

# Hurricane Ivan and Hurricane Katrina: A Comparison of Community Impacts



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# Hurricane Ivan: September 15, 2004



# Hurricane Ivan

- Hurricane Ivan came onshore in Baldwin County Alabama just west of Gulf Shores on August 16, 2004.
- The storm was a strong Category 3 when it made landfall and caused significant damage along the beaches of Gulf Shores and Orange Beach.
- Most Gulf-front condominiums, hotels and resorts were closed for months.
- Approximately 5 small condominiums were destroyed, other were condemned.
- Many restaurants, stores and shops were damaged or destroyed.

# Hurricane Ivan

- While many primary residences were damaged or destroyed, most of the damage was to the tourism infrastructure.
- The Gulf Coast Convention & Visitors Bureau estimated that **\$192 million** in tourism revenue was lost in south Baldwin county in the 12 months following Hurricane Ivan.
- **\$75 million** in lodging revenue alone was lost.
- Lodging units were only 50% open in April, 2005; 75% were open by June, 2005.

# Three-story wood frame condominium in Orange Beach following Ivan.



Wood frame condominium in Orange Beach following Ivan.



5-story “Slab-on-Grade” condominium destroyed by storm surge.



Breach opened between Little Lagoon and the Gulf at the far west end of Gulf Shores.





A house from the south side of West Beach Blvd.  
transported to the north side.



