

# Justin Farrell– Ports Specialist

## FOCUS AREAS

- Post-Hurricane recovery of ports;
- Vessel salvage & marine debris;
- NOAA Portfields Initiative;
- Environmental impacts of LNG development & LNG traffic.



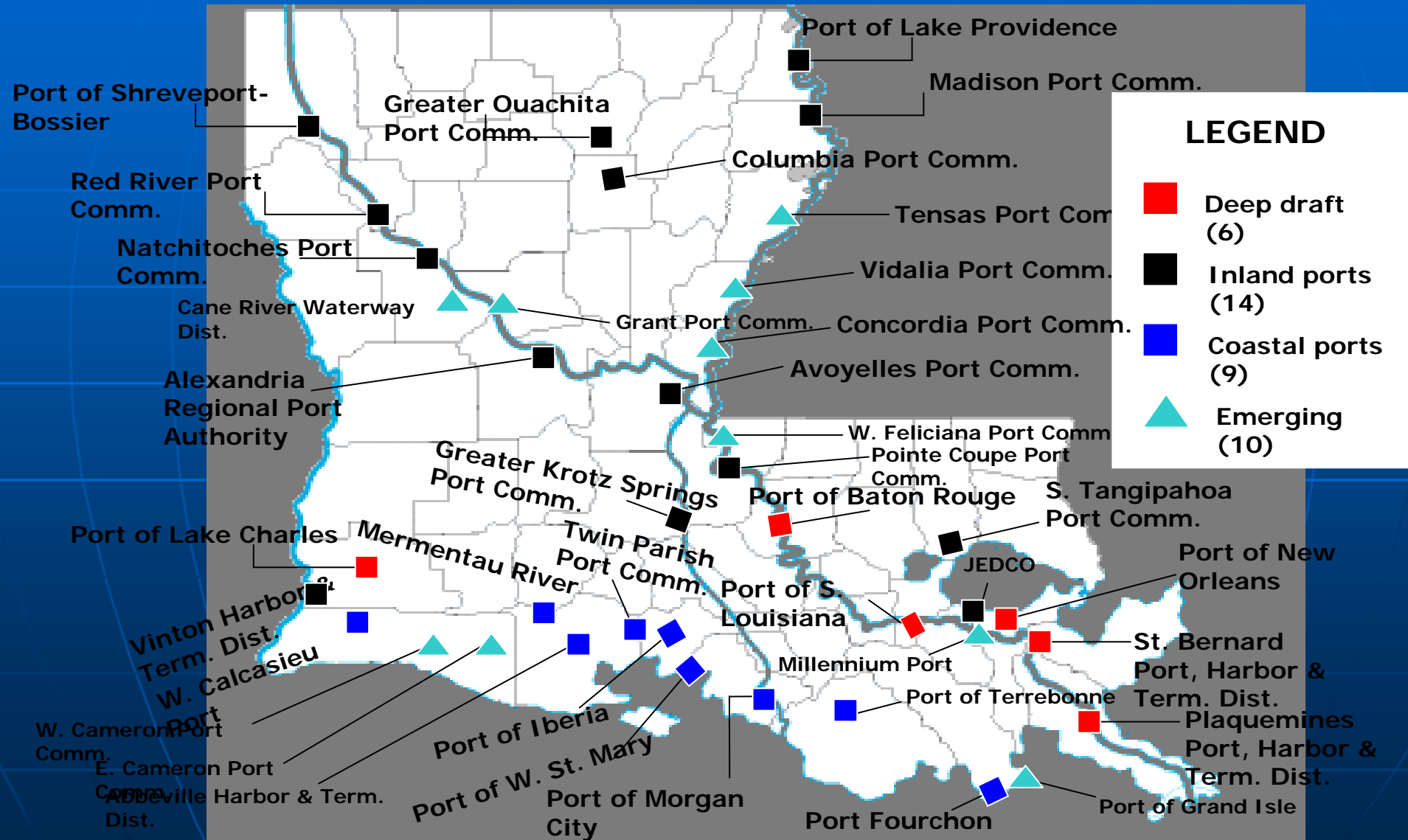
<http://www.laseagrant.org/adserv/ports.htm>  
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## OUTCOMES

