

SPACE SYSTEMS

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## Bon voyage, MetOp-C!

- Airbus Defence and Space sends payload module of Europe's next weather satellite on its first journey
- Comprehensive test campaign begins in January at ESA/ESTEC
- Launch scheduled for October 2018



***Payload module of MetOp-C is being prepared for transport.***

***Photo: Airbus DS GmbH /A. Ruttloff***

Airbus Defence and Space, the world's second largest space company, has sent the MetOp-C payload module, the 'brain' for Europe's next polar-orbiting weather satellite, on its first journey. The module, which weighs around 2.1 tonnes, contains ten measuring instruments together with their control systems. These comprise systems for issuing commands and monitoring instruments, formatting data, encrypting and storing it as well as transmitting it to Earth.

In the coming six months, the payload module (PLM) will be tested in space conditions at the Space Research and Technology Centre (ESTEC) of the European Space Agency (ESA) in Noordwijk in the Netherlands. There, around 30 employees from the Airbus Defence and Space site in Friedrichshafen will carry out comprehensive functional tests on the PLM of the third and last MetOp satellite of the first generation. The module will then go on a second trip, to the Toulouse Airbus Defence and Space site, where it will join up with the service module (SVM). The service module houses the main computer, power supply, attitude and thermal control systems as well as systems for controlling communications with the ground station. MetOp-C is currently planned to be launched in October 2018.

MetOp is a series of operational polar-orbiting weather satellites that orbit the Earth at an altitude of around 800 kilometres. The first satellite in the series, MetOp-A, was launched on 19 October 2006 and was followed by MetOp-B on 17 September 2012. Both 'weatherstations' have since been operating successfully in space.

MetOp is a real all-rounder. An infrared scanner, for example, provides three-dimensional data on temperatures and humidity in the Earth's atmosphere with unparalleled accuracy. Approaching storms can therefore be detected several hours in advance. The instrument can also collect data on greenhouse gases, such as carbon dioxide, carbon monoxide or methane on a total of 8,400 spectral channels. The tasks of MetOp include near-surface wind measurement over the oceans, the observation of sea ice distribution and the monitoring of the ozone layer in the stratosphere. But MetOp also transmits other signals: The satellite receives measurement data from ships, buoys and research stations as well as signals from people in distress.

Within the EUMETSAT Polar System (EPS), MetOp forms part of the global meteorological satellite network in cooperation with the National Oceanic and Atmospheric Administration (NOAA), which also supplies some of the instruments. The MetOp series satellites have been jointly developed by the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) and ESA. MetOp is operated by EUMETSAT. The satellites are built under the industrial leadership of Airbus Defence and Space.

More information about MetOp can be found here:

[http://www.space-airbusds.com/en/press\\_centre/airbus-weather-satellite-metop-a-notches-up-10-years.html](http://www.space-airbusds.com/en/press_centre/airbus-weather-satellite-metop-a-notches-up-10-years.html)

## 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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