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Targeting, minus the bulk

Handheld system touted as lightweight, easy to assemble

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Say goodbye to the tangle of wires and bulk of electronic gadgets used by airmen directing close-air support strikes. Say hello to the Laser Integrated Target Identification System — LITES for short.

The Air Force thinks this system may improve targeting gear and cut down on the weight and the time needed to assemble the system, said 1st Lt. Drew Goettler, a scientist with the Air Force Research Laboratory's Tactical Systems Laser Branch at Kirtland Air Force Base, N.M.

Goettler and others at the Materiel Command lab have been working with the Air Force Special Operations Command and contractor Optical Air Data Systems of Manassas, Va., to create the system.

LITES combines numerous gadgets into what looks likes a pair of binoculars on steroids, and it's light enough to be held by hand.

According to information from the lab, the battery-powered system includes a night-vision-capable telescope for finding targets, a laser range finder for determining the exact distance to a target, a Global Positioning System computer for converting the laser information into targeting data, and a laser designator that can be shined on a target to guide pilots or weapons to their objective.

The LITES device also can be linked to computers and transmitters to relay the information to others.

The need for a lightweight and compact targeting system got the attention of Air Force Secretary James Roche after he met in 2002 with combat controllers who had fought in Afghanistan. They told Roche about the targeting system they had improvised from commercial and military gear and how the system needed to be improved.

For example, the Special Operations Laser Marker target designator was used as a makeshift range finder, AFSOC controllers said. The problem was that the designator couldn't automatically produce GPS or map coordinates. Instead, the controllers took the readings from the designator and by hand converted them into useable coordinates.

All told, the ad hoc gear weighed about 60 pounds and wasn't necessarily water- or sand-proof. Also, the system used several different sizes and types of batteries.

Roche jump-started the development effort by setting aside $7 million. Overall, the project's development cost is expected to be around $19 million, said Maj. Jeff Salter, head of the Tactical Laser Systems Branch.

The next step for LITES is for combat controllers to field-test it, Goettler said.

Their comments will be worked into specifications for a production version of LITES. Materiel Command's Aeronautical Systems Center will manage the production.

If the testing and development go well, the first production versions of LITES should be fielded in 2005, Goettler said.