

Lessons learned of Canada SCAT team during the Hebei Spirit Incident, Republic of Korea

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On December 7, 2007, the very large crude-oil carrier, the Hebei Spirit was struck by a barge in heavy seas and lost over 10,000 tonnes of medium crude oil into the Yellow Sea off the north-west coast of the Republic of Korea. Despite a vigorous on-sea response effort, more than 200 km of shoreline were affected by oil and emulsified product. A particular problem identified by a United Nations assessment was a methodology to evaluate the extent of oil contamination and the penetration of oil into subsurface sediments.

At the request of the South Korean government, a Canadian team was deployed to implement training and begin the process of shoreline clean-up assessment. The Canadian team instructed approximately 40 volunteers from non-governmental organizations, academia, and national and local governments, in the shoreline cleanup assessment technique (SCAT). Challenges in the instruction of the Korean SCAT teams and the necessary period of calibration are discussed.

The new Korean SCAT teams, each lead by a Canadian advisor, surveyed over 100 km of affected shoreline. The affected coast is heavily-used for aquaculture, has an active off-shore fishery and is the habitat for many species of migratory birds. In addition, the many sand beaches of the area make it a popular tourist destination. The contamination touched all kind of shoreline and we found the penetration of oil in two kinds of shoreline.

We discuss the challenges of training and implementing the SCAT methods in a new language, during a large-scale, on-going spill event and without preparedness. Training materials, equipment needs and data management functions are examined in the context of the Canadian environmental emergencies programs. Logistical and coordination issues are discussed. The successes of the SCAT approach in the Korean context and the lessons learned are presented.