Marine Debris in the Gulf of Mexico

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Outline

1. Project Background
2. Process
3. 2006-2007 – Alabama, Mississippi
4. 2007-2009 - Louisiana
5. Outputs
Gulf of Mexico

- 9th largest body of water in the world
- ½ of US wetlands
- $2.2 T share of GDP, 20 million jobs (2006)
- 50% of US oil, gas & refinery production
- 7 of top 10 US ports located in GOM
- 25 M marine recreational fishing trips by 3.6 M residents
- GOM yields 69% of US Shrimp, 70% of US Oysters
Congressional Response

- Congressional Appropriation
  - 2006-2007 funding to address debris impacts
    - Conduct surveys
    - Process survey data into effective and useable information,
    - Conduct risk assessment
    - Implement outreach plan
  - NOAA Marine Debris Program and Office of Coast Survey selected to lead data collection and analysis
NOAA Gulf of Mexico Marine Debris Project (GOMMDP)

- Project Goals
  - Support restoration of fishing industry and grounds in GOM
  - Support efficient and cost-effective debris removal
  - Conduct public outreach to stakeholders
    - Fishers
    - Boaters (comm. & rec.)
    - Resource managers
OCS Survey Images

Side Scan Sonar

Multi-Beam Sonar

DATA PROCESSING

First Pass

Second Pass

Third Pass

100%

200%
1. Survey data analyzed by Survey Contractors

2. Analyzed data posted to Sharepoint server by Survey Contractors

3. Data retrieved by GIS Team for product development by GIS Team

4. GIS Products retrieved by Web Development Team for inclusion on product Web site(s) by Web Development Team

5. Web site(s) updated by Web Development Team
2006-2007
- Alabama, Mississippi, Louisiana
  - NOAA, FEMA, USCG, State Agencies
    - Survey by NOAA based on State input, removal by USCG/state contractors paid by FEMA funding
- Results
  - Outreach in partnership with SeaGrant (AL, MS, LA Offices)
  - 5,000+ targets identified
  - 700+ mi² surveyed
Project Website – SUPP1

- SUPP1 Web site
  - Survey maps and data, updated every 2-3 weeks
  - Link to interactive Internet Mapping Server (Arc IMS)
  - FEMA debris removal maps and tables, updated weekly
  - Links to internal/external project partners
  - Outreach products, media information, related publications, photos, and videos
Appropriation in Action – SUPP2

- 2007-2008
  - Louisiana
    - Inshore
      - Inland waterways – lakes, rivers, bayous
      - Submitted by parish
    - Offshore
      - Offshore transect surveys (as SUPP1)
      - Near-shore environment to state boundary line (c. 3 miles)
  - Increase in number of participating agencies
    - Even greater need for communication and coordination
Project Website – SUPP2:
http://gulfofmexico.marinedebris.noaa.gov/
Project Website Features
Survey Mapping

Work Area - Tiles

Map Tile – Target Detail
Project Website Features
Interactive GIS Mapper + Target Information

Interactive Mapper

IMS - Zoomed

Debris Locations

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Project Website Features
Data Analysis
Web Presence – SUPP2

• SUPP 2
  – Increased need for multi-agency cooperation
    → Need for data sharing
  – Data security concerns across agencies
    → Need for secure web interface for project status display and updates.

→ The Situation Board
Situation Board

- **Operational Focus**
  - Designed for intuitive use by operation personnel (field and management)
- **Increased data display**
  - Operational documents
    - Internal USCG ICS Docs
    - Photos
    - EU Reviews
- **Rapid data updates**
  - Content updated as it becomes available
- **Secure**
  - Password protected
  - USCG + NOAA controlled user list
Situation Board Features
Parish Map with Impacted Waterways

Sample Parish Map – St. Tammany parish

Case # delineated waterways
Situation Board Features

Waterway Chart-let

Waterway Chart-let - Website View

Chart-Let – PDF downloaded
Outreach – SUPP2

- Louisiana Focus
  - Target Audiences
  - Topography
  - Debris Impacts

  ➔ Different Products
  - Vietnamese Fisher Concentrations
  - Translation of materials

Lurking beneath calm waters...

Hurricanes Katrina and Rita deposited huge amounts of marine debris along the Gulf of Mexico coast. This marine debris can damage boats and fishing gear.

Efforts to survey, map, and remove debris continue across Louisiana's coast. Get free maps and GPS coordinates of underwater hazards at http://gulfofmexico.marinedebris.noaa.gov/
Knowledge Gained

- NOAA Marine Debris Program gained valuable additional experience:
  - Disaster response
  - Information distribution
    - Web presence development
  - Technology integration
  - Interagency partnership
Knowledge Applied

- Emergency Response
  - Emergency Response Plan (ERP)
  - MDIC Action Plan
- Information Display & Distribution
  - Marine Debris Clearinghouse
- Technology Integration
  - PDA/GPS, Google Maps/Google Earth
- Interagency partnership
  - Continual process
Knowledge Applied, Cont.

- **Emergency Response Plan**
  - Suggested by Gulf States
    - Capture experiences and lessons learned
    - Provide planning guidelines and recommendations
  - Input From
    - Alabama, Mississippi, Louisiana
    - USCG
    - FEMA
    - NOAA
    - Sea Grant
    - OCS Survey Teams
Thank You

Any Questions?

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