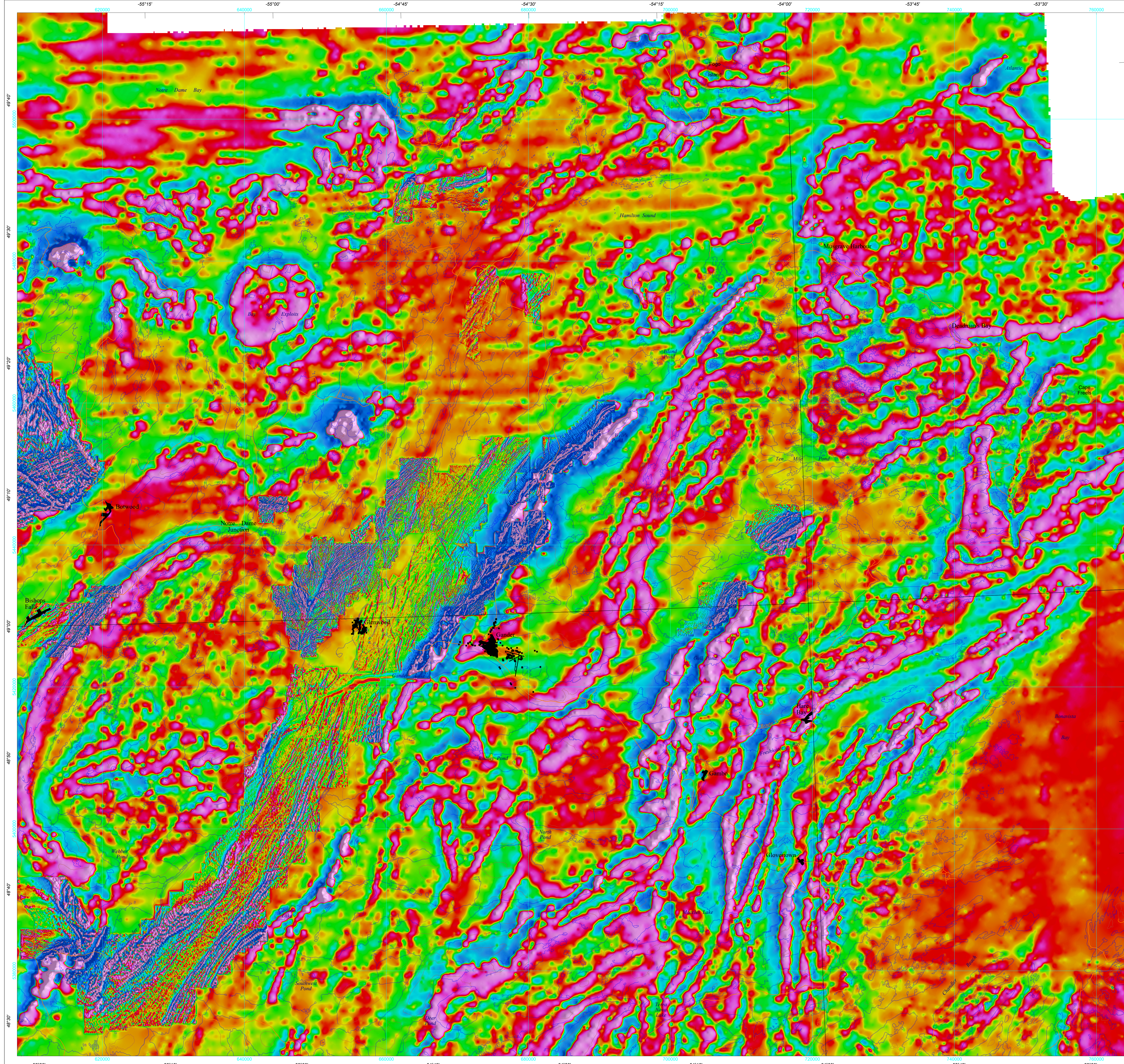




FIRST VERTICAL DERIVATIVE OF THE MAGNETIC FIELD



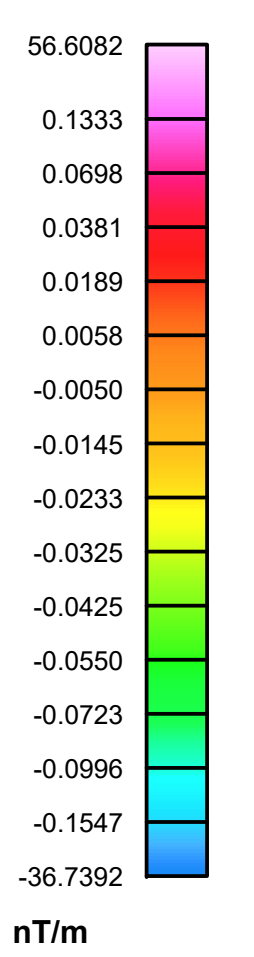
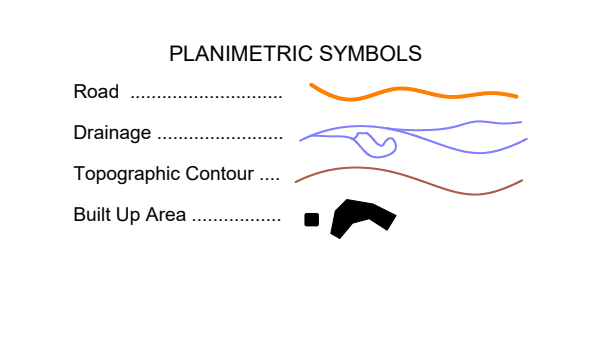
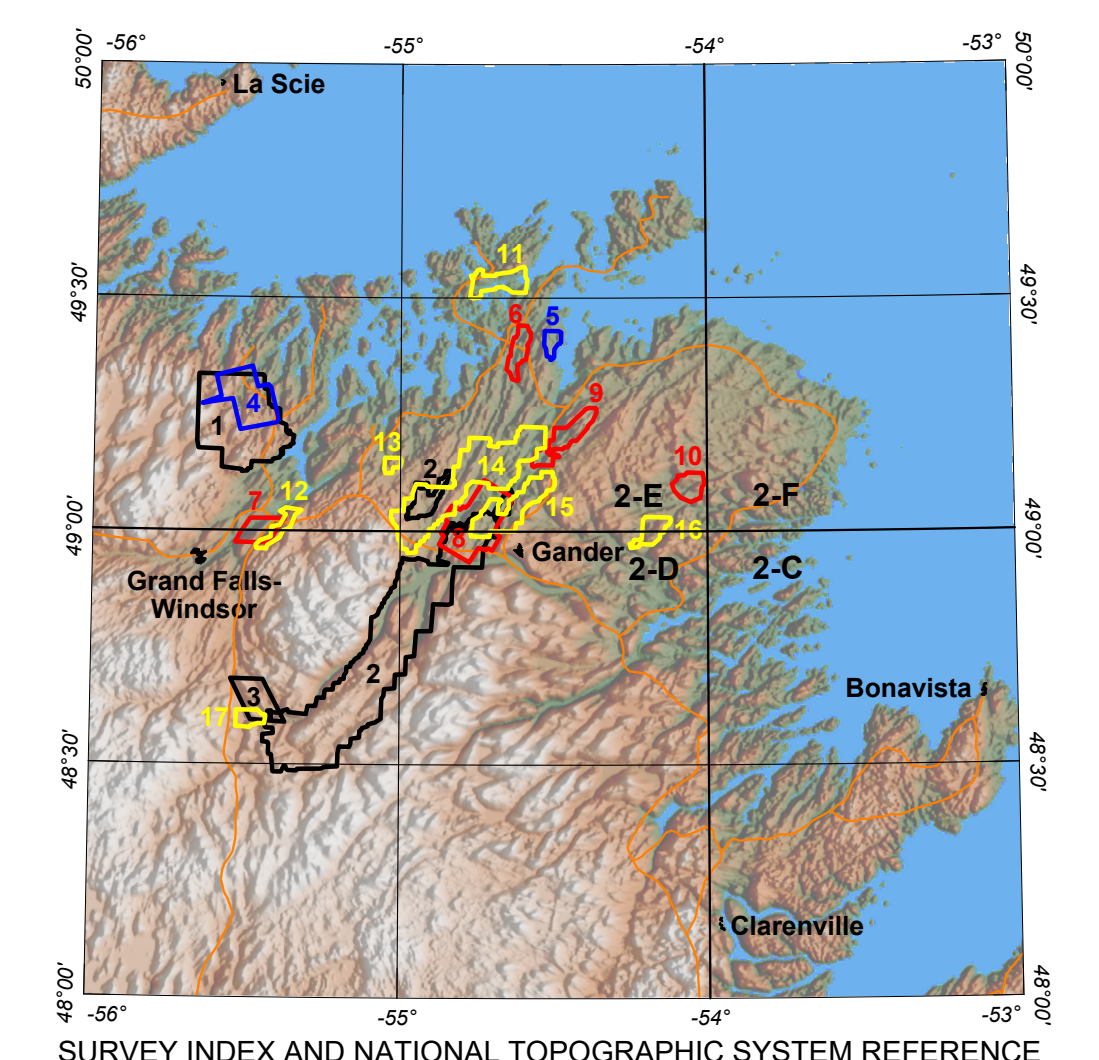
**Descriptive Notes**  
Regional aeromagnetic data used in this compilation were acquired from the Geological Survey of Canada Geophysical Data Repository. Digital data from high-resolution surveys flown by mineral exploration companies were made available through the Geoscience Atlas, Newfoundland and Labrador Department of Industry, Energy and Technology. Results from all high-resolution surveys were leveled to the Geoidoid Grid datum. The first vertical derivative of the magnetic field is calculated from the residual magnetic field and enhances the short wavelength components of the field. Apparent mismatches between survey blocks are a result of differing line spacing, flight altitudes and equipment platforms. For more detailed information regarding this data presentation, please refer to the online open file documentation.