- **Recovery:**
  - Status whitepaper, numerous presentations, & website work;
  - Technical assistance to the Ports Association of Louisiana (PAL);
- **Vessel salvage & marine debris:**
  - NOAA MDP grant/LDNR removal (\$100K + \$250K);
  - CZ07 Paper/presentation;
  - GOM Synthesis (GEOG 7973);
- **Southern LA Regional Portfields Project:**
  - Liaison to PAL & Port of Greater Baton Rouge;
  - Strategic Business Plan for LA Ports (\$600K EDA App.);
  - More...
- **LNG:**
  - TCS20 Panel/paper (May 2006);
- ***NEW! Fisheries Infrastructure.***

# Louisiana Ports

## Deep, Inland, Coastal & Emerging



# Hurricane Impacts to Ports

## ■ Ship channel closures

- Shoaling, underwater obstructions, debris
  - Est. 22M tons (55M yd<sup>3</sup>) of debris (~20 WTCs)

## ■ Loss of communications

- Near total loss... website, email, phone, fax, cell

## ■ Loss of power

- Weeks/months...

## ■ Loss of manpower

- Almost 98% of Port of New Orleans employees evacuated

## ■ Loss of intermodal connections

- 2,500 rail cars affected, 250+ derailed
- NOPB lines/interchanges only 90% by October 2005
- Lack of truck drivers, re-establishing truck routes

## ■ Anarchy of citizens

# *Recovery/damages to ports (as of 7/06)*

PORT	% RECOVERED OPERATIONS  (DATE) <sup>1</sup>	DAMAGE EST.  (NOV05) <sup>1</sup>	DAMAGES  FEMA PA <sup>2</sup>
Abbeville Harbor & Terminal Dist.	100% (NOV05)	\$200,000	\$347,209
Greater Lafourche Port Commission	100% (OCT05)	\$7,000,000	\$6,231,947
Plaquemines Port, Harbor & Terminal Dist.	N/A	\$9,000,000	N/A
Port of Iberia	100% (OCT05)	N/A	\$1,711,787
Port of Lake Charles	100% (OCT05)	N/A	\$2,453,678
Port of New Orleans	70% (JAN06)	\$283,000,000	\$98,272,371
Port of South Louisiana	100% (OCT05)	\$2,000,000	\$7,237,045
St. Bernard Port, Harbor & Terminal Dist.	100% (JUL06)	\$15,000,000	\$20,100,000
W. St. Mary Port, Harbor & Term. Dist.	100% (mid-OCT05)	N/A	\$205,348

<sup>1</sup> Source PAL and Louisiana Sea Grant (NOV05)

<sup>2</sup> Source DOTD (JUL06)



# Quick Summary of LA Ports

## ■ Port of New Orleans

- 30% of port's footprint was destroyed (largely downriver and along the IHNC);
  - France & Jourdan Rd. terminals heavily damaged (access rd. washes away);
  - 52M lbs of frozen chicken spoil, 50% of coffee in warehouses lost;
  - London Metal Exchange suspends certification (late 2005 – mid 2006);
- \$283M damages / 70% by May 2006;
  - Currently exceeds pre-Katrina ship calls.



