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Gore/Raven Aerostar NEMESIS 'Turkey Suit' Multispectral Combat Camouflage Suit/Garment, Personal Hides and Equipment Covers: Anti-Thermal/IR (Infrared)/Anti-Radar Camouflage Technology for 21st-Century Special Operations Forces (SOF) Warfighters and Future Warfare

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Photo Credit: Raven Aerostar

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National Defense Magazine recently published a short piece on the NEMESIS "Turkey Suit", a multi-spectrum/multispectral combat camouflage/"signature concealment" (i.e., signature management) suit/garment developed for infantry warfighters and security personnel by Raven Aerostar and W.L. Gore & Associates (Gore®, makers of GORE-TEX fabric) that includes anti-thermal/IR (infrared)/anti-radar camouflage properties in the mix. That piece was subsequently picked up and referenced by *Forbes* Magazine on December 28th (2013). Both articles apear to be based on the Raven Aerostar press release on the new technology, which also includes personal hides and equipment covers and appears to be reminiscent of the Blucher Systems Ghost soldier/warfighter camo and Spectralflage vehicle camo that DefenseReview (DR) reported on back in April, 2011.

The *National Defense* piece states that the Nemesis textile material "randomly breaks up and dissipates body heat so that the user's silhouette is no longer visible when seen through an infrared device," according to John Holcombe, business leader for advanced military products at Gore. According to the piece, the goal of the NEMESIS tech is to match normal ground clutter as much as possible by reflecting the energy fromt the surrounding combat environment and scattering it. The NEMESIS Turkey Suit lets heat from the body "escape randomly", so as not to get too hot (and sweaty!) inside or create an artificial-looking cold spot outside for the thermal/IR sensor. "You actually want some hot spots, some cold spots. You want it to look non-human," says Holcombe.

Worn as an overgarment (just like a sniper's ghillie suit) conceal the wearer's heat signature, the Nemesis Turkey Suit garment is comprised of a hooded jacket, pants and face shield that mimics leaves for the thermal/IR sensor

or viewer and cuts detection by more than half, from approximately 5,000 down to less than 2,500 feet, maximizing the warfighter's element of surprise and minimizing the enemy's time to react to the threat.

The NEMESIS tech isn't viable is for desert warfare environments, since living organisms are much colder than the surrounding environment and will show up no matter what, allowing the sensor or viewer to detect the wearer's shape and movement. Concealing the wearer's heat signature from multi-spectral electro-optical/infrared (EO/IR) sensors is one thing, but concealing his radar signature is another. Obviously, the NEMESIS fabric also features a radar-absorptive aspect. Defense Review already has a message into Abby O'Hara of Raven Aerostar to try to find out more about this and get some additional info on the NEMESIS multispectral camo tech. When we do, we'll either modify this article accordingly or publish a follow-up piece, depending on what we get.

DR is curious as to whether or not Guy Cramer of HyperStealth Biotechnology Corp. has anything to do with the Nemesis tech, or whether or not the new fabric can be integrated with HyperStealth Quantum Stealth visual-spectrum adaptive camouflage/visual cloaking tehnology or HyperStealth SMARTCAMO color-changing camouflage materials, which DR covered back in May, 2011. We'll try to find that out, as well.

In the meantime, stay tuned, and don't change that dial.

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