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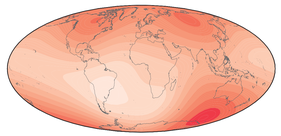
VERSION 1.0
(SHEET 5 OF 5)



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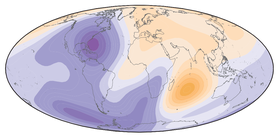

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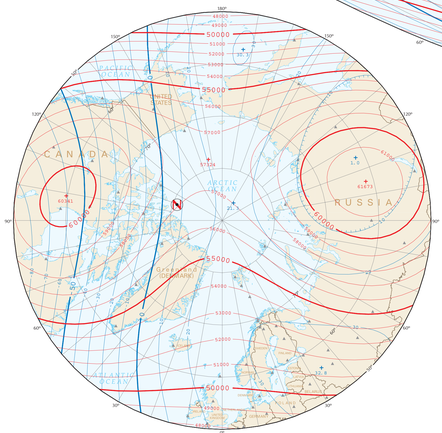

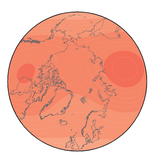

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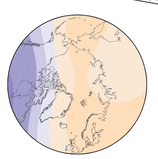


SECULAR VARIATION OF TOTAL INTENSITY

EXPLANATION

Total Intensity

Contours of total intensity expressed in nanoTeslas. Total intensity is the strength (magnitude) of the magnetic field vector and is always positive. Hachures point in direction of decreasing values.

Secular Variation of Total Intensity

Contours of the estimated rate of change of total intensity (secular variation) expressed in nanoTeslas per year. To apply change, add algebraically. Hachures point in direction of decreasing values.

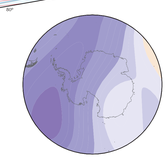
22828 — Point value of total intensity expressed in nanoTeslas. Point values enclosed by a single contour are local maxima or minima.

1.0 — Point value of the estimated rate of change of total intensity (secular variation) expressed in nanoTeslas per year. To apply change, add algebraically. Point values enclosed by a single contour are local maxima or minima.

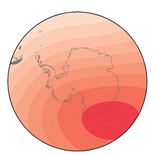
N — North and south magnetic poles. Magnetic poles are defined as the locations at which the horizontal magnetic intensity, computed from the degree and order ten spherical harmonic International Geomagnetic Reference Field 2000 model, is effectively zero at 2000.0.

S

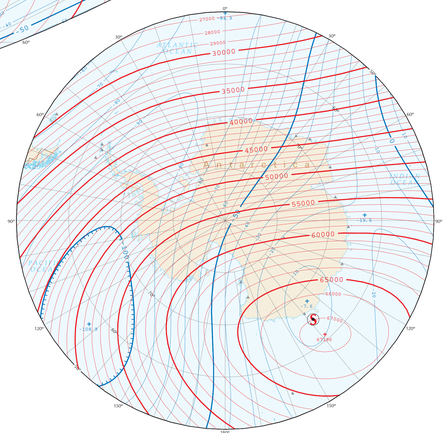
A — Geomagnetic observatory recording data since 1990



SECULAR VARIATION OF TOTAL INTENSITY



TOTAL INTENSITY



TOTAL INTENSITY CHART
THE INTERNATIONAL GEOMAGNETIC REFERENCE FIELD, 2000

By

Kenneth S. Rukstales and John M. Quinn

2001

DISCUSSION

This is one of five world charts showing the declination, inclination, horizontal intensity, vertical component, and total intensity of the Earth's magnetic field at mean sea level at the beginning of 2000. The charts are based on the International Geomagnetic Reference Field (IGRF) main model for 2000 and secular change model for 2000-2005. The IGRF is referenced to the World Geodetic System 1984 ellipsoid.

Additional information about the USGS geomagnetism program is available at http://geomag.usgs.gov/

This and other USGS publications are available on-line at: http://geology.cr.usgs.gov/

ACKNOWLEDGMENTS

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SELECTED REFERENCES

Barton, C.E., Barraclough, D.R., and Quinn, J.M., eds., 1997. Analysis and modelling of global magnetic field data and the IGRF: Journal of Geomagnetism and Geoelectricity, v. 49, nos. 2-3, 467 p.

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