

SPACE OPERATIONS SYMPOSIUM (B6)
Human Spaceflight Operations Concepts (1)

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THE OPERATIONS OF THE ESA ISS ELEMENTS DURING THE YEAR 2010

Abstract

International Space Station operations have been carried out since more than 10 years. The ESA main element, the Columbus laboratory, is being operated now since 2008. In its third year of operation activities are reaching a steady state, and more and more science objectives can now be achieved during the increments to come. The initial part of the present paper recalls: • the overall concept for the operations of the ESA elements, including the industrial organisation set-up • the major achievements of the first 3 years of operations • the challenges of the related multi-element operations The second part of the paper will describe and analyse the major lessons learned from the initial period of operations, offering a set of proposals for the improvement of the overall operations processes. Finally the last part of the paper will address the operations challenges to come in the medium term, including: • The need to adapt processes, tools and products in order to reach optimisation of the overall operations of the European elements • The response to the program requirement for identifying and implementing adequate cost reductions without jeopardising the capability to support utilisation activities • The measures being taken on the ground segment architecture and related performance in order to satisfy new demands from the user community, while coping with obsolescence of ground segment elements and the progresses of the technology • The related adaptation of the ESA and industry organisation