

SENTINEL-3A ON ROCKOT

ESA Copernicus Medium Resolution Land and Ocean Mission from Plesetsk

Mission Objectives

Sentinel-3A is the Copernicus operational wide-swath medium-resolution ocean and land mission designed for providing continuity to optical and altimetry data of the ENVISAT mission and vegetation data of the SPOT mission.

Sentinel-3A will globally monitor ocean, ice and land combining a multi-spectral optical mission which provides sea/land colour data and surface temperatures and an altimetry mission contributing to the determination of the sea surface, ice surface and in-land water topography. In addition, as complementary objectives, the Sentinel-3A mission provides vegetation, fire identification and atmospheric products.

Copernicus Programme

Sentinel-3A belongs to the Copernicus 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 five families of Sentinel satellites specifically for Copernicus.

Each operational Sentinel system comprises two identical satellite flight models to comply with tight revisit and product delivery latency. Sentinel-3A is the first satellite model of the Sentinel-3 twin-satellite constellation.

Mission Partners

The mission customer is the European Space Agency (ESA). The Industrial prime contractor for the spacecraft is Thales Alenia Space, France. The launch provider for the first satellite model is Eurockot Launch Services GmbH.

Nominal Launch Characteristics

The Sentinel-3A spacecraft will be launched from Plesetsk Cosmodrome, Northern Russia, where Eurockot maintains its own preparation and launch facilities.

The Sentinel-3A mission has the following approximate launch parameters:

Launch Vehicle	Rockot/Breeze-KM
Launch Site	Plesetsk Cosmodrome, Russia Located at 63°N, 40°E
Launch Pad	Eurockot Pad LC133
Payload	Sentinel-3A
Payload Mass	1200 kg
Separation System	CASA CRSS 937 clamp band
Injection Orbit Altitude	815 km
Injection Orbit Inclination	98.65°
Injection Orbit Eccentricity	0.0011
Mean Local Time at Descending Node	10:00
Planned Lift-Off Date	2015