IAF SPACE EXPLORATION SYMPOSIUM (A3)
Moon Exploration – Part 3 (2C)

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ILOA CONTINUES PURSUIT FOR OBSERVATIONS AND COMMUNICATIONS WITH ILO-1 MISSION AFTER ILO-X PRECURSOR LANDED ON MOON

Abstract

International Lunar Observatory Association (ILOA Hawai'i) is working toward long-term galaxy / astronomy, observations and communications from the Moon with its flagship ILO-1 mission destined for Malapert Summit near the Moon South Pole (NET 2026-27) and back-up ILO-2 to Shackleton Crater rim (TBD). ILO-1 is being developed through work of Canadensys Aerospace Corp of Toronto, Ontario. Its primary observation goals will include Milky Way Galaxy / Center First Light imaging as well as capturing the celestial sky, planets and the lunar landscape. ILOA's precursor ILO-X instruments landed on the Moon on 22 February 2024 aboard the Intuitive Machines IM-1 Nova-C lunar lander. Many astronomy collaborative successes were obtained from the ILO-X mission including 10 planned international Invited Observations, an accepted proposal for lunar control imaging with MPG/ESO La Silla 2.2m telescope in Chile, and discussions for lunar imaging with colleagues at Maunakea-based Canada-France-Hawaii Telescope. Telemetry and other data were also obtained from ILO-X on the Moon as well as during transit, helping confirm technologies for future missions. Reciprocity for an ILOA / National Astronomical Observatories of China (NAOC) MoU from 2012 will be attempted with ILO-1, as ILOA selected M101 spiral galaxy to be imaged via Chang'E-3 LUT in 2014. ILOA real-time astronomy from the lunar surface continues through another ILOA-NAOC MoU with an ongoing co-sponsorship of an Indian Institute of Astrophysics dedicated researcher to analyze Lunar-based Ultraviolet Telescope data and publish scientific findings. ILOA Human Moon Mission and First Women on the Moon initiative is a high priority for ILOA, and affiliated Space Age Publishing Company, which advocates for a peaceful, sustainable human return to the Moon for good – with Aloha.