# France Road Terminal



# France Rd. cont.



Access Road

Source: Port of New Orleans



# Mandeville Street Wharf



Source: Port of New Orleans



# Industrial Canal Breach

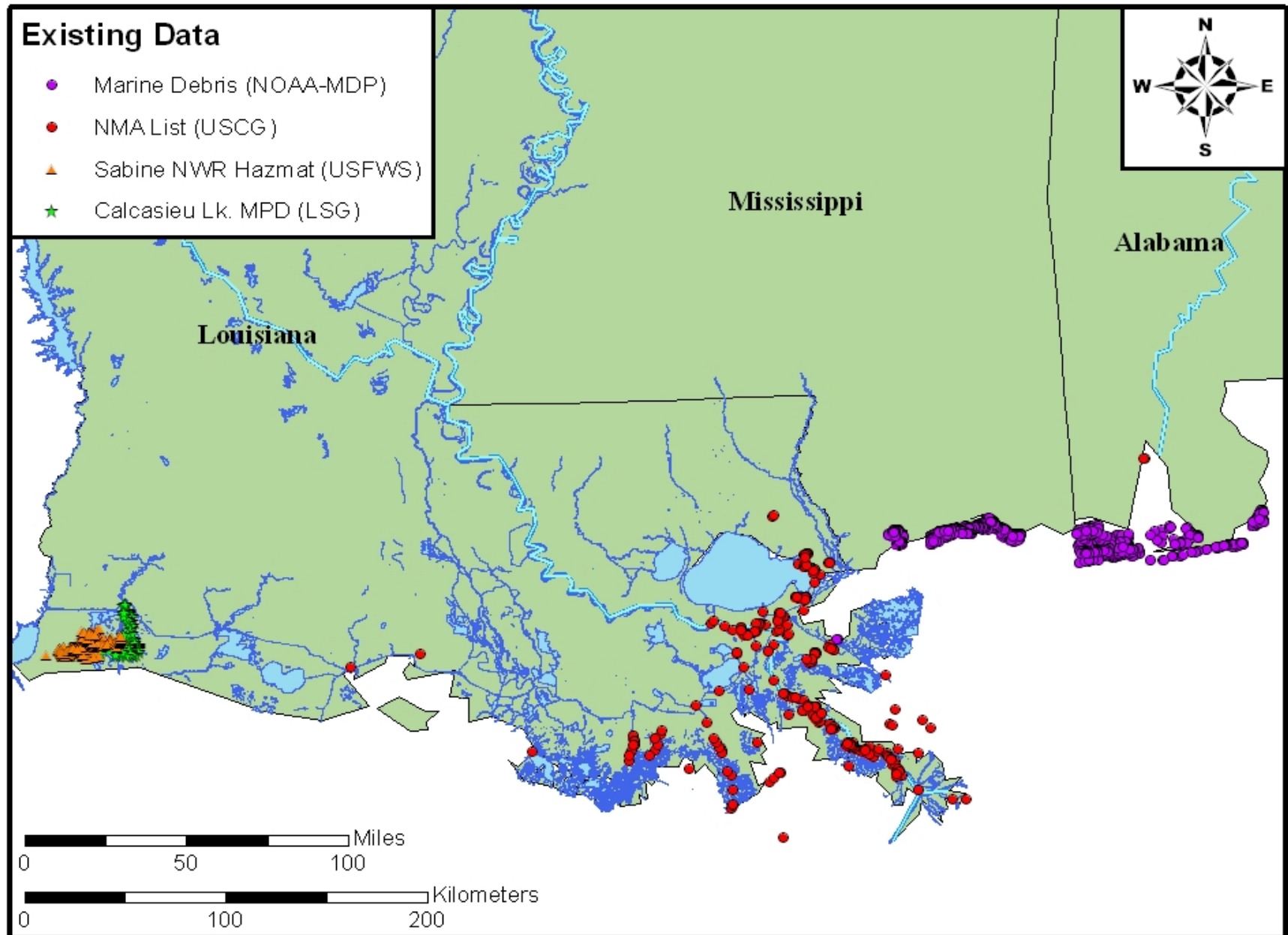


# *Louisiana Coastal Ports Extension Project*

*Navigation/tonnage exceed pre-Katrina/Rita levels (Mississippi & Calcasieu)*

- **Port of New Orleans**
  - Steel imports along the Mississippi River
  - Ship calls exceeds pre-Katrina levels (27->30)
- **Port of St. Bernard**
  - Ship calls and demand for storage area exceeds pre-Katrina levels
- **Ethanol/Bio-fuels. . .**
  - Port of Greater Baton Rouge (Shaw)
  - Port of Lake Providence (Co.)
- **Other. . .**
  - Port of Shreveport-Bossier (Steelscape)
  - Port of South Louisiana (Emergency storage)

