

EARTH ONLINE NEWSLETTER



05 April 2024

HEDAVI Discover: a step-by-step guide

27 March 2024

The Heritage Data Visualisation tool (HEDAVI) is a platform developed by the French Science Consulting for Earth Observation group, VisioTerra, which allows users to freely access over 40 years of ESA Earth Observation Heritage data, Third Party Missions and some Copernicus data.



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Meet the Earth Online Editorial & Graphics Services Team

04 April 2024

The Earth Online Editorial Service produces diverse publications, which facilitate ESA and TPM data discovery and exploitation, ensuring that the website maintains a returning and ever-growing user base.



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ICEYE Dwell mode now available to users

22 March 2024

ICEYE Dwell mode products are now available through ESA's Third Party Missions programme.



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CHAMP L3 magnetic data now available on Swarm dissemination server

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Additional Swarm Langmuir probe Ion Drift, density and effective Mass (SLIDEM) dataset at 2 Hz cadence, baseline 0201, is now available on the Swarm dissemination server for all the Swarm satellites.



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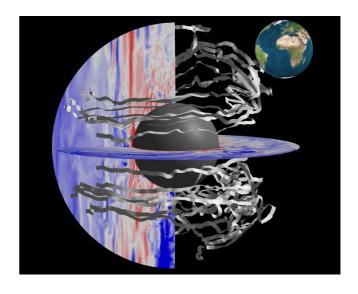
Highlight on:

Ten years of Swarm data help reveal processes in Earth's core

26 March 2024

The tenth birthday of ESA's three-satellite Swarm constellation has been a game changer for research into Earth's magnetic field and core dynamics, as set out by an ESA-funded project. The turbulent, swirling motion of liquid iron in Earth's outer core creates powerful electric currents, which in turn generate Earth's magnetic field. While this magnetic field acts as a shield to protect Earth from the solar wind, its irregular fluctuations are still poorly understood.

An ESA-funded project drawing on ten years of Swarm satellite data and advanced numerical simulations, has helped reveal new fundamental insights into Earth's core dynamics and its slowly changing magnetic field.



ESA's Earth Explorers are pioneering research missions tasked with unravelling key information about Earth's processes and answering cutting-edge scientific questions.

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Have data from ESA's various satellite missions benefited your work? Would you like to share the results from your research?

Contact us and we may be able to publish an article or conduct an interview related to your experience.

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Focus on: Data access

How to access Swarm data

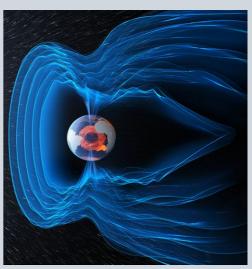
ESA's Swarm mission reached a milestone of 10 years of operations in November, an event that will be celebrated next week at the 10 year Anniversary and Science Conference.

Swarm is ESA's mission dedicated to creating a highly detailed survey of Earth's geomagnetic field, and data from the satellites continue to provide new insights into the magnetic field and the planet's core dynamics.

The mission consists of three identical satellites, named Alpha, Bravo, and Charlie. Alpha and Charlie fly together om the same orbit, while Bravo operates in a higher orbit. The e-POP instrument aboard the Canadian Space Agency's CASSIOPE satellite was also added to the constellation in 2018, and is known as Swarm Echo.

Data products from the Swarm mission are openly available to anyone with an active account in ESA's EO Sign-In System.

Available collections are available at different levels of processing and the many applications Swarm data support, including products for the lithosphere, ionosphere and magnetosphere, thermosphere, geodesy and gravity, and space weather.



Artist's concept of Earth's magnetic field shielding against cosmic radiation and charged particles.

Credit: ESA/ATG Medialab

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