

HUMAN HEALTH AND PERFORMANCE

Exploring Space | Enhancing Life

Acoustics Environment Analysis

Ensuring Safe, Healthy and Habitable Vehicle Acoustic Environments

Acoustics and Noise Control Laboratory

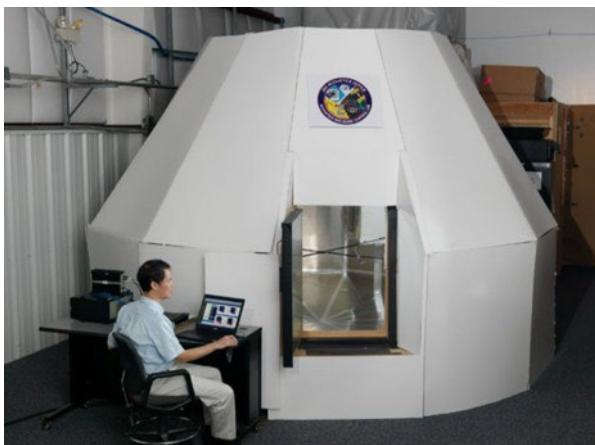
The JSC Acoustics and Noise Control Laboratory (ANCL) is part of the Johnson Space Center Acoustics Office. The ANCL is the principal facility located in Building 241 for acoustics research and flight hardware certification. The Acoustics Office is responsible for ensuring safe, healthy and habitable vehicle acoustic environments, in which astronaut crews can live, communicate, and work. This means ensuring that space vehicle environments are not too noisy, do not have irritating audible sounds (except when trying to get the crew's attention), and do not have startling bursts of acoustic energy.

Services Provided:

- Acoustic Emissions Testing
- Acoustic Flight Materials Development and Testing
- Noise Diagnostics and Control
- Acoustic Modeling
- Reverberation Time Measurement



- Acoustic Environment Demonstrations
- On-orbit Measurement and Monitoring
- Quiet Fan Tool Development and Support
- Transmission Loss Measurement
- Acoustic Absorption Measurement
- Space Suit Interior Acoustic Environment Assessments



Our customer-friendly process lends itself to streamlined business relationships. We are eager to share our unique capabilities with your organization and invite your inquiries regarding application or adaptation of our offerings to satisfy your special requirements. Briefings on general or specific subjects can be arranged at JSC or at your business site.

Facilities, Tools and Equipment	Size/Features	Purpose
Anechoic Chamber	16 ft. x 19.5 ft. x 12 ft.	Use for certifying hardware for flight from payload to rack level
Acoustic Test Chamber	9 ft. x 9 ft. x 9 ft.	Use for certifying hardware for flight at payload level
ISS Mock-up	8 ft. x 8 ft. x 15 ft.	Use for assessing acoustic environments and validating acoustic models
Orion Mock-up	15 ft. diameter / 11 ft. tall	Use for assessing acoustic environments and validating acoustic models
Impedance/ Transmission Loss Measurement	B&K Type 4206	Use for acoustic material testing (absorption and transmission loss tests)
Quiet Fan Tool Database	Over 80+ fans tested and included in database	Use to help and guide hardware developers choose the optimal and quietest fan for their system or payload



For the benefit of all

For more information:
 NASA Human Health and Performance Directorate
www.nasa.gov/hhp/

Points of Contact

Jurine Adolf
jurine.a.adolf@nasa.gov **KBRwyle**
 281.483.2541

William Foley
william.a.foley@nasa.gov
 281.792.7512

