

# Welcome

# Ocean Uses Atlas

# Project



Coastal Response Research Center

# Ocean Uses Atlas Project

January 12- 14, 2010

Nancy E. Kinner  
Coastal Response Research Center  
(**CRRC**)  
UNH Co-Director



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# LOGISTICS

- Fire Exits
- Restrooms on each floor
- Map of conference center in packets - location of breakout rooms
- Dining - breakfasts & snacks (outside meeting rooms)
- Lunch:
  - Hot/Cold Buffet
  - Dining Room (on this level)
  - Reserved seating
- If you have any questions - check with staff at registration table



# KEY CRRC STAFF

- Nancy Kinner - UNH Co-Director
- David Gaylord - Workshop Coordinator
- Kathy Mandsager - Program Coordinator



# Topics Covered

- CRRC Overview
- Oil Spill Response in U.S.
- Environmental Response Management Application (ERMA)
- Spill of National Significance (SONS)
- Ocean Uses Atlas Project



# CRRC Overview



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# CRRC CREATION

- NOAA's Office of Response and Restoration (ORR)/UNH Spill Partnership in 2004
- Co-Directors:
  - UNH - Nancy Kinner
  - NOAA - Amy Merten
- Funding for Oil Spill Research Decreasing
  - Government
  - Private sector
- Many Research Needs Exist Regarding Spill Response, Recovery and Restoration



# CENTER MISSIONS

- Conduct and Oversee Basic and Applied Research and Outreach on Spill Response and Restoration
- Transform Research Results into Practice
- Educate/train students Who Will Pursue Careers in Spill Response and Restoration





# OUTREACH EFFORTS

- Workshops on Hot Topics to Identify Research Priorities and Partners
  - Dispersed Oil: Efficacy and Effects
  - Submerged Oil: State of the Practice
  - Human Dimensions of Spills
  - Dispersed Oil Research Forum
  - Integrated Modeling
  - PAH Toxicity
  - Environmental Response Management Application (ERMA™)
  - Environmental Response Data Standards
  - HEA Metrics Workshop
  - Opening the Arctic Seas: Envisioning Disasters & Framing Solutions
  - Oil Spill Research Needs



