

SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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UNIFIED UNMANNED SPACECRAFT FOR MOON, MARS AND VENUS EXPLORATION  
PROGRAMS

**Abstract**

Federal Space Program of Russian Federation covers large-scale Moon, Mars and Venus exploration by means of orbital as well as landing spacecraft.

Designers and developers of unmanned spacecraft face with tasks of maximum system portability, unification and creation of technical fund during every phase for possible application during further design phases. It allows not only reducing design periods and volume of experimental adjustment, but reduces project costs.

At present time Lavochkin Association of Russian Federal Space Agency has created base interorbital platform for flight to Mars and it's supposed that this platform could be applied for flights to another celestial bodies. Moreover in spite of a difference in external conditions it's considered to use same or same type elements and systems of such means as rovers, balloons, penetrators, soil samples devices, return vehicles for different projects.