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U. S. COAST GUARD

STATEMENT OF

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ON THE

FEDERAL OIL SPILL AND RESEARCH DEVELOPMENT

BEFORE THE

COMMITTEE ON SCIENCE AND TECHNOLOGY

SUBCOMMITTEE ON ENERGY AND ENVIRONMENT

U. S. HOUSE OF REPRESENTATIVES

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Good Morning Mr. Chairman and distinguished members of the Committee. It is a pleasure to appear before you today to discuss Coast Guard oil spill response research efforts.

The passing of Oil Pollution Act of 1990 (OPA 90) represented a significant paradigm shift for the Coast Guard. That historic legislation provided the nation with the means to immediately access and distribute funding for oil spill response efforts; made the spiller the responsible party with very specific requirements; and provided a process to restore the marine environment to its pre-incident condition. With this legislation came annual funding for the Coast Guard to take the lead in oil spill prevention, response, and research and development.

The Coast Guard continues to appreciate the significance of the Exxon Valdez event. After running aground at Bligh Reef and spilling over 10 million gallons of oil into Prince William Sound at Valdez, Alaska, this incident became the catalyst for stricter environmental protections and regulations. For the Nation, and for the Coast Guard, the impacts served as the catalyst for developing a stronger regime to improve the shipment of oil and the way oil spills are handled on the water and in the courtroom. The Coast Guard's research and development program ensures we retain the critical expertise and capabilities to prepare, prevent, and, if necessary, respond and recover from future incidents in an increasingly complex national and global operating environment.

The United States has a comprehensive framework for oil spill prevention, preparedness and response that is fully supported by the Coast Guard's Research and Development Center (R&DC). While several other agencies, including the Department of Commerce, the Department of the Interior, and the Environmental Protection Agency, have important roles in oil spill clean-up and oil spill research, my testimony will focus specifically on the Coast Guard's roles. For more than 25 years, the R&DC has maintained a comprehensive, long-term research program to improve oil spill response technologies. The major focus of the program is to improve the knowledge, technologies and methodologies used for the detection, containment and cleanup of oil spills. I am encouraged by the significant advancements we have made since the Exxon Valdez incident and the passage of OPA 90.

Ship designs for tankers are mandated to have double hulls. The OPA 90 phase-out schedule requires existing single-hulled tank vessels be retrofitted with a double hull or phased out of operation by 2015.

A basic tenet of OPA 90 holds that those responsible for oil pollution incidents are liable for clean up costs and compensation damages. Currently over 22,500 vessels carrying oil in U.S. waters hold active Certificates of Financial Responsibility to satisfy this requirement.

Regulations tightened the authorities of the Federal On-Scene Coordinator (FOSC) to oversee spill response as well as preparedness activities at the local

level. This is consistent with the nation's approach to response as represented in the National Response Framework (NRF). In a sense, this approach was well ahead of its time and remains a model for integrating all entities, including private industry, into effective response organizations.

We must be mindful that our Marine Transportation System is the lifeblood of our national economy. Part of that is the shipping of oil. Three months ago, the 900 foot tanker SKS SATILLA hit a submerged jack-up rig in the Gulf of Mexico while carrying 41 million gallons of crude oil – nearly 4 times the amount spilled by the Exxon Valdez. Thankfully, the double hull protection put into place by OPA 90 protected the cargo. The stakes remain high. We must continue to work together – the public and private sectors – to ensure we remain prepared and get this right.

We have learned a great deal from the Exxon Valdez incident and have made tremendous progress. Work still remains. And these efforts are dependent on our oil spill research efforts. The ideas, standards, and technologies that have emerged from the R&DC benefit all spill responders; Federal, State, local and private sector.

