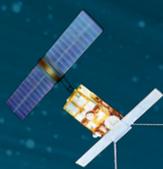


Celebrating 30 years of ERS



What?

The **European Remote Sensing (ERS)** satellite programme was composed of two missions, **ERS-1** and **ERS-2**

When?

Launched on **17 July 1991** and **21 April 1995**, on Ariane-4 rockets from Europe's Spaceport in Kourou, French Guiana, with same sun-synchronous polar orbit at about 780 km altitude



Applications

The satellites circled Earth **over 120,000** times in total, continuously observing and monitoring our planet's land, atmosphere, oceans and ice caps, while supporting scientific research, operational services and applications in several domains

Heritage Value



Both satellites far exceeded their design life of **three years**, with ERS-1 ending in 2000 and ERS-2 in 2011. Today data are accessible and enhanced as part of the **Heritage Space Programme**, together with data from other missions

Instruments

ERS-1 and ERS-2 were the most advanced and complex satellites of their time, delivering an **enormous volume of data** to Earth through a comprehensive set of instruments, including:

- An imaging synthetic aperture radar (**SAR**)
- A radar altimeter (**RA**)
- A water vapour measuring microwave radiometer (**MWR**) and a temperature-measuring radiometer (**ATSR**)
- An ozone monitoring spectrometer (**GOME**) – on ERS-2 only



Data and Users?



ERS data supported **over 5,000** projects producing some **4000** scientific publications. Archived heritage data still provide a wealth of information, and are continuously improved to build harmonised, long time data series with successor missions like Envisat and Copernicus Sentinels

Built by?

Designed and built by an international consortium of European industries led by **DSS (Dornier Satelliten Systeme GmbH)**



Innovation

A tandem mission was implemented following the launch of ERS-2, which shared the **same orbit** as ERS-1. This enabled an accurate, **three-dimensional digital map** of Earth's land surfaces and allowed to detect small changes on Earth's surface with a range precision of 1 cm, opening **new fields of applications**.

Data Access

<https://earth.esa.int/eogateway/missions/ers/data>



For more information visit:

<https://earth.esa.int/eogateway/missions/ers>