



RESIDUAL MAGNETIC FIELD

Lomond Map Area

(NTS 12H/05 and parts of 12G/08, 12H/06 and 12H/12)

MAP 2009-42
OPEN FILE Nfld/3058

G.J. Kilfoil and L.A. Cook

Residual Magnetic Field

This map was derived from data acquired during an aeromagnetic survey carried out by Geo Data Solutions (GDS) Inc. The survey was flown during the period November 2008 to March 2009, using a Piper PA-46-310 aircraft, C-GKSA. The aircraft was equipped with three Geometrics cesium vapour magnetometers with a sensitivity of 0.005 nT, installed in the tail boom and wing pods. Total field data were recorded at 10 Hz. The nominal traverse and control spacing was 90 m. Traverse lines were oriented N50°W with orthogonal control lines. The flight path was reorienting during flight to maintain a constant angle to the raw Global Positioning System and inspection of ground magnetic recorder to vertically magnetize the survey. The survey was flown on a pre-determined flight surface to minimize differences in magnetic values at the intersections of control and traverse lines. These values were then linearly interpolated to a 50 m grid.

The International Geomagnetic Reference Field (IGRF) defined at an altitude of 800 m for January 21st 2009 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.gesur.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.

Printed copies of this map may be obtained from the Geoscience Publication and Information Section, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL, Canada, A1B 4J6.

Department: <http://nra.nr.gov.nl.ca/nra/>
Geological Survey: <http://www.nr.gov.nl/mines/gesur/>
E-mail: pub@nr.gov.ca

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Map released as part of Open File Nfld/3058 (refer to index map below):

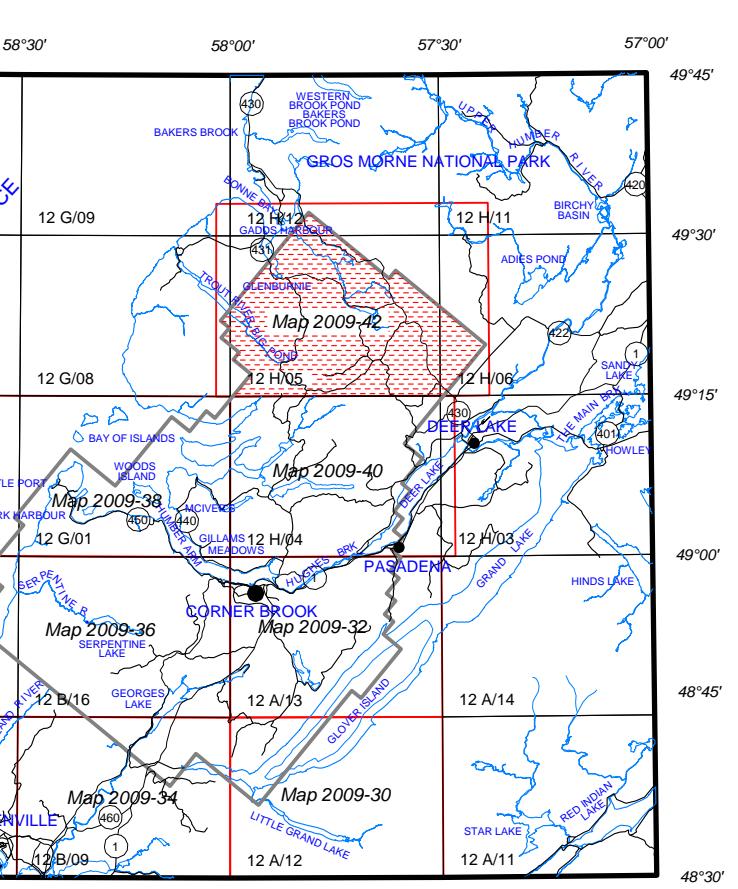
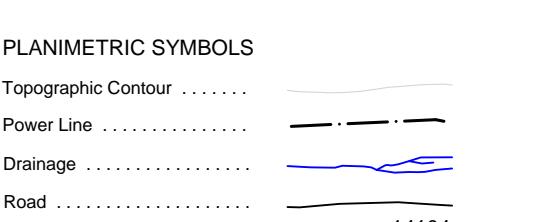
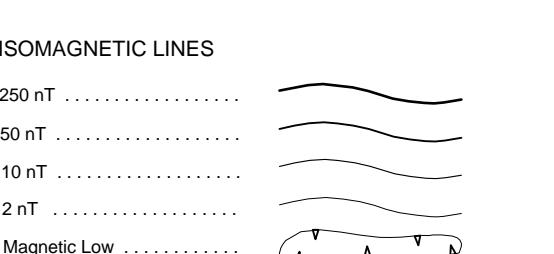
Map Area (NTS)	Residual Magnetic Field	First Vertical Derivative of the Resid. Mag. Field
Little Grand Lake (12A/12)	Map 2009-30	Map 2009-31
Corner Brook (12G/08)	Map 2009-32	Map 2009-32
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Note

