LEAG Annual Meeting
15-18 November, 2009
LPI, Houston, Texas

Executive Summary

Date Prepared: 10/9/09

Presenter's Name: Carlton Allen
Presenter's Title: Astromaterials Curator / Member, Diviner Science Team
Presenter's Organization/Company: NASA Johnson Space Center

Presentation Title

Infrared (DIVINER) – rock abundance/composition

Key Ideas

Rock abundances can be calculated from nighttime temperature data. Diviner rock abundance calculations will be compared to published rock counts based on orbital and surface imagery.

Mineral composition can be calculated from the position of the "Christiansen feature", a portion of the thermal infrared. Three of Diviner's spectral channels were specifically chosen to provide estimates of this feature position. Calculations will be compared to other orbital data and ground truth from the Apollo sites.

Supporting Information

Published paper:

D.A. Paige · M.C. Foote · B.T. Greenhagen · J.T. Schofield · S. Calcutt · A.R. Vasavada · D.J. Preston · F.W. Taylor · C.C. Allen · K.J. Snook · B.M. Jakosky · B.C. Murray · L.A. Soderblom · B. Jau · S. Loring · J. Bulharowski · N.E. Bowles · I.R. Thomas · M.T. Sullivan · C. Avis · E.M. De Jong ·W. Hartford · D.J. McCleese (2009) **The Lunar Reconnaissance Orbiter Diviner Lunar Radiometer Experiment**, *Space Science Reviews*, DOI 10.1007/s11214-009-9529-2 online at: http://www.springerlink.com/content/y2633v4619834462/fulltext.pdf

Diviner Lunar Radiometer Experiment website: http://www.diviner.ucla.edu/