14TH IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT (D3)
Space Technology and System Management Practices and Tools (4)

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Abstract

Technology Readiness Levels (TRL) are a method of estimating technology maturity of Critical Technology Elements (CTE) of a program. They are determined during a Technology Readiness Assessment (TRA) that examines program concepts, technology requirements, and demonstrated technology capabilities. In this paper we examine the White Paper by John Mankins (1995), differences and similarities of TRLs with those from the Architectural Design Build Process. Scheduling, managing and controlling design is a complex task, resulting frequently costs over budget. The effective management of space technology and systems development is critical to future success in space exploration, development and discovery. We use the concept of Habots Mobile Lunar Base Concept by John Mankins (NASA, 19XX) and the concept of Technology Park, or Moon Village, as case studies. The goal of this study is to benefit future design-engineering processes of Cislunar Habitats and 3D printing Moon and Mars Habitats.