Lockheed Martin Indago 3 Unmanned Aerial System (UAS) Supports Long-Range Secure ISR With Software By TrellisWare Technologies



Indago 3 is a military-grade, all-weather quadrotor UAS equipped with TrellisWare Technologies software to provide a long-range, secure ISR platform for sensitive military operations. Photo courtesy Lockheed Martin.

VINEYARD, Utah, May 8, 2017 – The newest version of Lockheed Martin's [NYSE: LMT] Indago quadrotor unmanned aerial system (UAS), Indago3, now enables military customers to securely complete sensitive intelligence, surveillance and reconnaissance (ISR) missions with the addition of TrellisWare Technologies MANET software products.

Compared to previous versions of Indago, the enhanced Indago 3 system offers:

- Improved propulsion technology for reduced noise signature and extended flight time:
- Military-grade encrypted and secure data link;
- Secure, mesh capable video dissemination across multi-node networks and
- Extended range radio for long distance operation at low-flight altitudes.

Along with a low acoustic and visual signature during startup and flight, Indago 3 is also available in haze grey, which minimizes visual detection during missions. Depending on payloads, Indago 3 has a flight time of up to 50 minutes, a range of 10 kilometers and a cruise speed of 25 mph and can operate at temperatures as low as 30-degrees below zero, and as high as 120 degrees.

"Indago 3 gives our customers a quiet, durable, long-range system to complete sensitive operations with a small UAS," said Rich Bonnett, Indago program manager, Lockheed Martin unmanned systems. "Our military customers tell us that Indago 3 gives them superior security, reliability and ruggedness compared to other UAS. We continue to enhance the Indago system based on customer feedback."

Indago 3's minimal radio frequency footprint is achieved by using the TW-600 Ocelot $^{\text{\tiny M}}$ module by TrellisWare.

"The Ocelot module, equipped with TrellisWare's robust TSM™ networking, is built specifically for integration into UAS," said Matt Fallows, Director of Applications & Systems at TrellisWare. . "We are pleased to partner with Lockheed Martin to help enhance Indago 3's airborne networking in challenging environments with reliable and long range connections."

The collapsible Indago quadrotor UAS weighs less than 5 lbs. and folds into a man-packable unit that requires no tools for assembly. Indago can be unfolded in 60 seconds, and airborne in just 2.5 minutes. Indago 3 offers additional durability for operation in harsh environments and weather conditions.

Lockheed Martin Procerus Technologies is the original equipment manufacturer of the Indago system and other unmanned aerial products including flight control systems, rotorcrafts, and fixed wing systems.

Lockheed Martin has five decades of experience in unmanned and autonomous systems for air, land and sea. From the depths of the ocean to the rarified air of the stratosphere, Lockheed Martin's unmanned systems help our military, civil and commercial customers accomplish their most difficult challenges.

For more information about Indago, visit: www.lockheedmartin.com/Indago. For additional information about Lockheed Martin autonomous and unmanned systems, visit: www.lockheedmartin.com/unmanned.

About TrellisWare Technologies, Inc.

TrellisWare Technologies is a privately held company based in San Diego, California. The company launched in 2000 with an innovative culture striving to push technological boundaries in the areas of wireless communications. TrellisWare is now a worldwide leader in highly advanced algorithms, waveforms, and communications systems that range from small form factor radio products to fully integrated multi-function solutions. TrellisWare is delivering the next generation of communications for military and commercial markets When Nothing Else Works™. To learn more, please visit www.trellisware.com.

About Lockheed Martin

Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 97,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

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