

European Space Agency awards Airbus £138m contract for satellite that measures Earth's heat

Airbus has been awarded a €160m (£138m) contract by the European Space Agency for a satellite that can measure heat emitted from the Earth into space.

The Far-infrared Outgoing Radiation Understanding and Monitoring (Forum) satellite will be the first to observe Earth in the far-infrared part of the spectrum, providing measurements of its outgoing energy to help improve understanding of the climate system.

Measurements from Forum's spectrometer will allow scientists to compile a high-resolution view of the Earth's greenhouse effect and the properties of ice clouds and water vapour in the atmosphere, Airbus said.

Airbus, which employs around 12,500 UK staff, has sites around Britain including in Filton, South Gloucestershire; Broughton, North Wales; and in Stevenage, Hertfordshire.

Airbus in Stevenage will lead the development of the satellite, with Airbus in Germany responsible for the instrument signal detection chain, and Airbus in France providing platform product support.

Jean-Marc Nasr, head of Airbus Space Systems, said: "This critical Earth observation mission... builds on Airbus' heritage in designing and manufacturing cost-efficient small Earth observation missions including Sentinel-5P and is the sixth Airbus primed Earth Explorer mission for the European Space Agency."

Scientists at Imperial College London provided support to the European Space Agency in defining Forum's science objectives.

Airbus said using in-orbit proven technology would "considerably reduce risk and costs" on the programme. Avionics for the mission have been developed, validated and flown together on previous missions, which will allow for savings in verification activities, software development and operating procedures, the aerospace giant said.

It also said procurement from SMEs would be a "key element" of the Forum mission to further enhance the space supply chain across European Space Agency member states.

The 883kg satellite will be in a polar orbit at an altitude of 830km and is scheduled to launch on a Vega-C launcher from Kourou, French Guiana, in 2027. Forum will be the ninth Earth Explorer mission of the European Space Agency's Future E0 Programme.

Science minister George Freeman added: "This important new mission to further improve the accuracy of climate forecasts and view our planet through new eyes is another illustration of UK space tech expertise."

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