# CRADA Assembly, Integration, and Test Services



### Overview

Since 1995, AFRL's Aerospace Engineering Facility (AEF) has preformed hundreds of environmental tests and support activities for in-house, commercial, and government space and aircraft missions. As Kirtland AFB grew into the Air Force's center of space technology R&D, dozens of engineers have become experts in preparing spacecraft for launch integration using equipment and machines still used today. Spacecraft AI&T is now an in-demand career; some of the best in the business have come from AFRL's AEF. Over the last 30 years, missions utilizing the AEF have evolved from large ESPA-class spacecraft to small satellites. In 2016, the Small Satellite Portfolio took over the AEF for design, AI&T, and launch readiness of the prevalent CubeSat mission. SSP missions that were "born and raised" in the AEF include SHARC, the GEARRS series, ASCENT, and RECURVE. ESPAclass missions can still be accommodated for testing in a nearby building on Kirtland AFB.

# What We Offer

- Access to high-end test equipment for a reasonable cost
- Reliable environmental stress screening before launch integration
- Specialized tools and hardware for components and fully integrated spacecraft
- Trained personnel and operators dedicated onsite
- Government-owned equipment, scheduled and operated by vested contractors

## Location

Facilities are located on Kirtland, Air Force Base in Albuquerque, New Mexico Base access is required for execution of contracted Al&T activities. Axient and government employees may grant access with temporary passes on an as-needed basis.

### **CAPABILITIES**

Ling 612U Table:

6,000lb vector and RMS, 30"x30" table, 5-3,000Hz at max acceleration of 120Gs

Ling 4022LX Table:

45,000lb peak sine, 36,000lb RMS, 48"x48" table, 5-2,000Hz at max acceleration of 100Gs

Thermal Vacuum Chamber:

84"x108"L, 72"x108" aluminum shroud, -120°C to +120°C

Bake-Out Chamber:

Temperatures above 250°C, 10-7 Torr, payloads up to 35″D x 30″H

Other capabilities:

CG/MOI table, convection curing oven, clean rooms, xenon solar simulator lamp, nitrogen thermal chamber, thermocouple data loggers, NASA-certified technicians for board assembly, cable, and harnessing, mass modeling, and fixture fabrication

### **ORGANIZATIONS INVOLVED**

In partnership with Axient LLC, AFRL provides access to specialty test equipment for the space community at a reasonable cost. In addition, AFRL's Small Satellite Portfolio offers in-house expertise for your testing needs, including assembly, integration, and environmental test execution.

### **PRICING**

Pricing varies by equipment and facility usage. Smaller machines range from \$550—\$1,100 per day. Larger specialty machines start at \$2430 per day. These prices do not include cost of the technicians performing the tests. Purchase orders are required by contract holder, Axient LLC.