# Gulf of Mexico (GOM) Marine Debris Synthesis



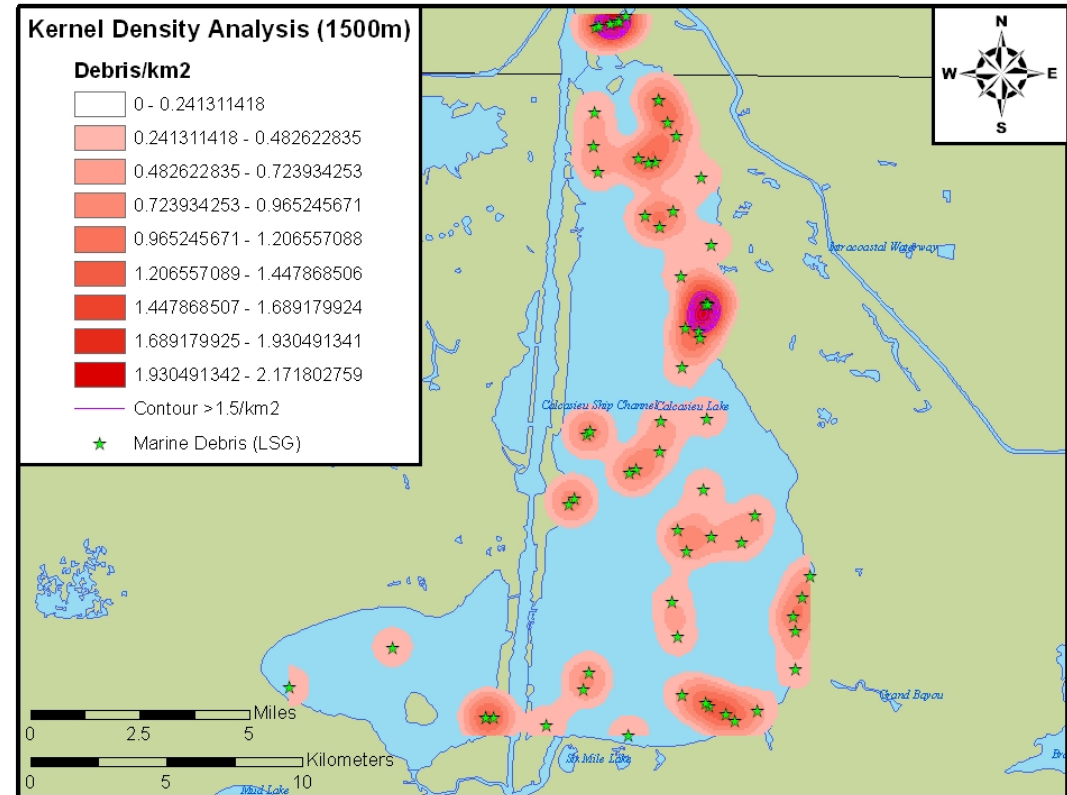
Data Sources: NOAA, USCG, USFWS & Louisiana Sea Grant



# Calcasieu Lake Marine Debris Project

- N=68;
- Calcasieu Lake, LA;
- Visual surveys w/ some SSS;
- Volunteer effort (fishermen);
- GEOG 4047 & 7973.

