

## HUMAN SPACEFLIGHT SYMPOSIUM (B3) Commercial Human Spaceflight Programs (2)

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### SPACEFLIGHT PARTICIPANTS TRAINING FOR SPACEFLIGHT ON RUSSIAN MANNED VEHICLES

#### Abstract

The presentation provides a short analysis of the documents that define the status of “spaceflight participants” and the process of spaceflight preparation for the SFP. Spaceflight participants are some representatives (for example, of commercial, science and other programs, crewmembers of space agencies that are not the ISS program partners, engineers, scientists, teachers, journalists, cinematographers and space tourists) that are financed by one or more partners. Typically it is a temporary assignment covered by a short-term contract.

The presentation includes the analyses of typical flight tasks, functions and responsibilities of the SFP. Functions of the SFP onboard the Soyuz TMA vehicle and the ISS are: • To perform a Soyuz TMA flight in the right seat as part of a professional crew implementing procedures identified in the flight plan; • To perform comm sessions with the Mission Control Center; • To provide his/her own life support inflight and after landing; • To perform emergency procedures; • To implement the ISS flight plan including the experiments. During spaceflight the SFP is responsible for following: • His/her functions on the Soyuz transport vehicle and the RS ISS; • The onboard documentation requirements, MCC directions; • Soyuz and ISS commander directions.

The presentation provides analysis of approaches to spaceflight preparation and training setup.

Spaceflight participants training is a motivated process targeted at developing knowledge, skills, qualifications and other qualities (psychological, moral, etc.) required for successful implementation of spaceflight tasks. Spaceflight participants as a rule complete a restricted spaceflight training program. The number of tasks delegated to the spaceflight participants do not include assembling, operational and maintenance ISS tasks. The bulk of the SFP training is dedicated to theoretical and practical Soyuz TMA and RS ISS training, Russian language, physical, biomedical and psychological training, special types of training for spaceflight factors and other types. Content, volume, timeframe, location, procedures for spaceflight training and its monitoring are defined by the Gagarin Cosmonaut Training Center named after Yu.A. Gagarin.

The presentation provides analysis of the unique experience gained by the Russian side of enhancing training and spaceflight implementation.

SFP training program is specifically characterized by the need to provide the SFP (and crew) safety while the training time is minimized.

The presentation provides analysis of applying the SFP training experience to the perspective projects of spaceflight and suborbital flights.