# Oil Spill Response in U.S.



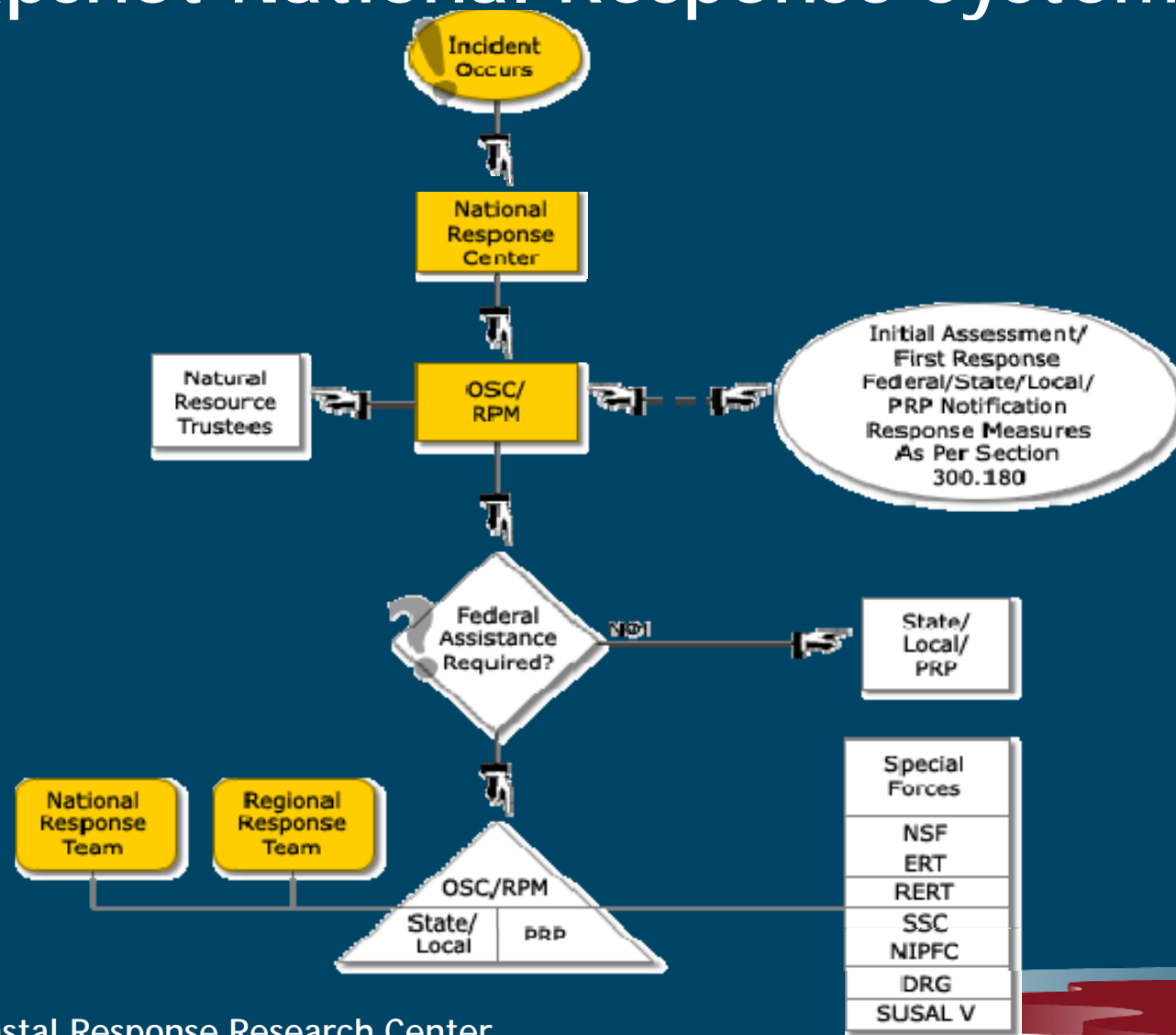
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# Oil Spill Response in U.S.

- OPA (Oil Pollution Act) 1990
  - Federal/Congressional Response to Exxon Valdez in 1989
  - **National Contingency Planning** by Government and Industry (NCP)
    - Federal Gov't directs all Public/Private response efforts
  - **Area Committees** (State, Fed, Local Gov't) develop detailed location-specific plans
  - Owners/Operators of vessels and facilities have **Facility Response Plans**



# Snapshot National Response System



# On Scene Coordinator (OSC)

- Federal Official Responsible for Monitoring + Directing Spill Response
  - Coordinate With All Federal, State, Regional and Local Parties
  - USCG (Coastal + Great Lakes)
  - EPA (Inland)
- Direct Activities If:
  - Source Unknown
  - Spill Beyond Owner/Operator Abilities
  - Spill Substantial Threat to Public Health/Welfare



# National Response Team (NRT)

- Plan and Train for Emergencies, Distribute Response Information
- Interagency Group
  - USCG
  - FEMA
  - DoD
  - DOE
  - USDA - Inland
  - NOAA (Natural Resource Trustee)
  - HHS (Health)
  - DOI (Fish/Birds and Inland)
  - DOJ
  - DOT
  - DOL
  - NRC
  - Treasury
  - GSA

If Their Facilities



# NOAA Role During Spill

- Survey Spill
  - Planes/helicopters
  - Satellites
- Estimate Extent of Slick
- Track Movements
- Predict Trajectory and Fate of Spill
  - Weathering
- OSC Uses NOAA Input to Select Response



# Response Selection

- When: How Recently Did Spill Occur?
- Where is Spill?
  - Bay, Estuary...
  - Beach, Salt Marsh...
- Type of Oil + Condition
- Volume Spilled
- Weather Conditions
- Resources to Protect