U.S. Coast Guard Research & Development Center Accomplishments:

The R&DC has been instrumental in identifying and developing prevention capabilities which have benefited mariners, ship to ship and ship to shore communications, and naval architecture. They have assessed risks associated with human-factors (e.g., crew fatigue and certification requirements), harbor management (e.g., Automated Information Systems), and hull design. Furthermore, the R&DC evaluated alternatives to double-hull designs and provided the foundation for our regulatory initiatives by assessing vessel self-help response methods.

Coast Guard research efforts have also greatly advanced our preparedness in consequence planning and response management. Databases have been developed for response equipment and spill histories and are widely used in contingency planning and commercial product evaluations. Additionally, the Oil Spill Command & Control System (OSC2) prototype has become integrated into the Coast Guard enterprise Command, Control, Communications, Computers, and Information Technology (C4IT) system and the Marine Information for Safety and Law Enforcement system. R&DC efforts to support response management also includes curriculum development, training, and developing safety guidelines for field personnel and the three strike teams, and ensuring Coast Guard personnel are familiar with current and emerging response technologies. The Multi-Agency Team-Building Enhancement System (MATES) that was developed by the R&DC is used for Incident Command System (ICS) training. R&DC is also responsible for developing airborne radar and infrared sensors used for oil spill response operations.

Spill Detection and Surveillance

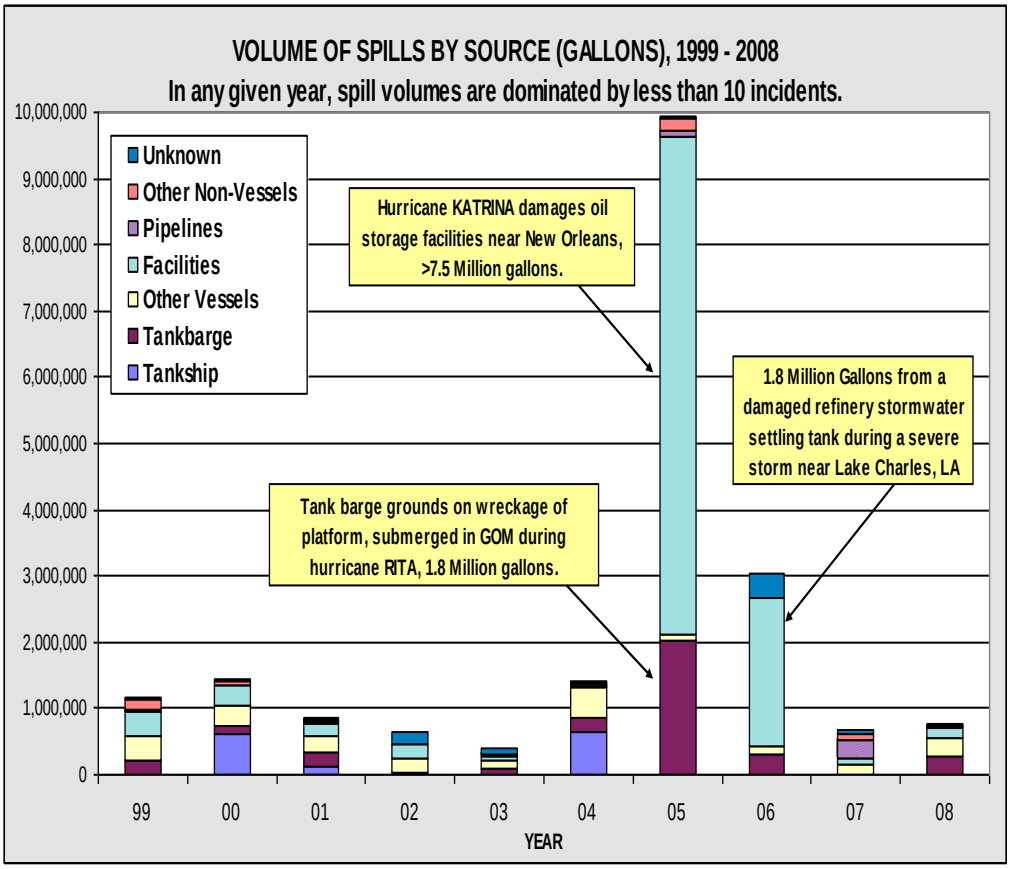
The R&DC has provided the Coast Guard with advanced oil containment and recovery countermeasures. Immediately after EXXON VALDEZ, the R&DC provided the critical technical information requirements, fielded prototypes, and tested the first articles of modern oil spill response equipment for the Coast Guard's National Strike Force. The Vessel of Opportunity Skimming System (VOSS) is a unique pre-positioned recovery system that is designed for both Coast Guard cutters and private sector commercial vessels. The R&DC has also developed the Spilled Oil Recovery System (SORS) for the 16 Coast Guard Juniper Class buoy tenders. Other recovery and countermeasure technologies include: (1) fast-water response boom and skimmers; (2) temporary storage devices; (3) oil/water separation systems; (4) in-situ burning; and (5) technology capability decision support.

