

**Bureau of Ocean Energy Management, Regulation, and Enforcement
Oil Spill Detection and Mapping Technology Exercise**

Information Sheet

WHO: The exercise is being conducted by the Bureau of Ocean Energy Management, Regulation and Enforcement, part of the U.S. Department of the Interior. It is being held for the benefit of the Alaska Regional Response Team, other state and federal government agencies, oil-spill removal organizations, industry members and non-governmental organizations.

WHAT: The exercise – held in conjunction with the July meeting of the Alaska Regional Response Team -- will demonstrate the use of a new remote oil-spill mapping and detection system. This system uses a portable aerial multispectral camera and thermal imager mounted in an aircraft of opportunity. The system has been used for oil spills three times in California and is currently being used for the Deepwater Horizon spill in the Gulf of Mexico.

The technology allows the airborne observers to detect and accurately map the thickness and distribution of an oil slick in coastal and offshore waters in near real-time. The acquired data is electronically transmitted to a web-enabled Geographic Information System (GIS) application on a secure server which can be accessed by the command post and responders. Responders can then use this data to deploy response assets to the highest concentration of oil before it has time to spread.

Oil thickness data on the server allows interactive access to the maps created by different groups and agencies involved in the response. It also allows layering of other important information -- such as environmental sensitivity data, coastline photo archives, shipping lane boundaries and bathymetric charts -- over remotely sensed imagery.

This aerial thickness mapping system was developed by Ocean Imaging Corporation, of Solana Beach, Calif., under contract to BOEMRE. The California Department of Fish and Game, Office of Spill Prevention and Response has partnered with BOEMRE to support development of the aerial thickness mapping system.

The exercise will include four components:

(1) Overview of the new technology - This will be given to all participants in the Centerpoint Building ground floor conference room, which is also serving as the command center for the exercise.

(2) On-water demonstration of data acquisition. - Mr. Todd Paxton, general manager of Cook Inlet Spill Prevention and Response Inc. (CISPRI) has offered the use of the vessel "Guardian" to serve as the observer platform for up to 20 observers. The on-water component includes a short boat ride from the Port of Anchorage to the exercise site. Two gallons of a fluorescent yellow/green dye will be released into Cook Inlet as a simulated oil spill. The remote sensing plane will overfly Cook Inlet, image the surrogate spill, and transmit this information down to a secure server. Following the overflights, participants in the on-water component will observe CISPRI conduct a boom-and-skimmer deployment. The CISPRI vessel will return to the Port of Anchorage at noon; observers will then return to the conference room by bus.

(3) Operational user's demonstration - Participants who elect to remain in the conference center will be shown how data from the system is received and utilized in a command center. They will receive a presentation explaining how the oil spill detection and mapping technology operates, and how the acquired data is processed, interpreted and applied. This will include lessons learned from responses to spills off California and in the Gulf of Mexico

(4) Operational evaluation, debriefing and question-and-answer session - Technical staff and researchers from BOEMRE, the State of California and Ocean Imaging Corp. will be available to explain the technology, demonstrate the capabilities and answer questions.

WHEN: Thursday, July 29, 2010, from 8 a.m. to 2 p.m.

WHERE: Centerpoint Building conference room, located on the ground floor of 3801 Centerpoint Drive in Anchorage, Alaska. The Centerpoint Building is a five-story, black granite building located southwest of the intersection of 36th Ave and C Street.

WHY: Pursuant to provisions in the Outer Continental Shelf Lands Act Amendments of 1978 and the Oil Pollution Act of 1990, BOEMRE supports research associated with operational safety and pollution prevention as well as oil spill response and cleanup capabilities. Once promising technologies or methodologies have been tested and evaluated there is a need for a technology transfer program, so that government-sponsored oil spill response research is made available to government, industry, academia and the public.

The purpose of the demonstration exercise is to provide the latest information on the aerial remote sensing of oil slick thickness to members of the ARRT, other state and federal government agencies, oil spill removal organizations, industry, and non-governmental organizations; and to foster understanding and acceptance of new and emerging oil spill response technology. For more information and reports on the development and testing of aerial thickness mapping system, see:

<http://www.mms.gov/tarprojects/544.htm>; <http://www.mms.gov/tarprojects/594.htm>;
<http://www.mms.gov/tarprojects/658.htm>