This publication is available for free download through GEOCAN at <https://geocan.nrcan.gc.ca>. Corresponding digital gridded data can be downloaded from the Geological Survey of Canada's Repository for Geophysical Data at <https://gdr.nrcan.gc.ca>. For more information, please contact the Geophysical Data Centre, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8. Telephone 613-993-4326, email: [klobeck@hull.rog.com](mailto:klobeck@hull.rog.com). Digital data and further information regarding detailed Newfoundland surveys can be accessed or downloaded through the GSN, Geoscience Atlas, at <https://gsa.geoscan.gov.nl.ca/>.

The following table and index map provide locational and source information for the industry surveys that were merged in this project. Individual surveys on the index map can be identified by their corresponding colour and number in the table below.

| Index Number | Survey ID | Survey Area           | Contractor                         | Client  | Year | Line Spacing (m) | Mag Sensor Height (m) | Survey Type | Platform |
|--------------|-----------|-----------------------|------------------------------------|---|------|------------------|-----------------------|-------------|----------|
| 1            | DN12330   | Point Leamington      | Fugro Airborne Surveys             | Calibre Mining Corp.; ILC Ventures Corp.; Paragon Minerals Corp.                              | 2007 | 200              | 75                    | E-M         | H        |
| 2            | DN24569   | 1-Gander Lake South   | CGG / Fugro Airborne Surveys       | Palisade Resources; Kriner Resources; New Found Gold Corp.                                    | 2017 | 200              | 35                    | E-M         | H        |
| 3            | DN07224   | Rolling               | Goldak Exploration Technology Ltd. | Altius Resources Inc.   | 2002 | 200              | 80                    | M           | F        |
| 4            | DN05435   | Lewis Lake            | Geotrex-Digheim                    | Rubicon Minerals Corp.  | 1999 | 150              | 73                    | E-M         | F        |
| 5            | DN05241   | Tims Cove - GBA       | Aero Surveys Inc.                  | Copper Hill Resources Inc.  | 1997 | 150              | 30                    | E-M         | H        |
| 6            | DN08764   | Dudler Lake - Block 4 | Sail Geosciences Inc.              | Celtic Minerals Ltd.  | 1996 | 100              | 45                    | E-M-V       | H        |
| 7            | DN08413   | Moosehead             | Goldak Exploration Technology Ltd. | Altius Resources Inc.   | 2002 | 100              | 80                    | M           | F        |
| 8            | DN15688   | Appleton/BJP Linear   | Goldak Airborne Surveys            | Northern Skye Res., True Claim Res., KIA&K Synd., ASK Prop., Kivior Res., Canadian Zinc Corp. | 2012 | 100              | 80                    | M           | F        |
| 9            | DN18072   | Cripple Creek         | Geotech Ltd.                       | Capstone Mining Corporation; 084059 B.C. Limited; Fancy, D.; Jeffrey, D.                      | 2012 | 100/50           | 52                    | E-M         | H        |
| 10           | DN08782   | Wing Pond - Block 2   | Sail Geosciences Inc.              | Celtic Minerals Ltd.  | 1996 | 100              | 45                    | E-M-V       | H        |
| 11           | DN10951   | New World Island      | AeroQuest Ltd.                     | Rubicon Minerals Corp.  | 2006 | 75               | 30                    | E-M         | H        |
| 12           | DN08259   | A - Moosehorn         | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2002 | 50               | 30                    | M           | H        |
| 13           | DN08262   | E - Peyton Satellite  | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2002 | 50               | 30                    | M           | H        |
| 14           | DN08606   | H - Glenwood Brook    | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2003 | 75               | 20                    | E-M         | H        |
| 15           | DN08607   | I - Gander Area       | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2003 | 75               | 30                    | E-M         | H        |
| 16           | DN08350   | G - Wing Pond         | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2003 | 50               | 30                    | M           | H        |
| 17           | DN08292   | B - Beaver            | Fugro Airborne Surveys             | Rubicon Minerals Corp.  | 2003 | 50               | 30                    | M           | H        |

