

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)
Astronauts: Those Who Make It Happen (5)

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THE NEW COLUMBUS SYSTEMS TRAINING FROM ESA FOR ALL ISS ASTRONAUTS

Abstract

For more than 3 years the European main contribution to the ISS - the Columbus module - has been operated now as part of the International Space Station ISS. Multiple crew members were trained and prepared by the European Space Agency ESA for their stay on board the ISS. The 1st Astronaut Crew Training for the Columbus systems was conducted by ESA in Cologne, Germany, at the European Astronaut Centre EAC in 2002. Since then numerous training courses were implemented every year for European, Russian, Japanese, Canadian, and US crew members. The last but not least Astronaut Crew Training was performed in February 2011 (status March 1 / 2011). This event represents a major milestone for the Columbus systems training: I. it marks the end of a major restructuring and improvement effort affecting the entire Columbus systems training and II. it marks the beginning of the complete implementation of the re-designed training.

The training is organized by the different crew roles and responsibilities into Columbus User, Operator and Specialist level training. Now all three training modules are reworked and improved.

In February 2011 the 1st crew just finished this new training from start to end, i.e. from User Level, via Operator Level to Specialist Level.

In this paper a) the original approach for the training structure and contents will be outlined and b) the feedback from the returned crew members who applied their knowledge and their skills when operating the Columbus systems on orbit will be referenced.

Based on these inputs the training evolution effort was started in 2008. The different training evolution stages, the leading ideas, the goals and the key features of the new training catalog will be highlighted in this paper as well.

In addition a comparison between the original and the upgraded Columbus Systems Training will be given, highlighting the advantages and the impact of the new training approach on crew knowledge and crew skills.

The paper will be concluded by the feedback of the 1st crew who attended all three new training modules, i.e. the redesigned User, Operator, and Specialist level training.