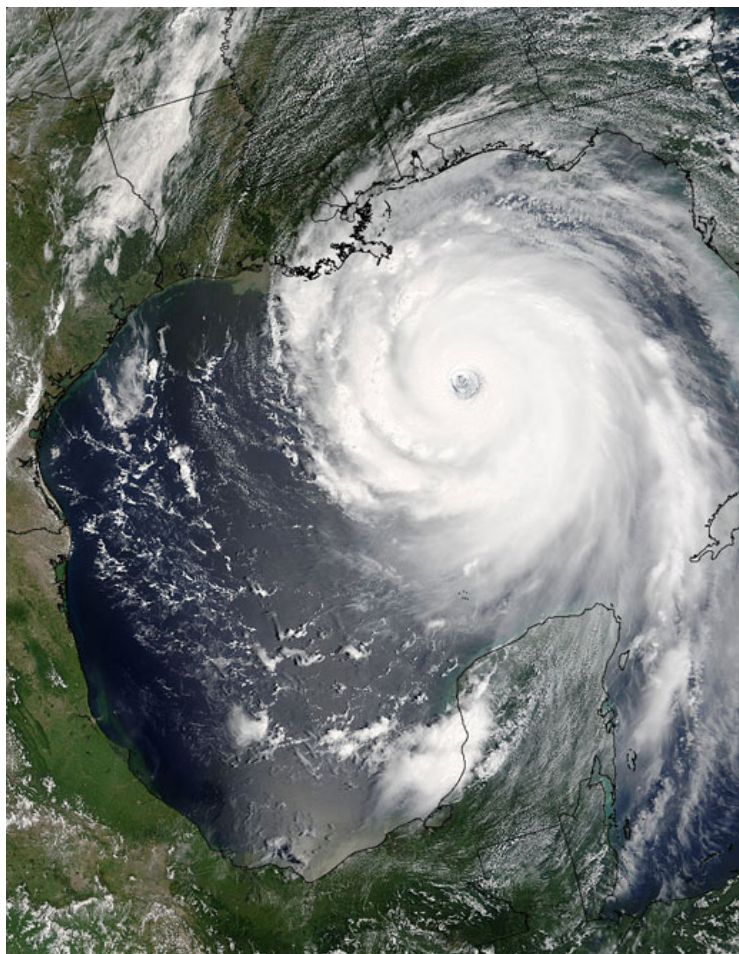
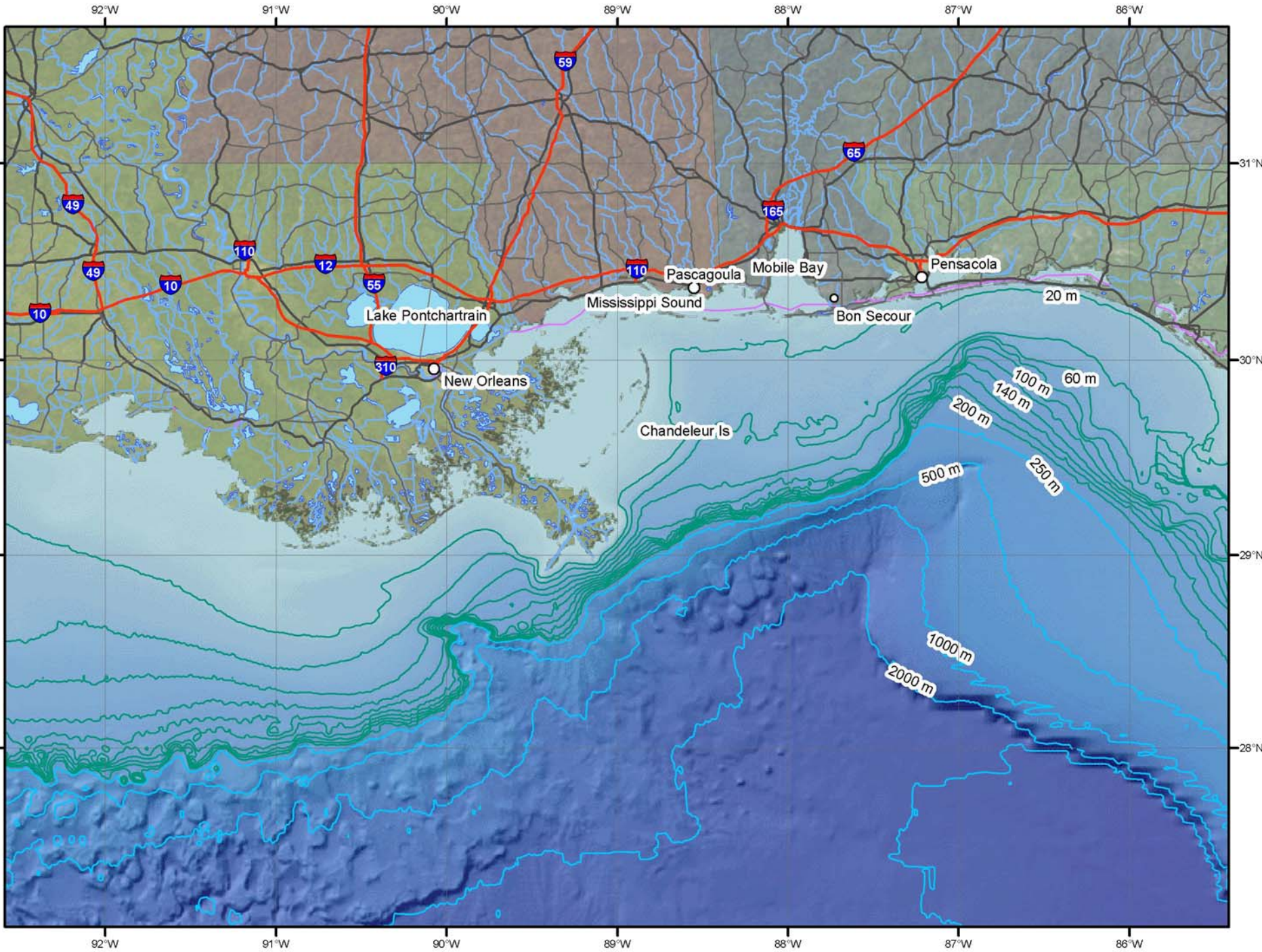


