SPACE WIRE

As losses mount, US military unveils new high-tech gadgets

WASHINGTON (AFP) Mar 04, 2004

New armor plates and steel bars designed to fortify Humvee vehicles against rocket-propelled grenades and machine gun fire are already being shipped by the Pentagon to Iraq and Afghanistan.

Scientists are burning the midnight oil developing new super-sensitive cameras capable of detecting roadside bombs that have been the scourge of US troops in Iraq from helicopters or unmanned drones.

With public concern about US war casualties on the rise, the US Defense Department rattled off Wednesday a list of high-technology projects designed to minimize risks to its soldiers while making operations more effective.

A total of 550 US troops have been killed since the beginning of the US-led invasion of Iraq a year ago while another 3,150 have been wounded, many by so-called "improvised explosive devices" that resistance fighters conceal by the side of the road and often detonate by remote control, according to defense officials.

In addition, 112 troops have lost their lives in Operation Enduring Freedom launched in the waked of September 11, 2001, in Afghanistan, other parts of Asia and the Horn of Africa.

"We must provide technology solutions essential to current and future warfighter needs across the full spectrum of Army operations," Brigadier General Charles Cartwright, deputy head of the US Research, Development and Engineering Command, told the Senate Subcommittee on Emerging Threats and Capabilities.

The items showcased during the hearing combined old-fashioned steel with cutting-edge electronic and imaging devices aimed at neutralizing the unsophisticated but often deadly weaponry used against US forces in Iraq and Afghanistan.

As many as 4,800 armor kits engineered to reinforce Humvee vehicles, one of the most common troop transporters in the US military, are being manufactured and shipped to these theaters, officials said.

A laser originally developed by strategic missile defense researchers has been adopted for blowing up surface mines and bombs fashioned from unexploded ordnance and mounted on some of the US Army's all-terrain vehicles in Afghanistan.

Other devices are still on the drawing board but hold a lot of promise, defense officials said.

They include two electronic interceptor systems that combine circular-vision radar with small projectiles fired by computer and designed to hit rocket-propelled grenades in flight, according to Cartwright.

A system dubbed "the suit of sense through the wall" will enable solders to see enemy combatants with concealed weapons hiding behind walls, doors and other obstructions.

Troops confronted with secret "spider holes," similar to the one in which ousted Iraqi leader Saddam Hussein was found last year, soon will avoid the chilling task of going down to inspect them. It will be done by "a well camera system" capable of seeing inside underground labyrinths and broadcasting images to the surface.

Intelligence collection is expected to be bolstered by two field translation machines that could be used by Special Forces or other units.

One of them, called Phraselator, converts simple oral sentences from English to Arabic, Pashto and Dari and can be used for initial communications with prisoners or local residents.

The other, named FALCon, can translate and analyze captured documents in 47 languages,

including those spoken in the Middle East and Asia.

The military also highly praised the new Chitosin bandage capable of stopping severe arterial bleeding within two-to-four minutes, which has already been used by medics. "Bottom line -- it saves lives," said Thomas Killion, the Army chief scientist.

The administration of President George W. Bush is requesting 10.5 billion dollars for military science and technology programs for fiscal 2005 beginning October 1, a 1.5 percent increase over the current fiscal year.