Paper ID: 41089
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HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Utilization & Exploitation of Human Spaceflight Systems (3)

Author: Ms. Geraldine Mariën
Space Applications Services N.V./S.A., Belgium

Ms. Carla Jacobs
Space Applications Services NV/SA, Belgium
Ms. Alice Michel
Belgian User Support and Operation Centre (B.USOC), Belgium
Mrs. Saliha Klai
Space Applications Services NV/SA, Belgium
Mr. Alexander Karl
Space Applications Services NV/SA, Belgium
Mr. Denis Van Hoof
Space Applications Services NV/SA, Belgium
Mr. Lode Pieters
Space Applications Services N.V./S.A., Belgium

SOLAR: WRAP UP AFTER 9 YEARS OF SUCCESSFUL OPERATIONS ON THE ISS

Abstract

After exactly 9 years of operations, the SOLAR mission ended on 15 February 2017. This was an extraordinary achievement knowing the mission duration was originally foreseen for only 1.5 years!

SOLAR is a payload of the European Space Agency, mounted on one of the external platforms of the Columbus module of the International Space Station (ISS). The SOLAR platform hosts three instruments build to observe the solar irradiance in the wavelength range 17 to 3080nm.

B.USOC is the Belgian User Support Operations Centre that conducted the operations for SOLAR throughout the whole mission. Over these 9 years, the operations team gained valuable experience in the planning, implementation and execution of the operations of this external payload, coordinating the mission with the scientists and the flight control teams of the different International Partners. This paper will first briefly present the SOLAR payload and then focus on the SOLAR mission as experienced by the B.USOC. The evolution of the operational concept will be outlined, highlighting achievements and encountered challenges and how these were overcome. The paper will be concluded with some valuable lessons learned that can only be gathered through solid experience such as only an end-to-end mission can bring.