58th IAA HISTORY OF ASTRONAUTICS SYMPOSIUM (E4)
History of Italian Contribution to Astronautics (3)

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PRESSURIZED MODULES "MADE IN ITALY" FOR HUMAN SPACEFLIGHT.

AN ITALIAN STORY OF INTERNATIONAL SUCCESS.

Abstract

The history of Human Spaceflight has been mainly written/mastered by American and Russian enterprises, but there are important "pages" that can reveal how important has been the Italian contribution to sustain human presence and activities in space.

Forty years ago, on November 28, 1983, the Shuttle STS-9 brought to orbit Columbia with on board Spacelab 1, the European Space Laboratory developed for ESA by an Industrial Consortium headed by VFW-Fokker/ERNO, within which Aeritalia Space System Group had a major role, being responsible for the design, manufacturing and qualification of the Spacelab Pressurized Module structure and thermal control.

For Aeritalia Space System Group the Spacelab Program turned out to be the unequalled opportunity to grow at the level of the major European Space Companies, with the acquisition of unique competences, recognized at international level, for the design and manufacturing of "space habitats".

Since then, the "product history" of Aeritalia G.S.S and the Companies that have succeeded to the current Thales Alenia Space, has been marked by many successful elements: the European Columbus Laboratory, Spacehab - a Small Compartment developed for a Commercial U.S Company, three Multi-purpose Pressurized Logistic Modules, Node 2 and 3, the ATV Cargo Carriers, and the Cygnus logistics fleet.

And the Italian Story of International success is continuing with the on-going realization of the habitats for the new commercial space stations in Low Earth Orbit, for the small space station that will orbit around the Moon, and for the Lunar surface Outpost.

This paper will recall the main steps of the Italian contributions to the Human Spaceflights.