

# Metop-B weather satellite is ready for launch

September 7 2012

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Metop-B, the European polar orbiting weather satellite, designed and manufactured by Astrium, is now ready to launch from the Baikonur cosmodrome in Kazakhstan.

From its polar orbit 817 kilometres above Earth, Metop-B will provide a

broad range of measurements vital to weather forecasting and climate monitoring. The many components and instruments manufactured for Metop-B by [Astrium](#) at its sites in France, Germany, the Netherlands, Spain and the United Kingdom include the ASCAT radar, which will measure the speed and direction of ocean winds, and the Microwave Humidity Sounder (MHS), which will measure atmospheric humidity.

Metop-B is the second in a series of three weather satellites that the [European Space Agency](#) (ESA) and EUMETSAT, the European Organisation for the Exploitation of [Meteorological Satellites](#), have commissioned from Astrium. The satellites are being launched at intervals of five to six years; Metop-A was launched in 2006 and Metop-C is scheduled to join them in orbit at the end of 2017, thus ensuring that data will continue to be supplied until a new generation becomes available. Weighing 4,100 kg, Metop-B has been designed to operate in orbit for five years.

The EUMETSAT Polar System, which includes the three Metop satellites, represents the European contribution to a cooperative venture with the United States, providing data to monitor climate and improve weather forecasting. Each Metop satellite carries a set of 'heritage' instruments provided by the United States and a new generation of European instruments that offer improved remote sensing capabilities to both meteorologists and [climatologists](#). In turn, the US NOAA satellites fly European instruments, including the Astrium built Microwave Humidity Sounder. Metop flies in a [polar orbit](#) corresponding to local 'morning' while the US is responsible for 'afternoon' coverage.

Weather monitoring satellites, Metop-B being one of the most modern examples, are essential in guaranteeing the safety of citizens, infrastructure and industry in Europe and elsewhere. They alone possess the capability to provide weather and climate data spanning the whole planet and on a continual basis.

Provided by UK Space Agency

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