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MALAPERT MOUNTAIN: MOON HIGH GROUND POINT E AWAITS LANDERS

Abstract

International and national, independent and individual interests for the Moon South Pole would do well to focus and aspire towards a most valuable strategic, infrastructure platform for extended power, observation and communication with Earth. Malapert Mt. / 'Point E', at 4,990 meters above the reference sphere, receives extended sunlight hours, provides continuous opportunity for the growing multitude of uses and applications of highly valuable Earth observations, offers direct scientific and commercial communications with Earth, 24/7; and may enable permanent sighting of Shackleton Rim, other lunar surface locations TBD.

For these reasons, the International Lunar Observatory Association of Hawai'i flagship mission ILO-1 has long pursued a Malapert Mt. destination to conduct Galaxy First Light Imaging and Astronomy from the Moon, long duration Earth observation and communications, and local lunar surface observation for site characterization and lunar base build-out.

Regarding ISRO, JAXA, CSA/ASC, KARI, ESA, NASA, CNSA, possibly RSC, and their considerations for Malapert: India's ISRO, first to attempt a spacecraft landing in the Moon South Pole region, may again pioneer and lead with Malapert Mt. landing, in peace for all, while USA and PRC consider other Moon South Pole locations; Japan, with Kaguya Shackleton-Malapert iconic MSP image; and Canada, S. Korea, Europe space agencies, possibly RSC – all have motivation, capability and resources to stand up Malapert Mt. lander missions, as might the USN Observatory. Chandrayaan-3, Luna-25 – each to attempt MSP touchdowns in 2022, should provide ground truth, confidence, inspiration and direction for Malapert landings 2023-2025.

Cislunar activities of independent and commercial enterprises such as SpaceX, Blue Origin, Rocket Lab and others soon to rise, demonstrate NewSpace, High Frontier motivation, technical competence / infrastructure, and financial resources to mount the pioneering, breakthrough mission to Malapert with its 100 – 150M projected cost and ILO – 1 on – board. Receiving a 2.9B NASA Human Landing System award, SpaceX already is configuring and strategizing towards the Moon, and further lunar investment can be expected. Blue Origin, whose founder has long envisioned space / lunar settlement for humanity on a mega, O'Neill scale and is much involved with commercial publishing, may welcome the opportunity to expand lunar commercial communications by more than 1,000X, with potential global outreach to Earth's 8 Billion people, with Aloha.