Press Release

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Metop-C's IASI instrument delivers first spectrum

A critical element of polar-orbiting meteorological satellite Metop-C's payload – the Infrared Atmospheric Sounding Interferometer (IASI) – delivered its first spectrum today.

EUMETSAT's Metop-C was launched from the European Space Port in Kourou, French Guiana, on 7 November. Its instruments have been progressively switched on and tested.

The IASI instrumentwas developed by the French Space Agency (CNES) and built by Thalès Alenia Space,

It provides information on the vertical structure of the atmospheric temperature and humidity at an unprecedented accuracy and vertical resolution of 1km. The IASI also monitors concentrations of trace and greenhouse gases, such as ozone, carbon monoxide and sulphur dioxide, in the atmosphere.

As Metop-C's "sibling" spacecraft Metop-A and –B are still fully operational, despite outlasting their design lifetime of five years, data from three IASI instruments will soon be available for use in weather forecasting and contribution to environmental and climate monitoring.

EUMETSAT Polar System Programme Scientist Dieter Klaes said, "The Metop satellites, which are the space component of the EUMETSAT Polar System, are the most important source of data for numerical weather prediction for forecasts from 12 hours to 10 days in advance.

"The data from Metop satellites make the biggest positive impact on the reduction in errors in forecasts one day in advance and the IASI instrument plays a significant role in that.

"The spectrum today, similar to those of the earlier instruments, documents the importance of advanced technology in an operational programme and demonstrates the benefits of co-operation with partners.

IASI Project Manager at CNES, Olivier Vandermarcq said, "A decisive step was achieved today with the production of the first spectrum of the Earth atmosphere by IASI on board Metop-C."

"As a Fourier interferometer, IASI is a complex mix of mechanical, optical and electronics components. It includes, for instance, a moving optical Corner Cube which will perform 76 million of forward/backward cycles a year. Every component needs to do its job perfectly so that at the end, IASI works well and produces data from Space with outstanding performances. This can never be taken for granted despite the exhaustive tests and activities performed on-ground before launch."

"This is why CNES, is extremely satisfied and very proud of the success of this important step that is associated with the excellence of the partnership with EUMETSAT."

About EUMETSAT

The European Organisation for the Exploitation of Meteorological Satellites is an intergovernmental organisation based in Darmstadt, Germany, currently with 30 Member States (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom).

EUMETSAT operates the geostationary satellites Meteosat -9, -10 and -11 over Europe and Africa, and Meteosat-8 over the Indian Ocean.

EUMETSAT operates two Metop polar-orbiting satellites as part of the Initial Joint Polar System (IJPS) shared with the US National Oceanic and Atmospheric Administration (NOAA). Metop-C is the third.

EUMETSAT is also a partner in the cooperative sea level monitoring Jason missions (Jason-2, Jason-3 and Jason-CS/Sentinel-6) involving Europe and the United States.

The data and products from EUMETSAT's satellites are vital to weather forecasting and make a significant contribution to the monitoring of environment and climate change.

The European Union has entrusted EUMETSAT with exploiting the four Sentinel missions of the Copernicus space component dedicated to the monitoring of atmosphere, ocean and climate on its behalf. EUMETSAT carries out these tasks in cooperation with ESA and already exploits the Sentinel-3 marine mission.

EUMETSAT has established cooperation with operators of Earth Observation satellites from Europe and China, India, Japan, Russia, South Korea and the United States.

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About CNES

CNES (Centre National d'Etudes Spatiales) is the government agency responsible for shaping France's space policy and implementing it in Europe. Its task is to conceive and orbit satellites, invent the space systems of the future and nurture new services to aid us in our daily lives. Founded in 1961, it is the initiator of major space projects, launch vehicles and satellites, and the partner of choice for industry fuelling innovation. CNES comprises some 2,500 men and women with a passion for space working to open up new and infinite fields of applications in five core areas of focus: Ariane, science, Earth observation, telecommunications and defence. It is a key player driving technology innovation, economic development and industrial policy for the nation. It also fosters scientific collaborations and has forged numerous international partnerships. France, represented by CNES, is the leading contributor to the European Space Agency (ESA).

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