IAF MICROGRAVITY SCIENCES AND PROCESSES SYMPOSIUM (A2)
Microgravity Sciences on board ISS and beyond (6)

Author: Mr. Valerio Di Tana
Argotec, Italy

Mrs. Chiara Piacenza
Argotec, Italy
Mr. Gianni Truscelli
Argotec, Italy
Mrs. Francesca Ingiosi
Argotec, Italy
Dr. Dario Castagnolo
Telespazio, Italy
Dr. Raimondo Fortezza
Telespazio S.p.A., Italy
Mr. Giovanni Valentini
Italian Space Agency (ASI), Italy
Dr. Gabriele Mascetti
Italian Space Agency (ASI), Italy

MISSION BEYOND: THE UTISS TEAM TO SUPPORT THE ITALIAN EXPERIMENTS FOR THE INTERNATIONAL SPACE STATION

Abstract

One role of space agencies is to facilitate the utilization of the International Space Station as the biggest laboratory ever assembled in space. With the main goal of investigating how microgravity and space environment influence ground-based observations and in the frame of its national mission of promoting and fostering the culture of space across the Country, the Italian Space Agency (AS) provides access to the ISS as a laboratory in space to the Italian research community. This is achieved with bilateral accords, either through the Memorandum of Understanding between ASI and NASA for the use of the ISS dated 1997 and through the cooperation agreement between ASI and ESA for the "BEYOND" mission, either via the Italian participation to the ISS as a member state of the European Space Agency.

ARGOTEC and Telespazio are working together to provide utilization support services thanks to a specific contract with ASI, the so called "UTISS" contract. The goal of the UTISS team is to support Italian research teams proposing experiments to be executed on board the International Space Station (ISS) with significant scientific value in multiple discipline: life science, physical science, technology demonstration, Earth observation and educational activities. The current experiments are planned to be carried out on the ISS in a period ranging from July-December 2019, ISS Increments 59/60 and 61/62. To achieve this goal, the Italian astronaut Luca Parmitano has undergone training to use scientific instruments developed by research teams throughout Italy. To obtain the approval to fly from the Space Agencies, the scientific team is called to demonstrate that the experiment is compatible with the ISS provided facilities and that it can be safely operated on-orbit. The UTISS team brings experience and ability to foresee steps and decisions required to develop and operate experiments before and during the flight on the Space Station. Furthermore, the UTISS team supports researchers in accessing and collecting experimental data as well as retrieving the payloads after they are returned to Earth. In the frame of the

UTISS contract outcomes of the scientific research are managed and disseminated following a dedicated plan and strategy to promote distribution of the research to the international science community.