



SENTINEL-2A ON ROCKOT

Facts and Figures

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ESA GMES Optical High Resolution Land Mission from Plesetsk

Mission Objectives

Sentinel-2A is the GMES operational wide-swath high-resolution multi-spectral land imaging mission designed for data continuity & enhancement of Landsat and SPOT-type missions. Sentinel-2A carries a multi-spectral optical payload which will image the Earth's land masses, delivering operational applications in the field of agriculture, forestry, land cover and cartography, including support of humanitarian relief work and extraction of geophysical variables from vegetation. The satellite is designed to operate for 7 years with a mission extension capability of up to 12 years. Sentinel-2A also features an advanced optical communication payload to secure alternative mission data recovery by the ground segment through the European Data Relay Satellite.

GMES

Sentinel-2A belongs to the GMES programme which is funded jointly by the European Commission and the European Space Agency. Supporting European policies, GMES 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 GMES programme, ESA is developing five families of Sentinel satellites specifically for GMES.

Each operational Sentinel system comprises two identical satellite flight models to comply with tight revisit and product delivery latency. Sentinel-2A is the first satellite model of the Sentinel-2 twin-satellite constellation.

Mission Partners

The mission customer is the European Space Agency (ESA). The industrial prime contractor for Sentinel-2A is Astrium GmbH in Friedrichshafen, Germany. The launch provider for the first satellite model is Eurockot Launch Services GmbH.

Nominal Launch Characteristics

The Sentinel-2A spacecraft will be launched from Plesetsk Cosmodrome, Northern Russia, where Eurockot maintains its own preparation and launch facilities.

The Sentinel-2A 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-2A
Payload Mass	1200 kg
Separation System	CASA CRSS 1194 clamp band
Injection Orbit Altitude	786 km
Injection Orbit Inclination	98.56°
Injection Orbit Eccentricity	0.0012
Mean Local Time at Descending Node	10:30
Planned Lift-Off Date	2014

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