

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)
Astronauts: Those Who Make It Happen (5)

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TRAINING OF NON-PROFESSIONAL COSMONAUTS FOR SPACEFLIGHTS TO THE ISS

Abstract

ISS program opened a new outlook of the manned space exploration, space tourism. 10 flights of the Russian space vehicles with 9 non-professional cosmonauts onboard have been performed within 10 years of the ISS existence. As a result of this GCTC specialists has to solve the task of selection and training of the non-professional cosmonauts, who never had basic training in space systems. Medical and other requirements to the space flight readiness are quite different from what they are to the professional cosmonauts, as the non-professionals' activities during the flight are limited to their tourists' needs and a short scientific program. One of the biggest constraint during non-professionals' training is the duration of the training program. As a rule they don't have opportunity to leave their primary activity, which means that the training must be complete within the very tight schedule. At the same time each of the non-professionals must receive a minimum set of knowledge and skills which would guarantee his safety and readiness to fulfill the space flight program. As the problem is new it has become necessary to create organization and methodic aspects in order to provide the required level of training for non-professional cosmonauts. The report is devoted to the main organization and methodic problems of the non-professional cosmonauts' training. Some of these questions are: selection of the space flight participants, planning their training, development of the basic data for training, reasoning the primary types and branches of training, as well as their new ways of implementation, medical examination, medical support during the training, and so on. As the training on Earth is mainly determined by the tasks to be done in space in the specific space vehicles, specialists reviewed the typical functions and activities that can be and should be done by non-professional cosmonauts onboard the Soyuz vehicle and Russian Segment of the ISS. Training of non-professional cosmonauts is focused on life support system complex. The remaining types of training such as physical training, medical and biological training, space factor special training, Russian language training, etc., are conducted in terms of performance of flight program in general, health maintenance of non-professional cosmonaut during all pre-flight training stages, in-flight and post-flight periods. Results of pre-flight training and performance of space flights by non-professional cosmonauts onboard the ISS can be used for training of space flight participants on other commercial programs.