A Standard for the Space Environment at the Moon

A. Slane (1), B. Spitale (1), C. Tobiska (2)

(1) Space Infrastructure, Inc., Colorado, USA, (Fax: +1 719 634 3194)(2) Space Environment Technologies, California, USA, (ktobiska@spacenvironment.net)

The exploration of the Earth's Moon and further to Mars will require an understanding of local environmental factors. On both planetary bodies dust is a significant component of the environment, but on the Moon this component has dominant characteristics. The influence of the Solar Environment on the local Lunar Environment introduces variability not accounted for in current models. We outline a standard for characteristics of a space environment model at the Moon. Suggested characteristics include connection of scale, temporal periods, fields and particles. Lunar dust characteristics include a size distribution into the dusty plasma regime. This suggests a connection to the solar plasma field.