



# Air Force Research Laboratory | AFRL

*Science and Technology for Tomorrow's Air and Space Force*

## **Success Story**

### **TEST STAND READY FOR NEW ROCKET DEVELOPMENT**



One of the nation's largest rocket development and test stands was dedicated at a ribbon-cutting ceremony in January 2004. The modernized test stand is part of the Propulsion Directorate's nearly \$3 billion worth of facilities and equipment at Edwards Research Site, providing the nation and the Air Force with rocket propulsion research, development, and test capabilities.

The Test Stand 2-A is the only Department of Defense (DoD) stand capable of performing full-scale rocket thrust chamber development testing in the 750,000 lb thrust class. Testing next-generation rocket engine components on Test Stand 2-A is intended to provide more reliable, lower cost, and higher performance rocket engines for future missions.



Air Force Research Laboratory  
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### **Accomplishment**

Originally designed and built more than 30 years ago for Apollo's moon-mission F1 rocket engine development and testing, the test stand was given an 18-month modernization and state-of-the-art enhancements, making it the most modern large rocket test stand in the DoD. Its primary use will be the development of advanced rocket engine turbomachinery and combustion components, but it can also be utilized for numerous other high-pressure and flow-rate propulsion systems.

### **Background**

Major General Paul D. Nielsen, AFRL commander, participated in the ceremony with other Air Force officials. During the ribbon-cutting ceremony Gen Nielsen stated, "This lab's vision statement states 'We defend America by unleashing the power of innovative science and technology.' There is probably no technology we work on that exhibits that power as much as rocket propulsion power." Nearly every American rocket-propelled satellite, missile, or launch vehicle has been touched by the technology research, development, or testing conducted at AFRL's Edwards Research Site.

Propulsion  
Emerging Technologies

### **Additional information**

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (04-PR-11)