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Company/ Organization Name:	PISCES (Pacific International Space Center for Exploration Systems) - State of Hawaii-funded program
Paper Title:	Moon-RIDERS, a joint federal, state and high school project for a lunar surface flight experiment on dust removal.

Abstract:

To provide a briefing on the initiation and progress of a joint project between the State of Hawaii, academia and NASA with the goal being to: develop, launch, fly and land on the moon a Hawaii High School student-built lunar surface experiment, in concert with technology from the NASA Kennedy Space Center as a hosted payload on one of the upcoming Google Lunar X-PRIZE (GLXP) launch attempts.

Over the past 18 months, the Pacific International Space Center for Exploration Systems (PISCES) and the NASA-Kennedy Space Center (KSC) have been in discussion leading to the formulation of a strategic partnership for a lunar surface flight experiment leveraging transportation through the Google Lunar X-Prize (GLXP). PISCES, NASA-KSC and two Hawaii high schools have joined together in a joint flight test project for a lunar surface flight experiment called: Moon RIDERS (Research Investigating Dust Expulsion Removal Systems).

Over the last 4-5 years, NASA-KSC has been actively working to advance dust-removal technologies which could be critical in future spacecraft systems operating on planetary surfaces...referred to as the Electrodynamic Dust Shield. Dust is a major problem affecting: mechanisms, ability to negatively impact thermal characteristics of space suit materials, lowering efficiencies of radiators and solar arrays, and more. The problem is....NASA is developing these technologies but is unable achieve flight-testing in the lunar environment. PISCES saw this collaboration as an opportunity to uniquely involve Hawaii high school students in a joint engineering project with NASA KSC...then flying as a hosted-payload/secondary on an upcoming GLXP mission.

This briefing will provide an overview of the technology, the unique partnership, progress update and testing leading to this flight opportunity.