

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)
How Can We Best Apply Our Experience to Future Human Missions? (2)

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SPACE STATIONS OF FUTURE

Abstract

The task of creating a next-generation orbital space station which purpose may evolve in time is considered. An open architecture approach to such objects has been proposed. It allows adopting an orbital space station according to a crucial task list. It has been shown that the open architecture of an orbital space station allows minimizing expenditures on its construction, operation and reconfiguration. It has been also shown that an orbital space station with open architecture can be operated for an indefinite period. A special attention has been given to functional tasks for modules forming an orbital station. Specialization and unification of orbital station modules allows creating an interrelating and optimized system capable to solve almost any space exploration task in real time. In addition the approach proposed allows putting manned space flight systems on industrial basis and minimizing the necessity of creating unique and expensive objects.