Lunar Innovations Fact Sheet

LUNAR INNOVATIONS

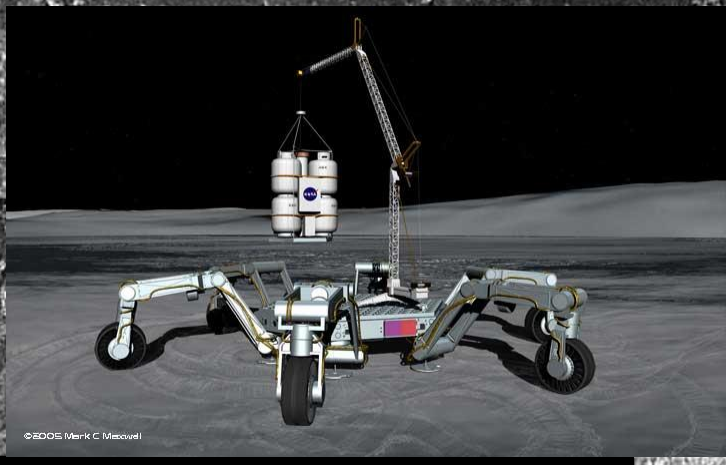
Radio Astronomy on the Moon

Mission Overview

• Launch from Cape Canaveral 2017 on Atlas V 551 LV
•Orbiter breaks from Flight vehicle and establishes lunar orbit
• Lander breaks from Flight vehicle and uses ALHAT to land in Daedalus Crater on far side of Moon
• MATHLETE deploys Lunar Radio Telescopes and conducts experiments on geological properties of lunar surface in Daedalus crater

Mission Cost

1 Flight Vehicle – $682.6 mil
2 Flight Vehicle – $908.9 mil



Science Objectives

• Map and analyze the structure of the interstellar medium from the local bubble to the galactic center.
• Investigate the mechanisms of solar particle high energy acceleration associated with coronal mass ejections (CMEs).
•Explore the nature and evolution of solar high energy phenomena, the heliosphere, and the solar wind.
• Detect and study enhanced high energy particle acceleration in the heliosphere.
• Identify and study neutrino interactions with the lunar subsurface.
• Detect and study ultra-high energy cosmic rays that collide with the Moon.
• Map the local lunar geological subsurface structure.
• Investigate the electromagnetic properties of the lunar surface.
• Record and study seismic activity on the moon that results from Moon quakes and impacts.

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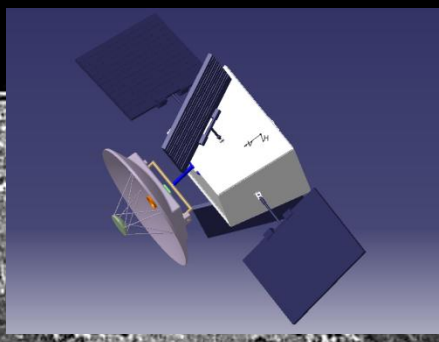
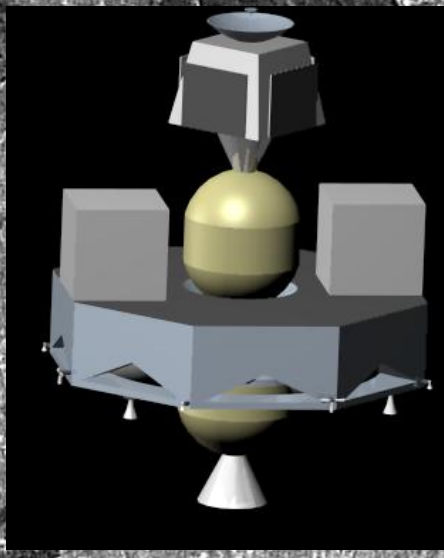


Key Spacecraft Characteristics

- Autonomous Landing and Hazard Avoidance Technology (ALHAT)
- Mini All Terrain Hex-Limbed Extra Terrestrial Explorer (MATHLETE)

Science Instruments

- Lunar Radio Telescope (LRT)
- Ground Penetrating Radar (GPR)
- Seismometer
- Electrometer
- Magnetometer



LI Mission Management

- Project Manager – Alex Antonison - UAHuntsville
- Principal Investigator – Philip Meyer – College of Charleston
- Lead Systems Engineering – Richie Nagel - UAHuntsville
- Chief Engineer – Kirby Vail – UAHuntsville

Schedule