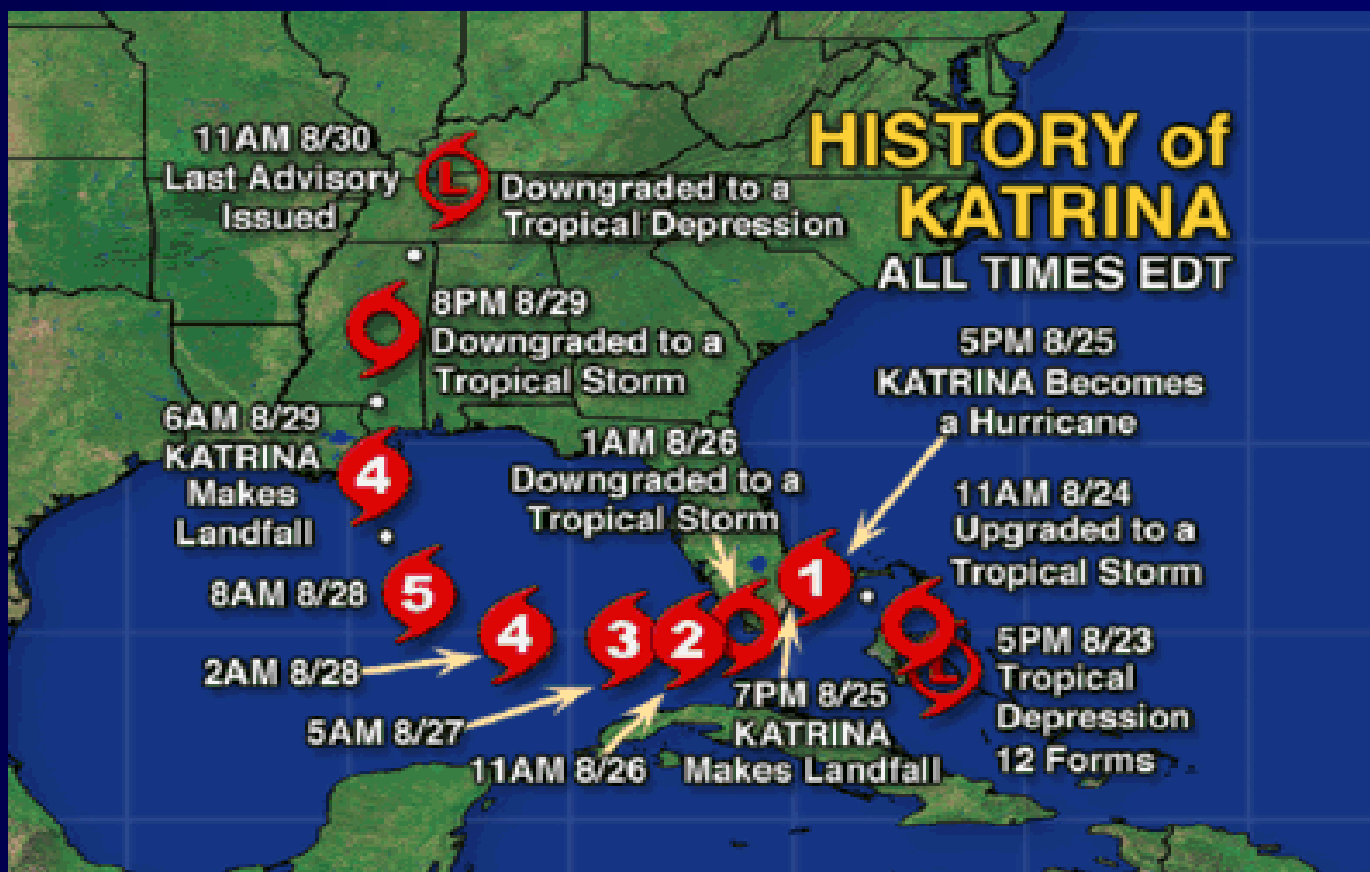


# Waterways Management



Monday, August 29, 2005

*Hurricane Katrina makes landfall near Gulfport, MS*





# Waterways Management Pre-Hurricane Katrina



- **Thursday, August 25, 2005**
  - Issued Initial Industry Bulletin; Katrina could become Category One & affect New Orleans
- **Friday, August 26, 2005**
  - No Port restrictions initiated, but urged industry to prepare; offshore platforms to consider evacuations
- **Saturday, August 27, 2005**
  - **1330: Closed Southwest Pass to all deep draft traffic**



# Waterways Management Pre-Hurricane Katrina



- **Sunday, August 28, 2005**
  - 1200: Closed all waterways with New Orleans area, including:
    - Gulf Intracoastal Waterway; mile 60 EHL to mile 177 WHL
    - Lower Mississippi River; SWP to mile 507
    - Mississippi River Gulf Outlet
    - Morgan City-Port Allen Alternate Route
    - Atchafalaya River, Red River, Ouachita
    - Bayou Lafourche & other waterways within Port of Fourchon



