

SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND
DEVELOPMENT (D3)

Systems and Infrastructures to Implement Future Building Blocks in Space Exploration and Development
(2)

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STANDARD SPACE SYSTEM: BUILDING BLOCKS FOR A SPACE DEVELOPMENT MASTER
PLAN.

Abstract

Recently there has been a revival in space development with several Moon and Mars manned mission proposals. Most of them are based on transportation vehicles and systems, specifically built for this goal. Furthermore there are not follow-up proposals that may refer to a systematic approach beyond the first missions. In this paper we want to stress the need for a Master Plan where all missions, and the common component utilization, are part of an integrated space development plan for private business initiatives:

- A standardized space component system that can simplify mission requirements, will allow multiple missions, reducing costs and permitting expansions. A space transportation ecosystem connected with a space infrastructural one, both in space and the main surface bodies, which will motivate and implement the growth of space related activities.

Such goals must be included in future proposals and evaluation parameters for mission decision must take into consideration such requirements. A more detailed Space development Master Plan is included in this paper covering transportation and infrastructures for space development utilizing standardized and affordable components whose multiple utilization may reduce overall costs as well as simplify mission architecture programs.