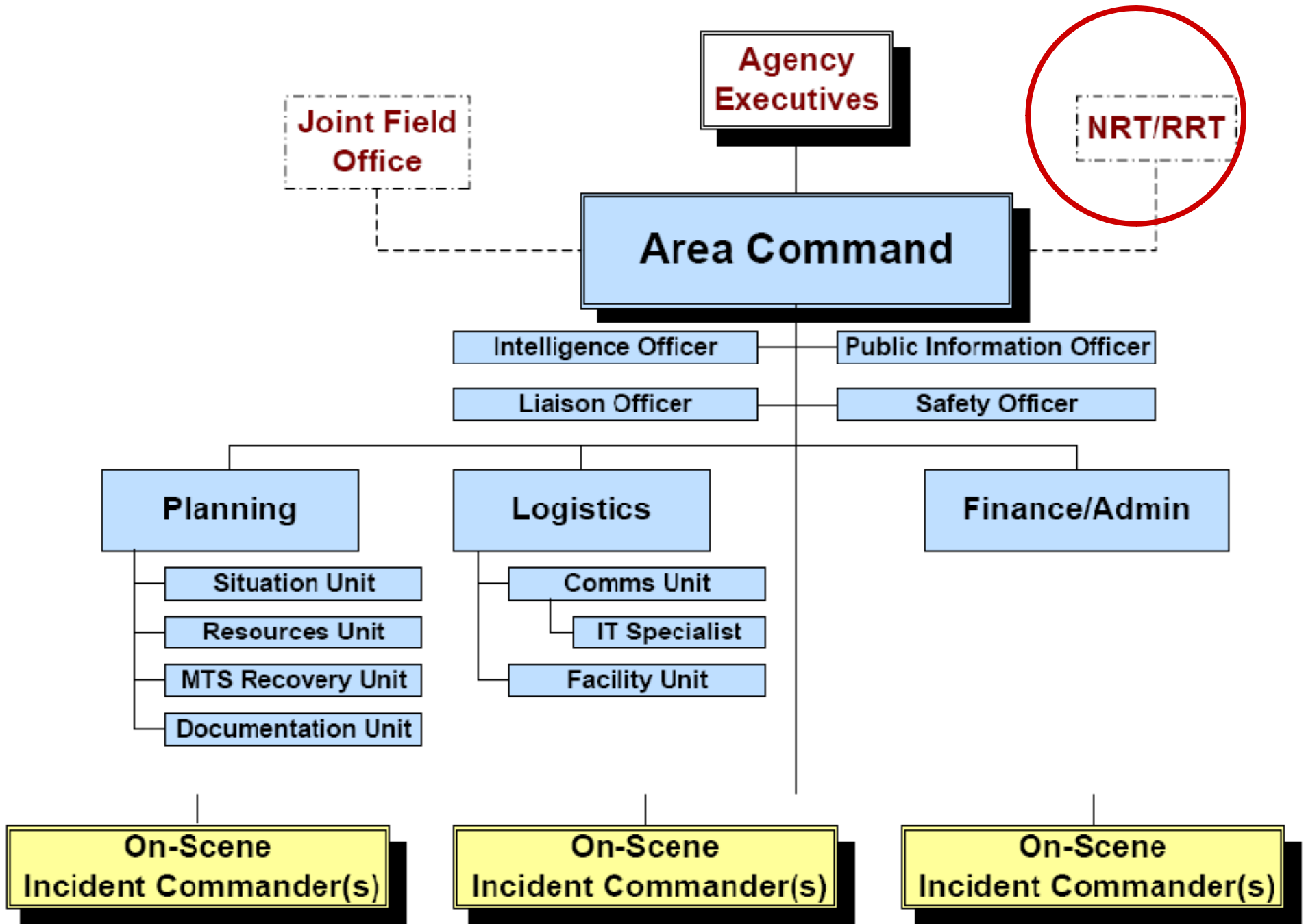


# Drivers of Selection

- Current
  - Habitat(s) Impacted
  - Natural Resources Impacted
- Future
  - Economics
  - Stakeholders Views (Pre-Spill Involvement)
  - Risk Communication
  - Performance Metrics (Quantitative vs. Qualitative)



