



Small Innovative Missions for Planetary Exploration

- Solicitation for rideshare missions to conduct Planetary Science
 - SIMPLEX-1 (2014)
 - \$5.6M cost cap
 - 6U max size
 - Solicited via ROSES
 - SIMPLEX-2 (2018)
 - \$55M cap
 - up to 180 kg
 - Targeted specific launch opportunities
 - Solicited via SALMON
 - SIMPLEX-3 (TBD)

Recent Highlights

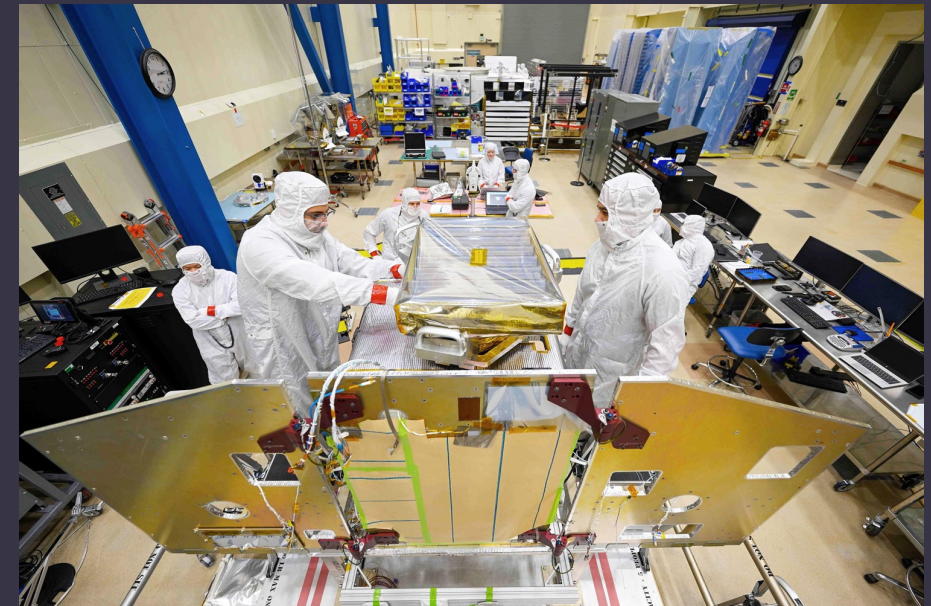


Photo credit: Lockheed Martin Space for Lunar Trailblazer

Engineers work on the JPL-developed High-resolution Volatiles and Minerals Moon Mapper (HVM³) for NASA's Lunar Trailblazer spacecraft in a clean room at Lockheed Martin Space in Littleton, Colorado, in December 2022.



Current Small Spacecraft Activities/Future Plans

- LunaH-Map – Lunar Polar Hydrogen Mapper - launched with Artemis I; operations ceased August 2023 due to thruster issues
- ESCAPE – Escape and Plasma Acceleration and Dynamics Explorer – Dual spacecraft aboard VADR LV; launch window opens in August 2024

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Current Small Spacecraft Activities/Future Plans

- Janus – De-manifested from Psyche due to trajectory compatibility issue after Psyche launch delay and trajectory redesign
- Lunar Trailblazer – TVAC completed June 2023; LTM and HVM3 installed on S/C and moved to vibration test facility - Launch Readiness Date NET November 2023; driven by IM-1 launch
- SIMPLEx-3 under consideration

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NASA SMD Planetary Science Division / SIMPLEx

