



Marine Debris

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Setting the Stage:

Towards an integrated national marine debris database

*Environmental Response Data Collection Standard Workshop
Coastal Response Research Center
September 26, 2007*

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Office of Response & Restoration



Overview

- NOAA's interest in marine debris
- NOAA Marine Debris Program overview
- Marine debris data types
- ORR and emergency response – MD nexus
- Benefits to natural resources of establishing a standard



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Marine Debris Research, Prevention, and Reduction Act

- Signed in December 2006.
- NOAA: Establish “a process... for cataloguing and maintaining an **inventory of marine debris**... including **location, material, size**, age, and origin, and impacts”
- “...Maintain a Federal information clearinghouse...to improve marine debris source identification, **data sharing**, and monitoring efforts through collaborative research and **open sharing of data**.”



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Federal Coordination

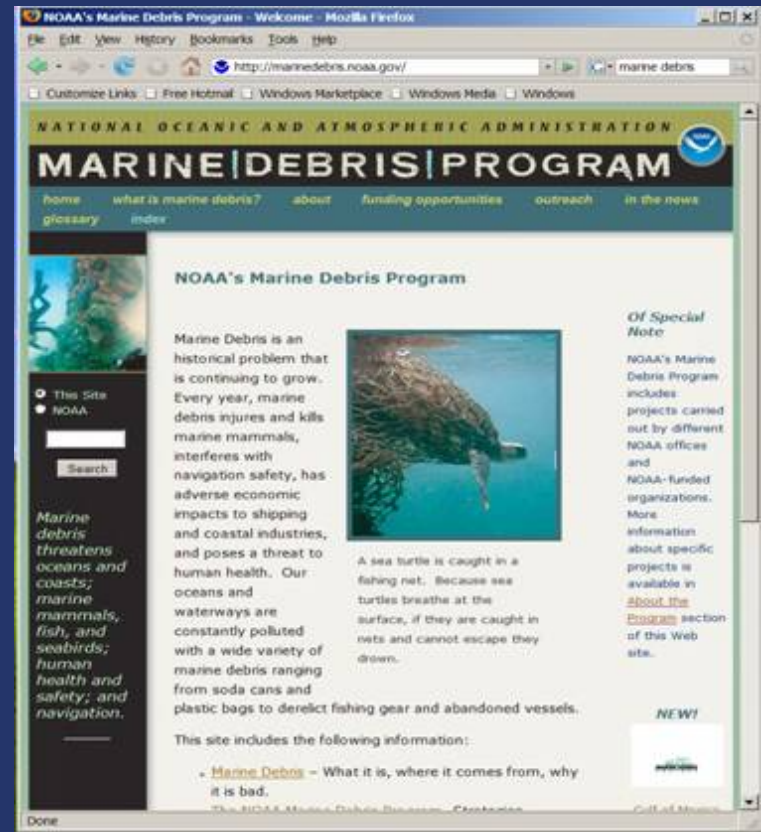
Interagency Marine Debris Coordinating Committee

- Co-chaired by NOAA and EPA
- 11 federal agencies, including USCG, DOI, DOS, DOD
- Agencies collect and use data – coordination mandate



NOAA Marine Debris Program

- Established in 2005 in the Office of Response & Restoration
- NOAA-wide program dedicated to leading research, prevention, and reduction activities for agency and interagency efforts
- Website: www.marinedebris.noaa.gov



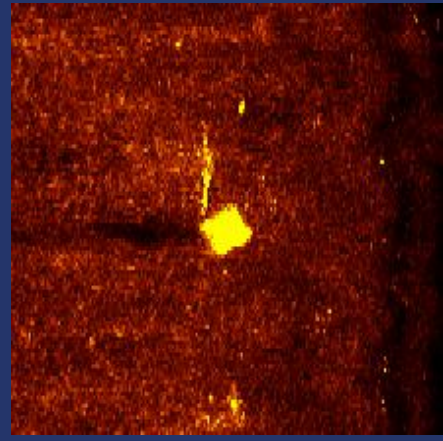


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Program Goals

- Prevent
- Assess
- Reduce
- Cross-cuts
 - Research
 - Education/Outreach
 - Capacity-building





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Program Focus Areas



Derelict fishing gear



Data collection and research



Prevention of derelict vessels



Coordination



Outreach, education and protocols



On-the-ground efforts

Marine Debris Hotspots

Hotspot



National Marine Sanctuary



NOAA Marine Debris Activities across the US

Derelict Fishing Gear

- Derelict fishing gear assessment, recovery, training, and outreach (NWSC)
- Identification, mapping, and assessment of derelict fishing gear in Chesapeake Bay
- Olympic Coast derelict fishing gear pilot project
- California derelict fishing gear removal pilot project
- Honolulu Marine Debris Port Reception Project

