

"FLYING OVER THE SKY", with LUCA PARMITANO

By Chiara Laganà¹

ITAF Maj. Luca Parmitano, the first Italian astronaut to have walked in space, spoke of his mission to an audience of fans and fellow Air Force. The meeting at the House Aviator in Role was organized by the CESMA (Center of Aeronautical Military Studies "G. Douhet").

After explaining the details, even emotional, relating to the take-off and reunification with the ISS Parmitano outlined three specific aspects of its mission: technology, science and exploration.

"The ISS is about 50% Italian", explained Maj. Parmitano², who, among other things, allowed him

¹ Translation Gustavo Scotti di Uccio

² Italy is one of the countries that has most contributed to the program of the International Space Station. Regardless of the participation of ESA, Italy has contributed to the ISS with the three multi-purpose logistics module MPLM, built by Thales Alenia Space on behalf of the Italian Space Agency . Designed to integrate the compartment of the Space Shuttle, contain pressurized compartments and bring the various instruments for experiments on board the ISS . The design of the European module " Columbus" was inspired in large part to these three elements .

Thales Alenia Space has also built modules Harmony (Node 2) and Tranquility (Node 3) of the station and the structure of the observation dome and participated in the design and construction of the vehicle refueling and re - boost the space station ATV (Automated Transfer Vehicle).

The commitment to the project is estimated at about 520 million euro (1996-2003) through ESA programs and more than 260 million Euros through the national program. The cost of the national program are almost exclusively focused on the development of the module MPLM

Italian is also the source of water necessary for the operation of the ISS and the needs of its occupants. In 2002, the SMAT of Turin has in fact been chosen by a scientific commission as a sole supplier. The company was also selected because it can provide both minimally mineralized water, which is preferred by U.S. personnel and produced by the springs of Pian della Mussa, is water with a higher salt content, and more pleasing to the Russian astronauts coming from the drinking water Grugliasco. The periodical sending into orbit began in April 2008 and is thanks to the ATV



to bring the atmosphere beyond even the Italian flavors. In fact, thanks to a company in Turin, Argotec, consisting of a team of young (the average age is 26 years old), has managed to enjoy the comrades mission delicacies of Italian cuisine with a menu for this purpose.



Even the scientific aspect is very important because the ISS " is the largest orbital laboratory ever built ." He described experiments on the physics of fluids and particularly on studies to minimize the loss of calcium on the ISS³ and the instrumentation used for that focussing on the benefits that could be obtained using the same, compact and light instrument, also in remote and poorest regions where it is currently impractical to install major equipment used in our hospitals.⁴

Parmitano then showed some pictures of the Earth, taken during the nearly six -month mission, showing different example of analysis of the ground: Etna volcano eruptions, useful to geologists for the evolution of the volcano activity, a sandstorm in Africa, "most of the dust at home is coming from those phenomena in the African and Asian desert". Showing a picture of the Mediterranean sea and Italy and Europe he pointed out: "The cooperation is crucial. Mankind is the single country, nor the individual. we are all human, we are all equal."

With his intervention, Parmitano has not only charmed everyone and, for a moment, all attendees had the perception to be with him on board the space station in zero gravity, but it has also sparked a deep sense of its pride of being Italian.



³ See also http://www.nasa.gov/mission_pages/station/research/benefits/bone_loss.html

⁴ The Spinal Ultrasound investigation seeks to understand the mechanism and impact of this change while advancing medical imaging technology and techniques for use on the station as well as here on Earth. <u>> Read more about Spinal</u> <u>Ultrasound</u>