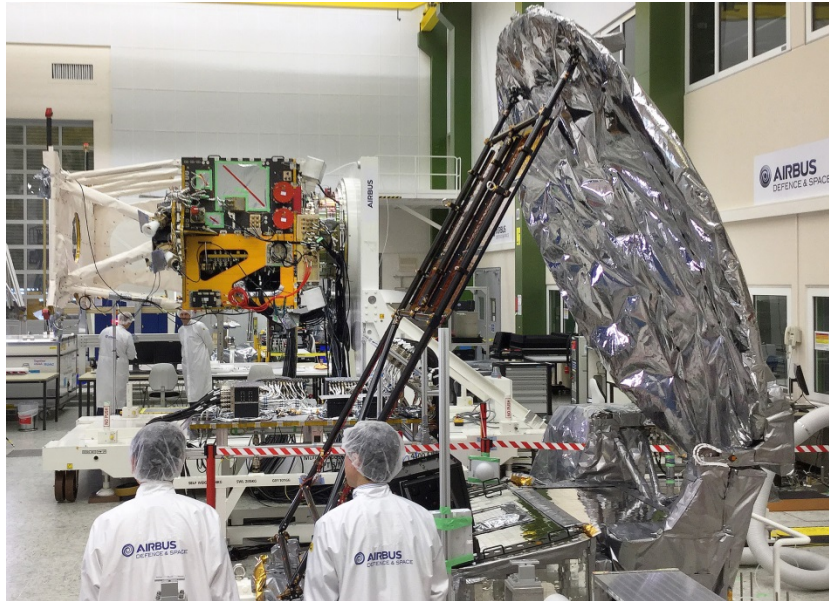


Photo Release

SPACE SYSTEMS

EarthCARE: Japanese Cloud Radar meets its spacecraft for the first time at Airbus' Satellite Centre in Friedrichshafen



The Japanese Cloud Profiling Radar (foreground right) will be assembled to ESA's EarthCARE satellite which is under development at Airbus.

Photo: Airbus DS GmbH / Mathias Pikelj

Friedrichshafen, 19/04/2017 – EarthCARE, the Cloud, Aerosol and Radiation Mission of European Space Agency (ESA), met its Cloud Profiling Radar (CPR), the Japanese payload for the mission, for the first time when the Japanese Space Agency (JAXA) handed over the instrument to ESA at Airbus' Satellite Centre in Friedrichshafen (Germany). Airbus is ESA's prime contractor to develop and build the EarthCARE satellite.

In the coming weeks, JAXA and ESA teams will run final checks on the instrument before giving a "green light" to the Airbus project team to integrate it with the spacecraft. Once assembled on EarthCARE, it will be tested intensively for several weeks. Then the instrument will be handed back to JAXA for further adjustments before its final integration next year.

EarthCARE will collect global simultaneous observations of cloud and aerosol profiles together with solar and thermal radiation and will include these parameters in numerical weather and climate models.

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Due for launch in 2019, EarthCARE will advance the understanding of the role that clouds and aerosols play in reflecting incident solar radiation back to space and trapping infrared radiation emitted from Earth's surface. Energy in the atmosphere is balance between incoming light from the Sun, which heats Earth, and outgoing thermal radiation, which cools Earth.

Clouds and, to less extent, aerosols reflect incident solar light back out to space, but they also trap outgoing infrared light. This leads to a net effect of either cooling or heating of the planet. In addition, aerosols influence the life cycle of clouds, and so contribute indirectly to their radiative effect.

The CPR instrument is one of four instruments to be integrated on the EarthCARE satellite. This high power millimetre-wave radar will measure the vertical profiles of cloud structures (water / ice content).

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2016, it generated revenues of € 67 billion and employed a workforce of around 134,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as Europe's number one space enterprise and the world's second largest space business. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

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