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

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LAVOCHKIN ASSOCIATION SPACECRAFT FOR FUNDAMENTAL AND APPLIED SCIENTIFIC RESEARCH.

Abstract

Since the rise of practical cosmonautics space science research aimed at solving fundamental problems of origin, evolution and future development of the Universe, Solar system and the Earth.

Since 1960s the leading company in the development of automated space complexes for scientific purposes in Russia is Lavochkin Association. Spacecraft designed jointly with an institutes of Academy of Sciences and cooperation for the first time in the history of mankind landed on the Moon, Mars and Venus, performed moon soil samples delivery to the Earth in automatic mode, conducted imaging of Moon and Venus surface, delivered to the Moon surface mobile scientific laboratory – Lunokhod, and many other things.

Presently in Russia there are projects of space research aimed at Mars and its satellites exploration, Moon study, the Sun research and also a new area of Russian space science – Jupiter and its moons exploration. Surely it is particularly important to connect these projects into purposeful, subsequent planetary exploration program.

Design studies realized in cooperation with an institutes of Russian Academy of Sciences together with leading science and research institutes of space industry allow to formulate interrelated programs concepts for Moon and Mars exploration, astrophysical research with high level of technical solutions unification to minimize and optimize risks and expenses.

All these programs have phase-by-phase realization principle with well-minded growth of technical solutions and applied technologies complexity.

Moreover these projects have wide international cooperation.