# Area Command Organization Chart





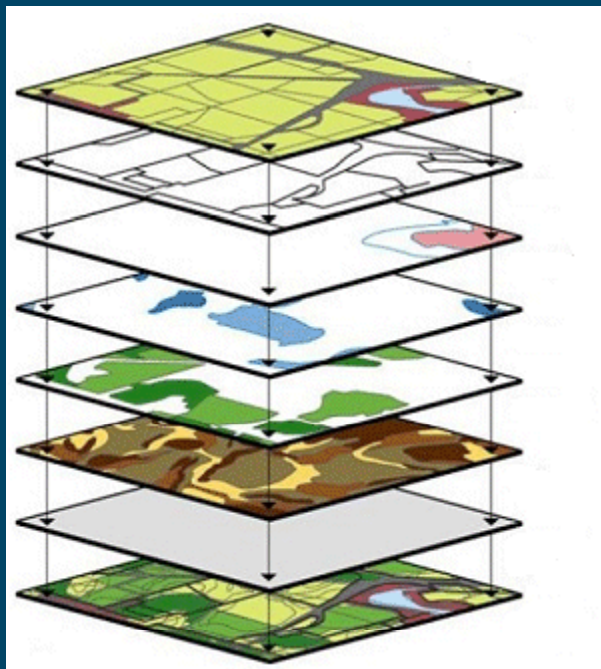
# Environmental Response Management Application™

CRRC and NOAA ORR Joint Tool Development



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# A Picture is Worth a Thousand Words...



- Diverse datasets interlaced on single map to visualize complex nature of situation



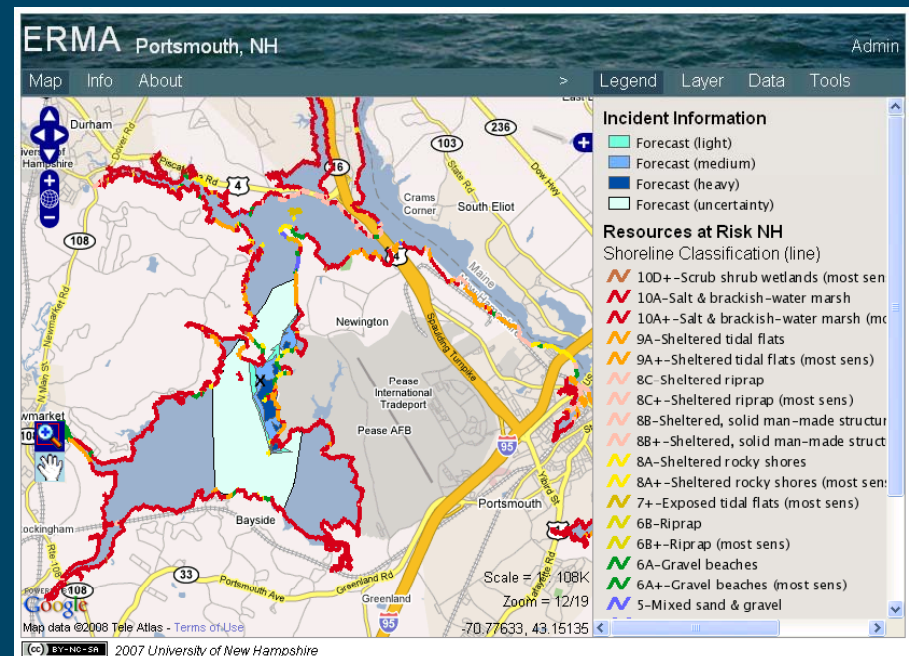
# Features

- Secure Login
- Critical Datasets for Environmental Response
- Real-Time Vessel Traffic from Coast Guard
- Layers as Base Maps
- NOAA Navigational Charts
- Weather and Buoy Observations
- Interactive Tools



