Thursday, March 19, 2015
POSTER SESSION II: EARLY RESULTS FROM THE MAVEN MISSION:
UPPER ATMOSPHERIC STRUCTURE AND COMPOSITION
6:00 p.m. Town Center Exhibit Area

Montmessin F. Schneider N. M. Stewart A. I. Deighan J. Yelle R. et al. POSTER LOCATION #381
MAVEN IUVS in Stellar Occultation Mode: A First Look at Martian Atmospheric Density and Temperature Profiles [#2026]
We will present a first series of results obtained by IUVS using stellar occultation, which allows one to retrieve CO₂ density and temperature from 30 to 150 km.

Stevens M. H. Evans J. S. Stewart A. I. Deighan J. Jain S. K. et al. POSTER LOCATION #382
N₂ in the Martian Upper Atmosphere Identified Using Dayglow Observations from the Imaging Ultraviolet Spectrograph on MAVEN [#1801]
The IUVS instrument on MAVEN detected N₂ in the martian dayglow. These mid-UV observations of the Vegard-Kaplan bands can be used to obtain N₂ number densities.

Lefeuvre F. Montmessin F. Schneider N. M. Stewart A. I. Deighan J. et al. POSTER LOCATION #383
Ozone Mapping on Mars: First Results from MAVEN IUVS [#1718]
This paper presents an overview of the first six months of ozone mapping on Mars by the IUVS spectrograph.

Stiepen A. Stewart A. I. F. Jain S. K. Schneider N. M. Deighan J. et al. POSTER LOCATION #384
Preliminary Analysis of Martian Nightglow and Aurora Observed by MAVEN’s Imaging Ultraviolet Spectrograph [#2937]
The Imaging UV Spectrograph on MAVEN has obtained unexpected vertical profiles and spatial distributions of nightglow and auroral emissions on Mars.

Jain S. K. Stewart A. I. Schneider N. M. Deighan J. Stiepen A. et al. POSTER LOCATION #385
Preliminary Analysis of Martian Dayglow Observed by the Imaging Ultraviolet Spectrograph Onboard MAVEN [#2761]
We present the first martian dayglow observations obtained by the Imaging Ultraviolet Spectrograph (IUVS) onboard MAVEN.

Deighan J. Chaffin M. S. Chaufray J. Y. Stewart A. I. Schneider N. M. et al. POSTER LOCATION #386
The Martian Hot Oxygen Corona: First Results from MAVEN IUVS [#2529]
First results from MAVEN IUVS observations of the oxygen corona are presented.

Lee Y. Combi M. R. Tenishev V. Bougher S. W. Deighan J. et al. POSTER LOCATION #387
A First Comparison Between First MAVEN Results and 3D Hot Oxygen Corona Model Predictions [#2055]
This work performs a simulation to predict the martian exospheric oxygen and makes a comparison with the in situ observations from IUVS/MAVEN.

Thiemann E. M. B. Eparvier F. G. Chaffin M. S. Clarke J. T. POSTER LOCATION #388
Solar Lyman-Alpha Occultation Measurements of the Mars Hydrogen Corona [#2780]
The MAVEN-EUV instrument has demonstrated the capability of characterizing the martian hydrogen exosphere via solar Lyman-alpha occultations.

Evans J. S. Lumpe J. D. Stevens M. H. Schneider N. M. Stewart A. I. et al. POSTER LOCATION #389
Optimal Estimation Retrieval of Neutral and Ion Composition in the Martian Thermosphere Using Dayglow Observations from the Imaging Ultraviolet Spectrograph on MAVEN: Preliminary Results [#2790]
We present results from the first direct retrieval of neutral and ion composition in the martian thermosphere from observations by IUVS on NASA’s MAVEN mission.
Fox J. L. Mahaffy P. R. Jakosky B. J. NGIMS Team

POSTER LOCATION #390

O/CO₂ Ratio in the Thermosphere and Implications for the Ionosphere of Mars: First Results from MAVEN [#2668]

We investigate and discuss the first results from the MAVEN NGIMS instrument for the O and CO₂ densities and implications for the ion densities.

Elrod M. K. Mahaffy P. R. Benna M.

POSTER LOCATION #391

Reduction and Post-Processing of Early Data from MAVEN’s Neutral Gas and Ion Mass Spectrometer (NGIMS) [#2661]

MAVEN Neutral Gas Ion Mass Spectrometer (NGIMS) is designed to characterize Mars’ upper atmosphere. An explanation of the spectra and profiles NGIMS produces.

Matta M. Mahaffy P. Evans J. Schneider N. McClintock B. et al.

POSTER LOCATION #392

Insights for Chemistry at Mars: Integrating Atmospheric Measurements from MAVEN NGIMS and IUVS into a 1-D Photochemical Model [#2384]

MAVEN NGIMS and IUVS measurements are compared and used to constrain a one-dimensional model to provide insights into key chemical reactions in Mars’ ionosphere.