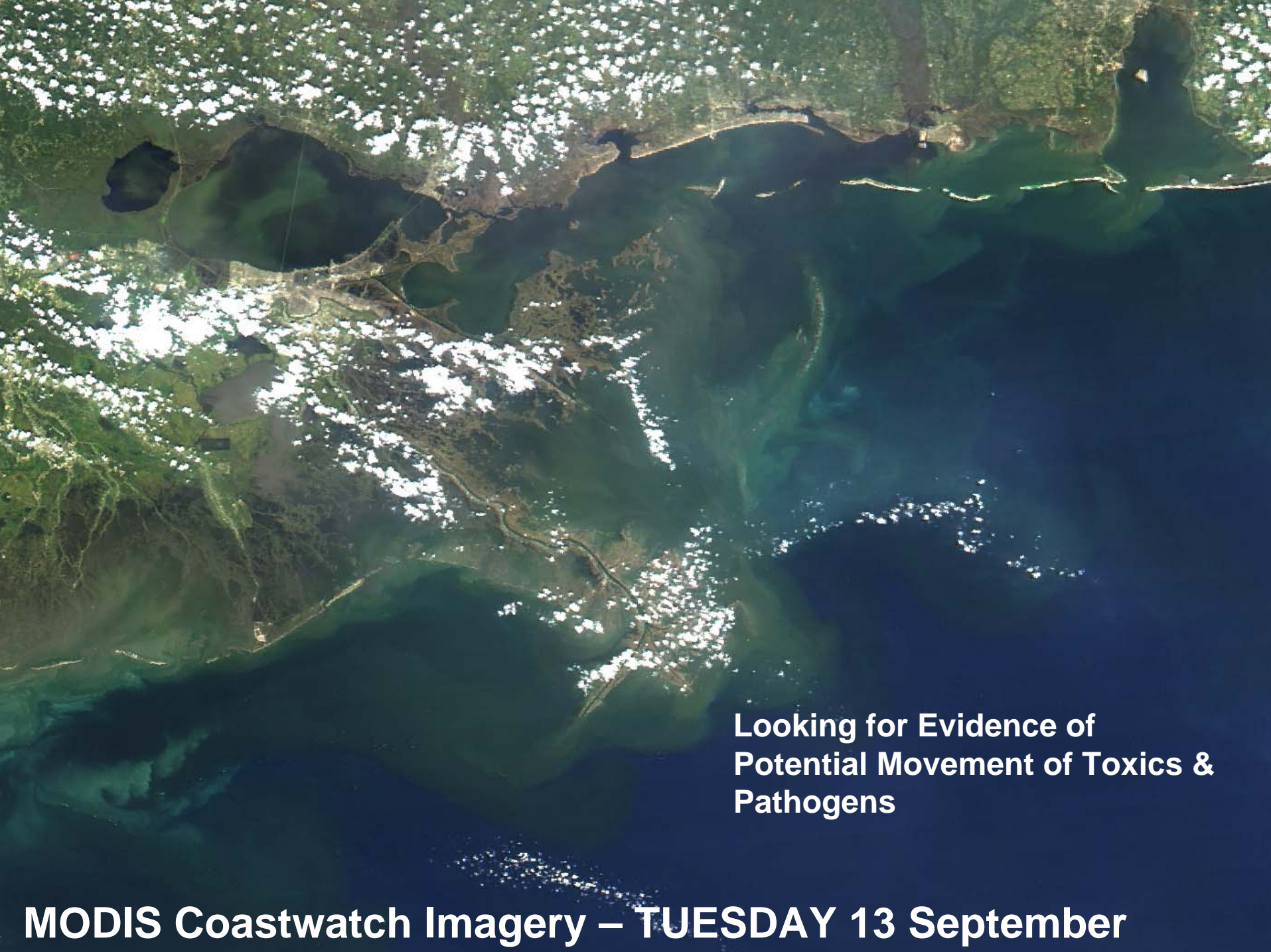
Evaluating the Potential Environmental Impacts of Hurricane Katrina on Living Marine Resources



- Ship-board surveys of water, sediment and fish/shrimp for indications of toxics and pathogens, Monitoring of seafood safety
- Aircraft and shipboard surveys of effects on Marine mammals and turtles (strandings)
- Modeling of the movements of water masses that MAY contain harmful agents
- Socioeconomic assessments of marine related businesses
- Impacts of Katrina & Rita on coastal wetlands
- Other Studies & Operations