Testing fast-water technologies

The R&DC partners with other governmental agencies and the private sector. The Coast Guard helped expand the nation's testing infrastructure by re-establishing the Oil and Hazardous Materials Simulated Environmental Test Tank (OHMSETT) in Leonardo, New Jersey, in cooperation with the Minerals Management Service.

In-situ burn test

Over the last twenty years the nation has seen a decrease in the annual number of spills over 100 gallons (per 100 million tons shipped); 25 spills met this criteria in 2002 and only 19 in 2007. The following graph shows 10 years of data on the total amount spilled by source. From 1999 to 2007 (the latest available data), an average of only three gallons of oil were spilled for every 1 million gallons of oil transported over the inland river system. This is due to the significant increase over the last 20 years in Federal and industry partnerships supporting maritime oil transportation, the application of OPA 90 standards and safeguards, and enhanced prevention and response capabilities.



The Coast Guard continues to lead the National Response System in research and development. In addition to these efforts with Federal and State agencies, we have fostered strong partnerships with vessel owners, facility operators, Oil Spill Removal Organizations, and academia. The oil spill research and development conducted through the U. S. Coast Guard R&DC and its partnerships is positioned ideally in a research-prevent-respond system. By adopting the latest response tactics, techniques, and procedures fostered and facilitated through R&D efforts, our new Deployable Operations Group can tailor adaptive force packages – including Coast Guard National Strike Force personnel – to meet any maritime response need. Additionally, the U. S. Coast Guard Marine Safety Laboratory (MSL) provides forensic oil analysis and expert testimony in support of the oil pollution law enforcement efforts for Marine Investigators, Department of Justice, and other federal agencies. Finally, our National Pollution Funds Center ensures the Oil Spill Liability Trust Fund is ready to finance rapid,, response and recovery. Most importantly, the financial responsibility has been placed on the polluters. Since OPA 90 was enacted, over $234 million has been recovered and returned to the Fund.

Oil spill prevention and response actions need proven techniques, technologies, and training. Continued investment in research and development funding is crucial to developing the tools needed for the variety of situations encountered – before they are needed.

We are positioning ourselves to meet future challenges. One example is the Arctic. The Commandant has previously stated, "there is water where there was once ice and the Coast Guard has a responsibility for it." As we develop our operating requirements to meet the mandates of the NSPD-55/HSPD-25, Arctic Presidential Decision Directive, it is clear our country needs the specialized capability of harsh environment oil spill response. As Arctic ice recedes, opening up new shipping routes and new areas for energy exploration, we must be aware of the economic and environmental implications. We have made significant progress, but there is still much left to be done to address future conditions. In the upcoming years, we must address the more challenging responses associated with harsh environments such as submerged oil and oil in or under ice.

I appreciate Congressional support for our oil spill response research and development and look forward to upcoming discussions on the future of the Coast Guard's service to America. Thank you for the opportunity to testify today. I look forward to your questions.