



# MARINE MAMMAL COMMISSION

9 September 2010

Lieutenant Tracy Wirth  
Assistant to the Chairman of the ICCOPR  
Commandant (CG-533)  
Office of Incident Management and Preparedness  
U.S. Coast Guard  
2100 2nd St., SW, STOP 7363  
Washington, DC 20593-7363

RE: Comments for the Interagency Coordinating Committee on Oil Pollution  
Research on Priorities for Oil Pollution Research

Dear Lieutenant Wirth:

The Marine Mammal Protection Act was passed in 1972 with the primary objective of maintaining the health and stability of marine ecosystems. The Act established the Marine Mammal Commission to oversee and advise federal officials regarding matters affecting the protection and conservation of marine mammals. In meeting its responsibilities over the years, the Commission has become familiar with a recurring range of threats to marine mammals and marine ecosystems, including those posed by oil and gas activities on the outer continental shelf. It is from this perspective that the Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, offers its recommendations to the Interagency Coordinating Committee on Oil Pollution Research on priorities for research on the environmental effects of oil pollution. The Commission also requests an opportunity to present these recommendations formally to the Committee at its 16 September public meeting in Washington, DC.

We must apply the lessons learned from oil spill events not only to reduce the probability of their occurrence, but also to minimize the consequences when they do occur. The Exxon Valdez oil spill and the Deepwater Horizon explosion and resulting response activities have reconfirmed an urgent and ongoing need for enhanced research into oil spill prevention and response strategies. We also must gather comprehensive baseline information on the environments in which drilling is to occur to assess fully the potential effects of oil and gas activities, and oil spills in particular. The Deepwater Horizon spill was an unplanned and unfortunate event, but an important one from which we must learn.

The following recommended research topics generally apply to all areas where oil and gas development and transportation already is underway or is being considered, such as the Gulf of Mexico, the Pacific coast, and the mid and south Atlantic. However, the Commission also includes several recommendations for research specific to the ice-filled marine environments of the Arctic, where oil and gas activities present an even greater risk to marine ecosystems because of their unique biota, remoteness, harsh conditions, and lack of infrastructure to support a spill response. The Arctic also is home to Alaska Native communities that depend on living marine resources and that could be greatly affected by oil and gas operations and their potential adverse effects.

The Marine Mammal Commission recommends that the Interagency Coordinating Committee on Oil Pollution Research report on each of the following areas as part of a systematic review of oil spill prevention, response, and assessment capabilities. The review should include a synthesis of information available from other nations, including polar nations, and how this information might help or guide actions and responses in U.S. waters.

**(1) Compile and analyze required background information, including—**

- Location, timing, and nature of proposed extractive and transport operations
- Nature/properties of the oil to be extracted
- Climactic conditions (e.g., winds, temperatures) and variability therein
- For the Arctic, ice conditions and variation within and among seasons and years
- Oceanographic conditions (e.g., currents, tides) and variability therein
- Bathymetry and shoreline configuration
- Natural and human-related hazards
- Vulnerable living marine resources (species and habitats) paying particular attention to species listed as threatened or endangered under the Endangered Species Act, or depleted under the Marine Mammal Protection Act

**(2) Describe in detail all aspects of the proposed activities and their potential sources of failure, including—**

- Drilling and seabed operations
- Platform construction and operations
- Pipeline construction and operations, including leak detection
- Support activities (including barge, vessel, helicopter support)
- Tanker construction and operations
- Best management practices, highlighting areas where individual decision-making can have an adverse impact

**(3) Project the fate of spilled oil, dispersants, and dispersed oil from different operations and geographical locations (subsurface release, surface release, drill rigs, pipelines, tankers, land facilities), including—**

- Type and properties of oil and potential impacts to the environment (at the seabed, in the water column, at the surface, and onshore)
- Type and properties of dispersant and potential impacts to the environment
- Type and properties of dispersed oil (i.e., synergistic effects of spilled oil and dispersants) and potential impacts to the environment
- Importance of seasonal changes in climactic and oceanographic conditions
- Importance of open water versus ice conditions
- The nature and potential severity of worst-case scenarios

- (4) **Evaluate options for response given current technology and capabilities and the environment in which operations will occur, including—**
- Existing technology and expertise for spill cleanup and containment, including at low temperatures and in ice
  - Parties responsible for response and a realistic appraisal of their current ability to conduct response operations, especially in Arctic conditions
  - Seasonal constraints on response operations, such as capping/containing blow outs, repairing pipelines, assisting tankers, and containing oil
- (5) **Identify the limits of response technologies, capabilities, and understanding, and the research that is needed to address those limits, including—**
- Recovery of spilled oil, including booms, mops, vacuums, and other recovery devices, including in ice conditions
  - Burning of oil and the properties of and risks posed by burn residues introduced into the atmosphere and ocean, including in ice conditions
  - Fate of specific oil types in ice conditions if left in the environment until the open-water season
  - Utility and risks of dispersants, including identification of best available dispersants for crude oil type and expected environmental conditions, including in ice conditions
  - Limitations in establishing incident command structures and mobile response units, including in ice conditions
  - Limitations in support activities (e.g., transportation of gear, fuel, personnel), including in ice conditions
  - Limitations in response due to harsh weather, ice, and other difficult operating conditions
- (6) **Describe interactions with other human activities that may affect or be affected by oil and gas operations and accidents, including—**
- Existing oil and gas operations
  - Shipping operations
  - Tourism (including cruise operations) and recreational boating
  - Fisheries
  - Military activities
  - Scientific activities
  - Subsistence harvesting

- (7) **Conduct a risk analysis and develop a research plan and budget for filling data gaps for living marine resources and their habitats (with emphasis on threatened and endangered species), including—**
- Plankton communities
  - Invertebrate communities
  - Fish stocks
  - Waterfowl
  - Marine mammals
- (8) **Identify existing education and outreach tools to inform the public regarding oil and gas operations, oil spill events, past response activities and their effectiveness, current prevention and response technologies, and oil spill research, including—**
- Development of a website with summary information on the above topics, as well as updated information on the location of all current and planned oil and gas activities, related scientific research, subsistence activities, and links to resources
  - Establishment of an online, searchable database of all pertinent literature
  - Creation of a bibliography for research activities and new technologies
  - Other materials as appropriate
- (9) **Develop a research plan with a detailed budget and timeline to address knowledge and technology gaps related to oil-spill prevention and response specific to the Arctic. Use the plan to—**
- Identify those factors and conditions of Arctic operations that make oil spill response difficult or impossible, in particular with regards to human safety
  - Recommend regulatory and operational limits on Arctic operations according to the current limits of knowledge, technology, spill response capabilities, logistical constraints, and the expected pace of knowledge and technology development.

Thank you for the opportunity to comment on and make recommendations regarding revisions to the Oil Pollution Research and Technology Plan. The Commission looks forward to presenting these comments at the Committee's meeting on 16 September in Washington, DC.

Sincerely,



Timothy J. Ragen, Ph.D.  
Executive Director