

# Geomagnetic Services

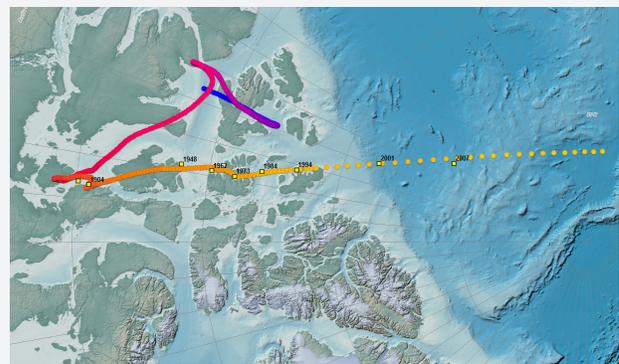
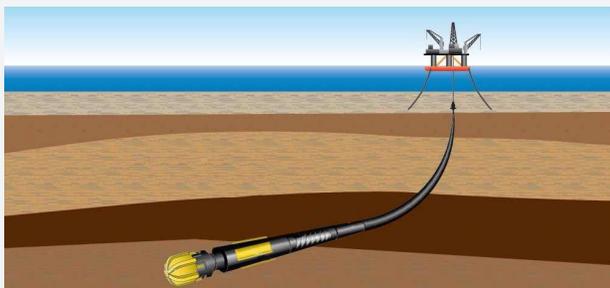
NOAA's National Centers for Environmental Information (NCEI) develops and distributes models of the geomagnetic field and maintains archives of geomagnetic data to further the understanding of Earth magnetism and the Sun–Earth environment.

## GEOMAGNETISM

The study of geomagnetism is one of the oldest of the geophysical sciences. The geomagnetic field has been observed and used from ancient times. NCEI provides long-term scientific data stewardship for geomagnetic data, ensuring quality, integrity, and accessibility, and strives to be a central resource to provide knowledge and understanding of the Earth's magnetic field. NCEI also hosts a variety of magnetic data models that have a wide variety of uses.

## MAGNETIC & GEOMAGNETIC MODELS

In addition to the widely used World Magnetic Model (WMM), NCEI produces the Enhanced Magnetic Model (EMM) and the High Definition Geomagnetic Model (HDGM), which are used in industry to enhance the accuracy of directional drilling and many other aspects of resource exploration. NCEI also hosts the world's largest collection of trackline magnetics—over 16 million miles of airborne and marine surveys.



Historic Declination Viewer:

[https://maps.ngdc.noaa.gov/viewers/historical\\_declination/](https://maps.ngdc.noaa.gov/viewers/historical_declination/)

The Geomagnetism Team supports accuracy and innovation in multiple aspects of scientific, economic, and social issues. Such as:

- Land, Air, and Sea Navigation
- NOAA Nautical Charting
- Resource Exploration and Extraction
- Orienting Antennas and Solar Panels
- Survey Property Boundaries
- Study of Plate Tectonics and Climate
- Magnetic Pole Tracking
- Stopping Rotation of Satellites in Space
- Conducting Basic Research
- And More . . .

**FOR ADDITIONAL INFORMATION**

[ngdc.noaa.gov/geomag](http://ngdc.noaa.gov/geomag)

