Tuesday, March 22, 2016 **[T322]**
POSTER SESSION I: MARS ATMOSPHERE, SURFACE, AND FIELDS: TOP-DOWN AND ON THE GROUND
6:00 p.m. Town Center Exhibit Area

Horan A. Head J. ***POSTER LOCATION #356***
Early Mars Climate History: Exploring the Possibility of Transient Melting Through Peak Seasonal Temperatures **[#2394]**
We explore the possibility of transient melting through peak seasonal temperatures as a mechanism for valley network formation on early Mars using the LMD GCM.

Chappelow J. E. Golombek M. P. Calef F. J. ***POSTER LOCATION #357***
Does the Littleton Meteorite Require a Past, Denser Martian Atmosphere? **[#1662]**
Unlike previous meteorite finds on Mars, the recently discovered large iron meteorite "Littleton" requires a past, denser martian atmosphere to land intact.

Gröller H. Yelle R. V. Koskinen T. T.
Montmessin F. Lacombe G. et al. ***POSTER LOCATION #358***
Martian Temperature Profiles Measured by MAVEN and MRO from 20 to 160 km **[#1811]**
We present the combined martian temperature profiles measured by IUVS/MAVEN and by MCS/MRO spanning the altitude range from the lower to the upper atmosphere.

Plesa A.-C. Grott M. Lemmon M. Müller N. Piqueux S. et al. ***POSTER LOCATION #359***
Interannual Perturbations of the Martian Surface Heat Flow by Atmospheric Dust Opacity Variations **[#1945]**
We quantify the effects of atmospheric dust loading on the martian heat flow by using dust opacity data obtained by the Mars Exploration Rover Opportunity.

Audouard J. Piqueux S. Poulet F. Vincendon M. Gondet B. et al. ***POSTER LOCATION #360***
Analysis of Curiosity Surface Temperature Data **[#1506]**
We analyse the first year of surface temperature data recorded by Curiosity, which proves to be a challenge for our understanding of the martian climate.

Pandya B. M. Haider S. A. ***POSTER LOCATION #361***
Production of Metallic Ions at Mars During Encounter of Comet C/2013 A1 Siding Spring: MAVEN Observations **[#1052]**
By Calculating production rate of six metals observed by MAVEN during encounter of comet C/2013 A1, we reveal future scope of change in the chemistry on Mars .

Gondet B. Bibring J.-P. ***POSTER LOCATION #362***
Mesospheric CO_2 Clouds at Mars: Seven Martian Years Survey by OMEGA/MeX **[#2040]**
we will present results of seven years of CO_2 martian cloud observations by the spectro-imager OMEGA onboard Mars Express.

McConnochie T. H. Toigo A. D. Guzewich S. D. Kleinboehl A. ***POSTER LOCATION #363***
Ertel Potential Vorticity of the Mars Polar Vortex from MGS-TES and MRO-MCS Temperature Soundings **[#2979]**
This presentation explores the accuracy and implications of Ertel potential vorticity derived from temperature soundings in the martian winter polar regions.

Titus T. N. ***POSTER LOCATION #364***
Characterizing the Mars Diurnal CO_2 Cycle **[#2960]**
A thermal model is used to determine if the effects of the seasonal cap edge diurnal CO_2 cycle could possibly be an analysis tool for probing the near-surface.

Smith I. B. Spiga A. Tyler D. Ewing R. C. ***POSTER LOCATION #365***
Wind at the North Pole of Mars: Comparisons of Modeling and Observations **[#1632]**
We simulate winds at the north pole of Mars for each 5° Ls with high spatial and temporal resolution to compare with geology and find a seasonal dependence.

Steele L. J. Balme M. R. Lewis S. R. ***POSTER LOCATION #365***
Regolith-Atmosphere Water Vapour Interaction at Gale Crater **[#1944]**
We use a mesoscale model coupled to a subsurface regolith model to study the interaction of water vapour between the regolith and atmosphere around Gale crater.

Trainer M. G. Franz H. B. Mahaffy P. R.
Wong M. H. Atreya S. K. et al. ***POSTER LOCATION #367***
Update on the Seasonal Atmospheric Composition Measurements by the Sample Analysis at Mars Instrument **[#1739]**
Polar caps grow, shrink / Mars' seasons as witnessed by / Curiosity.

Franz H. B. Trainer M. G. Malespin C. A.
Mahaffy P. R. Conrad P. G. et al. ***POSTER LOCATION #368***
Initial Experiments with the Sample Analysis at Mars Onboard Calibration Gas Cell **[#2015]**
We will discuss results from SAM's first in situ calibration experiments relevant to measurements of atmospheric composition.

Luhmann J. G. Ma Y. J. Dong C. Chi P. J. Russell C. T. et al. ***POSTER LOCATION #369***
Maven-Validated Model Implications for Insight Measurements **[#2926]**
Data-validated models are used to explore possible use of the technique of interior conductivity sounding at Mars, when MAVEN and Insight are there together.

Mittelholz A. Johnson C. L. ***POSTER LOCATION #370***
Global-Scale External Fields at Mars Measured at Satellite Altitudes: Preparation for Magnetic Sounding of the Martian Interior **[#1534]**
We map global-scale external fields at Mars and their dominant periodicities (1 day, 26 days, 1 year) using MGS and MAVEN data.