

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

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INTERNATIONAL COOPERATION ASPECTS DURING CREATION OF ADVANCED  
SPACECRAFT FOR VENUS EXPLORATION**Abstract**

Fundamental space exploration program of Russian Federation is aimed at Venus study together with extension of Moon, Mars and Phobos research.

At present time Lavochkin Association is working at “Venera-D” Project.

Advanced spacecraft consists of orbital and descent modules and also sub-satellites. Whereas, descent module composition is landing vehicle and atmospheric probes.

The task is to provide long-term operation: on orbit – not less than 3 years, on the surface – not less than 3 hours, and in the atmosphere – not less than 3 days.

Several mission scenarios are considered. In particular, atmospheric probes could be placed as at the descent module and at the separate landing vehicles. Entry into the atmosphere could be performed as from the interplanetary trajectory and from planet’s orbit.

Major Venus exploration program is planned with the spacecraft launches during the period 2021-2026 and further.

There is a big interest of European, USA and China’s scientists to participate in a new planet exploration. Thus the cooperation is supposed to be not only in the field of scientific equipment provision but also in development of technical means for research.

International cooperation in the implementation of such a large-scale program will contribute to the systematic, effective and efficient conduction of Venus long-term exploration.