

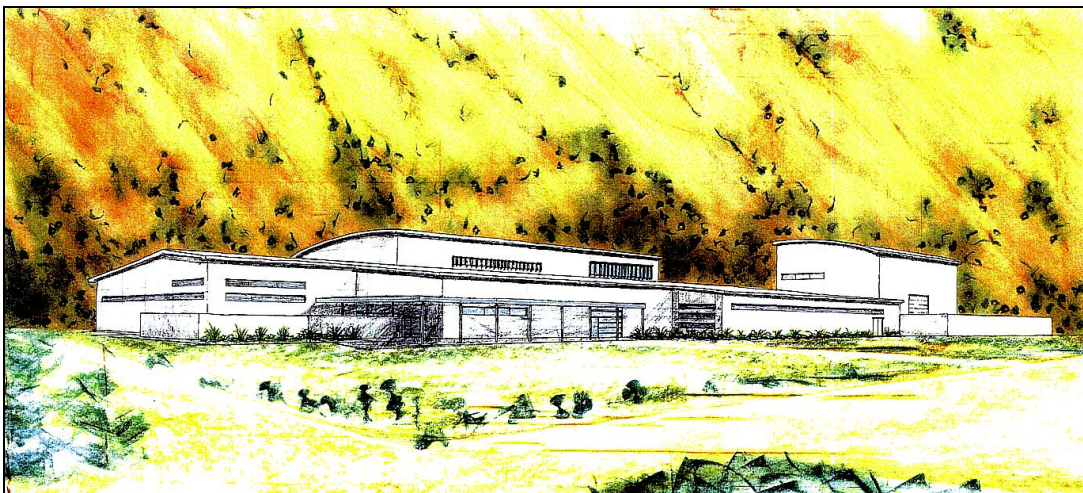


FACT SHEET

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Telescope & Atmospheric Compensation Laboratory (TACLab)



Under construction is a Telescope & Atmospheric Compensation Laboratory (TACLab), which will be located in the southeast portion of Kirtland Air Force Base, New Mexico, at the Starfire Optical Range, a major capability at the Air Force Research Laboratory's Directed Energy Directorate. The \$15.5 million TACLab will include a 52,000-square-foot building supporting advanced optical beam control, laser propagation, and space object imaging research and development.

This facility will include extensive optics, electronics, computer, and mechanical laboratory space for equipment design, construction, and testing before integrating with telescopes and other experiment hardware. The building will include a large mirror aluminizing capability for the required periodic recoating of the Starfire Optical Range's 3.5-meter telescope's primary mirror. Similar large mirrors from local astronomical observatories may also be recoated here. The building will also include office space, conference rooms, and group work areas for the 84 scientists, engineers, and technicians currently housed in portable buildings and trailers at the Range.

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The Starfire Optical Range is an advanced optical research site that includes three major optical mounts: a 1.0-meter beam director, a 1.5-meter telescope, and a 3.5-meter telescope. All are capable of tracking low-earth orbit satellites and all are equipped with large-scale, high-performance adaptive optical systems. Other instrumentation includes numerous smaller telescopes and beam directors, multiple laser systems, and a variety of optics, electronics, and mechanical laboratories. Starfire Optical Range is widely recognized as the world's leading adaptive optics and beam control research site. Work primarily consists of field experiments in the technology areas of real-time atmospheric compensation, atmospheric turbulence physics, and target acquisition, pointing, and tracking.

The contract to build this facility was awarded to K. L. House, Inc. of Albuquerque, New Mexico, by the Albuquerque District of the U.S. Army Corps of Engineers. The Corps is supervising the contractor's design and construction activities. A groundbreaking ceremony was held on February 20, 2003, attended by U.S. Senators Pete V. Domenici (R) and Jeff Bingaman (D). The building is scheduled for completion in April 2004.

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