Wednesday, November 15, 2017
NASA REPORTS, MISSION AND TECHNOLOGY STUDIES
1:00 p.m.

1:00 p.m. Zurbuchen T. *
NASA Science Mission Directorate

1:30 p.m. Grimm R. *
Venus Bridge Concept Overview

1:45 p.m. Cutts J. A. *
VEXAG's Venus Bridge Focus Group **[#8017]**
VEXAG's Venus Bridge Focus Group is investigating whether viable Venus missions can be conducted within a $200M cost-cap. Progress reports on mission concept studies of combined *in situ* and orbiter missions will be presented.

2:00 p.m. Hunter G. *
Venus Bridge Focus Group Studies at GRC

2:15 p.m. Discussion

2:30 p.m. Kremic T. * Gilmore M. Kiefer W. Limaye S. Hunter G. Tolbert C. Pauken M.
SAEVe: A Long Duration Small Sat Class Venus Lander **[#8024]**
SAEVe is a small Venus lander concept selected for further study by the PSDS3 call. SAEVe is an innovative approach to achieving Venus surface science by exploiting recent developments in high temperature electronics and unique operations scheme.

2:45 p.m. Cottini V. * Aslam S. Gorius N. Hewagama T. Glaze L. Ignatiev N. Piccioni G. D'Aversa E.
CUVE — Cubesat UV Experiment: Unveil Venus' UV Absorber with Cubesat UV Mapping Spectrometer **[#8044]**
The Cubesat UV Experiment (CUVE) will investigate Venus' atmosphere at its absorbers at the cloud tops in the UV, with two on-board science payloads (i) a high spectral resolution UV spectrometer and (ii) a multispectral UV imager.

3:00 p.m. *Coffee Break*

3:15 p.m. Gero J. * Limaye S. Fry P. Lee Y. J. Petty G. Taylor J. Warwick S.
An Airborne Spectrophotometer for Investigating Solar Absorption on Venus **[#8030]**
We propose to develop a compact airborne spectrophotometer for Venus, to measure short wavelength (330–600 nm) spectra of downwelling sunlight, which will facilitate the identification of presently unknown UV absorbers in its atmosphere.

3:30 p.m. Dyar M. D. * Helbert J. Boucher T. Wendler D. Walter I. Widemann T. Marcq E. Maturilli A. Ferrari S. D'Amore M. Müller N. Smrekar S.
Mapping Venus Mineralogy and Chemistry In Situ from Orbit with Six-Window VNIR Spectroscopy **[#8004]**
Emissivity data from ca. 1 micron lab measurements at DLR demonstrate the ability to distinguish among key rock types on Venus, and measure their redox state and transition metal contents from *in situ* orbit around Venus.

3:45 p.m. Helbert J. * Maturilli A. Dyar M. D. Ferrari S. Mueller N. Smrekar S.
The Spectroscopy of the Surface of Venus **[#8006]**
After several years of development and extensive testing, PSL at DLR has a setup in routine operation for Venus analog emissivity measurements from 0.7 to 1.5 µm over the whole Venus surface temperature range. The facility is open to the community.

4:00 p.m. Venkatapathy E. * Ellerby D. Gage P.
Progress Towards Providing Heat-Shield for Extreme Entry Environment Technology (HEEET) for Venus and Other New Froniters Missions **[#8009]**
HEEET, in development since 2014 with the goal of enabling missions to Venus, Saturn and other high-speed sample return missions, is incentivized by SMD-PSD and will be delivered at TRL 6 by FY'18. This presentation will cover the current status.

4:15 p.m. Lu Y. * Athul P. G. Saikia S. J. Cutts J. A.
Aerocapture Feasibility Assessment for Missions to Venus **[#8027]**
Feasibility of aerocapture at Venus is assessed with a comprehensive approach considering a range of vehicle L/D, ballistic coefficient, and arrival V-infinity.

4:30 p.m. Krishnamoorthy S. * Komjathy A. Cutts J. A. Pauken M. T. Garcia R. F. Mimoun D. Jackson J. M. Kedar S. Smrekar S. E. Hall J. L.
Development of Venus Balloon Seismology Missions Through Earth Analog Experiments **[#8007]**
The study of a planet's seismic activity is central to the understanding of its internal structure. We discuss advances made through Earth analog testing for performing remote seismology on Venus using balloons floated in the mid-atmosphere.