

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

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## ATV-2 JOHANNES KEPLER MISSION AND RECURRENT FLIGHTS

**Abstract**

The European Automated Transfer Vehicle (ATV) has successfully completed its first mission (Jules Verne) between March and September 2008 and its second one (Johannes Kepler) beginning of 2011. The control centre is now entering in the "routine" mode for the coming recurrent flights.

Coming back on ATV-2 mission, the strongest times of the flight and of its preparation will be highlighted.

One year prior to the flight, the operators training starts with a dedicated preparation in the frame of the ATAC (ATV Training Academy). After theoretical courses and team dedicated training, the trainees participate to simulation campaign with the full ATV-CC and even with our international partners.

The activity with international partners is an important part of the preparation because the joint operations with Moscow, Houston and the ISS take place at crucial moments of the operations and shall respect associated rules.

The perfect application of this cooperation allowed the docking and other great moments of Johannes Kepler mission that can be recalled thanks to photos and videos available from ISS and crew involvement.

The ATV Control Center is organised in such a way that it allows the execution of a mission (Johannes Kepler) in parallel with the preparation of the next one (Edoardo Amaldi).

The paper describes ATV Johannes Kepler mission from its preparation up to re-entry and also describes the mechanisms in place in order to simultaneously prepare future Edoardo Amaldi flight.