

# OPPORTUNITIES IN SPACE

Los Alamos' Intelligence and Space Research Division is currently seeking graduating students and early career engineers and scientists who would like to be part of our scientific discoveries and our mission to make the world safer.

For more than 50 years Los Alamos National Laboratory has designed, built, and analyzed data from instrumentation for space missions both near and far:

- satellites circling Earth to help ensure our nation's security;
- discovering the processes that govern the space environments of the Sun, Earth, and planets
- discovering the composition of the Moon, Mars, and asteroids
- capturing the most distant, most powerful cosmic explosions.

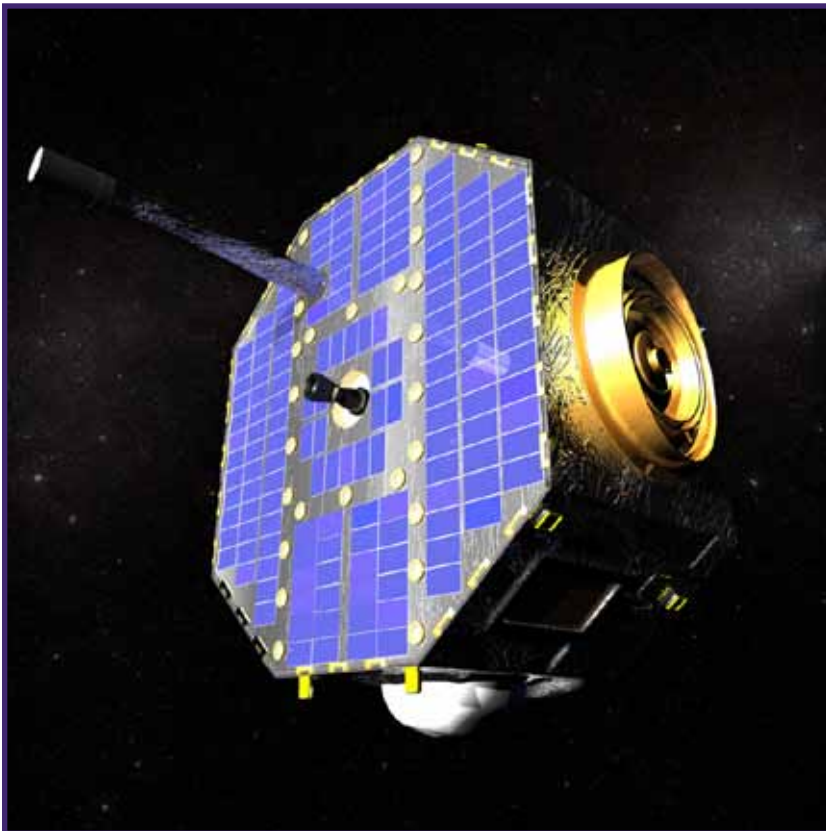
Los Alamos space payloads and ground-based observational facilities have led the world in extreme engineering, innovative technologies, and scientific discovery.

*Would you like to be part of the next chapter in our continuing adventures in space?*

## From our Roots to Today:

Since the launch of the first Vela satellites in 1963, Los Alamos has designed, built and operated instruments to monitor international compliance with the Limited Test Ban Treaty. Los Alamos has flown about 400 instruments comprising more than 1,400 sensors on more than 200 total launches.

Los Alamos continues to rely on a highly innovative spiral of science, technology, and engineering. Collaborative teams of scientists and engineers develop new methods and techniques for national security payloads as well as NASA missions, such as Van Allen Probes, Mars Science Laboratory, IBEX, Swift, TWINS, Cassini, ACE, Mars Odyssey, Deep Space 1, Ulysses, IMAGE, and Lunar Prospector. In the past year, Los Alamos-led instrument teams have published studies in Science and Nature on early supernova evolution, energization of the radiation belts, weathering of rocks on Mars, thunderstorm disruption of the ionosphere, and the interaction of the Sun and the interstellar medium.



*IBEX*



*Cassini*



*Van Allen Space Probes*



*Mars Science Laboratory*

**Into the Future:**

Our current recruiting efforts are to establish the next generation of expertise for our national security mission and to fuel the basic science and spirit of discovery that underlies our mission-based work. If you are interested in learning more about the opportunities we offer, see the contact information below.

**Our Background:**

Los Alamos National Laboratory was born as part of the Manhattan Project in World War

II. Its mission: develop the atomic weapons that were used to end the war. Los Alamos today continues to serve as a national-security science laboratory with a responsibility for ensuring the safety, security, and reliability of the nation's nuclear deterrent. It also conducts research in a broad range of cutting-edge basic and applied science, underpinned by world-class engineering. Los Alamos is perched atop New Mexico's Pajarito Plateau with stunning views across the Rio Grande Valley to the Sangre de Cristos Mountains, which is the southernmost extension of the Rockies. Los Alamos and the surrounding areas such as Santa Fe and Taos offer a variety of opportunities for outdoor enthusiasts and a multitude of artistic and cultural amenities. ●

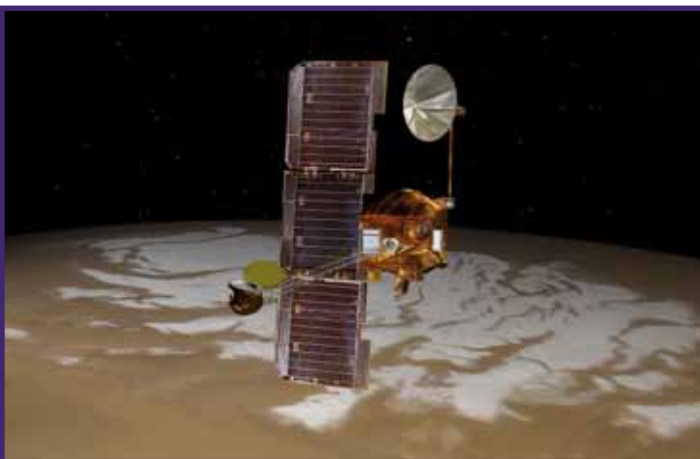
*Los Alamos is seeking engineers and scientists in the following areas:*

- Extreme engineering: electrical, mechanical, computer, software, and system engineers for development and deployment of sensors within tightly constrained mass, power, and volume resources that out-perform requirements, operate autonomously in a harsh radiation environment, must survive launch and landing, and must operate through known and unknown hazards.
- Data to Information in space: onboard high performance computing and reconfigurable computing
- Space weather and space environment: plasma mass spectrometry, neutral atom imaging, high energy ion and electron detection, heliospheric and magnetospheric science
- Radio sciences: electromagnetic detection (kHz to THz), lightning physics, ionospheric physics, atmospheric-ionospheric coupling
- Time-domain astrophysics: impulsive and transient events across the electromagnetic spectrum (from optical to gamma-ray)
- Nuclear detection: neutrons, x-rays, and gamma-rays, planetary physics
- Hyperspectral imaging: signal transport through the atmosphere, laser-induced breakdown spectroscopy, planetary geophysics
- Modeling and simulation for understanding and prediction: plasmas, space environment, ionosphere, atmospheric-ionospheric coupling, supernova evolution

*Contact Info:*

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*Mars Odyssey*



*Advanced Composition Explorer (ACE)*