

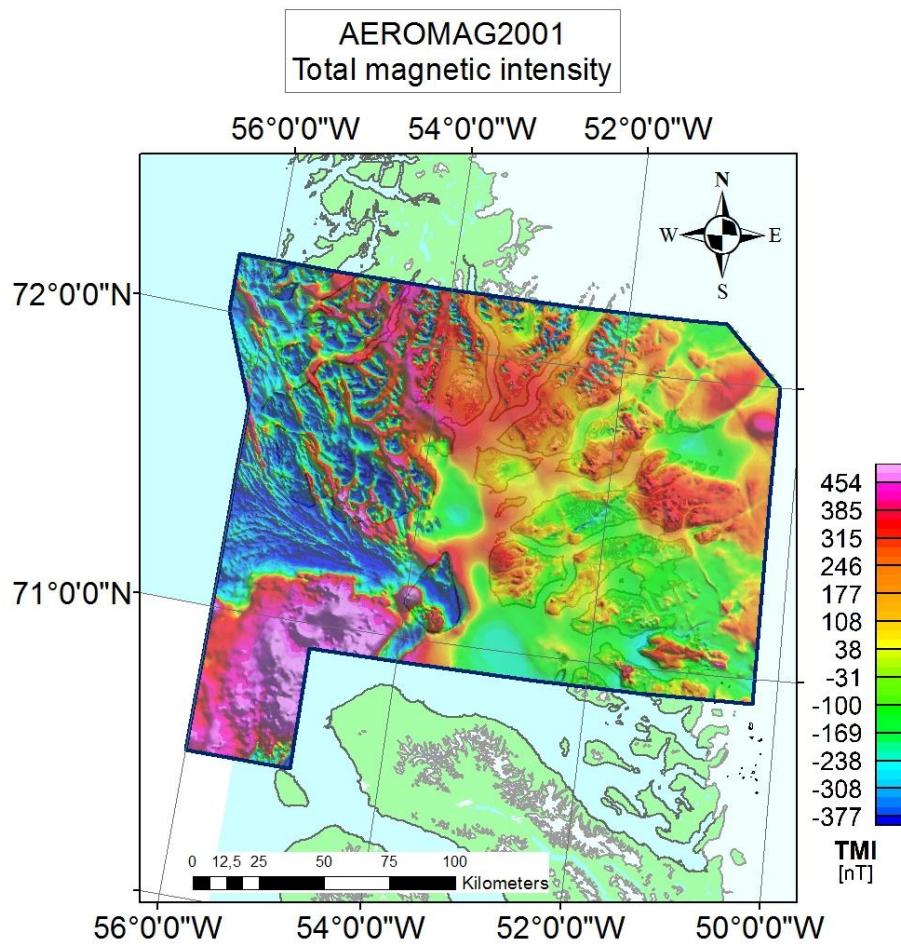
Aeromag 2001

Description of an aeromagnetic survey in Greenland 2001

The Aeromag 2001 survey covers a part of central West Greenland between Uummannaq and Prøven and includes both onshore and offshore areas (size: 31 400 km²). Data were collected and processed by Sanders Geophysics Ltd. and the survey was financed by the Government of Greenland. The regular line direction was north-south with orthogonal tie-lines. The regular lines had a separation of 500 metres whereas the tie-lines were flown with a spacing of 5000 metres.

The area between Uummannaq and Prøven is characterised by an Archaean crystalline basement, covered by an impressive succession of Palaeoproterozoic sediments, the Palaeoproterozoic Prøven Igneous Complex, minor outcrops of down faulted Cretaceous sediments, and Tertiary plateau basalts. The Archaean rocks, which have been correlated with similar rocks on neighbouring Baffin Island in Canada, were folded and metamorphosed during the Hudsonian orogeny c. 1.85 Ga and intruded by a 1.65 Ga old dolerite dyke swarm.

The Palaeoproterozoic Karrat Group hosts the now exhausted Black Angel lead-zinc deposit which was mined 1973–1990. Similar marble-hosted lead-zinc occurrences at other localities indicate an additional potential for this type of mineralisation. The clastic rocks of the Karrat Group comprise extensive sulphide facies iron-formation and vein-type mineralisation with base and precious metals. Additionally, the group offers a potential for shale-hosted sulphides and turbidite-gold-bearing veins and shear zones. The Tertiary volcanic rocks have units of extremely reduced lavas with native iron, indicating a potential for Ni-Cu-PGM Norilsk-type occurrences



Total magnetic intensity map from the Aeromag 2001 survey in West Greenland from 50°15'N to 72°10'N.

Data compilations can be directly downloaded from [Greenland Portal](#) by entering "Geophysics – individual surveys" and selecting this survey. To order hardcopies of map sheets, please contact Geus by email bhm@geus.dk.

Selected reference:

- Rasmussen, T.M. 2002: Aeromagnetic survey in central West Greenland: project Aeromag 2001. Geology of Greenland Survey Bulletin 191, 67-72