

US Army seeks 'Iron Man' armor for commandos

October 12 2013, by Dan De Luce



A general view of the premiere of Walt Disney Pictures' "Iron Man 3" at the El Capitan Theatre on April 24, 2013 in Hollywood, California

US Army researchers are working on building hi-tech body armor that would give soldiers "superhuman strength" in a real-life version of the suit featured in "Iron Man" films.

The blueprint for the "revolutionary" Tactical Assault Light Operator Suit (TALOS) would include an exoskeleton to allow a soldier to carry

heavy equipment, built-in computing power, beefed up protection to stop bullets and a system to monitor vital signs, officials said.

"Some of the potential technologies planned for TALOS research and development include advanced armor, situational awareness, command and control computers, power management systems, and enhanced mobility exoskeletons," according to a US Army statement issued last month.

US Special Operations Command, which oversees elite Navy SEAL and Army Ranger commandos, put out the call last month for research papers on potential technologies that a "smart" combat suit could incorporate.

The request for "white papers" will extend through September 2014, and then commanders and defense officials will weigh how to proceed while taking into account growing pressures on the Pentagon budget, said spokesman Roger Teel of the Army's Research, Development and Engineering Command, or RDECOM.

The new combat armor might also employ "liquid armor," reminiscent of the "Terminator" films, though the technology is still in an early stage of development, Teel told AFP.

The liquid would transform into a solid if a magnetic or electrical charge was applied.

"There is a liquid armor that they are looking at developing," said Teel, adding that scientists at MIT were studying the idea. "It could possibly be turned on with a battery switch" to deflect gunfire, he said.

TALOS "is an advanced infantry uniform that promises to provide superhuman strength with greater ballistic protection," according to an

earlier statement from RDECOM.

In a crude animated demonstration video released by the army on how the combat suit might operate, a soldier in science fiction-inspired gear stands in a doorway as bullets bounce off at close range from an unidentified enemy.

While ominous music plays in the background, the words "to be continued..." flash upon the screen.

The project's acronym, TALOS, refers to the automaton of Greek mythology made of bronze that Zeus deploys to safeguard his lover Europa.

Despite previous weapons programs that came to little, officials say the technologies for the ambitious project are not out of reach, even if they sound more like the stuff of myth or movie.

The concept of providing virtual displays of battlefield forces in a soldier's helmet screen resembles similar efforts already underway for a sophisticated helmet for pilots flying the new F-35 fighter jet.

Reflecting advances in robotics and computing power, the TALOS suit is part of a trend in current research focusing on what defense industry experts call "man-machine interface," aiming to dramatically increase the capabilities of a single soldier.

Officials said the TALOS project is the brainchild of Admiral William McRaven, head of special operations command, who rose to prominence presiding over the Navy SEAL raid that killed Al-Qaeda mastermind Osama bin Laden.

"I'm very committed to this," McRaven told an industry conference in

July. "I'd like that last operator that we lost to be the last operator we lose in this fight or the fight of the future, and I think we can get there."

As the proposed suit would draw on a range of technical disciplines, the military expects the project to be developed jointly by academia, government scientists and technology firms, officials said.

Special Operations command is "interested in receiving white papers from a wide variety of sources, not just traditional military industry but also from academia, entrepreneurs and laboratories capable of providing the design, construction and testing of TALOS related technologies," said James Geurts, acquisition executive for the command.

And officials said it was too early to offer any cost estimate.

Although defense officials acknowledge the project evokes comparisons to Tony Stark's superhero suit from the "Iron Man" movies, they note that no one is claiming the smart armor will enable soldiers to soar like a plane over cities.

"It's not going to fly. It's not going to be all that," Teel said. "But it's going to be special."

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