DEFENSE REVIEW

Rostec Active and Passive Exoskeleton Technology in the Works for Russian Military Ratnik-3 Future Soldier Program

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Photo(s) Credit: Rostec or TASS Russian News Agency. Note: Embedded photos have been enlarged and enhanced by DefenseReview (DR) for better viewing.

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As if "stealth camouflage" adaptive camouflage/visual cloaking tech isn't enough, Russian military defense contractor Rostec just demonstrated "operative passive exoskeletons" for Russian Ratnik-3-type future soldiers/warfighters. Oh, and they're not done. Rostec is also reportedly developing an active exoskeleton, and they've already designed a prototype that'll be shown at an exhibition, soon. So, it would appear that US military infantry warfighters are going to have their hands full, if World War III (WWIII) ever breaks out, and the Russians are on the opposition.

According to *Army Technology*, the Rostec passive exoskeleton tech was co-developed by the Central Research Institute for Precision Machine Building (TSNIITOCHMASH), which is part of Russia's Rostec State, and GB Engineering. Made from lightweight carbon fiber, the passive exoskeleton hardware enhances the soldier's physical capabilities (strength, speed, etc.), while also protecting his/her spine and joints–and it's height-adjustable. It enables the soldier to carry up to 50kg (110.231 lbs) extra weight during "long marches and assaults".



This is the part that intrigues DefenseReview (DR), though:

"The passive exoskeletons are completely autonomous and require no power sources, servomotors, electronics and sensors."

We're interested to see how that actually works, and how its capabilities differ from the active exoskeleton tech, which we assume is

even more capable in terms of strengh, speed and load-bearing enhancement.

Defense Review will try to glean as much information as possible on Rostec's active exoskeleton technology, and do a follow-up piece on it. If it weren't already being used for yogurt, a good name for the technology would be "Activia"–has a nice Russian ring to it.

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Lockheed Martin HULC (Human Universal Load Carrier) Anthropomorphic Robotic Exoskeleton for Future Military Special Operations Forces (SOF) Warfare at SOFIC 2012 (Video!)

Berkeley Bionics/Lockheed Martin Human Universal Load Carrier (HULC) Biomechanical Military Combat Exoskeleton Developed for Future Soldier/Warfighter Performance Enhancement: Bionic Super Soldiers on the Way?

Super Soldiers of the Future: Berkeley Lower Extremity Exoskeleton (BLEEX).

DR Exclusive Interview!: HyperStealth Quantum Stealth (QS) Light-Bending Passive Adaptive Camouflage (Camo)/Visual Cloaking Technology for the 21st Century Future Soldier/Warfighter: Beyond SMARTCAMO Color-Changing Hybrid Camouflage, Beyond Fictional Alien Predator's Active Electro-Optical Camouflage/Invisibility Cloaking Tech!

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VATEC Concealment Solutions (VCS) Flexible Multispectral 3D Combat Camouflage System: Texturized Individual and Vehicle Camouflage by Polaris Solutions (Israel) and ReadyOne Industries Conceals Your Visible-Light and Thermal/IR (Infrared) Signatures from the Enemy! (Video!)

Russian Ratnik-3 (Warrior-3) Infantry Combat System with Exoskeleton to Turn Future Russian Military Infantry Soldier/Warfighters into 'Supermen'? Let's Hope Not.

Russian Nano-Armor Coming in 2015 for Future Soldier 'Warrior Suit', and Russian Spetsnaz (Military Special Forces) Already Running Improved 6B43 Composite Hard Armor Plates, New Plate Carriers and Combat Helmets, AK Rifle/Carbines, GM-94 Grenade Launchers and other Tactical Gear in Crimea, Ukraine