SPACE OPERATIONS SYMPOSIUM (B6) Ground Operations - Systems and Solutions (1)

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GROWING WITH AN AIM: FROM A VERY SPECIALIZED MISSION SUPPORT CENTER TO A MULTIPURPOSE INFRASTRUCTURE READY FOR THE FUTURE

Abstract

A center devoted to provide specialized mission support services since the beginning of the millennium has developed and operated with various customers, for diverse purposes, integrated in different ground networks and with growing needs for optimization of resources. In the years, ALTEC ground segment was grown from an initial setup with a single Mission Support Centre dedicated to the engineering support for the ASI NASA bartered ISS Elements, to the creation of a second Engineering Support Center, integrated within the ESA ISS Ground Segment to provide various types of mission support. From the adaptation of the first center to a multipurpose and customizable facility that was used as Flight Room of IXV, to the setup of the new Exo-Mars Rover Operations Control Center. At each step of the growth, the experience gained was exploited and shared to design and operate the new facilities, and to maintain and upgrade the old ones, together with increasing synergies within the center, at both competences level and infrastructure level. The result is a center that is capable to operate for a large span of scenarios, including human spaceflight, space vehicles and space exploration robotic missions, and to be flexible enough to allow addition of new missions and integration in different ground network, with the aim of being ready to support future complex cases, such as human exploration missions.

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