

This map was derived from data acquired during an aeromagnetic survey carried out by NOVATEM Inc. The survey was flown during the period October 01st, 2008 to May 16th, 2009, using a Cessna-185 aircraft C-FARU. The aircraft was equipped with two Geometrics cesium vapour magnetometers with a sensitivity of 0.005 nT, installed in wingtip pods. Total field data were sampled at 10 Hz. The nominal traverse and control-line spacing were, respectively, 200 m across track and 100 m along track. The aircraft was flown at an altitude of 100 m above the ground, with a ground speed of 175 m/s with orthogonal control lines. The flight path was recovered following post-flight differential corrections to the raw Global Positioning System data and inspection of ground images recorded by a vertically mounted video camera. The survey was flown on a pre-determined flight surface to help minimize differences in magnetic values at the intersections of control and traverse lines. These differences were corrected by applying a linear interpolation to the levelled set of flight-line magnetic data. The levelled values were then interpolated to a 50 m grid.

The International Geomagnetic Reference Field (IGRF) defined at the precise position of the aircraft and for the respective date of flight was then removed. Removal of the IGRF, representing the magnetic field of Earth's core, produces a residual component related essentially to magnetizations within the Earth's crust.

Digital versions of this map can be downloaded, at no charge, from the Newfoundland and Labrador Resource Atlas (<http://gis.geosurv.gov.nl.ca/>), and from the Geological Survey of Newfoundland and Labrador On-Line Open File page:

Corresponding digital profile and gridded data for this survey, as well as for airborne surveys flown over adjacent areas, are also available from the Newfoundland and Labrador Resource Atlas.

Nalcor: <http://www.nalcorenergy.com/>
Department of Natural Resources: <http://www.nr.gov.nl.ca/nr/>
Energy Branch: <http://www.nr.gov.nl.ca/mines&en/oil/>
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E-mail: pub@gov.nl.ca

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Maps released as part of Open File Open File NFD/3076 are (refer to index map below):

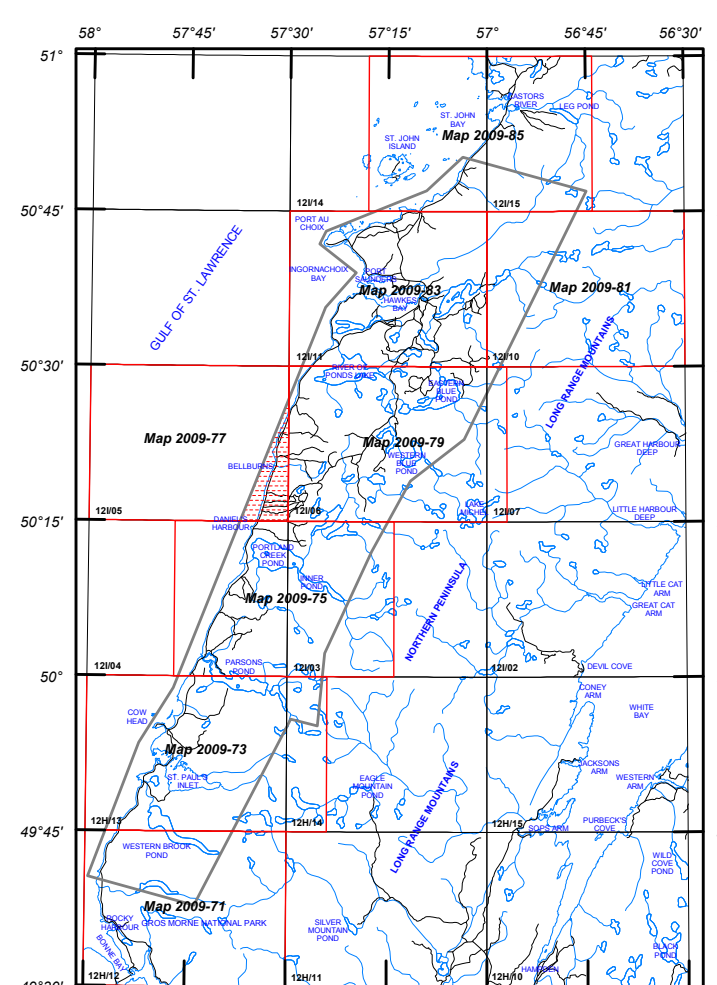
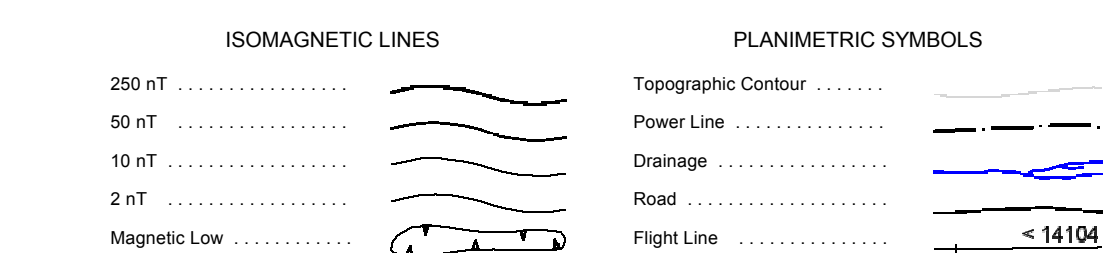
Map Area (NTS)	Residual Magnetic Field	First Vertical Derivative of the Resid. Mag. Field
Gros Morne (12H/12)	Map 2009-71	Map 2009-72
St. Paul's Inlet (12H/13)	Map 2009-73	Map 2009-74
Indian Lookout - Fortland Creek		
(12/03 east, 12/04 west)	Map 2009-75	Map 2009-76
Bellburns (12/05)	Map 2009-77	Map 2009-78
Bellburns (12/06)	Map 2009-79	Map 2009-80
Torrent River (12/10)	Map 2009-81	Map 2009-82
Port Saunders (12/11)	Map 2009-83	Map 2009-84
St. John Island - Castors River		
(12/14 east, 12/15 west)	Map 2009-85	Map 2009-86

