

Tuesday, March 20, 2018

[T342]

## POSTER SESSION I: PLANETARY MISSION CONCEPTS III: MARS

6:00 p.m. Town Center Exhibit Area

Clark B. C. III Bierhaus E. B. Chihan T. Jolly S. D. Bailey S. A. *POSTER LOCATION #649*  
[Enhancing Mars Science with an Orbital-Based “Mars Base Camp”](#) [#1189]

From orbital-based “Mars Base Camp” (MBC), the first human missions to Mars could teleoperate rovers and other assets with great enhancements in science.

Daubar I. J. Lognonné P. Teanby N. A. Miljkovic K. *POSTER LOCATION #650*  
 Kawamura T. et al.  
[Impact-Seismic Investigations Planned for the InSight Mission](#) [#1743]

We describe impact-related investigations planned for InSight and how seismic detection of impacts will help achieve the scientific goals of the mission.

Anderson R. C. Nesnas I. A. D. Kerber L. A. Burdick J. W. *POSTER LOCATION #651*  
 Calef F. III et al.  
[A New Concept Study for Exploring and Sampling Recurring Slope Lineae \(RSL\) and Other Extreme Terrains](#) [#2746]

The objectives of this new mission concept are to investigate technologies for accessing and acquiring *in situ* measurements on Recurring Slope Lineae (RSL).

Berger L. M. Williams N. R. Trautman M. R. Golombek M. P. Otero R. E. *POSTER LOCATION #652*  
[Inescapable Hazards at the Mars 2020 Rover Candidate Landing Sites](#) [#2958]

Inescapable / Hazards on Mars. Have to land. / Three sites, where to go?

El-Maarry M. R. Black S. R. Hynek B. M. Yingst R. A. *POSTER LOCATION #653*  
[Testing Operational Strategies for a Potential Mars Helicopter Using a Commercial Drone](#) [#2326]

We utilize a commercial drone to test operational strategies for a scout/helicopter in future missions to Mars.

Petényi P. Gucsik A. *POSTER LOCATION #654*  
[Quaternion-Based Control of a Multirotor Helicopter: Its Application to Planetary Science](#) [#2828]

This study presents a kinematics-based approach to control multi-rotor helicopters.

Winterhalter D. Levine J. S. Kerschmann R. Beaty D. W. *POSTER LOCATION #655*  
 Carrier B. L. et al.  
[The Potential Impact of Mars’ Atmospheric Dust on Future Human Exploration of the Red Planet](#) [#2925]

Possible challenges due to dust in Mars’ atmosphere and regolith were considered in a workshop at LPI in 2017. We present the top priority issues identified.