

# Notes from Dust Mitigation Monthly Meeting

*September 2020*

## Notes from Discussion

### **Announcements ::refer to slides::**

### **OffPlanet Research presentation by Melissa Roth ::refer to slides::**

- Cheol Park asked if OPR has any ongoing collaboration with NASA centers
  - Melissa responded that they do have currently collaborations but are looking for new ones
- Cheol also asked if OPR had studied any radiation
  - Melissa responded that she didn't think so, but that it sounded interesting
  - Maricela Lizcano said she was also interested in that data
- Tim Anderson asked (via chat) if OPR was supporting any exhaust plume impingement studies
  - Melissa responded that they would love to be involved, have put in some proposals and done some research already
- Cameron Grace asked (via chat) if she could comment on how OPR identifies specific chemical compositions of simulants
  - Melissa answered that she couldn't comment on the simulants, but agreed with Cameron's point that chemical composition and mineralogy should be distinctly considered
- Margaret Proctor asked (via chat) how Arizona Road Dust compares to lunar soil or lunar soil simulants, and if there was data to share
  - Melissa responded she wasn't very familiar with Arizona Road Dust
- Jorge Nuñez asked how OPR decided on which simulants to use for current ongoing lunar missions, and asked how they approached the issue of the presence of other volatiles in dust and the overall dust environment.
  - Melissa answered that more work needed to be done, and that ground truth was required to verify a lot of things - they took a flexible approach with icy simulant production process and formed a test matrix of options which will be narrowed down
- Hunter Williams asked (via chat) if OPR has quantified the geotechnical / geophysical properties of the simulant

- Melissa said that the testing that has been completed is posted to OPR's website, and will be updated as new data is available - she suggested reaching out for more in-depth discussion
- Hunter followed up that he was hoping in the future to match his own data to OPR's and put the information into context within the greater simulant field
  - Melissa responded that test setup and tank test conditions need additional discussion, was interested in continuing the conversation offline

**LSIC Fall Meeting Update ::refer to slides::**

- Sam Ximines asked how much cross-collaboration there is between LSIC focus areas, and how responsibilities were delineated
  - Jorge responded that the fall meeting would be a big opportunity for direct collaboration between focus areas, and that Confluence also allowed for discussion between the groups.

**Open Discussion Topics ::refer to slides::**

## Notes From Chat

### Shared Resources:

- Lunar Simulants Survey and Report: <http://lsic.jhuapl.edu/Resources/Lunar-Simulants.php>
- Dust Mitigation space on LSIC wiki: <https://lsic-wiki.jhuapl.edu/x/EIAZ>

### Confluence / Wiki

- To request access to LSIC's Confluence, email Andrea Harman at [ams573@alumni.psu.edu](mailto:ams573@alumni.psu.edu)

### OffPlanet Research Presentation

- Melissa Roth's contact information: [Melissa@offplanetresearch.com](mailto:Melissa@offplanetresearch.com)
- Tim Anderson asked: Melissa, are you supporting any exhaust plume impingement studies?
  - (Answered in discussion)
  - Tim added that plume simulation / impacts for 3 currently awarded HLS vehicles could be done
- Margaret Proctor asked: How does Arizona Road dust compare to lunar soil or lunar soil simulants? Do you have any data you can share?
  - (Answered in discussion)
- Question from Hunter Williams: Have you all quantified the geotechnical / geophysical properties of the simulant?
  - (Answered in discussion)

### Fall Meeting

- LSIC Fall Meeting webpage: <http://lsic.jhuapl.edu/Events/102.php?id=102>