# ERMA

- NOAA ORR Oversees ERMA Distribution
  - Amy Merten - Project Lead
- Pilot Used in NH/ME Asphalt Drill in June 2008
- Caribbean RRT is the first full ERMA (May 2009)
  - Funded by EPA Region II
- Broad Support from NRT and RRT co-chairs



# ERMA

<https://portsmouth.erma.unh.edu/erma.html>

(Mozilla Firefox)



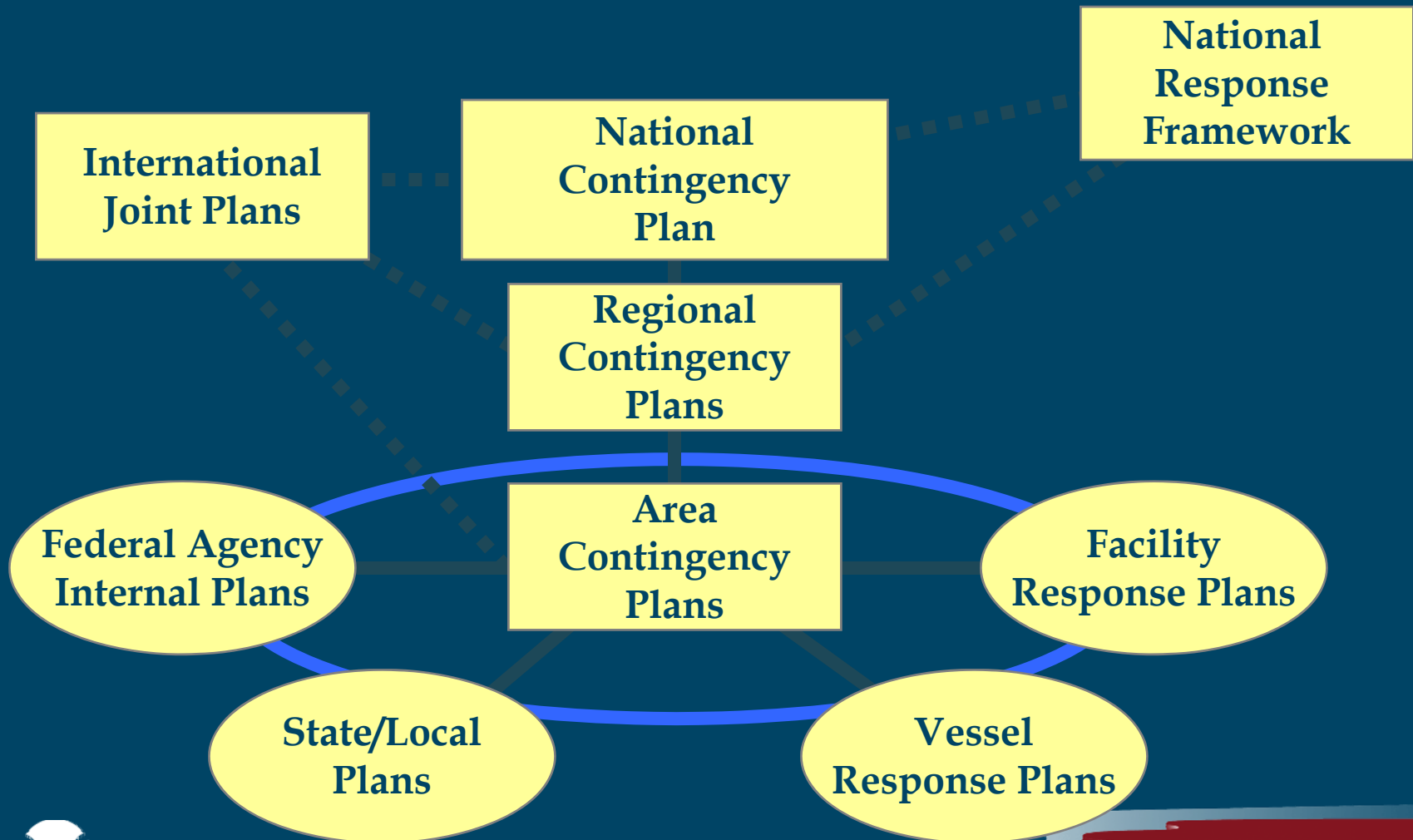
# Spill of National Significance (SONS)



