

Wi-Fi closer to Mars: Scientists base Mars-mission simulations on networks “Made in Germany”

02/14/2018

.

[Download PDF](#)

Aachen, Innsbruck and Dhofar, February 07, 2018— LANCOM Systems, the leading German manufacturer of network infrastructure solutions for business customers and the public sector, is continuing its cooperation with the Austrian Space Forum (OeWF). For the latest AMADEE-18 Mars expedition simulation by the OeWF in the Oman desert, LANCOM WLAN access points and routers will again be ensuring reliable communication between the field crew and the Mission Control Center. The simulation serves to prepare for future, manned Mars missions.

Be it in ice caves, at the head of a glacier, or in the desert: Since 2012, network components from LANCOM have been successfully provided smooth communications and stable data transmission for field tests conducted by the Austrian Space Forum. For what is now the twelfth Mars expedition simulation in the extreme climatic conditions of the desert sands of Oman, the OeWF again selected the reliable and robust German-made WLAN access points and routers.

The LANCOM devices form the basis of the field crew's communication infrastructure. They support an extensive wireless network to provide stable communications and data transmission from the field “back home” to the Mission Support Center in Innsbruck. All data generated during the field trial and interactions with the Mission Support Center are processed by LANCOM hardware.

The transmitted data includes data from the space suits with the analog astronauts' vital signs as well as all of the data collected throughout the various experiments. The data transmitted from the space suits by telemetry includes the CO₂ and oxygen levels, the

temperature and heart rate of the astronauts, and live images from the helmet camera. A LANCOM network also handles communications with the astronauts during space walks, also known as EVAs (Extravehicular Activities).

The international AMADEE-18 mission of the Austrian Space Forum is conducted in cooperation with the Oman National Steering Committee and commences in the Dhofar region in February. Supported by the Innsbruck-based Mission Support Center, the 15-member field crew with members from eight nations will conduct experiments in a variety of disciplines, including engineering, manned planetary surface exploration, astrobiology, geophysics/geology, and life sciences. The simulation serves to prepare for future, manned Mars missions.

Further information and live coverage are available on the AMADEE-18 website of the OeWF: oewf.org/en/amadee18-live

About the Austrian Space Forum:

The Austrian Space Forum (OeWF) is an Austrian network for space professionals and people with a passion for space in collaboration with national and international research institutions, industry and politics. The organization is involved in leading-edge space exploration research and serves as a communication platform between the space sector, industry, academia and the public.

Since 2003, the OeWF has carried out 11 international expeditions in several Mars-like regions, including North Sahara in Morocco, USA/Utah, and southern Spain, as well as high-altitude missions on glaciers and simulations in ice and stalactite caves.

www.oewf.org

LANCOM Systems background:

LANCOM Systems GmbH is the leading German manufacturer of networking solutions for



business customers and the public sector. LANCOM offers professional users secure, reliable and future-proof infrastructure solutions for local-area and multi-site networks (WAN, LAN, WLAN), as well as centralized network management based on software-defined networking technologies (SD-WAN, SD-LAN, SD-WLAN). The LANCOM routers, gateways and WLAN solutions are developed and manufactured in Germany, and a selection of the VPN portfolio is certified by the German Federal Office for Information Security (BSI) for the protection of particularly sensitive networks and critical infrastructures (EPCIP). LANCOM Systems has its headquarters in Würselen near Aachen, Germany. Customers include small and medium-sized enterprises, government agencies, institutions, and major corporations from Germany, Europe and, increasingly, worldwide.

Your editorial staff contact:

Kristian Haizmann

LANCOM Systems GmbH

Phone: +49 (0)2405 499 36 349

Mobile: +49 (0)174 3469 170

E-mail: presse@lancom.de

www.lancom.eu