

HUMAN SPACEFLIGHT SYMPOSIUM (B3)  
Utilization & Exploitation of Human Spaceflight Systems (3)

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INTEGRATION AND IMPLEMENTATION OF THE ESA 'IRISS' MISSION TO THE ISS

**Abstract**

In 2015 the ISS will have its first 1 year crew members. This Soyuz exchange allows for two astronauts to visit the ISS for a 10 day period. One seat will be taken by Space Flight Participant, Sarah Brightmann, the other seat will be taken by

ESA astronaut Andreas Mogensen. ESA is setting up a dedicated mission named 'iriss' with a focus on technology demonstration. ESA has flown several short duration missions before (e.g. Eneide, Delta), but this mission has some unique new features. It will be the first short duration flight with the Columbus module making it the first time since the Columbus deployment, the 1E mission in 2008, with full days mission schedule will be executed within Columbus by the Columbus Flight control team . Secondly, the mission will have several payloads using a new communication infrastructure called Multi-Purpose Computer Communication (MPCC) allowing IP to IP communication utilizing the NASA JSL 2.0 infrastructure. Last but not least this mission needs to be prepared in parallel to the normal increment preparation and operations. As for the increments, The European Industrial Operator consortium, lead by AIRBUS DS, is tasked with integrating and implementation of the iriss mission .

This paper describes what specific preparations are required for the implementation of the iriss mission and where synergies with the nominal increment preparation can and could be maintained. It provides the initial lessons learned from the mission integration and implementation as well as the experiences with the integration of the first MPCC utilizing payloads.