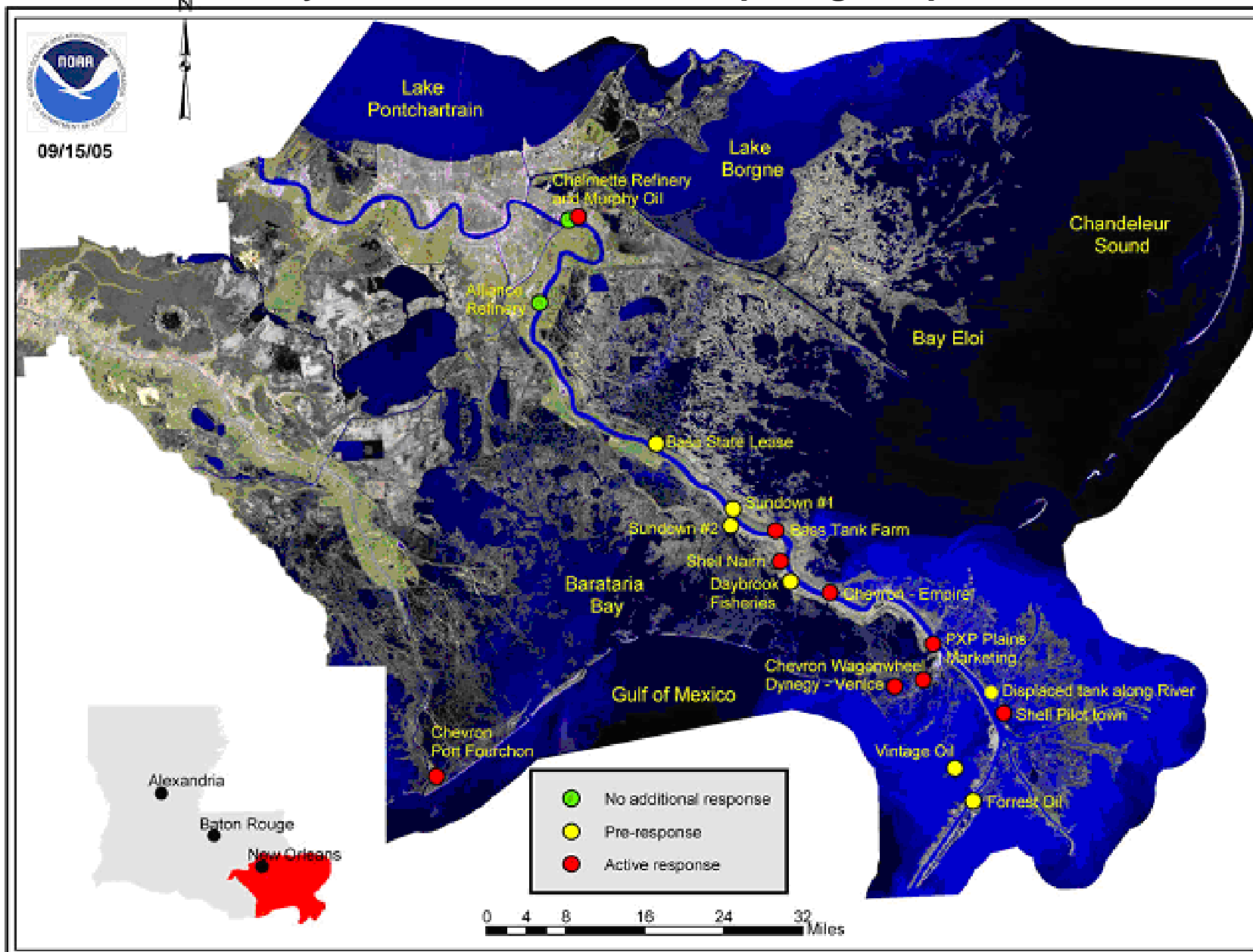
**Looking for Evidence of
Potential Movement of Toxics &
Pathogens**

MODIS Coastwatch Imagery – TUESDAY 13 September

Pollution Issues Related to Sampling

- Hydrocarbon releases along the lower Mississippi River and from sunken vessels
- Toxics and pathogens from pumping out New Orleans
- Large numbers of sunken vessels inshore of Mississippi Sound
- Contents of storm surge waters
- Offshore releases

Hydrocarbon Releases Requiring Response



NOAA Ship NANCY FOSTER

Cruise 9/13-9/16 2005

Cruise 9/26-10/3

Sample:

Water

Sediments

Fish/Shrimp/Crabs

For:

Toxic Contaminants

Metals

Hydrocarbons

Pesticides

Etc.

Pathogens

Bacteria

Viruses

Science Personnel from Miami (OAR), Seattle (NMFS),
Pascagoula (NMFS), Woods Hole (NMFS)

Gear:

CTD

Rosette Sampler

Bottom Grabs

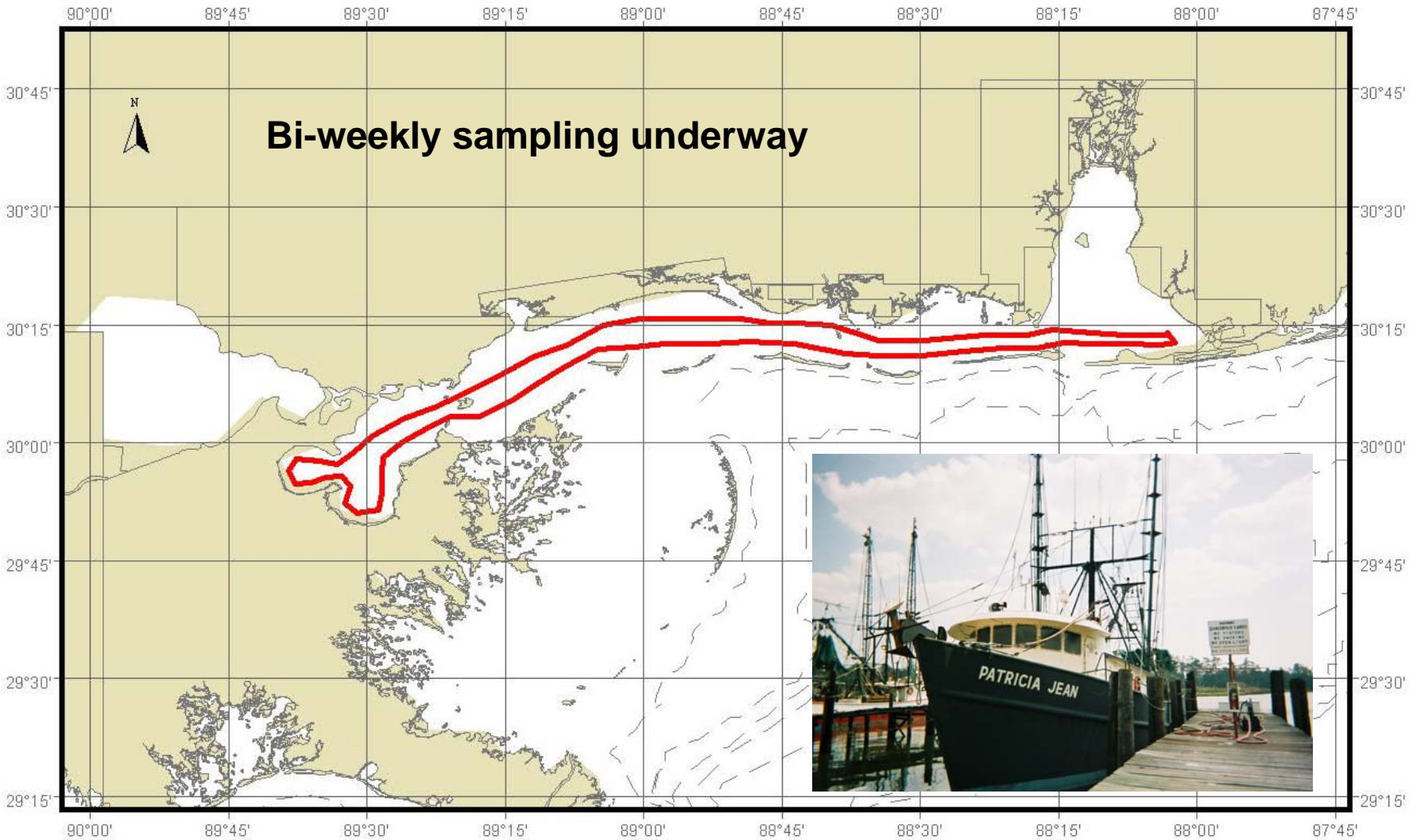
Fish/Shrimp Trawls

Phytoplankton

CCMA-NOS



Ship Track – Water, Sediments and fish flesh sampling

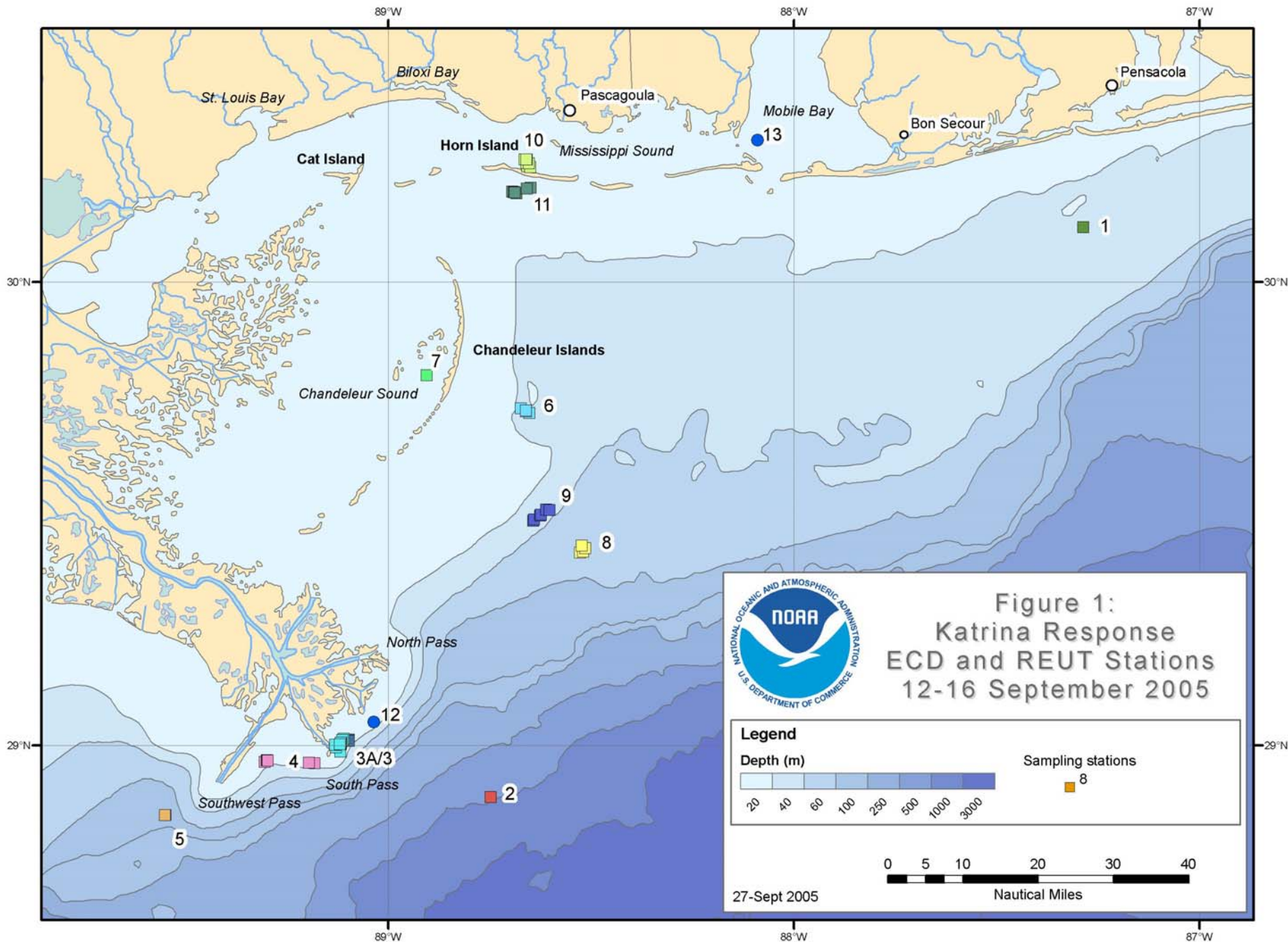


Fishing Vessel Patricia Jean

Bon Secour, AL and Return, 9/13/'05-9/19/'05

--- 5 fathom depth contours

— Line transect / Cruise tract (233 nm)