E=Electromagnetic; M=Magnetic; V=VLF; F=Fixed Wing; H=Helicopter



**Map Series Summary**  
GSC Open File 8844: Residual total magnetic field  
GSC Open File 8845: First vertical derivative of the magnetic field  
GSC Open File 8846: Tilt angle of the magnetic field  
GSC Open File 8847: Analytic signal of the magnetic field

**Airborne Geophysical Data Compilation north-central Newfoundland**

**OPEN FILE DOSSIER PUBLIC**  
**8845**  
GEOLOGICAL SURVEY OF CANADA / GÉOLOGIQUE DU QUÉBEC  
2021

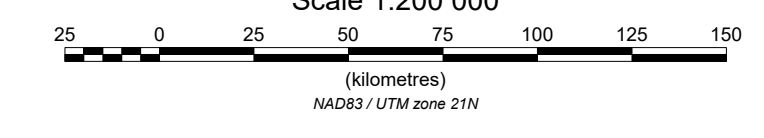
Publications in this series have not been edited; they are published as submitted by the author.  
Les publications de cette série n'ont pas été éditées; elles sont publiées telles qu'elles ont été reçues par l'auteur.

Newfoundland and Labrador  
Department of Industry, Energy and Technology  
Geological Survey Open File  
**NFLD/3396, Map 2021-10**

**Recommended citation**  
Oneschuk, D. and Kilfoil, G., 2021.  
First Vertical Derivative of the Magnetic Field, Airborne Geophysical Data Compilation, north-central Newfoundland, Newfoundland and Labrador, parts of NTS 2-C, D, E and F; Geological Survey of Canada, Open File 8845; Newfoundland and Labrador Department of Industry, Energy and Technology, Geological Survey Open File NFLD/3396, Map 2021-10, Scale 1:200 000, <https://doi.org/10.4095/326228>

GEOLOGICAL SURVEY OF CANADA OPEN FILE 8845  
NEWFOUNDLAND AND LABRADOR DEPARTMENT OF INDUSTRY, ENERGY AND TECHNOLOGY  
GEOLOGICAL SURVEY OPEN FILE NFLD/3396, MAP 2021-10  
**FIRST VERTICAL DERIVATIVE OF THE MAGNETIC FIELD**

**AIRBORNE GEOPHYSICAL DATA COMPILATION NORTH-CENTRAL NEWFOUNDLAND**  
NEWFOUNDLAND AND LABRADOR  
Parts of NTS 2-C, D, E and F



Scale 1:200 000

MADE IN CANADA

Universal Transverse Mercator Projection  
North American Datum 1983

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2021  
Hydrography base at the scale of 1:200 000 from Natural Resources Canada, with modifications  
Topography base of 100 metre intervals

