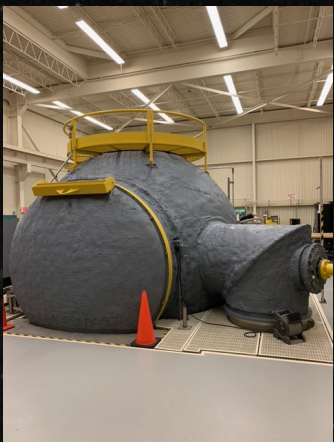


15-foot Lunar simulation thermal vacuum chamber



- **Purpose:** 15-foot chamber to simulate space and environmental conditions, including lunar, with thermal vacuum and regolith simulant use
- **Distinctive capabilities:**
 - Feedthroughs for high power electrical connections and high channel count data
 - Control automation enabling low-cost operations
 - Shroud zones to create a thermal profile
 - Ambient dust containment room for regolith control and testing
 - Hardware exposure testing to dust/regolith
 - 48" x 96" regolith bin for design and test of surface excavation, processing or construction technology
 - Includes drill tube with regolith to depths down to 3 feet
 - Tolerant of hazardous gas leaks inside chamber, i.e., hydrogen and oxygen
- **Potential uses:** dust mitigation testing, lunar night survivability testing, fuel cell system TVAC testing
- **Technology Readiness Level:** Fully operational

Technical Parameters

Size: 15-foot diameter spherical with 78" diameter clear entry for easy access	Thermal: -196 °C to +120 °C
Vacuum: ~10 ⁻⁶ Torr	Air, GN ₂ pressurization
Used previously for fuel cell, electric APU during Shuttle, Cryogenic propellant storage, Apollo Lunar rover tire, ISRU technology	Max platform load: 4,000 lbs.

Contact: Michael Reddington (NASA-JSC) michael.reddington-1@nasa.gov in EP6 for more information