

Session 18: Current and Future Use of NASA's Deep Space Network

**Chair: Mr. David Morris
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Using Available DSN Tracking Coverage As a Design Parameter In Mission Proposals

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Design of a Proposed Deep Space Mission should be linked to additional design parameters/ constraints such as the availability of the Deep Space Network to support communications. This paper explores this methodology by examining the launch opportunities of a simulated mission to Jupiter during a decade long timeframe. Alternate launch dates during this window were examined from a perspective of the ability of the DSN to provide the tracking coverage needed during the mission critical events. The results of this multi-dimensional analysis are presented at the end of this paper, with a ranking of which launch windows are preferable relative to the other possible launch windows.