Note

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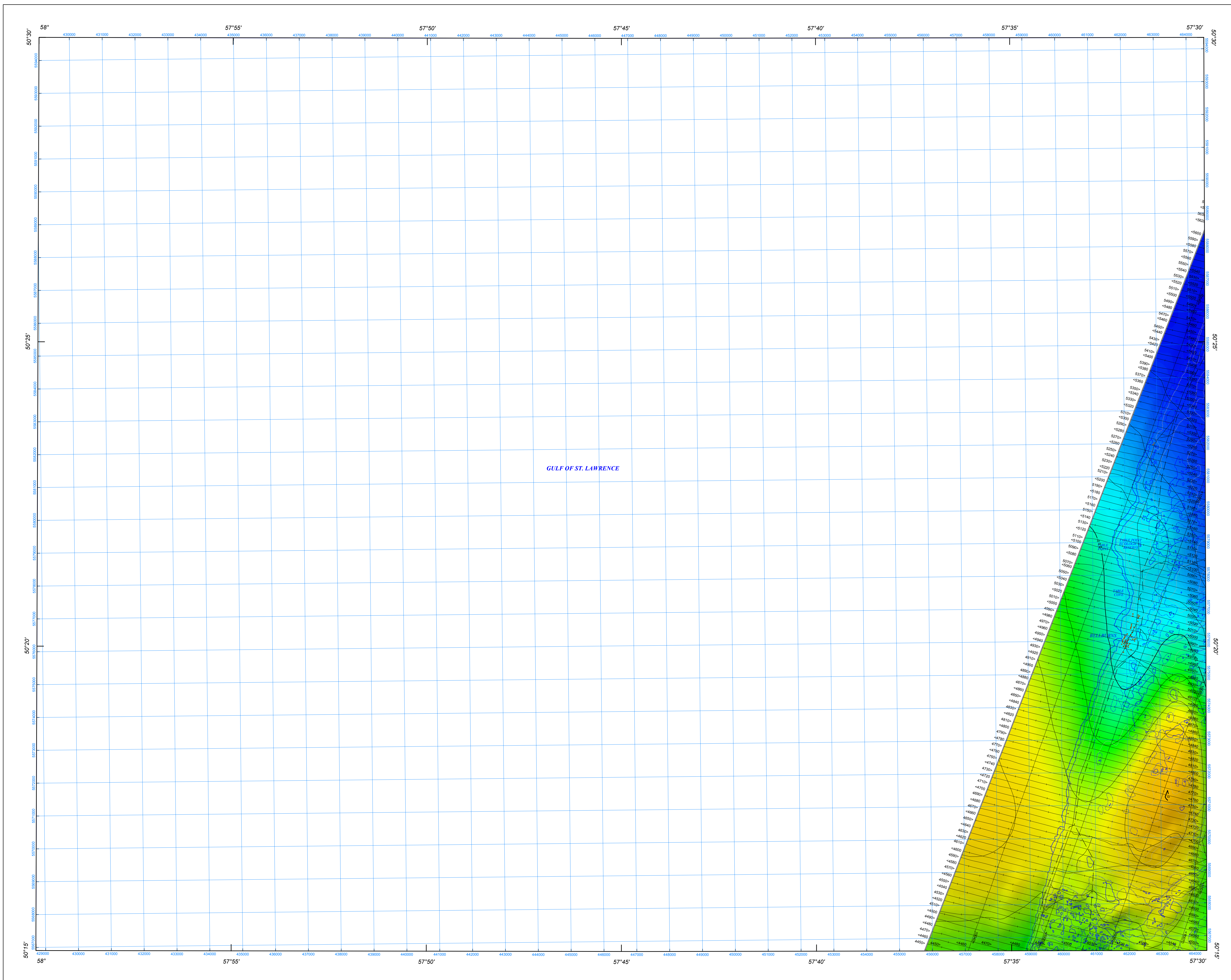
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NATIONAL TOPOGRAPHICAL SYSTEM REFERENCE AND GEOPHYSICAL MAP INDEX

