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ILOA UPDATE JUNE 2021: 5 MOON MISSIONS

## Abstract

International Lunar Observatory Association (ILOA Hawai'i) is advancing Astronomy and communications from the Moon in many ways and has traveled far since the vision for "International Lunar Observatories" was first presented by Steve Durst of the Lunar Enterprise Corporation, precursor to ILOA, atop the Russian Academy of Sciences major facility "Golden Brains" in Moscow in October 1998. It is an exciting opportunity and privilege to return to Russia, especially this year when Luna-25 lander is being prepared to launch to Boguslavsky Crater near Moon South Pole 1 October (after Luna-24 of 1976) – and participate in determining 21st Century Cis-Lunar Development and a Multi World Civilization

ILOA, founded in 2007, has 5 Moon missions: ILO-1 flagship mission to the Moon South Pole, and its back-up ILO-2, developing in collaboration with Canadensys Aerospace Corporation and Intuitive Machines. Precursor mission ILO-X is in preparation for NET October 2021 flight to conduct Galaxy First Light Imaging, as Canadensys is completing final testing of the instruments for lunar surface operation including potential lunar night survival. ILOA is also collaborating with National Astronomical Observatories of China to co-sponsor a dedicated researcher to analyze Lunar-based Ultraviolet Telescope (LUT) data from Chang'e-3 and publish scientific results. Finally, ILOA hopes to contribute to the NASA Artemis program which may be the first to land women at the Moon South Pole - for observation, science and settlement – in Peace for All.

2020s Astronomy from the Moon expands as NASA is hosting / supporting astrophysics and observation payloads aboard SLS flights and CLPS landers; and China pioneers with Netherlands-China Low Frequency Explorer aboard Chang'e-4 – almost a half-century after USA Apollo 16 Commander John Young obtained astronomical images with a Far-UV spectrograph camera. Astrophysicists and independent enterprises in UK, India, Europe, Japan, Russia, Canada, Korea and USA have also expressed interest in lunar-based astronomy.

ILOA also coordinated the "Astronomy from the Moon: A New Frontier for 21st Century Astrophysics" Special Session at AAS 236 held in Madison WI, 1-3 June 2020, which could become a series of sessions.

The ILOA Galaxy Forum program has hosted more than 100 events in 16 countries, and plans at least 7 'hybrid' in-person / virtual events this year. The First Women on the Moon initiative is a highly significant component of the Human Moon Mission effort, now working with the Moon Village Association and others.