

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Astronaut Training, Accommodation, and Operations in Space (5)

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NEW APPROACHES TO THE COSMONAUT TRAINING ON THE PROGRAM OF
SCIENTIFIC-APPLIED RESEARCH AND EXPERIMENTS ABOARD THE ISS RUSSIAN SEGMENT

Abstract

The whole system of cosmonaut training, including preparation on the program of scientific-applied research and experiments, developed and improved for 53 years. Considerable increase of research programs and experiments aboard the ISS RS requires new forms and methods of cosmonaut training, and improved technical facilities for implementation of scientific-applied research. The new training facilities for scientific-applied research such as workstations in ISS RS mock up training facility, autonomous simulators of scientific hardware, special-purpose simulator-stand for geophysical survey and visual-instrumental monitoring of the Earth from the board of the ISS RS, mobile workstations for aviation visual-instrumental monitoring on aircraft - laboratories, complex of functional simulation stands, including virtual simulators based on 3D model of scientific equipment for space experiments, were developed in GCTC in 2011-2014 and are used successfully nowadays. The use of new technical facilities allows to improve the efficiency of cosmonaut training, as well as to reduce workload of expensive complex simulators, and to shift preparation on scientific-applied research to the earlier stages of the process of cosmonaut training.