# Hurricane Katrina: August 29, 2005

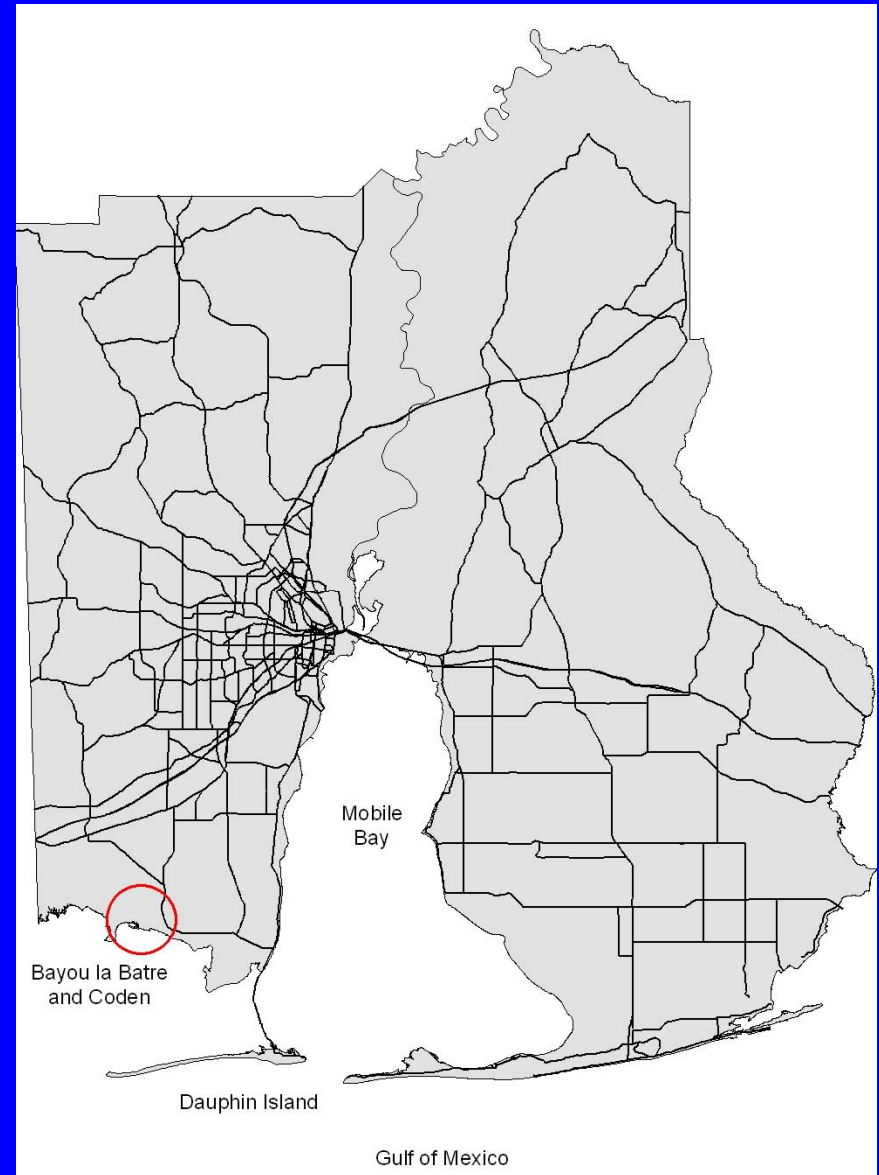


# Hurricane Katrina

- Alabama did not take a direct hit from Hurricane Katrina.
- However, Alabama was on the powerful eastern side of the storm.
- Alabama experienced record level storm surge from Bayou La Batre and Dauphin Island, up the western shore of Mobile Bay to Downtown Mobile and along the Hwy 98 Causeway.
- The damage on the western end of Dauphin Island and in Bayou la Batre and Coden was catastrophic.

# Bayou la Batre and Coden

- Bayou la Batre and Coden are commercial fishing towns on the shores of Mississippi Sound.
- The majority of the working population is tied in one way or another to the seafood industry.
- The area has a large Vietnamese and Laotian community, with language barriers hampering communications at times.



# Bayou la Batre and Coden

- The towns suffered record level storm surge.
- Up to 80% of the homes were flooded and many suffered substantial damage or were destroyed.
- Most of the seafood processing plants were heavily damaged or destroyed.
- Large numbers of fishing boats were sunk, damaged or tossed up on land. Many did not have insurance.
- Some boats are still on land, with the cost of salvage higher than the value of the boats.

