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BOEMRE Awards Nearly \$500,000 for Technical Study on Arctic Sea Ice

WASHINGTON — The Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) today announced it has awarded a contract totaling \$499,981 to Dartmouth College to conduct a technical study on how Arctic sea ice fractures and breaks as it flows in open waters.

The study will be conducted by researchers at Dartmouth College's Thayer School of Engineering. BOEMRE will oversee the study, which will provide insights into how free-flowing, fractured ice can impact offshore structures. Energy exploration and production facilities operating offshore Alaska, and other cold regions, must be designed to resist forces and damage that may result from contact with sea ice. Through a combination of micromechanical modeling and systematic experimentation using facilities of Dartmouth's Ice Research Laboratory, researchers will work to identify important physical characteristics of ice conditions and quantify the rate at which ice becomes fractured and weakened.

"Technical studies such as this help us ensure that engineering standards for facilities and structures operating in the harsh Arctic environment are adequate to withstand specific aspects of harsh conditions," said BOEMRE Director Michael R. Bromwich. "We are pleased to partner with Dartmouth College to better understand the dynamic nature of sea ice and the forces it exerts on manmade structures."

In addition to conducting the research, Dartmouth College is contributing \$102,909 to the cost of the study. Research will begin during the final quarter of 2011 and continue through 2014.

This contract is being awarded through BOEMRE's Technology Assessment & Research (TA&R) Program. The TA&R Program supports research associated with operational safety and pollution prevention as well as oil spill response and cleanup capabilities. For more information about BOEMRE's Technology Assessment and Research program and additional studies, go to: <http://www.boemre.gov/tarphome/index.htm>.

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