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# Exercising the Plans of the National Response System



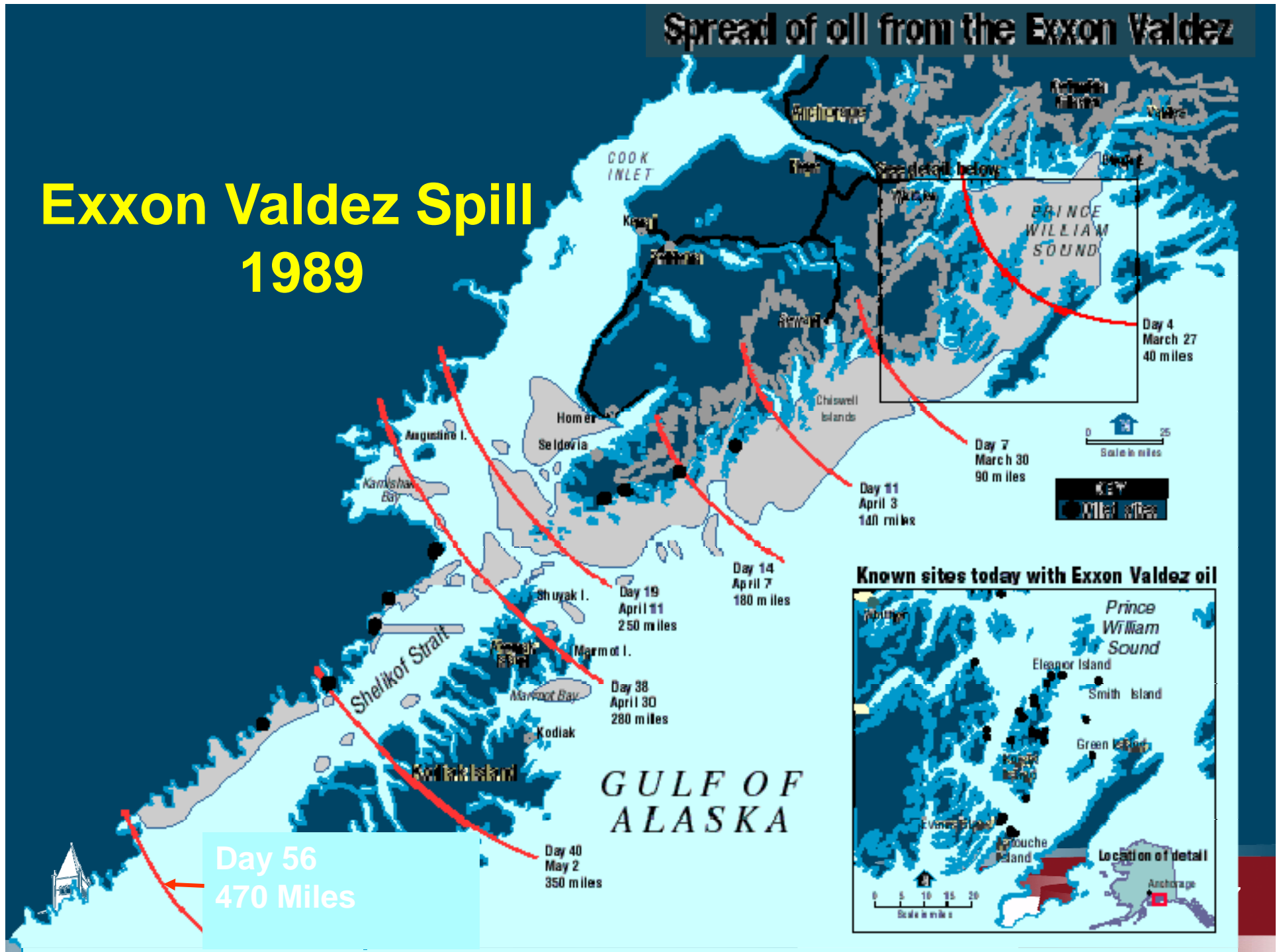
# SONS

- Rare Catastrophic Spill Which Exceeds Response Capabilities at the Local and Regional Levels.
- Possible Criteria:
  - Multiple zones, districts, or nations affected
  - Significant and widespread public health, welfare, environment, or economic impacts
  - Protracted discharge or cleanup period
  - Significant public concern and demand for action
  - Actual or potential high level of political or media interest

