

TECHNOLOGY DEMONSTRATION

PROJECT

BUON APPETITO - COSMONAUTS ON A MEDITERRANEAN DIET

FAST FOOD OF THE 21ST CENTURY - HEALTHY AND NUTRITIOUS

A slice of pita bread with dried tomatoes and Italian cheese, followed by peaches in jelly and a bite of chocolate. What sounds like a vacation dinner under pine trees close to the mediterranean sea is actually a new generation of space food, tested in parallel to ESA's 2004 Delta-Mission on the International Space Station (ISS).

The Mediet-food, made out of top quality Mediterranean products, successfully demonstrated that the "fast food" of the 21-century can be delicious, nutritious and safe at the same time. But food is important not only from the nutritional point of view. It is also a matter of psychological comfort. Mediet sets an example of how dif-

Furthermore, the ergonomic tray adds appeal during meals, and the Cosmonauts appreciate it. The results of the Mediet-experiment showed that the food items received the best grades in terms of smell, taste, texture, colour and overall appearance.

During long-term flights, cosmonauts can benefit from having additional variety of food, which adds a little extra in making them feel that the Station is their home during their half year long stays. The food first had to pass all the mandatory testing for use on Earth, and additionally had been subjected to a number of special microbiological analyses, which are required for all the nutrients and food items delivered to the ISS.

MORE FOOD VARIATION FOR LONGTERM SPACE MISSIONS



ferent food menus can be delivered to the ISS in order to increase the variety of food available for the people on the Station.

The Mediet-Tray including five high quality Italian food items

The Mediet-food is individually packaged for convenient consumption in special space flight qualified transparent plastic bags in meal-size portions. It is processed using the High Pressure Processing technology, which is able to eliminate bacteria without altering the properties of fresh food.

This new method of preservation provides reliable

long-term storage at room temperature, and at the same time allows the food to retain taste, texture and colour.

The food inside the bags is either pre-cut into a bite-size pieces (cheese, bread and chocolate), or has such a viscosity that it remains intact in weightlessness:

In order to eat the food, the cosmonaut on board has to open the bag with scissors, and use a fork to take pieces out of the bag.

The experiment was done within the framework of the European Space Agency (ESA) commercialisation programme of the ISS under the contract between ESA and Federal Space Agency (FSA) of the Russian Federation.



NEW HIGH
PRESSURE
PRESERVATION
TECHNOLOGY
TESTED IN
SPACE

while the cosmonaut picks up a piece with a fork, the oil that the tomatoes are served in keeps them in place, as well as the jelly that clings to the peaches and prevents them of floating away.

Tomatoes, cheese, pita-bread, peaches and chocolate for an culinary space-experience

CHOCOLATE
AND CHEESE
FOR THE
SPACE
STATION

The International Space Centre for Space Applications (IACSA) has developed the system, and COOP (one of the largest retail chains in Italy) has provided food for the experiment. ■



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