

About COPERNICUS SENTINEL-5P



WHAT

Sentinel-5 Precursor, or Sentinel-5P, is the first mission of the European Union's Copernicus Programme dedicated to monitoring Earth's atmosphere

OBJECTIVE

The aim of the mission is to deliver measurements of key constituents of the atmosphere with high spatiotemporal resolutions, supporting the monitoring and forecasting of air quality, ozone and UV radiation, and the climate, as well as many more applications that benefit society and the environment

INSTRUMENT

Copernicus Sentinel-5P carries the TROPOspheric Monitoring Instrument (TROPOMI), a state-of-the-art spectrometer that maps the global atmosphere every day, with a resolution as high as 5.5 km × 3.5 km and a swath of some 2600 km

APPLICATIONS

Copernicus Sentinel-5P data are fed into several Copernicus Services, including the Copernicus Atmosphere Monitoring Service (CAMS) and the Copernicus Climate Change Service (C3S), helping European businesses and governments address key societal and environmental challenges

CONTINUITY

The mission reduces gaps in the availability of global atmospheric data between ESA's Envisat satellite – which was operational from 2002 to 2012 – and the future Copernicus Sentinel-4 and Sentinel-5 missions

WHEN



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The satellite was launched into orbit on 13 October 2017 onboard the Rockot launcher from the Plesetsk cosmodrome in Russia

WHERE

The mission was designed and built by a consortium of **30 companies** led by Airbus Defence and Space in the UK and the Netherlands. It is the result of a collaboration between ESA, the European Commission, the Netherlands Space Office, industry, data users and scientists

SCIENCE

The mission's data have resulted in the publication of hundreds of scientific papers that tackle numerous important issues, including the impact of industries around the world on greenhouse gas emissions, the effect of coronavirus restrictions on air quality, and many more

DATA AND USERS

Approximately 1 terabyte of Copernicus Sentinel-5P data is downloaded by users every day. As of September 2022, there are some 590,000 registered users of Copernicus Sentinel data.

DATA ACCESS? scihub.copernicus.eu/

