

Abstract for ASEC

Natural Environment Definition for Exploration Missions

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A comprehensive set of environment definitions is necessary from the beginning of the development of a spacecraft. The Cross-Program Design Specification for Natural Environments (DSNE, SLS-SPEC-159) was originally developed during the Constellation Program and then modified and matured for the Exploration Programs (Space Launch System and Orion). The DSNE includes launch, low-earth orbit, trans-lunar, cis-lunar, interplanetary, and entry/descent/landing environments developed from standard and custom databases and models. The space environments section will be discussed in detail.