ONR looks to lighten the load for Marines

Eurekalert!

ARLINGTON, Va.—Marking a return to its high-mobility, high-tempo expeditionary roots, the Marine Corps is focused on the need to "Lighten the Load" for the warfighter—and the Office of Naval Research (ONR) is putting heavy effort into innovative new technologies that will help.

The Corps-wide vision goes beyond just physical weight reduction for weapons or other platforms. The goal is to help the individual Marine, and the Marine Air-Ground Task Force as a whole, to out-think, out-maneuver and out-perform the enemy. That three-pronged approach to "lightening the load" finds ONR scientists developing a host of technologies, including: finding new ways to improve fuel efficiency; creating advanced individual warfighter protection; designing programs to filter intelligence reports—and even creating modular trucks that can be swiftly tailored to fit individual missions.

"It's about options," said Marine Capt. Frank Furman of the concept. "Think about an iPhone, for example—they're great because you can incorporate new technologies, new apps. 'Lighten the Load' is similar—we want adaptable technologies that make us more expeditionary."

Progress is taking place on many fronts.

Out-Think: In September, for instance, ONR scientists successfully completed a series of cloud computing-based demonstrations for intelligence analysts—with the goal of making it easier to more efficiently utilize massive amounts of information coming in from a wide array of modern sources, including UAVs, satellites and sensors.

Getting faster, more precise and comprehensive data to Marines on the ground reduces the need for localized servers or devices that store large amounts of data. And it lightens the cognitive load on decision makers as well, focusing their attention on the information they need to know—when they need to know it.

Out-Maneuver: As mobility in difficult terrain has become an increasingly important strategic element, Marine Commandant Gen. James Amos compares the adaptability required by Marines to that of a middleweight boxer who can fight in different weight classes—with the punch of a heavyweight, but the speed of a lower weight class.

ONR scientists are working on advanced, flexible body armor with precisely this kind of adaptability—it has the protection of heavier existing systems, but allows the warfighter more mobility.

Out-Perform: A precision-targeting mortar round, called PUMA, and advanced mixed

reality and immersive training technologies—in a program called Future Immersive Training Environment—give the Marines new systems and training tools to conduct military operations.

A new video from ONR, titled "Lightening the Load," shows a number of technologies from ONR to aid the Marines as the service reemphasizes mobile, amphibious capabilities. The video can be found at the following link: http://youtu.be/yBABixGoJ7I.

Source: http://www.eurekalert.org/pub_releases/2012-10/oonr-olt101012.php [1]

Source URL (retrieved on *08/20/2014 - 7:25pm*):
http://www.ecnmag.com/news/2012/10/onr-looks-lighten-load-marines

Links:
[1] http://www.eurekalert.org/pub_releases/2012-10/oonr-olt101012.php