

Fraunhofer and Airbus sign Contract for a Payload Mission on the ISS Bartolomeo Platform

Airbus' novel payload hosting service enables the in-space technology demonstration of a multispectral camera for ConstellR, a Fraunhofer EMI spin-off

[@Space_Station](#) [@ISS_Research](#) [@AirbusSpace](#) [#SpaceMatters](#)
[@ConstellR](#) [@Fraunhofer_EMI](#) [#Bartolomeo](#) [#ISS](#)

Bremen, 14 December 2020 – Airbus and Fraunhofer EMI have signed a contract for an in-orbit demonstration mission on the Bartolomeo platform of the International Space Station (ISS). With this mission, Fraunhofer EMI enables its spin-off ConstellR to demonstrate the core measurement technology required for highly accurate land surface temperature (LST) monitoring on a global scale.

The ConstellR payload is an innovative multispectral imaging payload comprising a thermal infrared detector and advanced data processing hardware. It will utilise a 3U-slot (i.e. roughly 3000 cm³) on the ArgUS Multi-Payload Carrier, a plate designed to co-accommodate several smaller payloads on one Bartolomeo payload site.

ConstellR aims to build a cooperative microsatellite constellation that will provide information on our planet's precise surface temperature on a global scale, at a high spatial resolution, daily or even sub-daily. Such data is increasingly in demand for the monitoring and modelling of environmental and climate-related aspects, e.g. evapotranspiration, water stress, and crop yield predictions.

“Obviously, the reliability and performance of our camera is the key to the success of our mission to tackle key societal challenges,” said Dr. Max Gulde, CEO of ConstellR. “We are keen to have our technology verified as soon as possible, and have identified the Bartolomeo Service not only as a very fast option, but also as the most flexible and cost-efficient way to do that. With Bartolomeo, Space has never been closer for us.”

“We are very pleased to see a growing interest in our Bartolomeo Service also for smaller payloads such as this one,” said Andreas Hammer, Head of Space Exploration at Airbus. “With a customer base that is a healthy mix between traditional Space players and new entrants like ConstellR, we are coming a good step closer to our goal of making a Space mission as easy as can be - for all our Bartolomeo customers.”

The camera is to be launched as part of the first ArgUS sortie. The project is financed by the German Federal Ministry for Economic Affairs and Energy, which is fostering technology transfer into emerging start-ups such as ConstellR.

Airbus' Bartolomeo platform offers external payload hosting capabilities on the outside of the ISS, providing unique opportunities for in-orbit demonstration and verification missions. It was attached to the ISS Columbus Module earlier this year and is operated in a partnership between Airbus, ESA, NASA and the ISS National Laboratory. Bartolomeo is an investment of Airbus into the ISS infrastructure, enabling hosting of up to twelve external payloads in the environment of Space.

Follow us



If you wish to update your preferences to Airbus Communications, media@airbus.com
If you no longer wish to receive communications from Airbus, media@airbus.com

Bartolomeo is suitable for many types of missions, including Earth observation, environmental and climate research, robotics, material sciences and astrophysics. It provides sought-after payload-hosting capabilities for customers and researchers to test space technologies, verify a new space business approach, conduct scientific experiments in microgravity or enter into in-space manufacturing endeavours.

Launch opportunities are available on every servicing mission to the ISS, which occur about every three months. The payload accommodation allows slots for a wide range of payload mass, from 5 to 450 kg. As an evolution of the platform, Airbus will provide optical data downlink capacity of one to two terabytes per day.

Payloads can be prepared and ready to operate within one and a half years after contract signature. Payload sizes, interfaces, preparation before launch and integration processes are largely standardised. This reduces lead times and generates significant costs savings compared to traditional mission.

Airbus offers this easy access to space as an all-in-one mission service. This includes technical support in preparing the payload mission; launch and installation; operations and data transfer; and an optional return to Earth.



Copyright NASA

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2019, it generated revenues of €70 billion and employed a workforce of around 135,000. Airbus offers the most comprehensive range of passenger airliners.

Follow us



If you wish to update your preferences to Airbus Communications, media@airbus.com
If you no longer wish to receive communications from Airbus, media@airbus.com

Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

[Newsroom](#)

Contact for the media

Ralph HEINRICH

Airbus Defence and Space

+49 (0)171 30 49 751

ralph.heinrich@airbus.com**Follow us**

If you wish to update your preferences to Airbus Communications, media@airbus.com
If you no longer wish to receive communications from Airbus, media@airbus.com