



NOAA | Office of Response and Restoration | Emergency Response Division 

NOAA Emergency Response Division: Requirements for Oil Observation

October 20, 2015
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Topics

- NOAA ERD Role in Response
 - Scientific Support Coordinator
 - Scientific Support Team
- Oil observation needs for NOAA roles and customers in response

5/19/15 at 1700 PDT from bluff overlooking Refugio (Stout)



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Department of Commerce / NOAA
National Ocean Service
Office of Response and Restoration

Emergency Response Division

Assessment and Restoration Division

Marine Debris Division

Marine debris threatens marine life and our oceans and coasts. It affects us too, whether we are boating, fishing, swimming, or simply enjoying a day at the beach. Trash can travel through storm drains, streams, and rivers and end up in your community, as well as in the ocean. Learn ways to stop this from happening.
www.marinedebris.noaa.gov

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Emergency Response Division	Assessment and Restoration Division	Marine Debris Division
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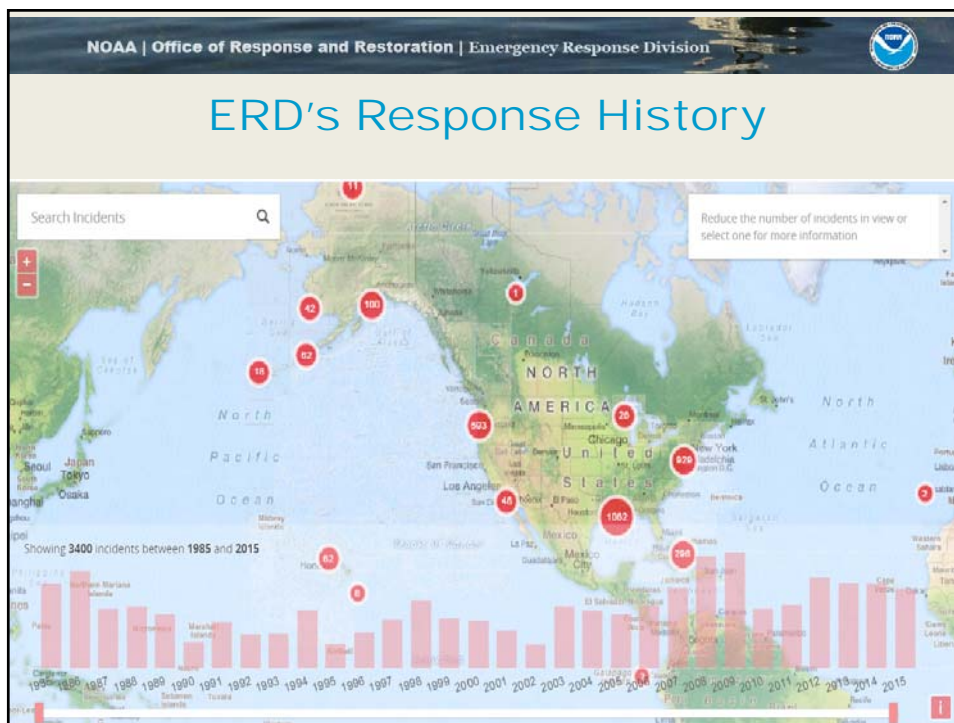
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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What we do....

- **Response 24/7:**
 - On-scene and remote support
 - Modeling, shoreline assessment, resource assessment, weather coordination, overflights, data management, communications, development of guidance (BMPs, endpoints, priorities), RRT/NRT
- **Preparedness:** National & Regional Response Teams, exercises, guidelines, maps, training, outreach
- **Development:** Tools, models, web access
- **Coordination:** States, academia, other NOAA offices
- **Restoration (Assessment & Restoration Division):**
 - Assess injury to coastal and marine resources
 - Restore affected natural resources

