



SENTINEL-5P ON ROCKOT

Facts and Figures

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ESA Copernicus Atmosphere Monitoring Mission from Plesetsk

Mission Objectives

Sentinel-5p is a Copernicus mission dedicated to monitoring the composition of the atmosphere. As part of the Copernicus Atmosphere Services, Sentinel-5p is designed for providing continuity to atmospheric spectrometry of the ENVISAT and EOS-Aura missions bridging the gap until the launch of the Sentinel-5 instrument.

Sentinel-5p will provide measurements of elements of atmospheric chemistry at high temporal and spatial resolution. Also, it will increase the frequency of cloud-free observations required for the study of troposphere variability. In particular the Sentinel-5p mission is expected to provide measurements of ozone, NO₂, SO₂, CO and aerosol.

Copernicus Programme

Sentinel-5p belongs to the Copernicus (formerly GMES – Global Monitoring for the Environment and Security) programme which is funded jointly by the European Commission and the European Space Agency. Supporting European policies, Copernicus uses accurate and timely data to provide key information services to improve the way the environment is managed, help mitigate the effects of climate change and ensure civil security. Since the provision of reliable data is the key to the success of the Copernicus programme, ESA is developing six families of Sentinel satellites specifically for Copernicus.

Sentinel-5p is the precursor mission to the Sentinel-5 instrument which will be embarked on a polar-orbiting MetOp Second Generation satellite.

Mission Partners

The mission customer is the European Space Agency (ESA). The Industrial prime contractor for the spacecraft is Airbus Defence & Space, UK. The launch provider is Eurockot Launch Services GmbH.

Nominal Launch Characteristics

The Sentinel-5p spacecraft will be launched from Plesetsk Cosmodrome, Northern Russia, where Eurockot maintains its own preparation and launch facilities.

The Sentinel-5p mission has the following approximate launch parameters:

Launch Vehicle	Rocket/Breeze-KM
Launch Site	Plesetsk Cosmodrome, Russia Located at 63°N, 40°E
Launch Pad	Eurockot Pad LC133
Payload	Sentinel-5p
Payload Mass	900 kg
Separation System	CASA CRSS 937 clamp band
Injection Orbit Altitude	824 km
Injection Orbit Inclination	98.75°
Injection Orbit Eccentricity	0.0011
Mean Local Solar Time at Ascending Node	13:35
Planned Lift-Off Date	2016

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