

## Additional Information on SMART

For on-line information on SMART visit the following web sites:

- <http://response.restoration.noaa.gov/oil/aids/SMART/SMART.html>
- <http://www.uscg.mil/vrp/smart.pdf>
- <http://www.ert.org>



Document prepared by:  
Region IV  
Regional Response Team

RRT IV Co-Chairs:  
U.S. Coast Guard 305-536-5651  
U.S. EPA 404-562-8721

## Oil or Chemical Spill Notification call the National Response Center at 800-424-8802

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### Oil Spill Response

in the Region IV Coastal Zone,  
contact the U.S. Coast Guard  
Marine Safety Office (MSO):

MSO Wilmington, NC 910-792-8408	MSO Charleston, SC 843-724-7616
MSO Savannah, GA 912-652-4353	MSO Jacksonville, FL 904-247-7310
MSO Miami, FL 305-732-0160	MSO Tampa, FL 813-228-2189
MSO Mobile, AL 334-441-5121	

In the Region IV Inland Zone,  
contact the U.S. Environmental  
Protection Agency:  
404-562-8700

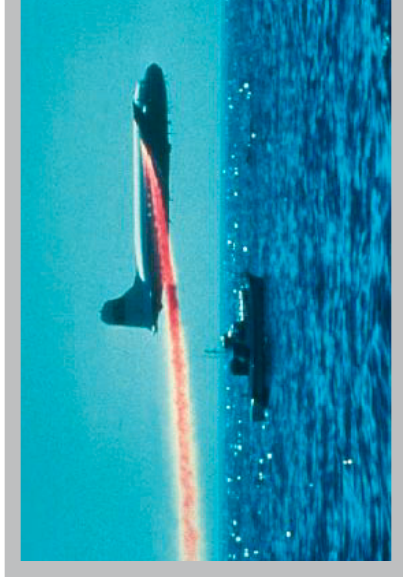
Inland Zone U.S. Coast Guard Offices are:

MSO Huntington, WV 800-253-7465	MSO Louisville, KY 800-253-7465
MSO Paducah, KY 502-442-1621	MSO Memphis, TN 901-544-3912

State Pollution Response Contacts are:

North Carolina 919-733-3867	South Carolina Spill: 888-481-0125 Office: 803-896-4000
Georgia 404-656-4300	Florida 850-413-9911
Alabama 334-242-4378	Mississippi 601-352-9100
Tennessee 800-258-3300	Kentucky 800-928-2380

# Special Monitoring of Advanced Response Technologies (SMART)



## What is SMART?

Special Monitoring of Advanced Response Technologies or SMART is a cooperatively designed monitoring program for in-situ burning and dispersants.

SMART relies on small, highly mobile teams that collect real-time data using portable, rugged, and easy-to-use instruments during dispersant and in-situ burning operations. Data is channeled to the Unified Command to address critical questions:

- Are dispersants effective in dispersing the oil?
- Are particulate concentration trends at sensitive locations exceeding the level of concern?

Having monitoring data can assist the Unified Command with decision-making for dispersant and in-situ burning operations.



instruments, assesses dispersant efficacy and reports back to the Unified Command.

### Tier II

Tier II provides real-time data from the treated slick. A sampling team on a boat uses a fluorometer to continuously monitor for dispersed oil one meter under the dispersant-treated slick. The team records and conveys fluorometer data to the Scientific Support Team, which forwards it with recommendations, to the Unified Command. Water samples are also taken for later analysis at a laboratory.

### Tier III

By expanding the monitoring efforts in several ways, Tier III provides information on where the dispersed oil goes and what happens to it.

- Two fluorimeters are used on the same vessel to monitor at two water depths;
- Monitoring is conducted in the center of the treated slick at several water depths, from one to ten meters; and
- A portable water laboratory provides data on:

- + Water temperature;
- + pH;
- + Conductivity;
- + Dissolved oxygen; and
- + Turbidity.

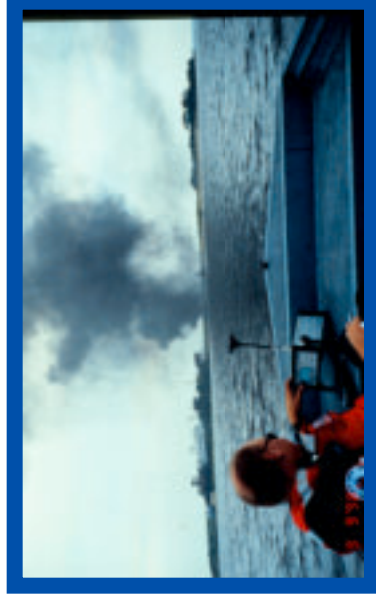
## What Does SMART Provide?

### Dispersants

To monitor the efficacy of dispersant application, SMART recommends three options or tiers.

### Tier I

A trained observer, flying over the oil slick and using photographic job aids or advanced remote sensing



### In-situ Burning

For in-situ burning operations, SMART recommends deploying one or more monitoring teams downwind of the burn at sensitive locations such as population centers. The teams begin sampling before the burn begins to collect background data. After the burn starts the teams continue:

- Sampling for particulate concentration trends;
- Recording them both manually at fixed intervals and automatically in the data logger; and
- Reporting to the Monitoring Group Supervisor if the level of concern is exceeded.

The Scientific Support Team forwards the data, with recommendations, to the Unified Command.

### What is SMART's Field Experience?

SMART has already been successfully tested in the field. SMART was used to monitor dispersant applications in the Gulf of Mexico and in February 1999 it was used to monitor the in-situ burn of the NEW CARISSA off Coos Bay, Oregon. Spills and exercises like these help the developers to enhance SMART.

