

US military develops anti-aircraft laser

The latest weapon developed by US engineers is a Humvee jeep mounted with a giant laser capable of shooting down aircraft.

By Murray Wardrop

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The Laser Avenger successfully shot down a series of unmanned aerial vehicles during recent tests and is being hailed as a revolutionary weapon for future warfare.

The experiment was the first time that a ground vehicle has used a laser to destroy moving aircraft and marks a watershed moment in the development of lasers for battlefield use.

Invented by Boeing, the laser is fitted to a Humvee off-road vehicle, allowing it to be moved into the most remote locations to shoot down enemy planes.

It is hoped that the Laser Avenger will be used to help US forces tackle small unmanned aerial vehicles (UAVs), which often carry explosives or surveillance equipment.

Such devices are difficult for conventional air defence systems to shoot down.

The complex testing at White Sands Missile Range in New Mexico, required the laser to track three UAVs against a backdrop of mountains and desert.

When the targets were sighted, the Laser Avenger successfully shot down three UAVs with its high-powered directed energy beam.

Gary Fitzmire, vice president and program director of Boeing Directed Energy Systems, said: "Small UAVs armed with explosives or equipped with surveillance sensors are a growing threat on the battlefield.

"Laser Avenger, unlike a conventional weapon, can fire its laser beam without creating missile exhaust or gun flashes that would reveal its position.

"As a result, Laser Avenger can neutralize these UAV threats while keeping our troops safe."

The test firing was observed by representatives of the US Army's Cruise Missile Defense Systems project office.

The experiment follows a previous test in 2007 of a prototype Laser Avenger which obliterated improvised explosive devices and unexploded ordnance on the ground.

Lee Gutheinz, Boeing's program director for High-Energy Laser/Electro-Optical Systems, said: "We doubled the laser power; added sophisticated acquisition, tracking and pointing capability; and simplified the design.

"Boeing developed and integrated these upgrades in less than a year, underscoring our ability to rapidly respond to war-fighters' needs."

The Laser Avenger is an infrared laser with power levels in the range of tens of kilowatts.

It is a modified version of an existing US Army air defence weapon that uses two Stinger missile launchers and a heavy



The Laser Avenger which is capable of shooting down aircraft with its high-powered energy beam Photo: BARCROFT

machine gun, with one missile pod swapped for the laser and its target tracker.

Existing weapons struggle to shoot down small, light UAVs, which are often made of plastic rather than metal, because surface to air missiles designed to target normal-sized aircraft cannot lock onto them.

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