

# **COMMERCIAL SPACE TESTING SERVICES**

# FULL LIFE CYCLE TEST & EVALUATION SERVICES AND FACILITIES

- Rocket Launch Services
- Rocket Motor Testing
- Launch and Recovery
- Flight Termination Testing
- Propulsion Systems
- Spin Test Facility
- Solar Furnace Facility
- Radiation Effects & E<sup>3</sup> Test Facilities
- Thrust Stands
- Vacuum Chamber

WSMR has supported testing and evaluation efforts for **Apollo**, **Skylab**, **Delta Clipper**, **X-34**, **Space Shuttle**, and **Orion CEV** projects. The Tracking and Data Relay Satellite System (TDRSS) ground station is located at NASA's White Sands Test Facility (WSTF), a WSMR tenant organization. WSTF has a history of over 300 engine tests, for a total of over two million firings to date.

#### **COMMERCIAL SPACE TESTING**

White Sands Missile Range (WSMR) provides cutting edge testing facilities and services for the growing roster of aviation and aerospace related companies.

- WSMR's locally controlled airspace (no FAA regulations), elevation (4000 ft MSL), climate (340 days of sun) and streamlined regulatory environment.
- WSMR's depth of experience, facilities, and partnerships in the space industry.
- Proximity to local Spaceport which makes
  WSMR an ideal location for spaceport users to test products at the Range.
- NM state industry incentives which provide space companies with tax breaks, investment incentives, and job training programs.

#### **EXPERIENCE**

WSMR has an extensive history of providing ideal test facilities and a capabilities base for missile, rocket, Unmanned Aerial Vehicle (UAV) and space vehicle testing and is home to the White Sands Space Harbor. Range users include US military services, Department of Defense (DoD), NASA, foreign militaries, academic and commercial customers.

WSMR hosts several tenant organizations, including NASA's White Sands Test Facility, Air Force, Navy, and the National Geospatial-Intelligence Agency.





Launch Facility



White Sands Space Harbor. The landing strips are made of packed gypsum and are 35,000 feet long. The strip is centered in a 100 square-mile area and is managed by the NASA Johnson Space Center White Sands Test Facility.



# **COMMERCIAL SPACE TESTING SERVICES**

## WHITE SANDS MISSILE RANGE FACILITIES

- ISO 9000 Certified -



## **Combined Radiation Environment (CRE) Facility:**

The CRE facility consists of two simulators (PI 538 and reactor) that provide a time-tied radiation environment to simulate different upper atmospheric radiation scenarios.

### El Dorado Irradiator Facility (EIF):

The EIF is used for gamma dose simulation testing of electronic devices and circuits. The facility is capable of providing dose rates between 50 and 0.01 Rad-Si/sec in the direct beam with no attenuation. The EIF can operate 24/7 to fulfill the unique requirements of Enhanced Low Dose Rage Sensitivity tests for Space irradiations or aluminum attenuators; lower dose rates are achievable.



Eldorado Irradiator Facility



**HAWK Static Fire Test** 

# **SPACE INDUSTRY INCENTIVES**

Aviation and aerospace companies can take advantage of New Mexico Space Industry incentives:

Tax Deductions:

Aerospace Research & Development Aircraft Manufacturing Aircraft Refurbishing & Remodeling

•Tax Credits:

High Wage Jobs Manufacturing Investment

- Spaceport Operation Exemption
- Job Training Incentive Program
- •Industrial Revenue Bonds (IRBs)
- Double-Weighted Sales Factor Option



The Orion launch abort system lifts off during the Pad Abort 1 flight test on May 6, 2010 at the White Sands Missile Range. Photo credit: NASA

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