

SPACE OPERATIONS SYMPOSIUM (B6)  
Training Relevant for Operations, including Human Spaceflight (3)

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TRAINING ACADEMY AT ATV CONTROL CENTRE

**Abstract**

In 2008, the first ATV mission, Jules Verne, was successfully operated from the ATV Control Centre (ATV-CC) in Toulouse, France. The ground controllers for this first mission were highly involved in the lengthy development phase of the ATV Control Centre and the operational procedures. The turnover rate of the ground controllers between the first and the second ATV mission (Johannes Kepler) was 60%. A rate of 50% is anticipated between subsequent ATV missions, while having one flight per year. Therefore, for the post ATV Jules Verne missions, the training and certification of the operational teams has been structured differently and an ATV-CC Training Academy (ATAC) has been established with the objective of qualifying the teams. This paper presents the process of design, implementation, execution and evaluation of the training program.

A complex ATV vehicle, mission and ground segment also implies a complex training program. The target audience numbers more than 120 trainees, coming from different project contributors, with different backgrounds and different operational tasks. They should all be trained in order to gain the required knowledge and skills to perform their individual operational tasks and to successfully interact with each other as one operational team.

The training program covers a full set of classroom and hands-on training courses, as well as a Simulation Campaign. A Basic Training course allows each trainee, no matter with which operational role, to gain a general overview of the ATV mission, vehicle, ATV-CC ground segment and operational organization. The operational role then dictates which subset of Advanced and Team Specific Training courses the trainee should follow in order to gain more specific knowledge and skills. The eight-month long Simulation Campaign covers around 45 simulations using the operational means. Each mission phase is run several times, involving nominal and contingency simulation scenarios. An almost unique feature of the Simulation Campaign is the training of the operational team members in the four control centres involved in ATV operations, during the multilateral simulations.