HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3) Overview Session (Present and Near-Term Human Space Flight Programmes) (1)

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THE ITALIAN SPACE AGENCY CURRENT AND NEAR-TERM NATIONAL PROGRAMMES AND ACTIVITIES IN HUMAN SPACE FLIGHT SECTOR

Abstract

Italy is the only European country to benefit of a twofold access to the ISS utilization resources and flight opportunities.

At bilateral level, ASI and NASA have signed in 1997 a Memorandum of Understanding for the design, development, operation and utilization of three Mini Pressurized Logistics Modules for the International Space Station, through which ASI has acquired utilization resources and the right to three STS short duration missions and flight opportunities for one ISS on orbit increment every five years from NASA's crew allocation, with an assured minimum of three such opportunities during the life of the program.

At multilateral level, Italy is the third contributor to the ESA Human Spaceflight programs thus benefiting of the European rights of utilization resources and ISS flight opportunities. Presently, four astronauts of Italian nationality are part of the European Astronaut Corps.

ASI is therefore strongly engaged to implement and support human spaceflight missions to the ISS, preparing the scientific and technology research advancements needed for the next steps in human exploration beyond LEO.

The aim of the paper is to present an overview of the current and near-term national programs and activities of ASI in the Human Space Flight sector. The overview will encompass the activities performed or planned in the area of Human Space Habitats, the research in Life Science as well as in Physical and Chemical Sciences in microgravity environment, the ASI ISS utilization plan, the definition and implementation of the national missions associated with the MPLM MoU flights of European Astronauts of Italian nationality.

Mention will also be made of the achievements and present involvements of Italy in the ESA Human Spaceflights programs, and of the ASI perspective for the next steps of Human Space Exploration.