

Geohazard Assessment from Satellite Magnetic Data Modeling

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Satellite magnetic anomalies reveal coherent sections of the Earth's crust. Some of these crustal units are bounded by faults or fracture zones or are situated over regions of active or dormant faulting and/or seismicity and stress. Examples of these regions are: Kiruna, Sweden, Tornquist-Teisseyre Zone, Arctic Canada and the Korean Peninsula. These large fault systems are also involved in the localized mineralization, e.g., Kiruna, Sweden. This is to be expected since the boundaries of many individual crustal units have been formed by activities over time and sometimes continuing into the present. These potentially dynamic regions have of significance on geohazard awareness. The analysis of satellite magnetic anomalies has to be made in conjunction with crustal thickness, geothermal and geologic data in order to produce an integrated interpretation.