

HUMAN EXPLORATION OF THE SOLAR SYSTEM SYMPOSIUM (A5)  
Near Term Strategies for Lunar Surface Infrastructure (1)

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CURRENT DEVELOPMENT OF MANNED LUNAR LANDINGS

**Abstract**

There are many proposals for manned lunar landings. In order to select the best design proposal, worldwide experiences should be referenced and the development status of their manned lunar landings be known. First, the historical background and trend of development of their manned lunar landings is briefly introduced, then the mode of lunar landing, launch vehicle, flight procedure, lunar module and transfer spacecraft of each proposal are discussed. All primary lunar landing proposals until now have been surveyed; the major performance parameters of the proposed flight hardware and the critical technologies are listed; the flight operations and procedures of the vehicles are summarized; the characteristics of each design are easily compared and analyzed in detail and recommendations are given.