NOAA's Role in the Deepwater Horizon Oil Spill

Protecting Oceans, Coasts, & Fisheries

AGU 13 December 2010

The Honorable Jane Lubchenco, Ph.D.

Under Secretary of Commerce for Oceans and Atmosphere
& NOAA Administrator

National Oceanic and Atmospheric Administration | NOAA

Conduct & share **science**

Keep **seafood** safe

Protect **wildlife** & **habitats**

Assess **damage**

Restore the natural resources that were injured

Doing Science…

normal conditions

vs.

crisis conditions

Lessons from Exxon *Valdez*

CLEAN-UP TECHNIQUES

Larva

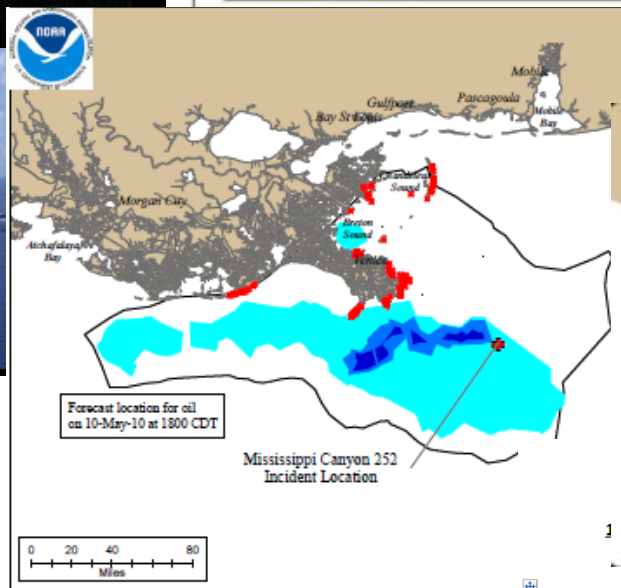
Adult

BIOLOGICAL IMPACTS

TANKER SPILL

Trajectory Forecast — M

AIRCRAFT data



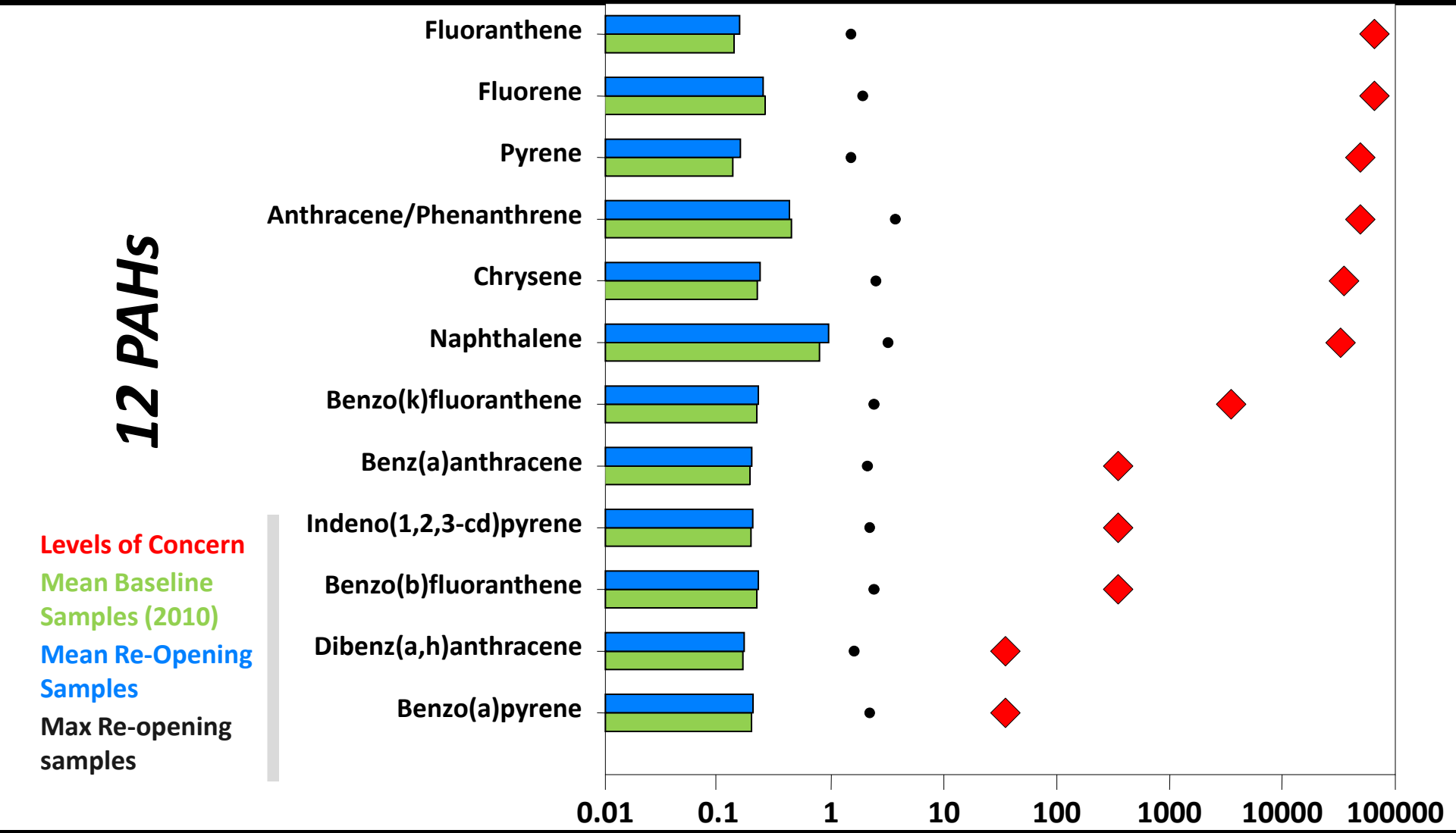
SHIP data

	Tonight	Wednesday	Wed Night	Thursday	Thu Night
Date		6/23		6/24	
Sunrise/Sunset	1955	0557	1955	0557	1955
Wind Dir/Speed(kts)	SE 9-12	SE 7-10	SE-E 8-10	E 8-10	E 8-10
Mixing Heights(ft)	2900-3200	3100-3800	2600-3200	3800-4500	2500-2900
Transport Winds(kt)	SE 14-18	SE 11-15	E 6-10	ENE 7-10	NE 6-10
Seas (ft)	3	3	3	3	3
Sea State Descriptor	Choppy	Lt Chop	Lt Chop	Lt Chop	Lt Chop
Max/Min Temp	84	87	82	88	82
Rainfall amount	0.01	0.01	0.07	0.04	0.04
Rain chances (percent)	25	30	20	30	20
Visibility	>6SM Lower in TSRA	>6SM Lower in TSRA	>6SM Lower in TSRA	>6SM Lower in TSRA	>6SM Lower in TSRA

LOAT data

Seafood Safety

Finfish Samples



Protect Wildlife & Habitats

- **610** dead
- **456** live, oiled, captured
  - **442** rehabilitated & released
  - **79** still in rehabilitation

