

Press Release

SPACE SYSTEMS

First high capacity space-to-ground laser communications system for the new European external ISS Platform Bartolomeo

Bremen, 26/03/2018 - The first high capacity space-to-ground laser communication system is to be installed on the Bartolomeo platform of the International Space Station (ISS) as part of a collaboration between Airbus Defence and Space, the Institute of Communications and Navigation of DLR (German Aerospace Center) and Tesat-Spacecom GmbH & Co. KG. The system called OSIRIS will provide direct to earth (DTE) technology with a data rate of 10 Gbps over range of about 1.500 km.

Small size and lightweight, OSIRIS will directly link to several ground stations providing unparalleled data downlink capacity to Bartolomeo and its experimental payloads. The goal is to make OSIRIS an operational system embedded in the ISS infrastructure. This new European capability will enhance the utilization opportunities on the European Columbus module and make Bartolomeo the go-to platform for data-intensive payloads on the ISS.

"Laser communications using Bartolomeo will pave the way for digitalisation of ISS operations enabling direct access to huge volumes of data to benefit customers," said Oliver Juckenhöfel, Head of On-Orbit Services and Exploration at Airbus.

Airbus is developing "Bartolomeo", the new European external payload platform on the ISS, a commercial partnership between ESA and Airbus. The platform hardware is in development at Airbus' Bremen site and is currently undergoing a design review with the European Space Agency and NASA. Bartolomeo will be operated by Airbus and attached to the outside of the Columbus European module ready for commercial operations from 2019. Bartolomeo will be able to host a wide range of different payloads e.g. for Earth Observation or in-orbit validation and demonstration.

DLR and Tesat-Spacecom have entered into a long-term cooperation regarding research, development and industrialization of systems for optical space-to-ground links.

DLR's novel design, optimized for high performance, small size and low complexity, combined with Tesat's long-term in orbit experience of laser communications, have resulted in OSIRIS having very high data rates and an affordable price point.

Press Release

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2017 it generated revenues of € 67 billion and employed a workforce of around 129,000. 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 one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

Media contacts

Airbus

Ralph Heinrich	+49 (0)171 30 49 751	ralph.heinrich@airbus.com
Jeremy Close	+44 (0)7766 536 572	jeremy.close@airbus.com
Guilhem Boltz	+33 (0)6 34 78 14 08	guilhem.g.boltz@airbus.com
Francisco Lechón	+34 630 196 993	francisco.lechon@airbus.com

Tesat

Nina Backes	+ 49 7191 930 1126	nina.backes@tesat.de
-------------	--------------------	--