St. Louis Bay

Biloxi Bay

Pascagoula

Mobile Bay

Pensacola

Bon Secour

Cat Island

Horn Island

Mississippi Sound

Chandeleur Islands

Chandeleur Sound

North Pass

Southwest Pass

South Pass

5

4

3A/3

2

11

7

6

9

8

10

13

1

30°N

30°N

29°N

29°N

89°W

88°W

87°W

89°W

88°W

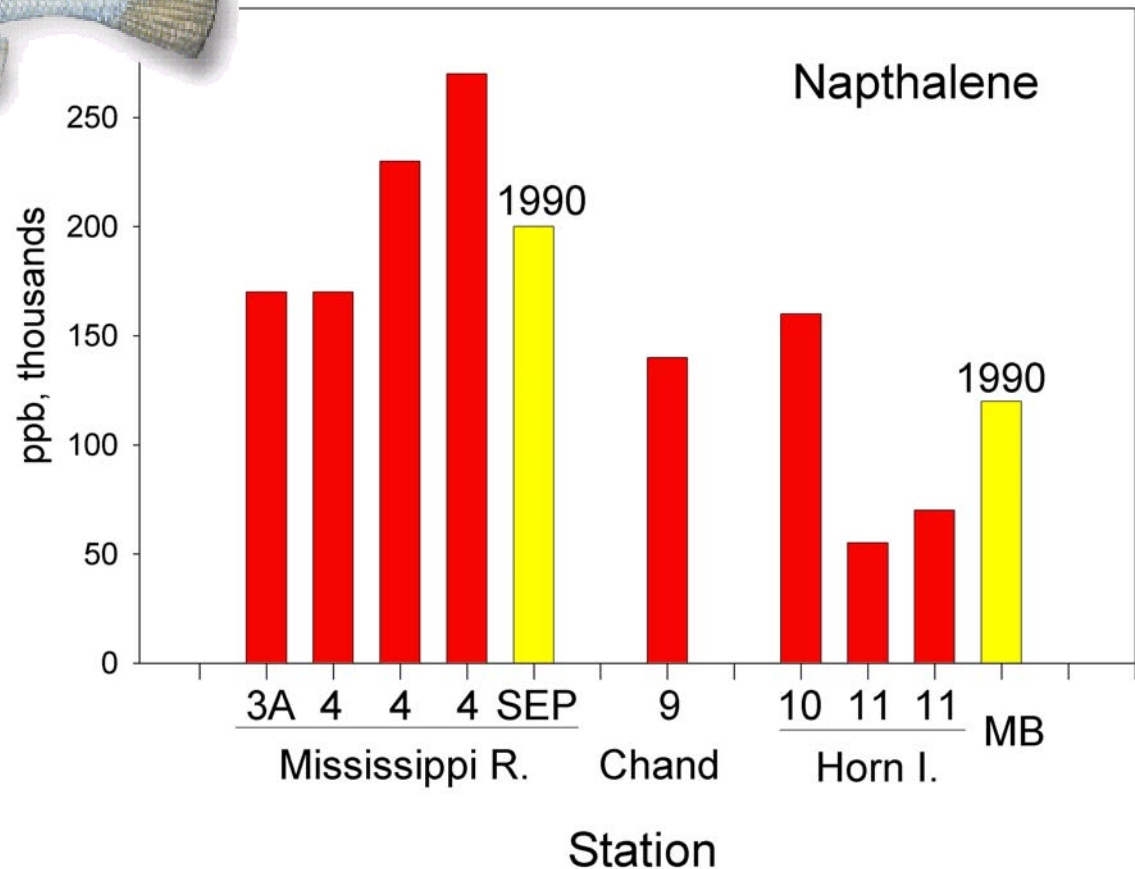
87°W

Results of Testing of Atlantic Croaker Bile Samples for PACs



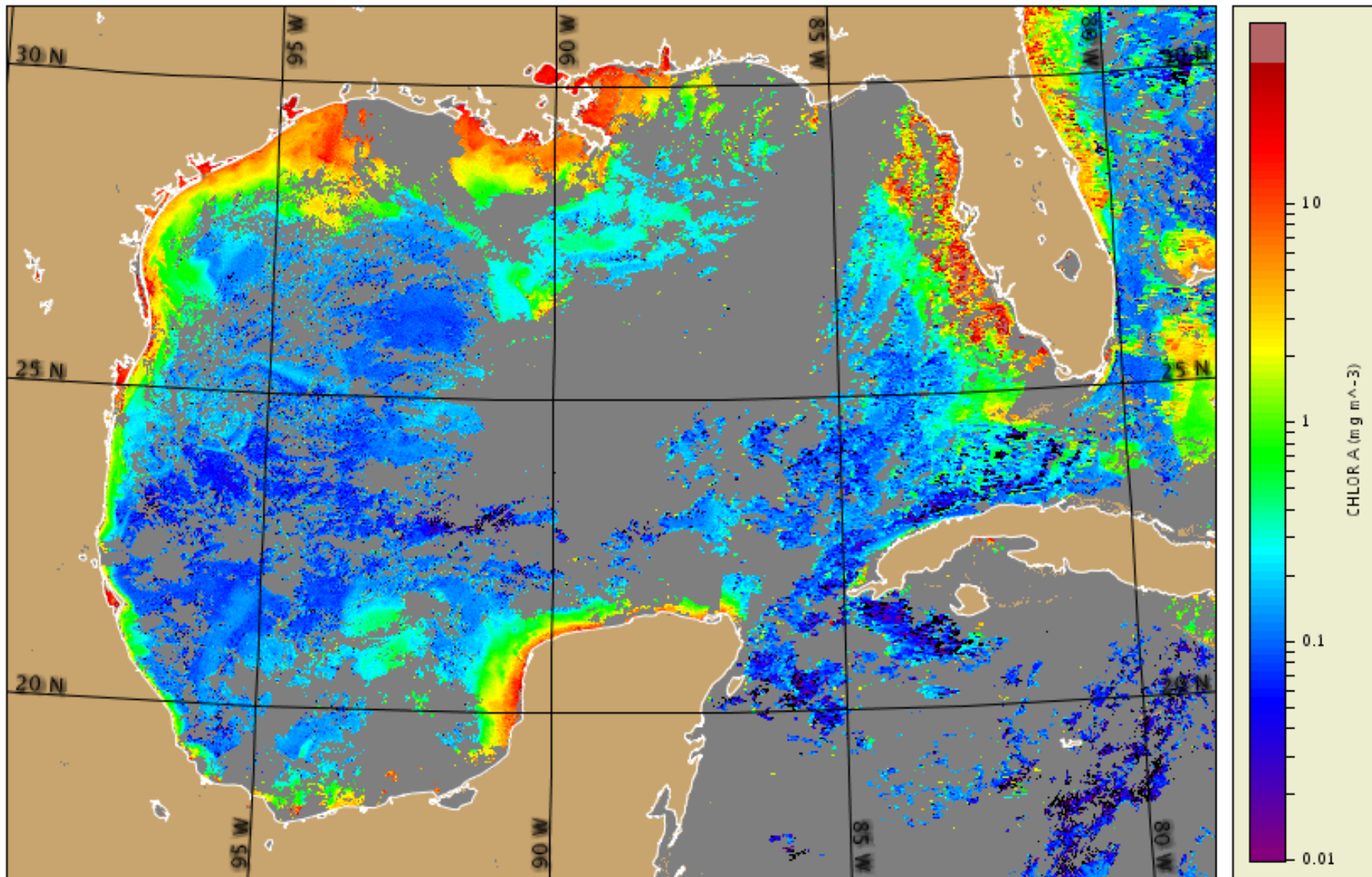
Polycyclic Aromatic Compounds:

- naphthalene
- phenanthrene
- benzo(a)pyrene

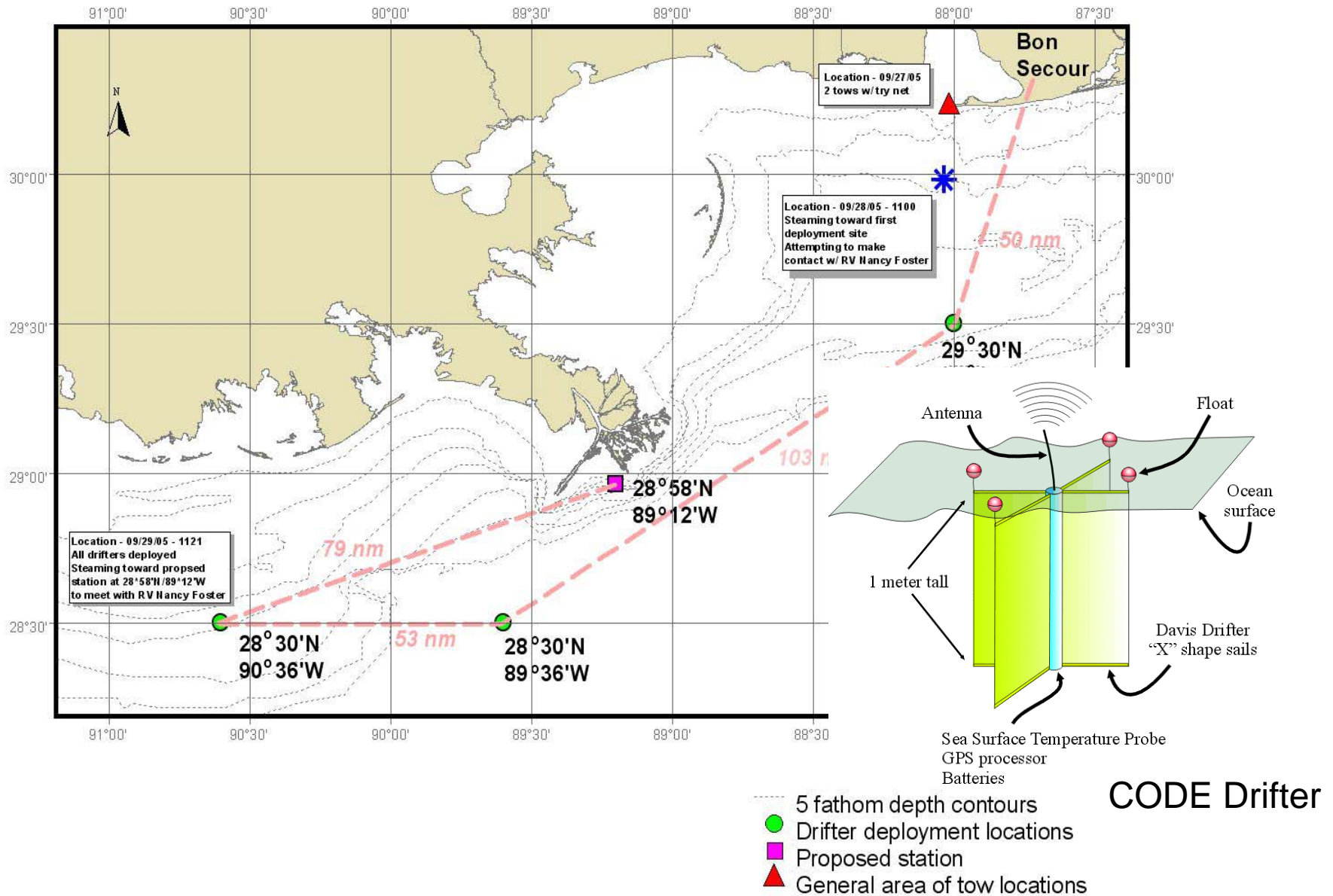


testing ongoing for pesticides, metals, shrimp samples, water

Chlorophyll A September 26, 2005 SEAWIFS Satellite



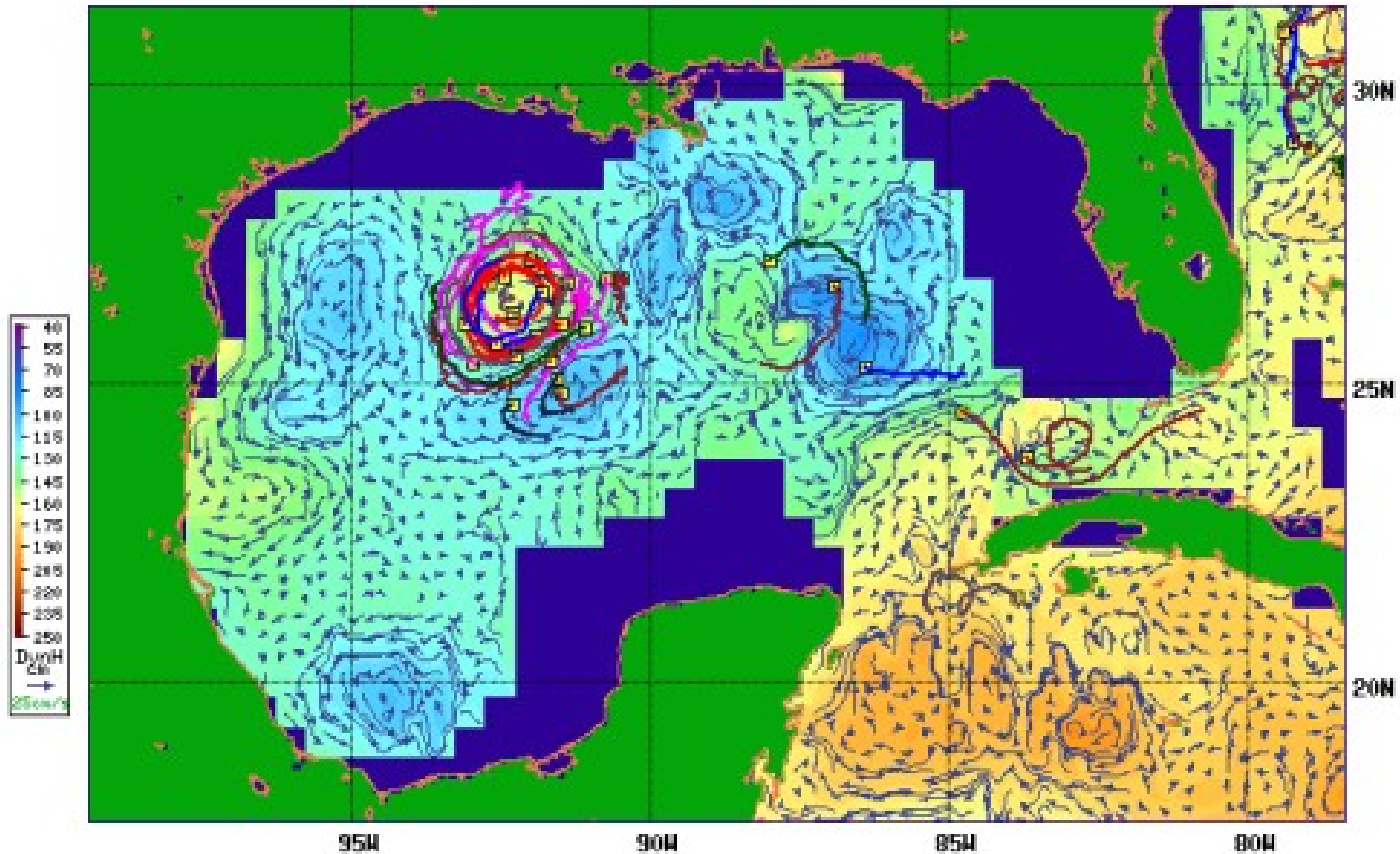
Assessment Survey 2 - FV Patricia Jean



Modeling of Water Mass Movements -OAR

SEP-29-2005

CoastWatch NOAA/ADML
Altimeter/GTS Interface





Louisiana

Jackson

Alabama

Tallahassee

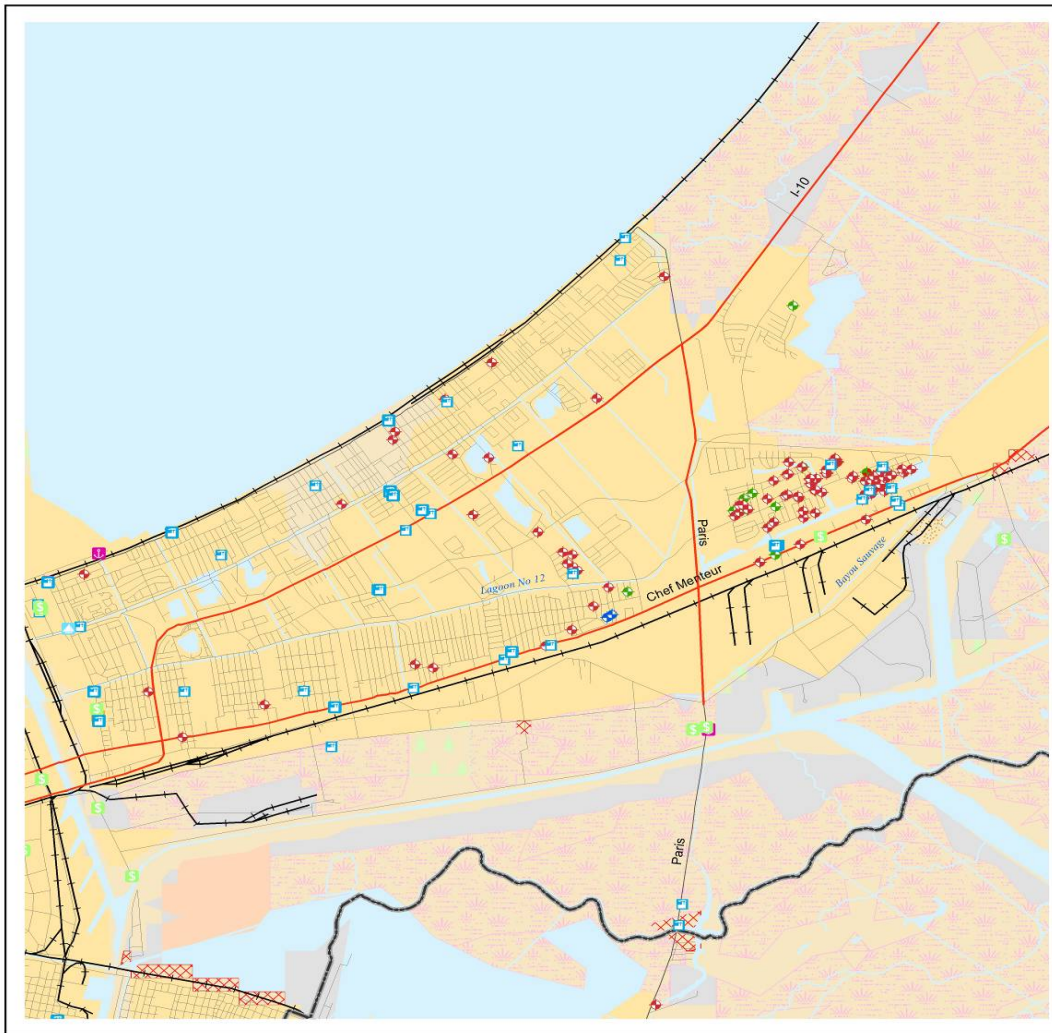
Baton Rouge

Texas

Austin

Florida

NOAA Fishing Community Profiles
(334 communities, 75 counties, in five states)



Depicts:

- Fish Processors
- Fish Markets
- Equipment suppliers
- Residence patterns



Socio-Economic Assessments

- **Compile up-to-date, community-level, baseline information for measuring future regulatory impacts on:**
 - **Local and regional socioeconomic conditions**
