

Geo-Magnetic Measurements in Israel

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SUMMARY

Earth's geomagnetic field or as it's more commonly known – earth's magnetic field, plays an imperative role in protecting the Earth against solar wind and cosmic rays, essentially preventing the disastrous aftereffect of exposure to radiation. Consequently, observation of the current state of the field and its stability is of a high value and as such are being monitored in special observatories worldwide. Israel is among those countries which research Earth's magnetosphere, measure total field values, its corresponding components and analyze the data for the last few decades.

Furthermore, magnetic observations enable calculation of the aforementioned components, such as magnetic declination and extraction of the magnetic north, surprisingly enough still useful for navigation purposes even in the technological era.

This paper presents a brief overview of the various activities of the Survey of Israel in the geomagnetic field, including ongoing and future projects, such as: prediction of magnetic declination using time serious analysis and formulation of an interactive comprehensive declination model. The main purpose of the latter is to allow online calculation of declination values anywhere within the boundaries of Israeli state.