Morehead State University

Space Environmental Testing Services

Morehead State University's Spacecraft Environmental Testing Laboratory (SETL), located within the Space Science Center, offers testing and qualification services for spacecraft up to 100-kg. The SETL is capable of supporting Hardware in the Loop (HWIL) testing to NASA GEVS level and greater. The SETL has a rich heritage of testing and qualifying in-house built satellites and is available as a commercial service for both public and private sectors.

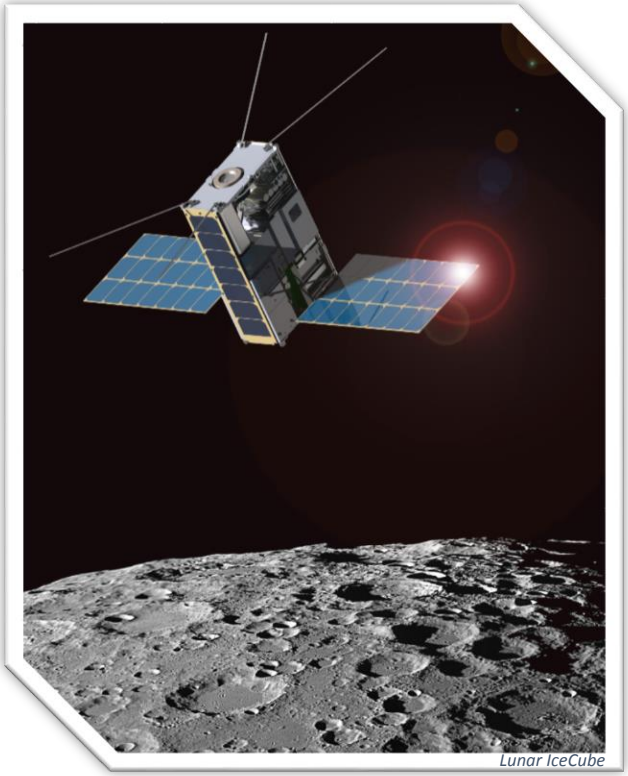
SVL Facilities Include:

- Class 10,000/100,000 Clean Room
- Vibration Analysis System
- Thermal Vacuum System
- Residual Gas Analysis (RGA) System
- Anechoic Chamber
- Copper Screen Room
- Helmholtz Coil
- Solar Flux Simulator

Space Environmental Testing

EMI/EMC Testing

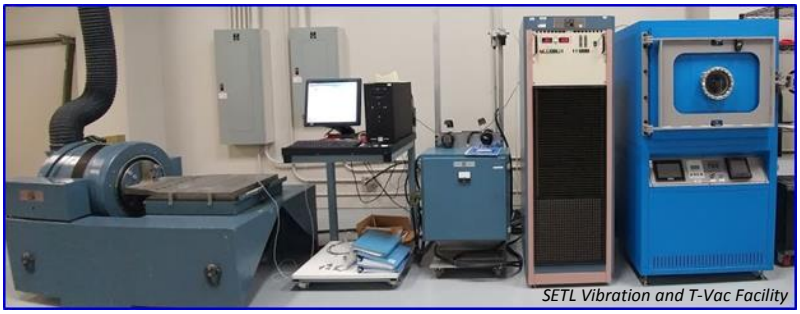
Complete EMI/EMC Testing to MIL-STD-461C: Electromagnetic Emission and Susceptible Requirements for the Control of Electromagnetic Interference.



Lunar IceCube

Vibration Testing

Vibration testing verifies satellite survivability post launch and can identify mechanical and structural faults and stresses. The SETL's vibration slip table allows for 3-axes of testing at or above NASA GEVS levels and can be customized per mission ICD.



SETL Vibration and T-Vac Facility

Thermal Vacuum Testing

Thermal vacuum (T-Vac) testing verifies satellite performance in a simulated space environment with temperature extremes beyond that which the satellite is expected to experience on orbit. The SETL's T-Vac system has a capacity of 0.29 m^3 (10 ft^3) and a temperature range of -100°C to +220°C at $1x10^{-8}$ torr. Pass throughs allow for functional testing under vacuum.

Antenna Characterization

The SETL's anechoic chamber and copper screen room facilitates empirical measurements of antenna parameters such as radiation patterns, gain, system temperature profiles, astronomical radio source gain-to-noise temperature ratio (G/T), cross-polarization isolation contours, and effective isotropically radiated power (EIRP) stability.

Space Science Center, Morehead State University

For more information and pricing, please contact:

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