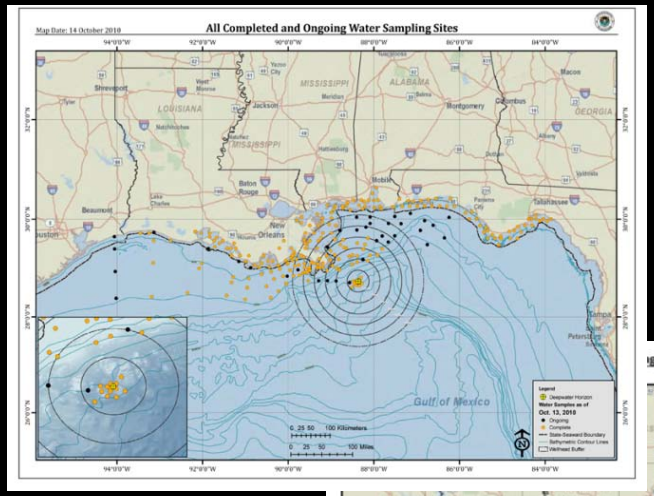
Sea Turtles

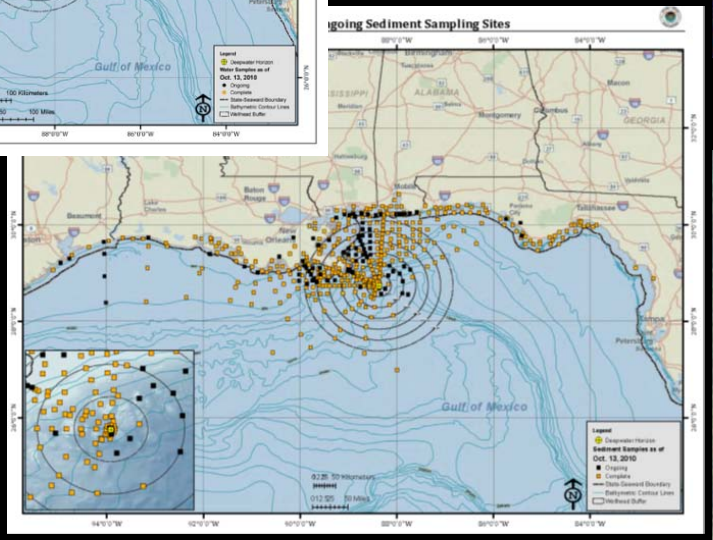
Assessing Damage

Phases of Natural Resource Damage Assessment

NRDA is a legal process

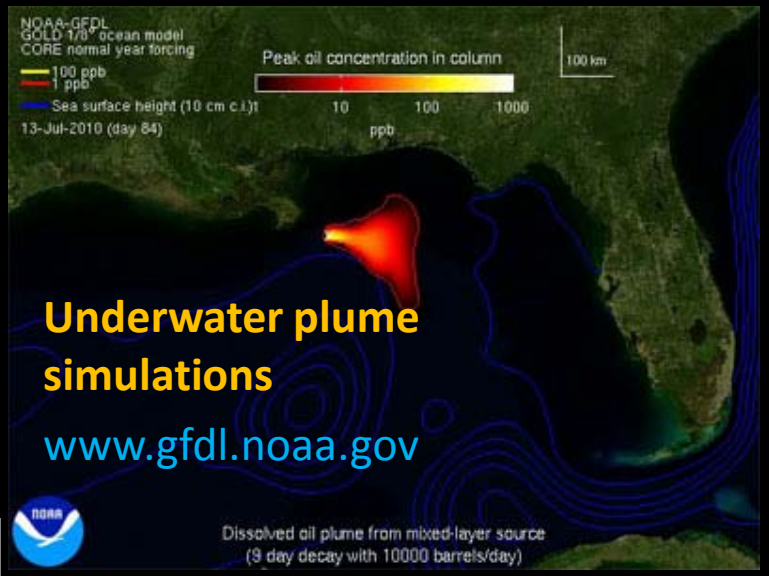
Subsea & Subsurface Detection & Modeling





JAG Report

http://ecowatch.ncddc.noaa.gov/JAG/reports.html



Underwater plume simulations

www.gfdl.noaa.gov

Ronald H. Brown Cruise

oceanexplorer.noaa.gov

Academic Partnering

Thomas Jefferson

UNH Center for Coastal and Ocean Mapping
WHOI

Pisces

University of California at Santa Barbara
Texas A&M

Gordon Gunter

UNH
Monterey Bay Aquatic Research Institute (MBARI)
USF
CIMAR/University of Miami

Pelican (non-NOAA)