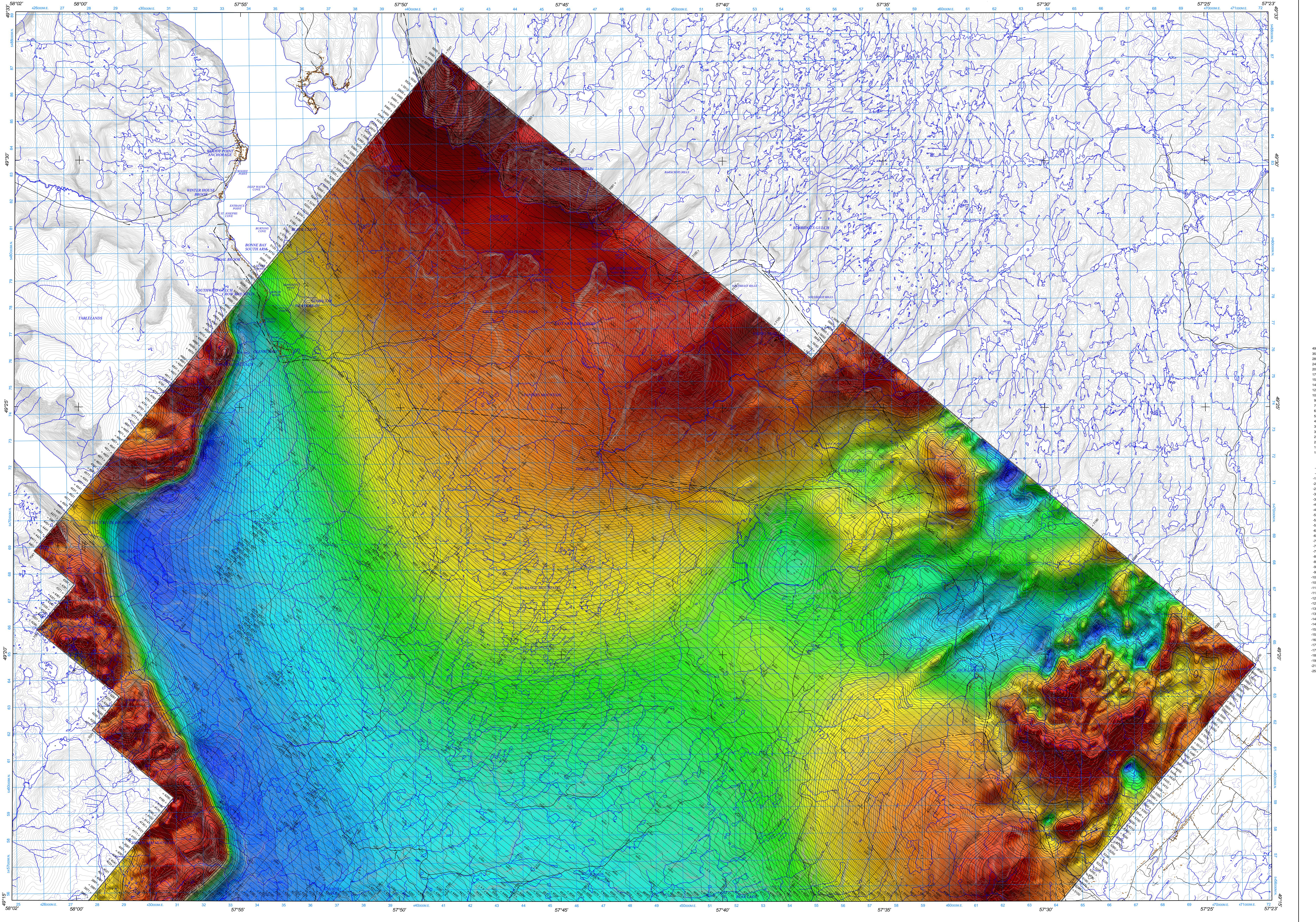
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NATIONAL TOPOGRAPHICAL SYSTEM REFERENCE AND GEOPHYSICAL MAP INDEX



MAP 2009-42

LOMOND - NTS 12H/05 and parts of 12G/08, 12H/06 and 12H/12

Scale 1: 50 000

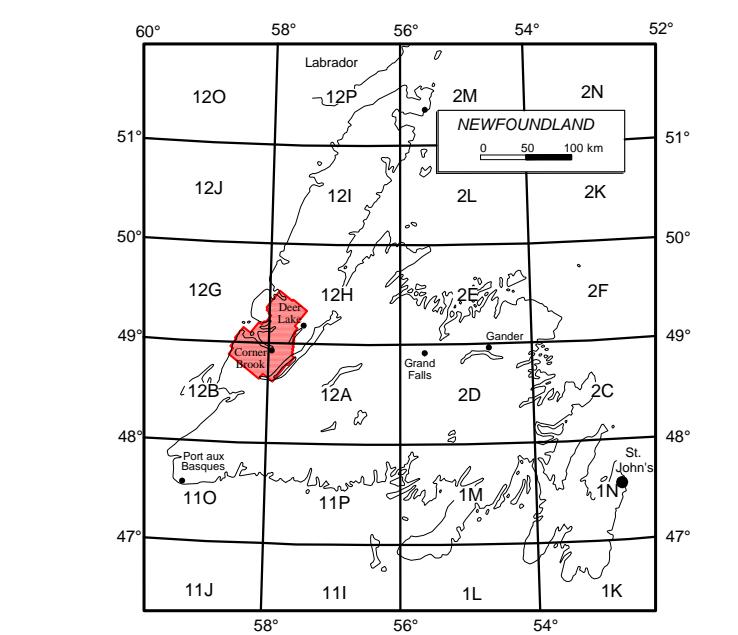
kilometres 0 1 2 3 4 5

NAD83 / UTM zone 21N

Digital Topographic Data provided by Geomatics Canada, Natural Resources Canada

Completion and map production by
Geo Data Solutions GDS Inc, Laval, Quebec
Contract and project managed by the
Newfoundland and Labrador Department of Natural Resources

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INDEX MAP

AEROMAGNETIC SURVEY - CORNER BROOK AREA