# Waterways Management

## Vessel Movement Summary



**Mile Marker 88 to Mile Marker 93**  
**August 28<sup>th</sup> at 6 p.m.**





# Waterways Management Post-Hurricane Katrina



- **Waterway Openings**
  - Tuesday, August 30 & Wednesday, August 31
    - Lower Mississippi River to tug and barge traffic
    - Red River, Ouachita River, Atchafalaya River
  - Thursday, September 1
    - GICW (mile marker 60 EHL to IHNC)
    - MRGO (to depth of 30')
    - Baptiste Collette (to depth of 9'6")



# Waterways Management Post-Hurricane Katrina



- **Waterway Openings (continued)**
  - **Friday, September 2**
    - **Lower Mississippi River to vessels**
      - less than 35 feet;
      - daylight transits only;
      - one-way traffic zones between miles
        - » minus 20 to 2;
        - » 87 to 119 and
        - » 151 to 226
  - **Saturday, September 3**
    - **GICW (mile marker 55, WHL, through Harvey Lock)**





# Waterways Management Post-Hurricane Katrina



- **Waterway Openings (continued)**
  - **Sunday, September 4**
    - **Lower Mississippi River to vessels**
      - less than 39 feet;
      - daylight transits only
    - **Algiers Canal**
  - **Monday, September 5**
    - **Baptiste Collette (no depth restrictions)**
  - **Tuesday, September 6**
    - **GICW (mile marker 177 WHL to 60 EHL, emergency vessels only thru IHNC lock)**

# Navigation Surveys

Navigation Response Teams, NOAA ships and contract vessels surveyed rivers and ports to ensure waterways were clear of hazards

Surveys allowed critical ports and harbors to open to commercial and emergency vessel traffic sooner

Will be used to update nautical charts





# Waterways Management Post-Hurricane Katrina



- **Mississippi River Surveys**

- NRT 1, 4 and 6 completing surveys from mile marker 235 downriver
- M/V Davidson surveying mouth of river up
- USN contracted Onyx for additional coverage
- LMR opened to unrestricted depth by Monday, September 12



# Aids to Navigation Post Hurricane Katrina



- **Southwest Pass Entrance to Head of Passes:**
  - Pre Katrina:
    - 47 AtoN in place from the Sea Buoy to SWP Head Ranges
  - Post Katrina:
    - 33 (or 70%) AtoN destroyed or missing
    - 14 AtoN damaged
    - Sea Buoy missing
    - Lighthouse on emergency power
    - Entrance to SW Pass east front and rear range structures destroyed
    - All side range structures destroyed
    - SWP Head right front light destroyed



# Aids to Navigation Post Hurricane Katrina



- **Head of Passes to Algiers Point**

- Pre Katrina:

- 110 AtoN in place from Head of Passes to Algiers Point

- Post Katrina:

- 36 (or 33%) AtoN Lights destroyed
  - Pilottown range structures destroyed
  - Cubits Gap range structures destroyed
  - All lighted buoys appeared to be on station
  - Remaining lights damaged to varying degrees



# Aids to Navigation Post Hurricane Katrina



- **Algiers Point to Baton Rouge**
  - Pre Katrina:
    - 167 AtoN in place from Algiers Point to Baton Rouge
  - Post Katrina:
    - 3 Buoys missing
    - 4 Lights destroyed
    - Most commercially powered lights extinguished and/or damaged



# Aids to Navigation Status



## **Total Fixed AtoN Damaged or Destroyed**

Hurricane Katrina - 258

Hurricane Rita - 148

## **Total Range Structures Damaged or Destroyed**

Hurricane Katrina - 93

Hurricane Rita - 25

## **AtoN Fixed by Private Contractor**

Total - 30

## **AtoN Fixed by Coast Guard**

Total - 594



# Pollution Response Overview



## **Major Coastal Spills**

6 (Over 100,000 gal)

## **Medium Coastal Spills**

4 (Over 10,000 gal)

## **Minor Coastal Spills**

Estimated 143 (Under 10,000 gal)

**Estimated total volume spilled for Major & Medium coastal**

190,897 bbl (over 8 million gal)

## **Total Volume Recovered**

82,860 bbl





# Pollution Response Overview



**Estimated Total Volume Evaporated**

39,759 bbl

**Estimated Total Volume Naturally Dispersed**

45,786 bbl

**Estimated Burned Volume**

94 bbl

**Maximum Feet of Hard Boom Currently Deployed**

30,000 feet

**Pollution Responders Employed**

750



# Pollution Response: Murphy Oil



- **Location:**  
Meraux, LA
- **Mile Marker:**  
87
- **Product:**  
Arabian Medium Crude
- **Total discharged:**  
25,110 bbl
- **Recovered Product:**  
17,891 bbl



# Pollution Response: Murphy Oil



Oil severely impacted homes in St. Bernard Parish.



