



INTRODUCTION

Placentia Bay is an embayment on the south coast of the island of Newfoundland. This map sheet is a continuation of the bathymetry of the bay, adjacent to the southern extremity of the Avalon Peninsula. The bathymetry of the bay is shown in the map sheet. The bathymetry of the bay is shown in the map sheet. The bathymetry of the bay is shown in the map sheet.

MULTIBEAM BATHYMETRIC DATA COLLECTION

Most data were collected in part Geological Survey of Canada (GSC) - Canadian Hydrographic Service (CHS) survey vessels in 2004 and 2006. The CHS survey vessels used were the Hydrographic Survey Ship (HSS) and the Hydrographic Survey Ship (HSS). The CHS survey vessels used were the Hydrographic Survey Ship (HSS) and the Hydrographic Survey Ship (HSS).

Table 1. Remarks on surveys carried out in the study area.

Table with 2 columns: SURVEY and REMARKS. It lists survey dates (2004, 2005, 2006, 2009) and details about the survey vessels and equipment used, such as the CGS Frederick G. Creed and the Hydrographic Survey Ship (HSS).

DATA DISPLAY

Acoustic bathymetry from 4°E north and 4°E inclination was applied in the GSC/CHS. The bathymetry data were processed in a 10 m grid. A color palette was applied to the bathymetry data. The bathymetry data were processed in a 10 m grid. A color palette was applied to the bathymetry data.

MORPHOLOGY

The map area is divided into several distinct regions based on mean water depth and seabed morphological character. Sites on the map labeled as A to J are referenced in the text. The map area is divided into several distinct regions based on mean water depth and seabed morphological character.

Western and southwestern areas

The seabed is deep, has relatively low relief, with abundant rockmarks (e.g. site C). The rockmarks have formed in postglacial mud that overlies a strata of glaciolacustrine sediment superimposed on till. The seabed is deep, has relatively low relief, with abundant rockmarks (e.g. site C).

Central area

Megafaults are present in a strip of seafloor extending from southeast to northeast. Megafaults are commonly several metres high. The faults occur in a range of forms, from separate, curved depressions several kilometres long (site D) to broad, extending, several kilometres long (E). The megafaults formed in the postglacial mud. The origin of the megafaults is controversial. It has been suggested that they formed during the maximum associated with the 1000 year event (Fisher and Miller, 1995), but other causes are more likely. To the north of the megafaults, regular ridges on the seafloor are marked by bathymetric sites F, G, H, I, and J.

Eastern area

To the east of the megafault zone, most of the postglacial mud has been removed by the same mechanism that formed the megafaults. In depths below about 40 m the erosion has uncovered glacial sandstones. These sandstones are covered by a thin layer of postglacial mud. The origin of the megafaults is controversial. It has been suggested that they formed during the maximum associated with the 1000 year event (Fisher and Miller, 1995), but other causes are more likely. To the north of the megafaults, regular ridges on the seafloor are marked by bathymetric sites F, G, H, I, and J.

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REFERENCES

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Scale 1:50 000

Scale 1:50 000 / Échelle 1:50 000



Authors: D.P. Potter and J. Shaw. This map was produced by Natural Resources Canada in co-operation with Fisheries and Oceans Canada. Multibeam bathymetric data collected by Canadian Hydrographic Service and Natural Resources Canada, 1997, 1993, 1995, and 1995. Multibeam bathymetric data compiled by D.P. Potter, 2007 and 2008. Digital cartography by P.A. McInnes, Data Dissemination Division (DDC). Any mention or additional geographic information herein to the user would be welcomed by the Geological Survey of Canada.

MAP 2147A SHADED SEAFLOOR RELIEF PLACENTIA BAY SOUTHEAST OFFSHORE NEWFOUNDLAND AND LABRADOR. Scale 1:50 000 / Échelle 1:50 000. Universal Transverse Mercator Projection. North American Datum 1983. © Her Majesty the Queen in Right of Canada 2009. © Sa Majesté la Reine du chef du Canada 2009. Cette carte est une œuvre de l'État et elle est diffusée sans frais ni restriction.

Digital base map (land area) from data compiled by Geomatics Canada, modified by GSC (Atlantic). Digital bathymetric contours in metres supplied by Canadian Hydrographic Service and GSC (Atlantic). Magnetic declination 2009, 19°49'W, decreasing 11.1' annually. Elevations in feet above mean sea level. Depth in metres below mean sea level.