Weatherbird (non-NOAA)
University of South Florida

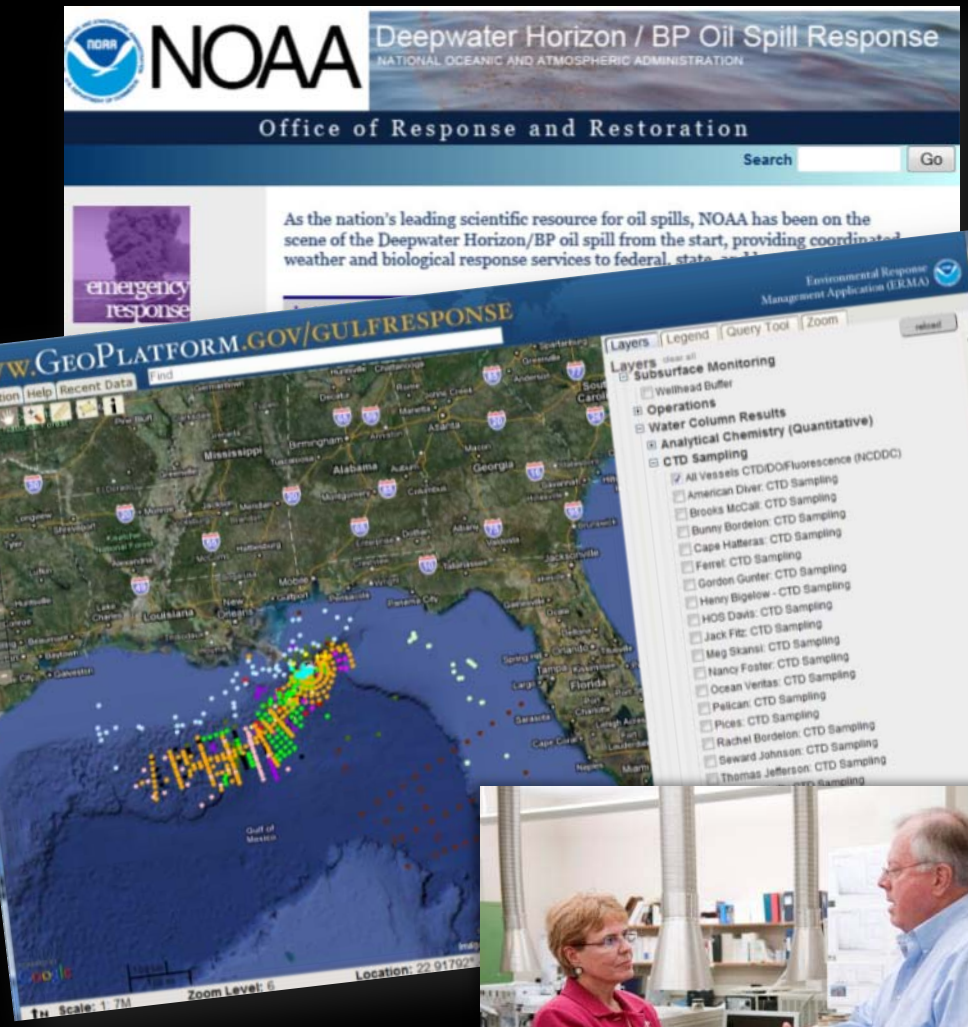
NOAA WP3D

University of Miami
Rosenstiel School of Marine and Atmospheric Research

NRDA Cruise

Penn State
WHOI
Temple University
University of Louisiana (Lafayette)

Communicating the Science

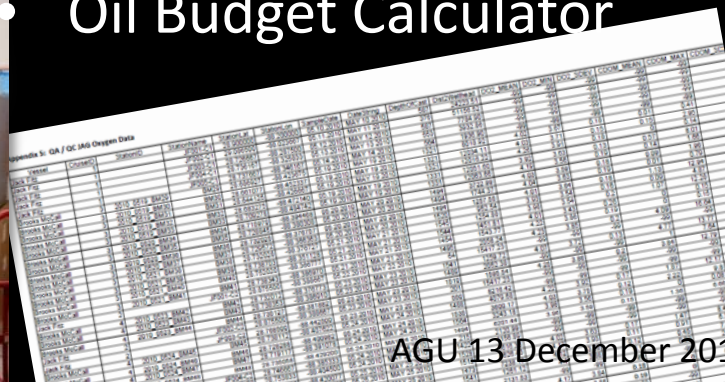


JAG Reports

- 6/23 Subsea monitoring
- 6/23 Location & movement of subsurface oil
- 9/7 Dissolved oxygen
- Forthcoming:
  Sub-sea/Sub-surface Detection & Monitoring

Other Reports

- Flow Rate Technical Group
- Oil Budget Calculator



Centralized Data Access

- www.geoplatform.gov/gulfresponse
- www.nodc.noaa.gov/General/DeepwaterHorizon/support.html
- ecowatch.ncddc.noaa.gov/JAG/
- gulfseagrant.tamu.edu/oilspill/database.htm
- www.noaa.gov/sciencemissions/bpoilspill.html
- www.data.gov
- gos2.geodata.gov/wps/portal/gos

