

**Alaska North Slope Spill Response Team Conducts Advanced Oil Spill Response in Ice Training Course**  
**at**  
**Cold Regions Research and Engineering Laboratory**  
**31 JAN to 03 FEB 2012**



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The Alaska North Slope region is a challenging operating environment for oil exploration, production and transportation operations, with remote installations, long periods of darkness and extremely harsh weather conditions. The Arctic Ocean remains frozen for an average of nine months of the year, with only three months of open water during the summer months. During the critical “shoulder seasons” of forming ice in the fall/winter and broken ice in the spring/summer, oil spill responders are faced with unique operational challenges.

Alaska Clean Seas (ACS) is the North Slope oil spill response cooperative based in Prudhoe Bay, AK, and overseeing the training and operation of the North Slope Spill Response Team (NSSRT). Team members are volunteers who normally work a wide range of jobs for the oil companies and contractors throughout the oil field operating areas. They maintain their response readiness through weekly training on the North Slope and periodic off-slope training to meet both the regulatory and practical requirements of being on the Spill Response Team.

Members of the NSSRT were given a unique opportunity in early February 2012 to train with oil spill response equipment, Alaska North Slope (ANS) Crude Oil, and realistic sea ice and broken ice conditions during Alaska Clean Seas’ Advanced Oil Spill Response in Ice Course at the U. S. Army Corps of Engineers’ Cold Regions Research and Engineering Laboratory (CRREL) in Hanover, NH on 31 JAN – 03 FEB 2012. ACS developed and conducted the course using CRREL’s outdoor saline test basin, a 60 x 25 x 7 ft. in-ground tank with a retractable roof, water recirculation system to provide water current, and a refrigeration system to maintain the ice conditions. CRREL began growing sea ice for the class in the end of November 2011; by the start of the course, an ice sheet approximately 18-20 inches thick covered the entire tank surface.

Training on response tactics included ice profiling techniques for safely working and moving loads on ice; the use of underwater lights and ground penetrating radar for detection of oil under ice; use of ice augers and chainsaw sleds to cut holes and slots in the ice and bring oil to the surface; use of skimming and pumping systems specifically designed for response in ice-infested waters; and in-situ burning operations in broken and slush ice. All of these tactics are detailed in the Alaska Clean Seas Technical Manual, developed by ACS and its member companies, and accepted throughout the regulatory community as the tactical backbone of all ACS member-company Oil Spill Contingency Plans.

A total of 32 personnel participated in the training. Attendees representing several of Alaska Clean Seas' 11 member companies, included: BP Exploration, (Alaska), Inc.; BP America; ConocoPhillips Alaska, Inc.; Alyeska Pipeline Service Company; Pioneer Natural Resources; Eni Petroleum; Shell Exploration & Production Company; the National Oceanic and Atmospheric Administration; Eastern Canada Response Corporation; and several ACS employees attending as instructors, support staff and students. Additionally, a research assistant from Boise State University assisted with the Ground Penetrating Radar training on the first day of the course.

Several vendors of oil spill response equipment participated in the training and brought new equipment for the students to use. Participating vendors were Crucial, Inc.; Elastec/American Marine; Lamor, Inc.; and Megator/Salarollpump. Guest presentations were made on the third day by the NOAA Scientific Support Coordinator; Eastern Canada Response Corporation; U.S. Coast Guard Research and Development Center; and CRREL gave a facility tour and overview of ongoing R&D projects.

Safety was of paramount importance during this course; **ALL** attendees were well aware that this was the first course of its kind, and all were actively engaged in taking the North Slope "Safety Culture" to the training at CRREL. By all accounts, the course was an extremely successful and worthwhile training program, and provided an outstanding foundation for the development of future oil spill response courses at the CRREL facility.

*For more information about Alaska Clean Seas and to see the ACS Technical Manual, please visit our website at [www.alaskacleanseas.org](http://www.alaskacleanseas.org).*



*In image, burning of crude oil collected in a recovery trench. In foreground, a pit containing oil residue in broken ice is visible from previous burn. This is an accepted and extremely efficient method of mitigating oil spills in ice-infested waters.*

*(Photo by M. Darling, ERDC-PAO)*