

LUNAR SPACE PROJECTS (review)

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A brief review of the lunar space missions is performed. The space investigations before the space era are shown; ideas of the Astronautics Pioneers are analyzed. Main goals of the lunar space studies are discussed. A review of the first stage of the Lunar Projects is presented – from the first flights in 1959 to the first soft Landers and Orbiters in 1966-68; the USA's manned Apollo missions, and the Soviet sample return and rover automatic flights in 1968-76. New stage in the lunar studies from 1990 till now is presented. Development of studies in the Earth-to-Moon trajectories is also given – from the direct flights with small time and hyperbolic selenocentric motion near the Moon to the “detour” ones and flights using a small thrust, with large time and capture by the Moon. The principal achievements of the lunar investigations are shown. The lunar problems and new projects of the lunar space studies and missions are discussed.

The study is supported by the Russian Foundation for the Basic Studies (Grant No. 01-01-00133) and the University of Oviedo, Spain.

Key words: Lunar Space Projects.