Lockheed Martin Introduces Secure Wireless Tagging And Tracking Capability For Managing Sensitive Assets

HUNTSVILLE, Ala., Feb. 20, 2014 /PRNewswire/ -- Accurate tracking of munitions and other assets in harsh and/or sensitive environments is now possible through a wireless automatic identity technology introduced by Lockheed Martin (NYSE: LMT).

Working with Visible Assets, Inc., Lockheed Martin co-developed sensitive item tracking capabilities that use magnetic fields to track assets in locations where traditional radio frequency technologies (RFID) encounter challenges.

"Historically, tracking sensitive items has been a very manual process demanding hundreds of man hours in sometimes volatile explosive environments," said Dr. Robert Smith, vice president of C4ISR for Lockheed Martin Information Systems and Global Solutions. "This unique system not only tags and tracks sensitive items and fused munitions at zero separation, it also incorporates advanced sensors that can be used for predictive maintenance of weapons."

Based on the international wireless protocol standard (IEEE 1902.1), this electromagnetic tagging and tracking solution, called RuBee®, can be used to identify and track a variety of sensitive items including fused ordnances, firearms, night vision goggles and flack jackets. Each item is outfitted with a wireless visibility tag, which can be read and located anytime from the RuBee network.

One example of this application is the Lockheed Martin Armory, which allows all tagged items be networked and housed on "smart racks." The smart rack allows users to physically audit all items several times each day without any human help or intervention.

Because RuBee tags operate on electromagnetic, rather than radio frequency wavelengths, solutions based on this technology offer extremely high levels of security. Data passed through these channels operate more like secure peer-to-peer networks, and are less prone to outsider attempts to access information. RuBee visibility solutions are currently used in many high security U.S. government and international facilities.

Independent tests carried out by the U.S. Navy concluded that RuBee tags, readers and base stations pose no risk to munitions and have no negative effects on military fuel. These tests marked the first time the U.S. Navy found no required safe separation distance for wireless technology under the Hazards of Electromagnetic Radiation to Ordinance (HERO); other technologies require separation from munitions ranging from three to 12 feet to prevent inadvertent activation or disablement.

"Obtaining a zero safe separation distance under the HERO military standard for fused ordnance was a landmark event and means that RuBee can safely provide real-time audits, accountability, pedigree, diagnostics and security to a wide variety of explosive devices, ordnance and munitions stored in the many thousands of sensitive item stores and facilities around the world," said CEO and Chairman John Stevens, Visible Assets Inc. "We look forward to many new worldwide opportunities with Lockheed Martin as a long-term partner."

This tracking solution can also be used to ensure readiness and maintenance of weapons. Using the same RuBee technology, the Allegro Weapon Shot Counting can identify optimal maintenance periods for weapon parts as well as help detect performance anomalies before they lead to weapon failure. In addition to determining normal wear based on rounds fired, the rate of fire statistics and temperature readings show how the rounds were fired and provide early warning signs for required cleaning, gas port erosion and cracked bolts.

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs approximately 115,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2013 were $45.4 billion.

For more information, visit: Lockheed Martin C4ISR Systems.

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