

# Video: Magnetic field update

20 June 2014

---

This animation shows changes in Earth's magnetic field from January to June 2014 as measured by ESA's Swarm trio of satellites.

The [magnetic field](#) protects us from [cosmic radiation](#) and charged particles that bombard Earth, but it is in a permanent state of flux. Magnetic north wanders, and every few hundred thousand years the polarity flips so that a compass would point south instead of north. Moreover, the strength of the magnetic field constantly changes – and it is currently showing signs of significant weakening.

The field is particularly weak over the South Atlantic Ocean – known as the South Atlantic Anomaly. This weak field has indirectly caused many temporary [satellite](#) 'hiccups' (called Single Event Upsets) as the satellites are exposed to strong radiation over this area.

Provided by European Space Agency

APA citation: Video: Magnetic field update (2014, June 20) retrieved 17 September 2019 from <https://phys.org/news/2014-06-video-magnetic-field.html>

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*