**Seafood Processing Plant  
Codon, Alabama**



**Shrimp boats tossed onto land by storm surge.  
Bayou la Batre, Alabama**



**Sunken, capsized and damaged shrimp boats.  
Bayou la Batre, Alabama**







**Residents living in tents 6 weeks after storm.  
Bayou la Batre, Alabama**

# Dauphin Island

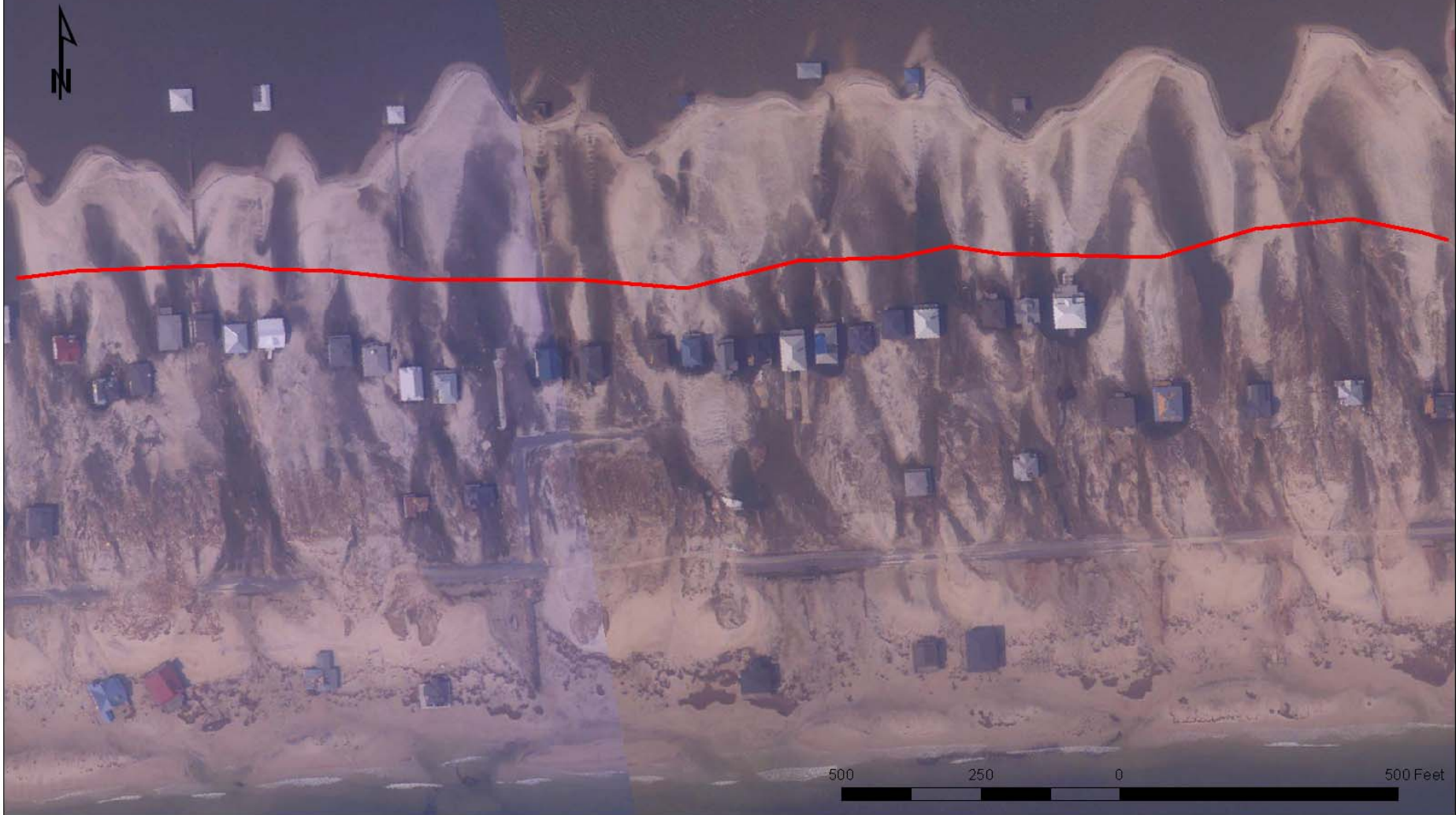
- Dauphin Island is a coastal barrier island offshore of Mobile County on the eastern end of Mississippi Sound.
- The western end of DI is very low, with average elevation between 3-7'.
- DI suffered damage during Hurricane Georges in 1998, strong winter storms in early 1999, a number of tropical storm prior to Ivan, and then Hurricane Ivan in 2004.
- None of these events compared to the storm surge seen during Hurricane Katrina.

# Dauphin Island

- During Hurricane Katrina, at least 12' of storm surge completely inundated the west end of the Island.
- Over 60% of the dwellings on the west end were destroyed.
- Most of the infrastructure, including power lines, phone lines, sewer lines & lift stations, and water mains, was destroyed.
- The west end completely overwashed & rolled over, with 100-200 yards of “new” land accreting on the north shore.

# Classic example of barrier island rollover caused by Katrina.

Dauohin Island: Approximate Pre-Katrina Shoreline based on Pre-Storm Imagery and NOAA Post-Katrina Imagery



Jack-up drilling rig previously located 60 miles SW of Dauphin Island.



Business destroyed by Katrina.



A house on the north side of the west end of Dauphin Island.



Site of 4 missing Gulf-front dwelling on Dauphin Island.





Dwelling completely removed from pilings on north side of Dauphin Island.



