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SSI RESEARCHERS ANTICIPATE LAUNCH OF S. KOREAN LUNAR ORBITER MISSION

Boulder Research Institute Hosts Participating Scientists for Lunar Orbiter Mission

Boulder, Co, **AUGUST 1, 2022**

On August 2, South Korea's Korea Pathfinder Lunar Orbiter (KPLO) mission is scheduled to be launched from the Kennedy Space Center on a Falcon 9 rocket for its mission to orbit the Moon. This mission will be South Korea's first foray into planetary exploration beyond Earth. South Korea has a cooperative agreement with NASA for collaboration on the mission which carries a U.S.-built instrument. Furthermore, there is also a contingent of NASA-sponsored Participating Scientists who will be analyzing the mission data. Two out of the nine scientists are Dr. William Farrand and Dr. Gordon Videen of the Space Science Institute (Boulder, CO). Both Dr. Farrand and Dr. Videen will be working with data from KPLO's "PolCam" instrument, an instrument that will measure polarized light reflected from the lunar surface. PolCam is the first instrument put into lunar orbit capable of measuring the polarimetric characteristics of the lunar surface. Dr. Videen will be working with laboratory data of analog lunar materials in support of the PolCam mission. This work will be critical in the interpretation of PolCam results for a variety of science objectives. Dr. Farrand will be using the PolCam data to examine lunar pyroclastic deposits---ash deposits formed through explosive volcanic eruptions earlier in the Moon's geologic history. Such ash deposits can be sourced from deep in the lunar interior and can contain volatile materials including water. They thus have the potential for providing information on the nature of the lunar interior and represent a potential resource for future human use of lunar resources.

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Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Aeronautics and Space Administration, the Korea Aerospace Research Institute, or SSI.

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SSI scientists work on many prestigious space missions, including but not limited to the Mars Exploration Rovers, Rosetta, Mars and Lunar Reconnaissance Orbiters, Mars Science Lander, Juno, ExoMars, OSIRIS-REx, and Mars 2020. Areas of research also include heliophysics, observational astronomy (with such facilities as Hubble Space Telescope, SOFIA), and exoplanets (Kepler). SSI's National Center for Interactive Learning (NCIL) fosters collaboration between scientists and educators to create nationally touring exhibits for museums and libraries, provide professional development and webinar training for science educators, and build popular digital games and apps with over a million hits.