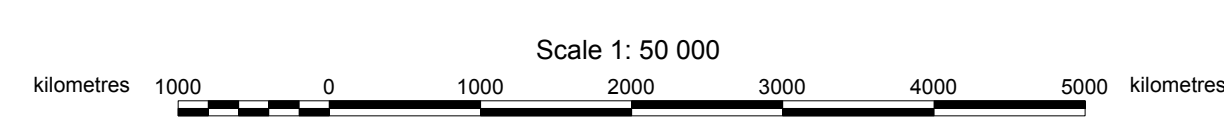
AEROMAGNETIC SURVEY - GROS MORNE TO PORT AU CHOIX AREA



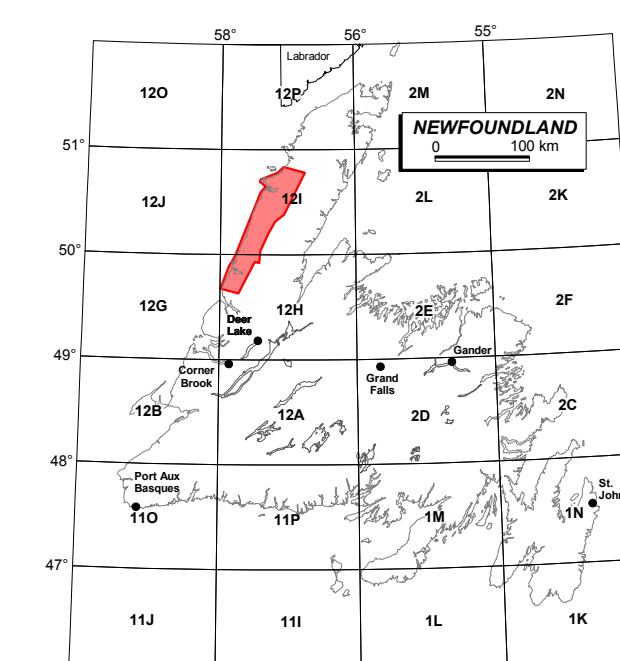
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MAP 2009-77
BELLBURNS - NTS 12/05



Digital Topographic Data provided by Geomatics Canada, Natural Resources Canada



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