Restoring the Gulf

Louisiana-Mississippi Gulf Coast Ecosystem Restoration Working Group

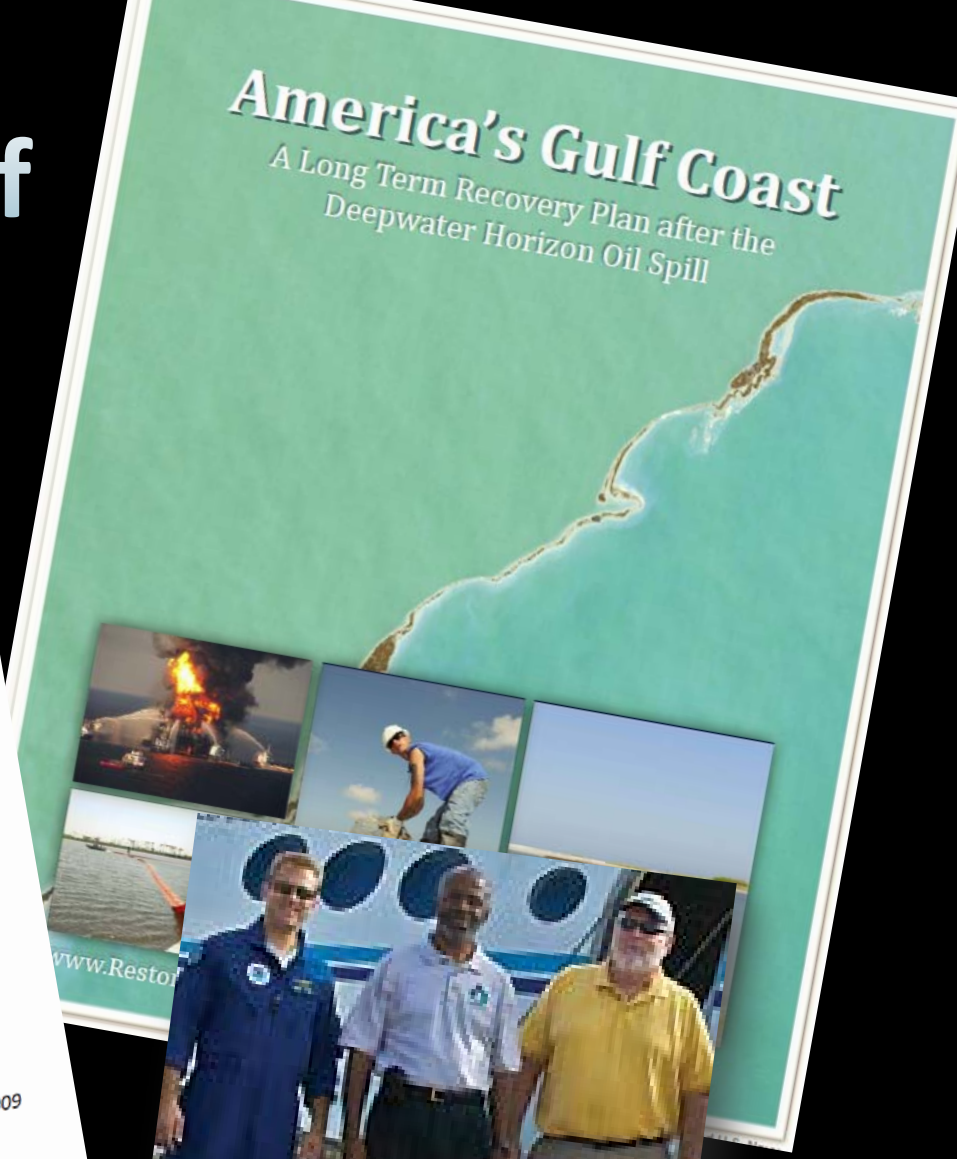
Roadmap for Restoring Ecosystem Resiliency and Sustainability
March 2010

I. Introduction

"And here on the Gulf Coast, we're working to make sure this region is protected in the event of a 100-year storm. We've already seen 220 miles worth of levees and flood walls repaired, and we are working to strengthen the wetlands and barrier islands that are the first line of defense for the Gulf Coast. This isn't just critical to this region's physical protection, it's critical to our environment, it's critical to our economy. That's why we're establishing an interagency working group that will be responsible for coordinating our restoration efforts across the Gulf at all levels of government."

- President Barack Obama, October 15, 2009

Coastal Louisiana and Mississippi face profound challenges. The degradation of coastal ecosystems (including wetlands and barrier islands) and the services they provide has direct and indirect impacts on the economy, communities, and environment of the region. Future impacts associated with storms, subsidence, and sea level rise will serve to only amplify the



eat **swim** **fish**