What?

CryoSat is ESA's third Earth Explorer satellite and Europe's first ice mission

Revolutionary

CryoSat carries the first spaceborne synthetic aperture **interferometric radar altimeter (SIRAL)**, a sensor optimised to study sea-ice floes as they drift in the ocean and rugged glaciers

10 Years in Space

In 2020, Cryosat celebrated a decade in space, during which it has met and surpassed its mission objectives with data being used daily in innovative ways



In Resonance

In July 2020, **CryoSat's orbit** was raised by roughly **900 metres** so it would periodically **align with NASA's ICESat-2**. The data collected by the two satellites will unlock a wealth of new benefits for the scientific community



Data and Users

Serving around 1000 registered users from over 70 countries, it generates approximately 1 TB of ice data/month and 100 GB of ocean data/month. Access to data is free and open



CryoSat in Brief



Its main objectives are to measure thickness of **polar sea ice** and monitor changes in ice sheets that blanket **Greenland and Antarctica**

When?

Launched on 8 April 2010, on a Russian-Ukrainian Dnepr Rocket, with a non Sun-synchronous low Earth Orbit at 719 km mean altitude, CryoSat reaches latitudes of 88° North and South

Why?

Developed to meet the needs of the ice research community, it aims to provide a precise picture of how Polar Regions are responding to global warming



Where?

Built by **Astrium** in Germany, with its SIRAL radar instrument developed by **Thales Alenia Space**, France

Data Access

https://science-pds.cryosat.esa.int

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For more information visit: https://earth.esa.int/eogateway/missions/cryosat