## LSG Calcasieu Lake Marine Debris (December 2007)



Source: Louisiana Sea Grant College Program

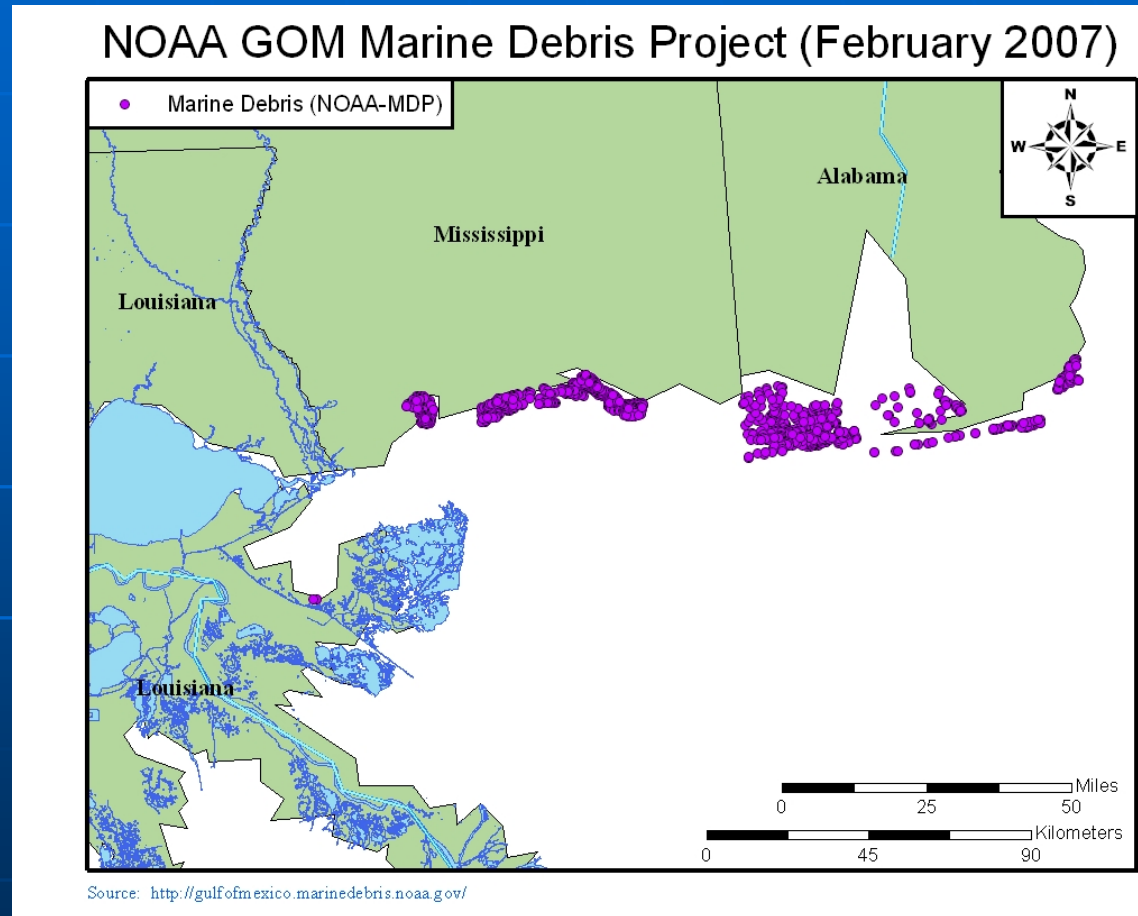
# ***PARTNERSHIPS***

- Grass-roots, volunteer-oriented effort;
- Multiples partnerships;
  - **Feds**-NOAA, USCG Auxiliary;
  - **State**-LDWF, LDNR, Calcasieu Parish Sheriff's Office;
  - **NGOs**-CCA, LC Power Squadron;
  - **Local support**- Ship to Shore Co., Stine Lumber, Capt. Sammie Faulk, Lake Charles Pilots & more.
- Extensive media support;
- NOAA Contacts- Tim Osborn & Cliff Cosgrove.



# NOAA GOM Marine Debris Project

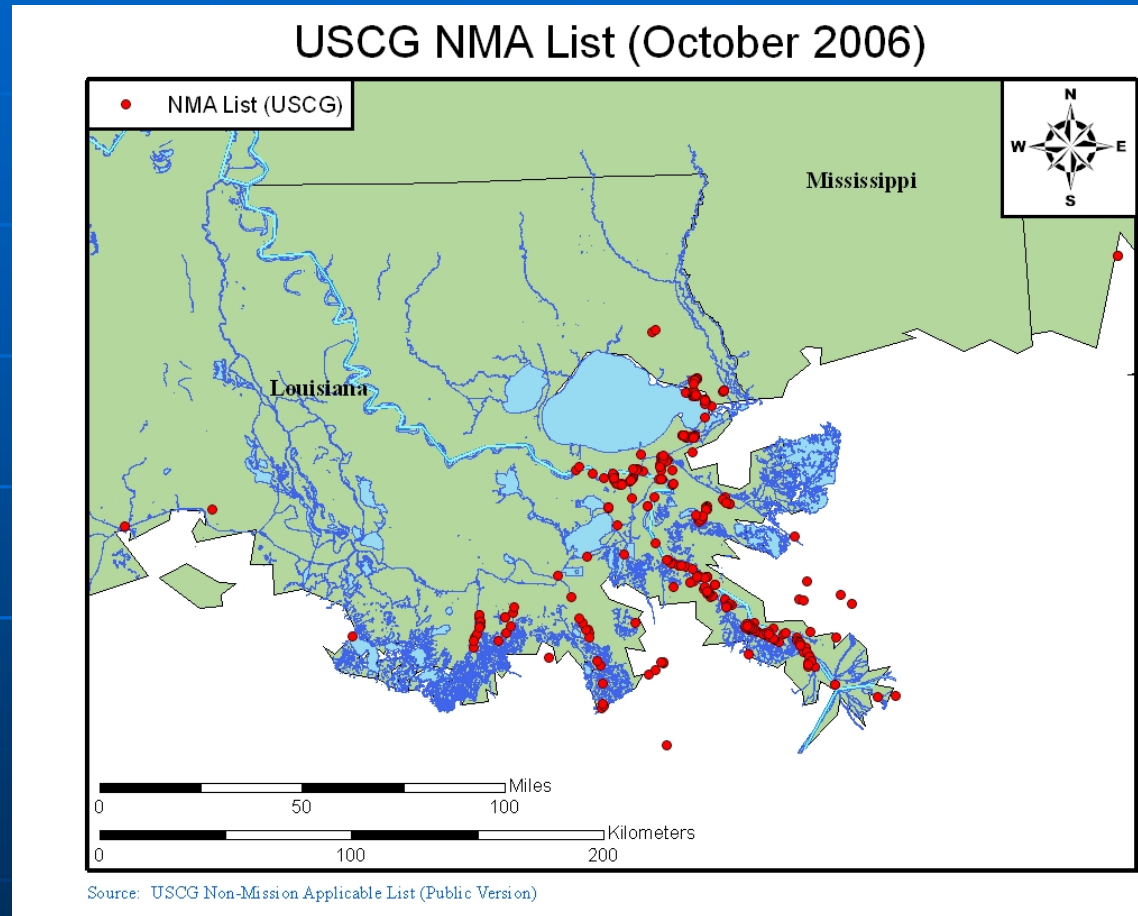
- N ~ 2,860+;
- AL, MS, and LA;
  - Near-shore waters;
  - Lake Borgne, LA;
- SSS surveys;
- Can derive volume estimates.