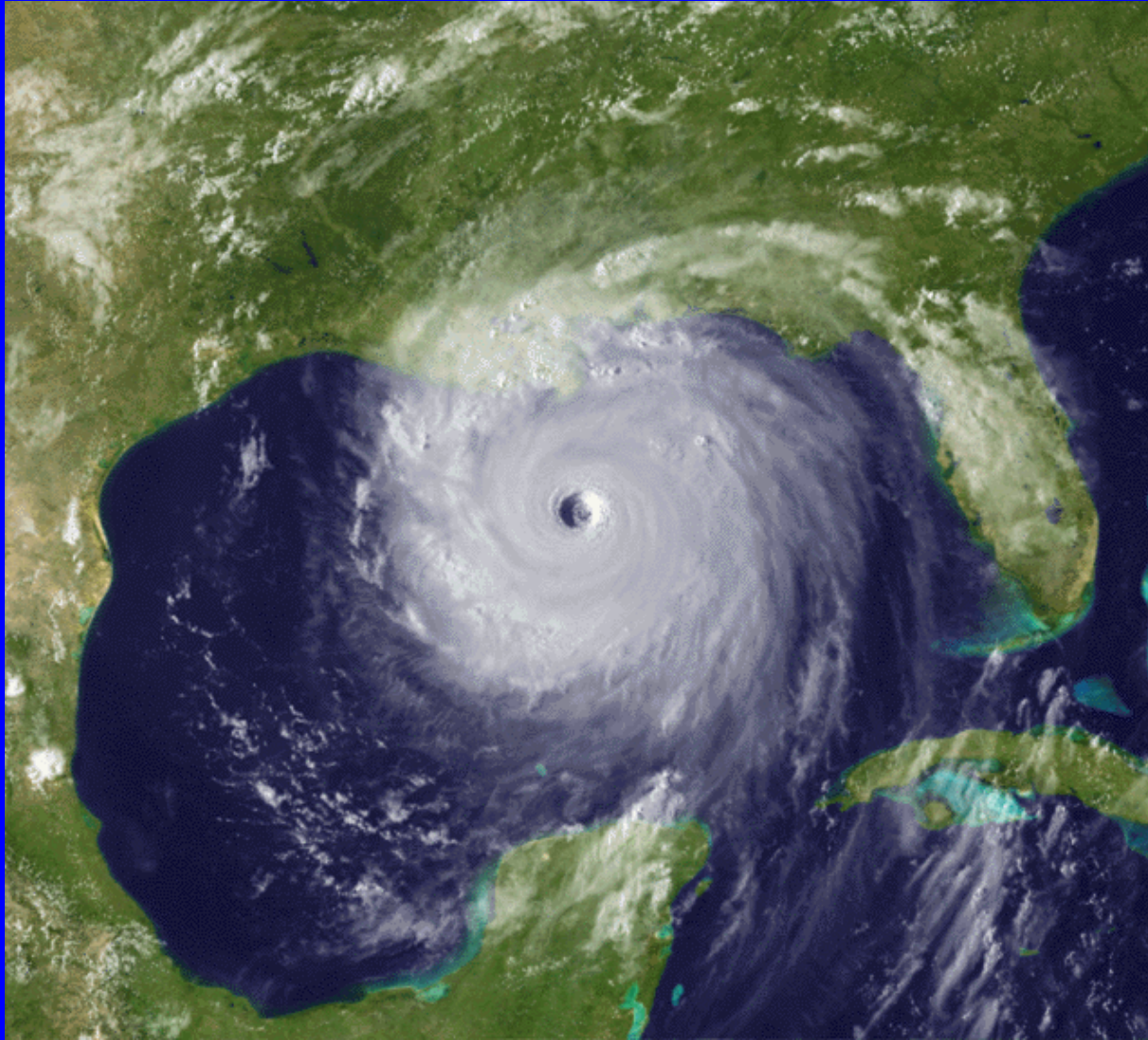
# Conclusions

- Hurricane Ivan caused significant damage in Baldwin County.
- Hurricane Katrina caused significant damage to the communities of Dauphin Island, Bayou la Batre and Coden in Mobile County.
- Hurricane Ivan primarily impacted the tourism industry.
- Hurricane Katrina primarily impacted working class neighborhoods, primary dwellings, and the seafood industry.
- In both instances, hundreds of people instantly became unemployed and homeless, some still are from both storms.

# Conclusions

- These two different storms caused significantly different physical and economic damage.
- It would be prudent for all communities to concentrate on reducing the vulnerability of their primary economic engines during future events.
- To minimize job loss and economic damage, ways of safe-guarding critical industries must be found.
- Rebuilding to newer building codes & Base Flood Elevation's should reduce future damage.

# Questions?



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