
**2007 deep-water marine seismic acquisition to
define the Canadian Extended Continental Shelf
under Article 76 of the United Nations Convention
on the Law of the Sea**

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The United Nations Convention on the Law of the Sea (UNCLOS) establishes under international law the concept of the 200 nautical mile exclusive economic zone (EEZ) allowing coastal states to exercise jurisdiction for the purposes of exploration, exploitation, conservation, and management of natural resources of the water column, seabed, and subsoil. Beyond the EEZ, there is also provision, under Article 76, for coastal states to define an Extended Continental Shelf (ECS) within which they may exercise jurisdiction over resources of the seabed and subsoil. Canada ratified the UNCLOS in November 2003 and has ten years from that date to submit a claim for an ECS to the UN Commission on the Limits of the Continental Shelf. The government allocated \$70 million to the Department of Fisheries and Oceans and to Natural Resources Canada in September 2004 to acquire and compile all the necessary data and, with Foreign Affairs and International Trade Canada, to prepare the claim.

The Canadian claim will be based on existing and newly-acquired geophysical datasets including single- and multi-beam bathymetry, spot soundings, gravity, magnetics, and seismic reflection and refraction surveys. During the 2007 field season, 9800 km of seismic data were successfully acquired over continental slope, rise, and abyssal plain regions of the Atlantic and western Arctic margins of Canada. In the eastern Arctic, heavy ice conditions thwarted attempts to collect seismic data along the Canadian margin even though two icebreakers were used and one of them is considered to be the most powerful in the world.

The new datasets acquired specifically for the UNCLOS project are confidential until the Canadian claim is accepted by the UN. However, selected examples and important scientific results will be published as the data are analysed. Also, collaborations are being fostered with researchers in universities and other government departments to minimize costs and to take advantage of logistical opportunities to acquire complementary datasets. This poster presents an overview of the datasets that were acquired in 2007.