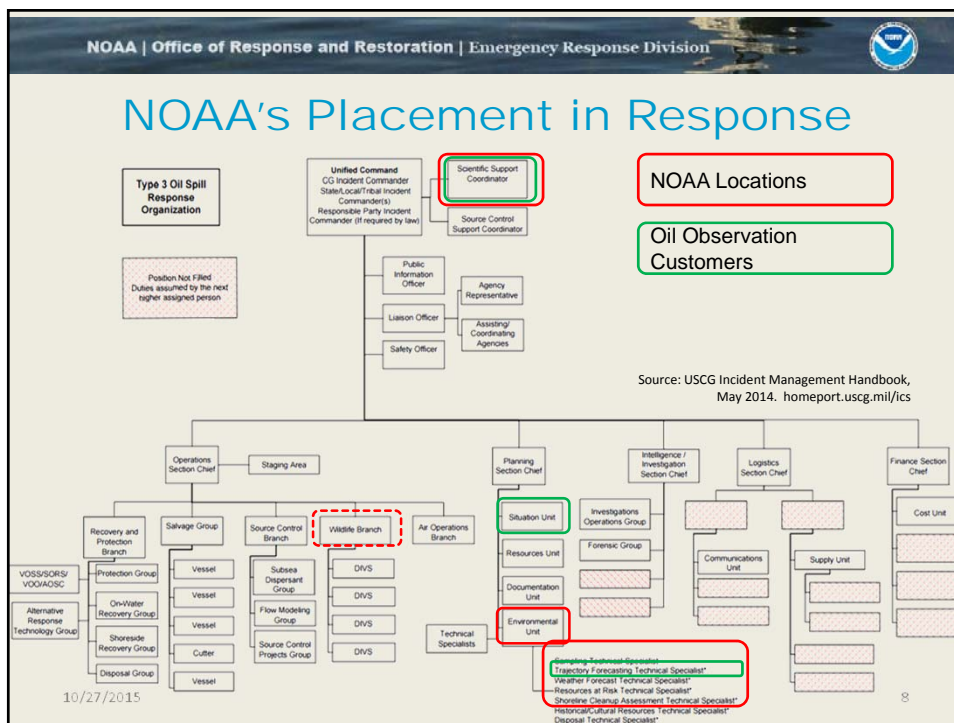



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ERD Oil Observation: Regulations

- National Contingency Plan / 40 CFR 300.145**
 - Scientific Support Coordinators (SSCs) may be designated by the OSC... as the principal advisors for scientific issues...
 - NOAA SSCs are assigned to USCG Districts and are supported by a scientific support team that includes expertise in environmental chemistry, **oil slick tracking, pollutant transport modeling**, natural resources at risk, environmental tradeoffs of countermeasures and cleanup, and information management.
- Industry Planholder Dispersants Caps / 33 CFR 154.1045**
 - The owner or operator must provide responders trained in aerial observation “and familiar with the use of other guides, such as NOAA’s ‘Open Water Oil Identification Job Aid for Aerial Observation’”

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Overflights

OPEN WATER OIL IDENTIFICATION JOB AID
for aerial observation
With Standardized Oil Slick Appearance and Structure Nomenclature and Codes

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Remote Sensing - UAS, Aircraft, Satellite

ERMA Environmental Response Management Application

EXPERIMENTAL MARINE POLLUTION SURVEILLANCE REPORT
Analysis Provided by The National Oceanic and Atmospheric Administration's Environmental Satellite Data and Information Service (EDDIS)

MARINE POLLUTION SURVEILLANCE REPORT
Analysis Provided by The National Oceanic and Atmospheric Administration's Environmental Satellite Data and Information Service (EDDIS)

outer Text

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Oil Detection: Information use

- Common Operating Picture / ERMA
- Trajectory Modeling / GNOME
- Resources at Risk
- On-water Response Support (generally RP)

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RESPONDER TOOLS

MARPLOTS (Mapping Applications for Response, Planning, and Local Operational Tasks) is a mapping program in CAMEO that allows users to add objects to maps, as well as view and edit data associated with those objects.

ERMA (Environmental Response Management Application) is an online mapping tool integrating static and real-time data in an easy-to-use format for environmental responders and decision makers.

ALOHA (Areal Locations of Hazardous Atmospheres) is an air hazard modeling program in CAMEO that estimates how a toxic cloud might disperse after a chemical release, including fire and explosion scenarios.

CAMEO (Computer-Aided Management of Emergency Operations) is a software suite designed to help prepare for and respond to chemical emergencies.

ESI Maps (Environmental Sensitivity Index maps). Maps provide a concise summary of coastal resources at risk if an oil spill occurs nearby.

CRW (Chemical Reactivity Worksheet) predicts possible hazards from mixing chemicals and is used to help prevent dangerous chemical incidents.

ROC (Response Options Calculator) predicts how spilled oil will change and degrade over time and the volume of oil that can be recovered, burned, or treated using different response tactics.

TAP (Trajectory Analysis Planner) analyzes statistics from potential spill trajectories generated by the oil spill trajectory model.

GNOME (General NOAA Operational Modeling Environment) is a software modeling tool used to predict how oil and other pollutants might move and spread on the water.

CAFE (Chemical Aquatic Fate and Effects) Database is a software program that helps responders assess potential harm to aquatic life from chemical or oil spills.

ADIOS (Automated Data Inquiry for Oil Spills) models how different types of oil change and degrade in the marine environment.



Questions?

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