# US Coast Guard “NMA List”

- N ~ 525;
- Southeast LA;
- Stranded vessels or large debris items which “slipped through cracks”
- Visual surveys.



# Journal of Extension (JOA)

- **Explore how data was collected and role of GIS...**
  - Aerial survey; side-scan sonar (SSS); visual survey, etc.;
  - Advantages, disadvantages, & quality of data;
  - Discuss emerging data collection techniques for future consideration & utilizing fishermen to collect data;
- **Explore spatial relationships in available data...**
  - Produce high-quality maps of GOM debris data;
  - Determine the influence of elevation, bathymetry, or population density in aggregating debris;
- **Offer lessons learned and management implications to inform future post-storm debris response.**

# *Southern Louisiana Regional Portfields Initiative*

- ~9 Southern Louisiana Ports:
  - Liaison to POGBR & PAL;
- Agency partners:
  - **Feds-** NOAA, NMFS, EPA, USACE, EDA, HUD, USFWS;
  - **State-** LDEQ, LDWF, LDED, DOTD;
  - **Regional-** RPC, BTNEP, LSG;
  - **Local-** Baton Rouge Brownfields, Baton Rouge Green.
- NOAA contacts- Kenneth Walker, Brent Ache, & Meredith Mendelson.



# ***PORTFIELDS Cont.***

## ■ **Port of Greater Baton Rouge (POGBR)**

- Inventory of distressed riverfront property;
- Dredging of Baton Rouge Harbor (Devil's Swamp);
- Directional/interpretive signage for port and locks;
- Stormwater Management & Drainage Improvements;
- Container-on-barge demonstration project.

## ■ **Ports Association of Louisiana (PAL)**

- **Strategic Business Plan for the Ports of Louisiana**
  - \$100,000 (LDED- committed)
  - \$65,000 credit for Capital Improvement Plan for Louisiana's ports;
  - \$35,000 (PAL);
  - ~\$600,000 EDA pre-application

# Future Plans

- Synthesis of GOM marine debris;
- Fisheries infrastructure;
  - Marine services centers, niche fishing ports;
- Re-visit LNG (traffic conflicts, marine mammal strikes);
  - Calcasieu Ship Channel (2-3 terminals);
  - Gulf of Mexico (16+ terminals):
    - 2 existing; 4 construction; 10 more approved.
- Ballast water & AIS (undergrad student).

# QUESTIONS?



**More information:**

**[www.laseagrant.org/debris](http://www.laseagrant.org/debris)**

**[www.laseagrant.org/adserv/ports.htm](http://www.laseagrant.org/adserv/ports.htm)**