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BASIC PRINCIPLES OF AUTOMATED INTERNATIONAL SPACE STATION RUSSIAN SEGMENT
FLIGHT PLANNING SYSTEM

Abstract

Mission Planning is one of key components of orbital stations control, and the International Space Station (ISS) is one of them. The efficiency of Flight Program execution as well as the accomplishment of mission objectives depends to a large extent on the quality of Flight Plans. Upcoming addition of new modules to the ISS Russian Segment (RS) and crew expansion to six people made it necessary to evaluate the readiness of planning tools for new ISS configuration.

Working on the subject the author did expert analysis of the existing automated Planning system. Analyzed was RS flight operations planning process at the execute level, taken into account were the amount of planning data being processed, modern techniques and approaches used in automated processes. As a result it was considered urgent to develop new automated planning tools.

The new Planning system provides continuous planning cycle at the execute level. It is built as a modular system and at the same time it is based on common structure data, which enables the system to be upgraded and to interface with ISS International Partners and RSC-Energia departments.