 - **Local and regional demographic trends**
 - **Nature and extent of local and regional involvement in fishing, oil/gas, tourism, other industries**
 - **Social and economic relationships between Gulf communities**
 - **Use, and by extension availability, of inshore, near-shore, and offshore marine resources for commercial and recreational purposes**
 - **Fishing and marine-specific service and physical infrastructure**
 - **Socio-cultural aspects of life in Gulf communities**

Intend to repeat Elements of the Survey to assess losses of Infrastructure



MISSISSIPPI

ALABAMA

FLORIDA

LOUISIANA

NOAA Turbo Commander



Tentative Flight Path for Marine Mammal/Sea Turtle Survey (922 Total Miles)



- Proposed Survey Flight Path
- Off Effort



Ongoing NOAA Operations & Studies

- Sustained Ops. For Contaminants Monitoring – Cruise biweekly with other sampling as appropriate, *NANCY FOSTER*, *PATRICIA JEAN*
- Mussel Watch Stations now being re-sampled - NOS
- E-Map Stations sampled in NOAA-NOS & EPA Cruise, EPA R/V *Bold*
- Hydrodynamic Models being Run at AOML (OAR) to forecast materials distribution and to direct sampling
- Wetlands Loss Analysis being Undertaken by NOS and NMFS
- Impacts on Abundance and Distribution of fishes, crabs and shrimps to be assessed in ongoing bottom trawl cruises in October R/V *Gordon Gunter*
- *Re-Assessment of Community Profiles, Alabama, Mississippi, Louisiana, Texas, west coast of Florida*
- Monitoring of SEAWiFS and Shipboard Samples for potential HAB Outbreaks resulting from *Karenia brevis* (current HAB off West Florida)
- Coordination of Activities with COE, USGS, EPA, NSF, State Directors and Agencies
- Website: www.noaa.gov – “Hurricane Katrina Environmental Impacts”