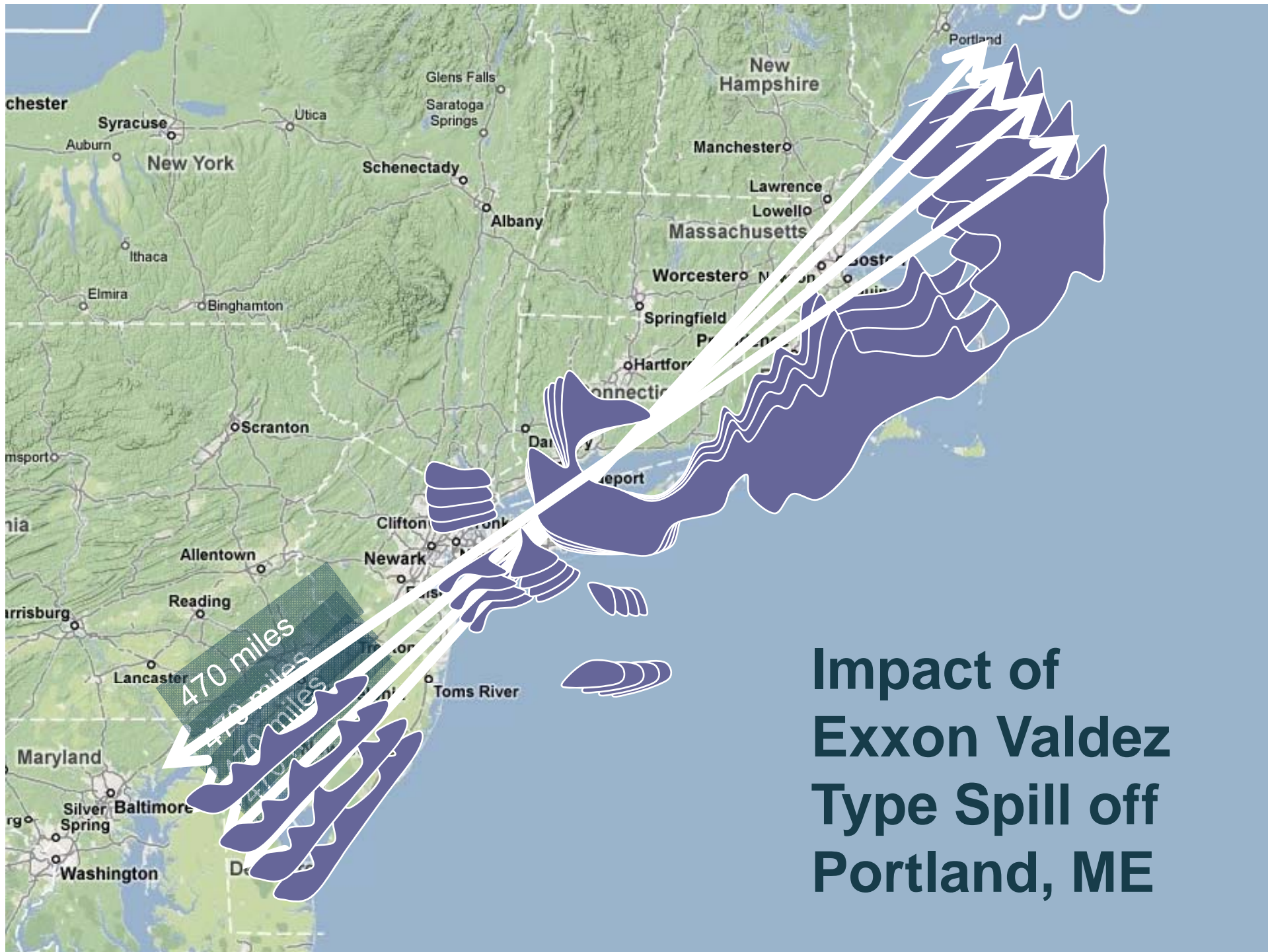


# Spread of oil from the Exxon Valdez

## Exxon Valdez Spill 1989







# Impact of Exxon Valdez Type Spill off Portland, ME

# SONS Exercise Program

- Regular Exercise Series Since 1997
  - 1997 Philadelphia
  - 1998 Alaska
  - 2002 Gulf of Mexico
  - 2004 California
  - 2007 Mississippi River Valley & Great Lakes (New Madrid earthquake scenario)
  - **2010 Northern New England**



# SONS 2010 – Parameters

- Largely US Focused
- Canadian Play and Involvement, But This is Not Principally a Joint Response.
- USCG Sector Northern New England Only Field Exercise Venue
  - Other impact areas such as Sectors Boston, Southeast New England will be simulated
  - Week of 22 March 2010



# Exercise Objectives

- Real-Time Response to Major Scenario
- Command Post Standup
- Communications
- Public Affairs
- Volunteer Management
- Incident Management
- Fisheries Impacts
- Resource Sharing with Canadians
- Interaction with Area Command
- Focused Training





# Ocean Uses Atlas Project



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- During Oil Spill Response, Human Uses of Marine Waters Often Impacted
  - San Padre Island, TX - restricted beach use
  - Louisiana Gulf Coast - closed shrimp fisheries
- NOAA Scientific Support Coordinator (SSC) Informs Coast Guard of Resources That Must Be Protected
  - Response technologies - protective booming, dispersion