# Pollution Response: Bass Enterprises South



- **Location:**  
Cox Bay, LA
- **Mile Marker:**  
35
- **Product:**  
Heavy LA Sweet Crude
- **Total Discharged:**  
90,000 bbl
- **Recovered Product:**  
36,779 bbl



# Pollution Response: Shell Nairn



- **Location:**  
Nairn, LA
- **Mile Marker:**  
35
- **Product:**  
Heavy LA Sweet Crude
- **Total Discharged:**  
3,315 bbl
- **Recovered Product:**  
255 bbl



# Pollution Response: Chevron Pipeline – Empire Facility



- **Location:**  
Empire, LA
- **Mile Marker:**  
30
- **Product:**  
Heavy LA  
Sweet Crude / Diesel
- **Total Discharged:**  
33,900 bbl
- **Recovered Product:**  
1,784 bbl



# Pollution Response: Chevron Pipeline – Empire Facility



In-Situ burn was conducted on 27 Oct 05  
to remove oil from the marsh.



# Pollution Response: Shell Pilottown



- **Location:**  
Pilottown, LA
- **Product:**  
Heavy LA Sweet  
Crude
- **Total Discharged:**  
25,435 bbl
- **Recovered Product:**  
22,685 bbl





# Salvage & Wreck Removal Operations



**More than 5,000 commercial and recreation vessels were damaged or destroyed by Katrina**

**Within the SECTOR New Orleans AOR, more than 2,500 casualties of commercial fishing and industrial vessels have been catalogued**



# Salvage & Wreck Removal Operations

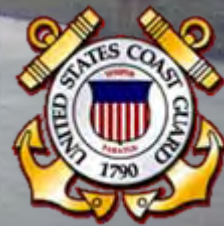


**FEMA has obligated more than  
\$100 Million dollars  
for the removal of wrecks and marine debris**

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# Salvage & Wreck Removal Operations



**1,000+ vessels were successfully salvaged  
by their owners**

**USCG coordinated the removal of over  
400 vessels**



# Salvage & Wreck Removal Operations



**USCG expects nearly 500 additional vessel removal operations over the next 4-6 months**

**Largest coordinated salvage operation in the history of the United States.**





Coast Guard is also tasked with removing substantial volumes of debris that may potentially block navigable waterways



# Salvage & Wreck Removal Operations



Many of these vessels and debris are in environmentally sensitive areas

# Aerial Photography

Collected 10,000 digital aerial images and partnered with private industry to make images available to the public

Used in response for

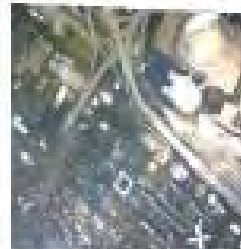
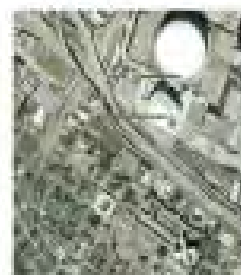
- damage assessments
- public information
- spill response prioritization
- search & rescue
- access routes for Navigation Response Teams

Will be used to update the official shoreline

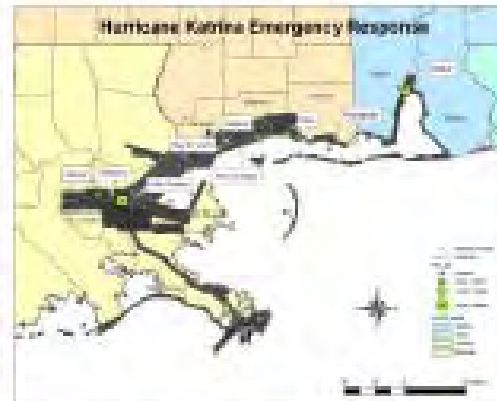
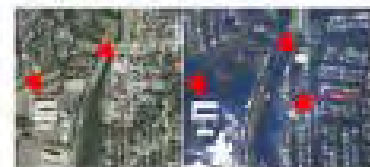


NOAA Damage Assessment Imagery of Hurricane Katrina

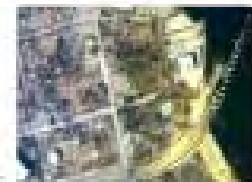
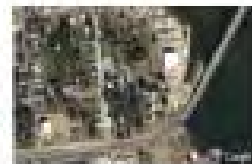
New Orleans, Louisiana



North of New Orleans, Louisiana



East of Houston



East of Bay St. Louis, Mississippi