On-the-Ground Efforts

- Marine debris (tires) removal from Ft. Lauderdale coral reefs
- Olympic Coast cleanup - Beach debris removal
- Waiohinu-Ka Lae marine debris removal
- International Coastal Cleanup
- Marine debris removal and shoreline assessment from the Unalaska Island vicinity, Aleutian Islands, Alaska
- Northwestern Hawaiian Islands debris removal

Data Collection & Research

- Gulf of Mexico Marine Debris Project
- Lake Calcasieu marking & mapping project
- Safe Seas 2006
- At-sea detection of ghostnets

Outreach/ Protocols

- Alabama and Mississippi marine debris removal and prevention: Boater education and volunteer-based clean-up program
- Marine Debris web educational campaign



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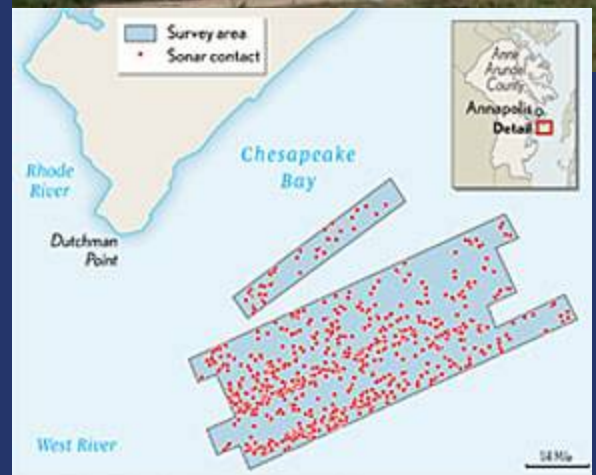
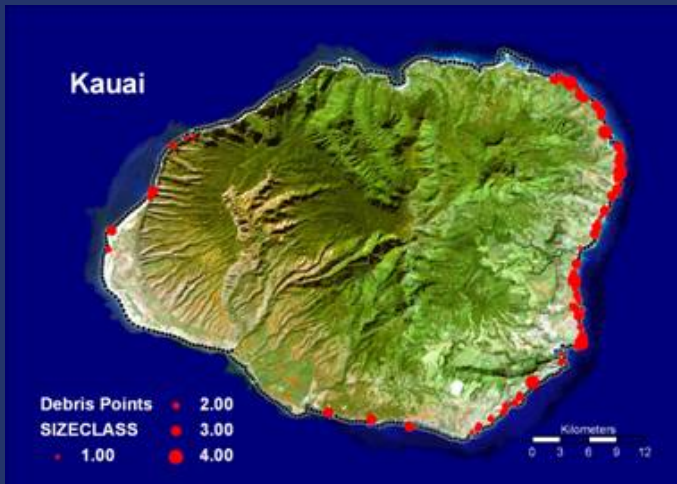
Data Collection in MDP

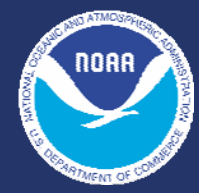
- Aerial survey – location, size
- Beach cleanups – type, total amount
- In-water surveys – volume, location
- SCAT integrated debris survey – location, type, size



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Data Collection in MDP





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NOAA Roles in Incidents

- Scientific support during incident
- Shoreline cleanup assessment (SCAT)
- Damage assessment
- Restoration planning
- Restoration monitoring





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Tesoro Oil Spill, Hawaii

- Accidental hose failure on O`ahu, 1998
- Tarballs, oiling of birds on Kaua`i
- Oil cleanup difficult
- Compensation: removing nets seen on overflights





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Selendang Ayu, Alaska

- Cargo ship, 2004; 350,000 gallons released
- SCAT team surveyed debris
- MDP undertook removal based on SCAT data



NOAA's Selendang Ayu Oil Spill Response and Restoration Project



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Cape Flattery, Hawaii

- Cement cargo vessel, 2006
- Considering net removal as compensatory restoration, but no inventory, no scaling





Why Start with Emergency Response?

- SCAT is established and successful!
- Expertise and capacity within ORR
- Great connection between ORR and MDP
- Great connection with CRRC
- Start small but ambitious



Benefits of Integrating with SCAT

- Oil and debris land in the same places: SCAT is basically the same technique as a debris assessment
- Strong link between MD and incidents
 - Oiling of existing debris – ↑ disposal costs
 - Restoration projects for RP – prioritize efforts
 - Vessel debris
 - Cargo as debris
- Assist in developing MD response protocols



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Benefits of Establishing Data Standard

- Sharing data
- Accomplish MD Act mandates
 - Assess
 - Characterize
 - Quantify impacts
 - Establish clearinghouse



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Potential Expansion Opportunities

- Beach cleanups or assessments
- In-water assessments
 - Remote sensing from ships (sonar, ROVs)
 - Tow-board surveys
 - Remote sensed from air/satellites
- Observing programs – fishery, seabird, marine mammals



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Mahalo!

NOAA Marine Debris Program

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Photography

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CNMI Coastal Resources Management Program