# Ocean Uses Atlas Project

- Need to Know Where Human Uses Occur
  - Non-Consumptive Uses - e.g., kayaking, swimming
  - Consumptive Uses - fishing
  - Industrial Uses - power plants



# Ocean Uses Atlas Project

- NOAA's Office of Ocean and Coastal Resource Management (OCRM)
  - Mapping Human Uses of Ocean and Coast
  - Started in California
- NOAA's Office of Response and Restoration (ORR) Application to Oil Spill Response
  - GIS Layer in ERMA
  - Visual overlay to quickly locate resources needing protection from spill



# Ocean Uses Atlas Project

- This Week GIS Data Being Collected From Regional Ocean Experts
  - Non-consumptive (Tues), Consumptive/Fishing (Wed), Industrial (Thur)
- Human Uses Data Will Be Added to ERMA as a Pilot Demonstration
- Used in SONS Drill, March 2010 (NH Coast and ME Coast South of Cape Small)
- Data Given to All Interested Parties



# Coastal Response Research Center Website

[www.crrc.unh.edu](http://www.crrc.unh.edu)



# Group Photo Time!!!!



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# CRRC Final Comments

- THANK YOU VERY MUCH FOR YOUR HELP!!!!!!
- CRRC Information:
  - Website
  - Handouts in this Room
- Data Will Be Available -
  - Info on Access Will Be Posted on CRRC Website
- Travel Reimbursement - Mileage
  - See Kathy Mandsager
- Rating Sheet in Breakout Groups





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