southwest, a topographically controlled ice stream existed in the bedrock trough between Brier and Grand Manan islands. Streamlined subglacial landforms (drumlins and megaflutes) are prominent on the flanks of the trough. Prominent lobate ridges, convex to the southwest, are ubiquitous in the central portion of the bay. It is unclear if these ridges are subglacial or ice-front in origin, but they are interpreted as marking a complex pattern of ice retreat to the northeast. The splayed plan-view pattern of these ridges may indicate an ice margin intermediate between ice stream termination in deep water and land termination. During ice sheet retreat, icebergs calved from the floating ice front; iceberg keels incised a dense pattern of scours and pits into the sea floor sediment and this pattern is used to infer paleocurrent patterns. Superimposed on the glacial landsystem features are Holocene Epoch sedimentary bedforms that reflect the modern current regime in the Bay of Fundy.

Mapping the glacial history of the Bay of Fundy

Brian J. Todd, John Shaw, D. Russell Parrott, and Vladimir E. Kostylev
Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography, Dartmouth, Nova Scotia B2Y 4A2, Canada <Brian.Todd@NRCan.gc.ca>

In 2006, the Geological Survey of Canada, in cooperation with the Canadian Hydrographic Service and the University of New Brunswick, instituted a broad-scale regional mapping program to map the entire sea floor of the Bay of Fundy using multibeam sonar. At the conclusion of multibeam sonar operations in 2009, 13 010 square kilometres of sea floor had been imaged. The resulting map contains a wealth of evidence demonstrating the impact of Pleistocene Epoch glaciation on the Bay of Fundy and holds the promise of yielding one of the most comprehensive depictions of a glacial land system ever obtained in a marine setting. Based on the multibeam sonar information, a targeted geoscience expedition was undertaken in 2009 to gather geophysical profiles and geological samples at key locations. Glacial ice flowed from the head of the bay in the northeast to the Gulf of Maine in the southwest. In the

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