

First Sentinel-5 instrument leaves RAL Space for satellite integration

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Sentinel-5 in front of the vacuum chamber after a successful test campaign.
Credit: STFC RAL Space

The first Sentinel-5 instrument has left RAL Space for integration onto the MetOp-SG A satellite, where it will contribute to improved

monitoring of air quality, changes in the ozone layer, and emissions from wildfires.

After spending almost nine months in vacuum at RAL Space, the first Sentinel-5 instrument has been successfully delivered by Airbus Defense and Space to the European Space Agency (ESA).

ESA's Sentinels are a family of Earth observation missions that support the European Union's Copernicus climate monitoring program. These satellites and instruments carry a range of state-of-the-art technologies for land, ocean and atmospheric monitoring.

Sentinel-5 will be integrated on the first MetOp Second Generation (MetOp-SG) satellite. The six MetOp-SG satellites will be launched in three consecutive pairs, with each pair containing a suite of instruments that will provide key data for improved weather prediction and climate monitoring. Sentinel-5 will contribute to the improved monitoring of air quality, changes in the ozone layer, and wildfire emissions.

The RAL Space team has been working closely with Airbus Defense and Space as customer and prime contractor for the Sentinel-5 instrument program to prepare the instrument for a lengthy thermal vacuum test campaign, to ensure it will survive the harsh conditions of [space](#).

The instrument is now on its way to Toulouse, France, where it will be integrated onto the spacecraft. After launch, both the spacecraft and the instrument will be operated by EUMETSAT, the European Organization for the Exploitation of Meteorological Satellites.

Oliver Hayward, Airbus Supply Chain Resident to RAL supporting the Sentinel-5 project, said, "The delivery of the protoflight model to Airbus Toulouse is a fantastic achievement for everyone involved throughout this long and challenging project, kicked off in 2014. This project

reflects the incredible technical capabilities of the European space community, including the UK, and continues to demonstrate our combined abilities to deliver on our commitments.

"We thank the RAL team for their unwavering focus and energies in overcoming the challenges faced in order to deliver this successful test campaign with the Airbus project team, and congratulate them on their own achievements with this significant European space program. A job well done."

Mark Diffenthal, Sentinel-5 project manager at RAL Space, added, "I'd like to congratulate the RAL Space and Airbus teams for this milestone. While RAL Space had already completed campaigns for Sentinel-4 and instruments for Sentinel-3, each one has its own capabilities and requirements for a successful campaign.

"Sentinel-5 presented a unique set of challenges that everyone has worked hard to solve. Getting to this stage has been a huge achievement for everyone involved, and we're really pleased to see the instrument safely on its way to Toulouse."

Provided by RAL Space

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