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**Late Cenozoic seismic stratigraphy of the  
Mohican Channel area, Scotian Slope**

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The Mohican Channel of the continental slope, offshore Nova Scotia is an ideal study area for Late Cenozoic seismic stratigraphy. The Geological Survey of Canada (Atlantic) has collected high-resolution, two-dimensional seismic surveys across the Scotian Slope. These surveys have been used to identify seismic reflectors and to construct a general framework of seismic stratigraphy in the study area.

The Scotian Slope is a glacially influenced continental margin. Further seismic interpretation of the surveys will investigate the effects of Cenozoic glaciation on sedimentation styles. Specific features to look for will be erosional surfaces, ice scouring and evidence of glacial debris.

The frequency and magnitude of mass transport complexes

on the slope is another element of this study. Glaciation as a possible trigger for these events has been suggested and will be explored further.

Within the study area, an experimental seismic system known as the digital deep-towed hydrophone (DDH) was tested. The DDH consists of a seismic source towed at the sea surface and a receiver towed at depth near the seafloor. This

unconventional geometry provides less attenuation of the signal through the water column and reduces the effect of lateral echoing from features such as canyon walls. The role of this novel technique in seismic interpretation and its improvement on conventional surface seismics will be studied more within the project.