

**STATEMENT OF  
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BEFORE THE  
COMMITTEE ON NATURAL RESOURCES  
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES**

**JULY 14, 2015**

Chairman Lamborn, Ranking Member Lowenthal, and Members of the Subcommittee, I am pleased to appear before you today to discuss the Bureau of Ocean Energy Management's (BOEM) oversight of geological and geophysical (G&G) surveys on the Atlantic Outer Continental Shelf (OCS). Such surveys support BOEM's mission to ensure the responsible development of conventional and renewable offshore energy and marine mineral resources while protecting the environment.

**Background**

Geological and geophysical data is critically important to understanding the bathymetry of the ocean floor, as well as the vast area underneath. There are numerous technologies that can be employed to gather this data, which is used for a variety of purposes, including hydrocarbon exploration and production, aiding in siting renewable energy structures by characterizing the ocean floor, locating potential sand and gravel resources for coastal restoration projects, identifying possible seafloor or shallow depth geologic hazards, and locating potential archaeological resources and potential hard bottom habitats that should be avoided. One common method of procuring this data is with seismic surveys; those surveys use sound waves, sent through the ocean floor, to map the subsurface. From 1966-1988, 2-dimensional (2D) seismic data were acquired in all areas of the Atlantic OCS. This data, acquired over 30 years ago, has been eclipsed by new acquisition techniques using more advanced instrumentation, computer capacity, and technology. Industry seismic surveys in the Atlantic have not been conducted since the 1980s because of a Federal moratorium on oil and gas activities off the Atlantic coast, which expired in 2008. Additionally, BOEM decided not to begin reviewing permit applications until the Programmatic Environmental Impact Statement (PEIS) was completed and a decision made on its alternatives.

BOEM scientists are experts in the use of the newer survey data to make more informed decisions concerning potential oil and gas lease sales, ensure appropriate development of OCS energy resources, and assure the receipt of fair market value for any leasing of public lands. Modern 2D and 3D acquisition techniques can provide data sets that significantly enhance subsurface imaging, leading to improved oil and gas resource assessments and more informed administration of regulatory responsibilities.

The Record of Decision (ROD) for Atlantic G&G activities was issued by BOEM in July 2014 and it established stringent protective measures and safeguards consistent with allowing survey

activity while reducing or eliminating impacts on the environment and marine life. Protective measures include, but are not limited to, vessel strike avoidance, special closure areas to protect the main migratory route for the highly endangered North Atlantic Right Whale, consideration of geographic separation of simultaneous seismic airgun surveys, and Passive Acoustic Monitoring to supplement visual observers and improve detection of marine mammals prior to and during seismic surveys. While the ROD did not authorize any G&G activities, it established a framework for additional mandatory environmental reviews for site-specific actions and identified broadly-applicable measures governing any future G&G activities in the region. The ROD also identified mitigation measures that may be supplemented by additional requirements in individual permits or other authorizations as the reviews move forward. This builds upon the groundwork laid in the OCS Oil and Gas Leasing Program for 2012–2017, and is consistent with BOEM’s frontier area strategy to increase our understanding of resource potential and develop a suite of environmental studies for the purpose of establishing a baseline.

Additionally, the Governors of Virginia, North Carolina, and South Carolina requested that the Mid-Atlantic and South Atlantic Planning Areas be included in the Draft Proposed OCS Oil and Gas Leasing Program for 2017-2022 and indicated a desire to better understand the oil and gas potential offshore their states. Georgia’s Department of Natural Resources, on behalf of the Governor, expressed its interest in increasing access to domestic oil and gas resources while detailing its issues and concerns with potential environmental impacts and conflicts with other important ocean activities.

G&G surveys are not used exclusively for oil and gas exploration. Seismic surveys, which include geologic coring, are also helpful in identifying sand used for restoration of our Nation’s beaches and barrier islands following severe weather events and for protecting coasts and wetlands from erosion. Recent examples of BOEM’s sand restoration projects include New Jersey, where Long Beach Island has been restored in response to erosion caused by Hurricane Sandy and Louisiana, where 1,100 acres of marsh, dune, and beach habitat at Whiskey Island have been reconstructed. Seismic and geologic coring surveys also provide information that is vital to the siting and development of offshore renewable energy facilities. G&G surveys also help to advance fundamental scientific knowledge and are currently conducted in the Gulf of Mexico and in countries around the world.

BOEM was one of the earliest Federal pioneers in sponsoring research on ocean sounds beginning in the early 1980s. Since 1998, BOEM has partnered with academia and other experts to invest more than \$50 million on protected species and noise-related research. BOEM has provided critical studies on marine mammals, such as evaluation of seismic survey impacts on endangered sperm whales, and has conducted numerous expert stakeholder workshops to discuss what is known and to identify further information needs on acoustic impacts in the ocean.

## **Current Status**

As of this date, nine companies have submitted 11 conventional energy G&G permit applications in the Atlantic OCS. Currently nine permit applications remain under review, as two applications have been withdrawn. Of those nine, seven applications include deep penetration seismic, one application is to collect airborne gravity and magnetic data only and one application

is for a high resolution multi-beam and sub-bottom profiler survey to collect sea floor and shallow subsurface information. Before each permit can be issued, BOEM conducts careful environmental analysis to ensure protection of the marine ecosystem. The permit applications are also subject to coastal state consistency review determinations pursuant to the Coastal Zone Management Act. Of the nine active permits, seven applications have completed the CZMA review process (two applications did not require consistency review and five applications that include seismic surveys have conditional concurrences or presumed concurrences from the affected states). Further, applicants for seismic surveys need to secure additional authorizations from the National Marine Fisheries Service under the Marine Mammal Protection Act and the Endangered Species Act. BOEM will not issue permits until these processes are complete.

## **Conclusion**

Balancing human activities with the protection of marine life is a difficult task. However, BOEM remains steadfastly committed to funding and supporting the science needed to better understand anthropogenic sounds and their impacts on marine life. Making decisions based on sound science, public input, and the best information available is critical to environmentally responsible development of the Nation's offshore energy resources. BOEM, by using an adaptive management approach, will consider new scientific information as it becomes available during survey-specific environmental reviews.

BOEM's goal has always been to provide factual, reliable, and clear analytical statements in order to inform decision makers and the public about the environmental effects of proposed OCS activities and their alternatives.

Mr. Chairman, thank you again for the opportunity to be here today. I am happy to answer any questions that you or the Committee may have.