

Multiparameter study of the geology of the inner shelf south of Halifax

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A full colour, 1:50 000 scale map sheet of detailed swath bathymetry from a region of the inner Scotian Shelf near Halifax shows the integration of a shaded relief map of the seafloor with onshore geology, derived from a 1:500 000 provincial geological map. This map reveals a diverse and varied bathymetry, highlighting a complex, faulted basement structure intruded by granitic plutons and a detailed sedimentary record of glacial retreat. A grey-scale version of this map enhances the textural features of the bathymetry.

A set of four 1:250 000 map sheets from this area demonstrates the integration of the swath bathymetry with

published maps of onshore geology and the total magnetic field. An integrated map of geology and bathymetry, shaded by the relief of the magnetic field, facilitates the extension of onshore geologic units to the area of offshore bathymetric mapping. A synthesis map, based on these techniques, extends the Nova Scotia bedrock geologic map offshore.

These sheets complement an oral presentation given by the authors in this conference. It is hoped that these maps will be available as GSC open file reports by the time of the AGS conference.