National Aeronautics and
Space Administration

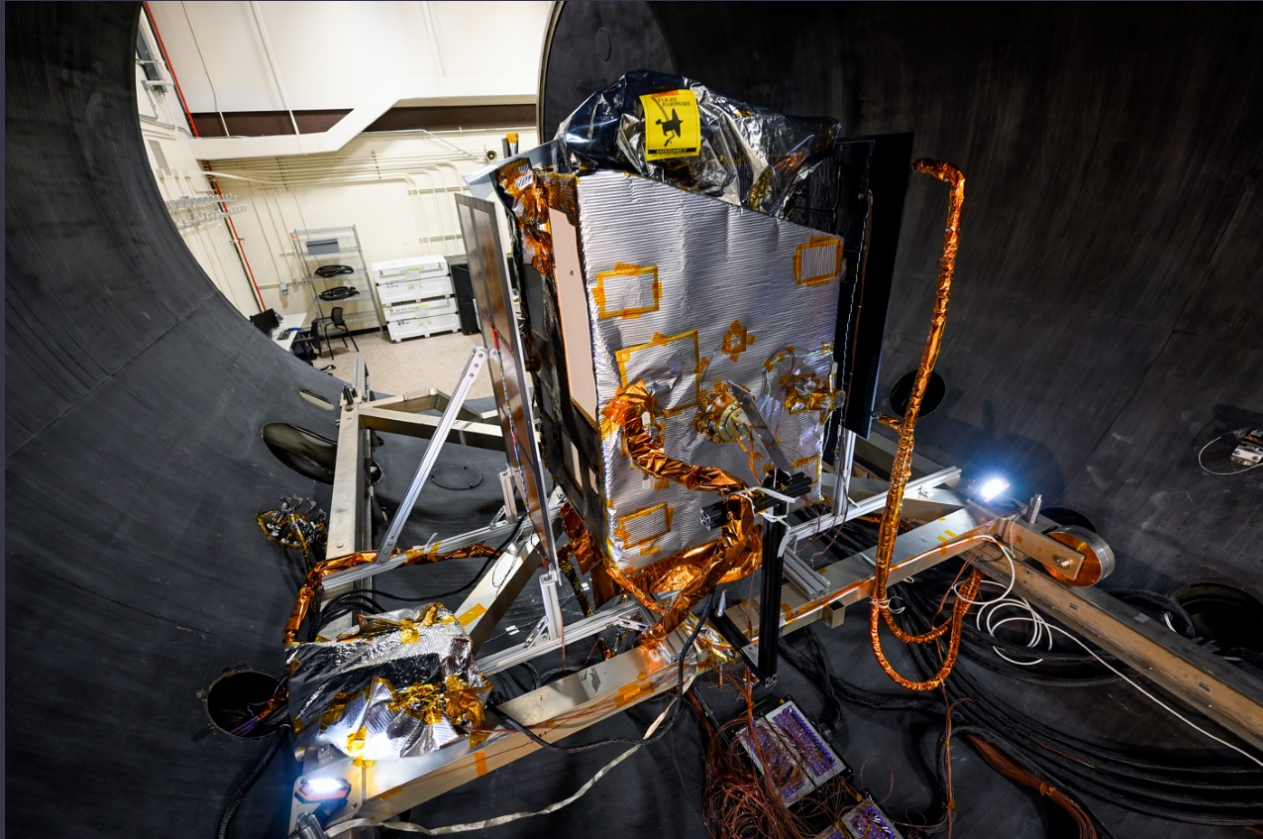
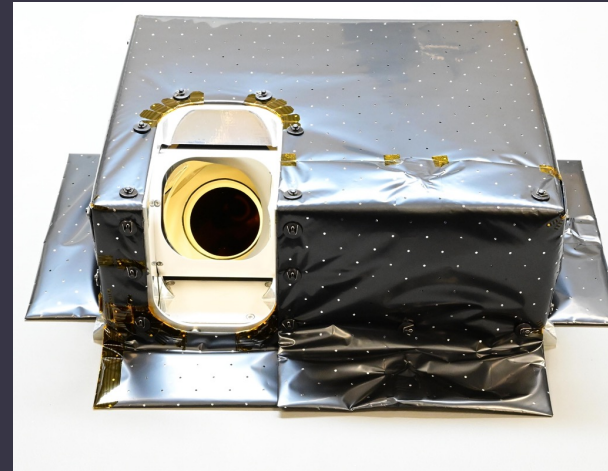


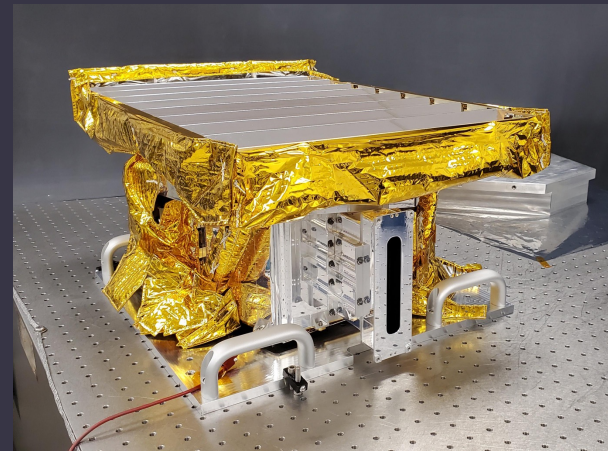
Photo credit: Lockheed Martin Space for Lunar Trailblazer

Lunar Trailblazer in TVAC Testing



LTM wrapped in a
multilayer insulation
blanket

Photo credit: University of Oxford for Lunar Trailblazer



The HVM³ instrument
sits in a JPL clean
room in early
December 2022

Photo credit: NASA/JPL-Caltech for Lunar Trailblazer