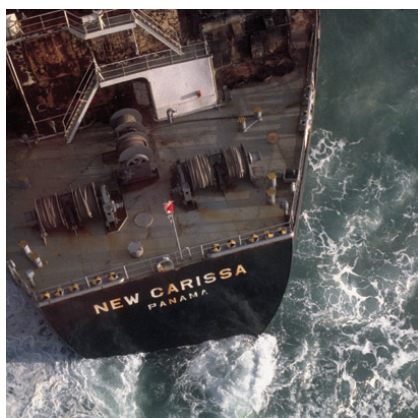


## Emergency Response Division (ERD)

**T**housands of incidents occur each year in which oil or chemicals are released into the environment as a result of accidents or natural disasters. Spills into our coastal waters, whether accidental or intentional, can harm people and the environment and cause substantial disruption of marine transportation with potential widespread economic impacts. The Emergency Response Division (ERD), formerly Hazardous Materials Response Division (HAZMAT), of NOAA's Office of Response and Restoration (OR&R) provides scientific expertise to support an incident response and initiates natural resource damage assessment. This integrated approach provides for an efficient and effective response, minimizing the harm to people, reducing the negative impacts to the economy and enhancing environmental recovery. Under the National Contingency Plan, NOAA has responsibility for providing scientific support to the Federal On-Scene Coordinator (FOSC) for oil and hazardous material spills. To support this mandate, ERD provides 24-hour, 7 day a week response to spill events.



NOAA Scientific Support Coordinators (SSCs) coordinate scientific information and provide critical information to the Federal On-Scene Coordinator (FOSC).

In addition to the SSC, ERD Natural Resource Scientists also provide support to the FOSC, assessing the extent of environmental injury and recommending emergency

restoration actions. A multidisciplinary team of ERD scientists, that includes oceanographers, modelers, biologists, chemists, and geologists, are based in Seattle and support the SSCs and

Natural Resource Scientists during spill events as well as for drills, exercises, and contingency planning. SSCs and Natural Resource Scientists are strategically located around the country, often within U.S. Coast Guard (USCG) offices, effectively providing local services to a range of users in public and private sectors. ERD services include:

- Supporting emergency response and restoration activities;
- Assisting in the development of contingency plans;
- Developing tools for local decision makers; and
- Providing training.

ERD facilitates spill prevention, preparedness, response, and restoration at national and local levels. By working at both national and local levels on planning activities, ERD provides expertise on such issues as dispersant use, alternate response technologies, response countermeasures, assessment of natural resource injury, and emergency restoration actions.

ERD's scope encompasses the entire U.S. coastline, including the Great Lakes, the Gulf of Mexico, Alaska, and Hawaii. In the last twenty-five years, ERD has responded to virtually every major marine spill in the U.S. In addition, ERD's expertise is frequently sought internationally. While oil and chemical spills are the major focus, ERD also provides support for incidents such as downed aircraft, search and rescue, and tracking floating objects.

### Response

The Emergency Response Division typically responds to about 120 incidents annually. Some of the most notable responses in 2005 and 2006 included:

- Hurricane Katrina and Rita response efforts: Within hours of the passage of Hurricane Katrina, ERD staff began responding to numerous safety and environmental issues. ERD scientists prepared flooding maps for first responders involved in the search and rescue efforts. The division responded to 6 major spills and dozens of smaller spills, totaling over 8 million gallons. ERD also provided scientific support for the removal of hazardous debris, and worked on the USCG salvage team that was tasked with removing over 900 sunken, stranded, and wrecked vessels. Over a year after the hurricanes, ERD is still working on marine debris assessment and removal.
- Tanker *Solar 1*: On August 11, 2006, the tanker *Solar 1* sank offshore of Guimaras Island, near Iliolo, in the central Philippines. The vessel was carrying an estimated 2 million liters of bunker fuel for a local power plant. A substantial but unknown amount of oil leaked from the vessel, oiling shorelines on Guimaras Island. NOAA ERD joined the USCG Pacific Strike Team in responding, and spent over 3 weeks working on various environmental health and safety issues.

- *DBL 152*: On November 11, 2005, an Integrated Tug/Barge System (ITB) *DBL 152* and the T/V *Rebel* struck a submerged obstruction approximately 32 miles offshore of the western Louisiana coast. The obstruction was later found to be an oil rig that had been toppled during Hurricane Rita. The double-hulled barge was holed, and later capsized, spilling an estimated 3 million gallons of heavy (denser than seawater) fuel oil. ERD provided scientific support to the USCG, including helping to track and predict the fate of the sunken oil.

## Preparedness

ERD develops tools, guidelines, and small, field-oriented job aids to assist preparedness for response communities. In addition, NOAA has provided standard techniques for observing oil, assessing shoreline impact, and evaluating and selecting cleanup technologies that have been widely accepted by response agencies.

Environmental Sensitivity Index (ESI) maps are used to identify vulnerable resources and habitats in advance of emergencies so that appropriate response actions can be planned. ERD works with local experts to develop or update these maps throughout the country. Maps are published in hardcopy and digital formats, and translators are maintained to assist in using this data in GIS environments.

Some of the more widely distributed tools ERD develops include a trajectory forecasting tool, GNOME; the oil weathering model, ADIOS; and the chemical hazard tools, CAMEO and the Chemical Reactivity

Worksheet. Used with its location files, GNOME provides a mechanism for end-users to explore various potential spill scenarios. The Automated Data Inquiry for Oil Spills (ADIOS) provides planners and responders with information on how thousands of different oils could physically or chemically change over time under various scenarios. The Computer Aided Management of Emergency Operations (CAMEO) program, developed jointly with the Environmental Protection Agency, provides first responders with information and tools for chemical incidents.

## Training

ERD provides training to individuals in industry and government on the scientific aspects of oil and chemical spill response. About 500 individuals were trained in 2005. The goal of ERD training is to transfer scientific expertise and experience to the broadest possible audience. Successful training promotes more efficient planning and spill response. Each month, an average of 40,000 individuals visit the ERD Web site ([www.response.restoration.noaa.gov](http://www.response.restoration.noaa.gov)), where additional reports, response tools, and training materials are available.

For additional information:

<http://www.response.restoration.noaa.gov>

(206) 526-6317

For 24-hour emergency assistance, call (206) 526-4911

---

*NOAA's Office of Response & Restoration—Protecting our Coastal Environment*

---

**For further information about NOAA's Office of Response and Restoration,  
please visit our Web site at**

**<http://response.restoration.noaa.gov> or call (301) 713-2989.**

