

SPACE SYSTEMS

Noordwijk, 15 November 2016

Copernicus' Second Eye is ready to meet its Launcher

- Sentinel-2B satellite scheduled for launch in early March 2017
- Airbus built spacecraft provides unique image quality

Sentinel-2B, Europe's next Copernicus satellite in Space, has successfully finished its test programme at ESA's technology Centre ESTEC in Noordwijk, The Netherlands. The second Sentinel-2 Airbus built satellite will now be readied for shipment to the Kourou spaceport in French Guiana begin January 2017. It is scheduled for an early March 2017 lift-off on Vega. Copernicus, Europe's environmental monitoring programme, is led by the European Commission (EC) in partnership with the European Space Agency (ESA). The Copernicus Sentinels supply remote sensing data of the Earth, delivering key operational services related to environment and security.

Offering "colour vision" for the Copernicus programme, Sentinel-2B like its twin satellite Sentinel-2A will deliver optical images from the visible to short-wave infrared range of the electromagnetic spectrum. From an altitude of 786 kilometres, the 1.1 tonne satellite will deliver images in 13 spectral bands with a resolution of 10, 20 or 60 metres and a uniquely large swath width of 290 km. The optical design of the Multi Spectral Instrument (MSI) has been optimised to achieve state-of-the-art imaging quality across its very wide field of view. With its multispectral imager and wide swath coverage, the Sentinel-2 mission not only offers continuity, but with its more than 100 km increase in swath width, also expands on previous missions.

The telescope structure and the mirrors are made of silicon carbide, which provides very high optical stability and minimises thermo-elastic deformation, resulting in an excellent geometric image quality. This is unprecedented in this category of optical imagers. The data gathered are used for monitoring land use and changes, soil sealing, land management, agriculture, forestry, natural disasters (floods, forest fires, landslides, erosion) and to assist humanitarian aid missions. Environmental observation in coastal areas likewise forms part of these activities, as does glacier, ice and snow monitoring.

The Sentinel-2-mission is based on a constellation of two identical satellites, Sentinel-2A and Sentinel-2B, in the same orbit, 180° apart for optimal coverage and data delivery. The satellites are orbiting the earth every 100 minutes covering all Earth's land surfaces, large islands, inland and coastal waters every five days. Sentinel-2A, which is identical in design, was launched on 23 June 2015. Since then the satellite has been performing excellently. A total of 51,762 users have self-registered on the Sentinels Scientific Data Hub. About 168,000 products are available for download, cumulating a total volume of 433 TB. Overall, a total volume of 1.9 Petabyte has been downloaded by the user communities.



Press Release



The Sentinel-2 mission has been made possible thanks to the close collaboration between ESA, the European Commission, industry, service providers and data users. Its development has involved around 60 companies, led by Airbus Defence and Space in Germany for the satellites and Airbus Defence and Space in France for the multispectral instruments, while Airbus Defence and Space in Spain is responsible for the mechanical satellite structure.

About Airbus Defence and Space

Airbus Defence and Space, a division of Airbus Group, is Europe's number one defence and space enterprise and the second largest space business worldwide. Its activities include space, military aircraft and related systems and services. It employs more than 38,000 people and in 2015 generated revenues of over 13 billion Euros.

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