

Small Mission for Exploration Ariane 6 Access to the Moon

STS/AXX
Ariane 6 Missions and System Engineering

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- For the Ariane 6 missions entirely dedicated to the Moon, a set of injection strategies to reach the lunar orbit has already been studied. The mission profile can be adapted according to the propulsion capacities of the satellites, acceptability of long mission duration before orbit injection and the required performance in terms of payload mass.
- Exploration missions may be implemented sharing the volume under the fairing with another passenger (e.g. from GTO). The transfer to LTO orbit may then be achieved by the compound use of the Ariane 6 Upper Stage and the ASTRIS kick-stage that is currently under development.
- By 2027, new launch solution opportunities will complete the Ariane 6 offering: improved launcher performance, new payload structures for small payloads (Multi Launch Services, ASPRA). Moreover, ASTRIS vehicle is being designed in a way that makes possible to use it as an additional propulsion module so reducing drastically schedule, cost and risks of space missions.

Example of a launch configuration for a mission targeting a Lunar Transfer Orbit 380,000 km x 200 km x 23°

Direct Lunar Transfer Orbit injection



