



DESCRIPTIVE NOTES

INTRODUCTION
Placentia Bay is an embayment on the south coast of the island of Newfoundland. The map shows the east coast of the Avalon Peninsula and the west coast of the Argenta Peninsula. The bathymetry of the bay is shown in the map. The map shows the bathymetry of the bay and the surrounding area. The map shows the bathymetry of the bay and the surrounding area. The map shows the bathymetry of the bay and the surrounding area.

MULTIBEAM BATHYMETRIC DATA COLLECTION
Data were collected using Canadian Coast Guard vessels. The first survey was in 1996, when CGCS (Canadian Coast Guard Ship) *Matthew G. Cochrane* was used. The map shows the bathymetry of the bay and the surrounding area. The map shows the bathymetry of the bay and the surrounding area. The map shows the bathymetry of the bay and the surrounding area.

YEAR	REMARKS
1996	Survey by the CGCS <i>Matthew G. Cochrane</i> between Argenta and Western Channel using a Kongsberg Simrad EM1000 system.
2004	Survey by the CGCS <i>Matthew G. Cochrane</i> in Eastern Channel and east of Merasheen Bank, using a Kongsberg Simrad EM1000 system.
2004	Survey by the hydrographic launch <i>Florence</i> of Long Harbour, Slip Harbour, and Argenta Harbour using a Kongsberg Simrad EM1000 system.
2004	Survey by the CGCS <i>Matthew G. Cochrane</i> in the approaches to Long Harbour and east of the Avalon Peninsula using a Kongsberg Simrad EM1000 system.
2005	Survey by the CGCS <i>Matthew G. Cochrane</i> immediately east of Merasheen Bank using a Kongsberg Simrad EM1000 system.
2005	Survey by the hydrographic launch <i>Florence</i> of areas including Placentia Road using a Kongsberg Simrad EM1000 system.
2005	Survey by the CGCS <i>Matthew G. Cochrane</i> of small areas to the south and west of White Sail Bank and east of Merasheen Bank using a Kongsberg Simrad EM1000 system.
2008	Survey by the hydrographic launch <i>Florence</i> of an area close to the coast of the Avalon Peninsula, using a Kongsberg Simrad EM1000 system.
2008	Survey by CGCS <i>Matthew G. Cochrane</i> (EM1000 system) and the launch <i>Florence</i> (Kongsberg Simrad EM1000 system) close to the Avalon Peninsula and the launch <i>Florence</i> (Kongsberg Simrad EM1000 system) close to the Argenta Peninsula. Data were collected and processed in a traditional way using the SVP Hydrographic Instrument Processing System. Reported and unreported errors are listed in the GRASS GIS metadata file.

DATA DISPLAY
Artificial illumination from 0° azimuth and 45° inclination was applied in the GRASS GIS. Vertical exaggeration is 10. A color palette was applied to the bathymetric data, with colors (e.g. red) representing shallow water and cool colors (e.g. blue) representing deep water. Bathymetric contours were generated such that equal areas are covered by each contour in the plan. Bathymetric contours are not shown where the depth is less than 10 m. Contour interval is 10 m.

MORPHOLOGY
The region is tectonically complex, and shows evidence of strong tectonic control. The Avalon Peninsula is a tectonic province that has been modified by human activities such as dredging, dumping, and anchor dragging. The Argenta Peninsula is a tectonic province that has been modified by human activities such as dredging, dumping, and anchor dragging. The Argenta Peninsula is a tectonic province that has been modified by human activities such as dredging, dumping, and anchor dragging.

Western Channel
The deepest water in the region (about 420 m) is found on the floor of Western Channel, a glacially conditioned trough. The floor of the channel is smooth due to a 60 m of postglacial mud covering the channel floor. The floor of the channel is smooth due to a 60 m of postglacial mud covering the channel floor.

Central Channel
Central Channel is narrow and shallow in comparison with the channels to either side. At the southern end of the channel, the floor is composed of glacial till. The floor of the channel is smooth due to a 60 m of postglacial mud covering the channel floor.

Eastern Channel
Eastern Channel is swept by currents, so that banks of mud (see site E) occur on either bank of the channel. The floor of the channel is smooth due to a 60 m of postglacial mud covering the channel floor.

Merashheen Bank
Merashheen Bank (see site I) consists of a series of shallow bedrock ridges that trend in a southeasterly direction. However, the bedrock is mostly glacially conditioned, giving a smooth appearance, and is probably only exposed at the surface in the embayment area.

The outer bay
The relatively smooth seabed of the south-central part of the bay is due to a cover of glacially conditioned mud and silt. The floor of the bay is smooth due to a 60 m of postglacial mud covering the bay floor.

The east coast
In the shallow water close to the coast of the Avalon Peninsula, glacial sediments were eroded by waves during the deglaciation period. The floor of the bay is smooth due to a 60 m of postglacial mud covering the bay floor.

Embayments on the Avalon Peninsula
The relatively large embayments on the east coast have distinctive morphologies. In Placentia Road the floor is composed of glacial till. The floor of the bay is smooth due to a 60 m of postglacial mud covering the bay floor.

ACKNOWLEDGMENTS
Most surveys were carried out with the collaboration of the Canadian Hydrographic Service. In particular, the authors acknowledge the role played by A. Roy and C. Stirling, St. John's, Newfoundland. The authors also acknowledge the support of the Geological Survey of Canada, St. John's, Newfoundland, and the Canadian Coast Guard, St. John's, Newfoundland.

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MAP 2145A
SHADED SEAFLOOR RELIEF
PLACENTIA BAY EAST
OFFSHORE NEWFOUNDLAND AND LABRADOR

Scale 1:50 000 / Echelle 1:50 000

Authors: D.P. Fisher and J. Shaw

This map was produced by Natural Resources Canada in co-operation with Fisheries and Aquaculture Canada.

Multibeam bathymetric data collected by Canadian Hydrographic Service and Natural Resources Canada, 1996, 2004-2008.

Multibeam bathymetric data compiled by D.P. Fisher, 2007 and 2008.

Digital cartography by P.A. McNamee, Data Dissemination Division (DSD).

Any mention of additional geographic information systems in the user would be welcomed by the Geological Survey of Canada.

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