



Vanilla Unmanned & IMSAR demonstrate enhanced surface-search for Group III UAS

Press release

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KEY WEST, FL – Vanilla Unmanned and IMSAR successfully demonstrated a Group III UAS flying both radar and Electro-Optical/Infra-Red (EO/IR) imaging simultaneously for an enhanced, long-endurance surface-search capability. The radar and EO/IR-enabled Vanilla conducted a >20 hour beyond visual line of sight (BVLOS) maritime sortie during a July USNAVSO/FOURTHFLT Fleet Experiment, landing with an additional 28 hours of fuel remaining.

IMSAR's NSP-5 radar system was carried as an external payload on Vanilla's wing pylons, and a WESCAM MX-8 was carried as a retractable nose bay payload. The sortie represents the longest continuous flight for IMSAR's radar system and IMSAR's first occasion of command & control and transmission of real-time data products over satellite communications (SATCOM).

The USNAVSO/FOURTHFLT flight marked another advancement in Vanilla's long-endurance maritime capability and the first operational demonstration of an active external payload.

Vanilla's demonstrated long endurance, BVLOS, multi-sensor payload capability addresses limitations with current Group III systems that provide only EO/IR sensing solutions at limited endurance and range. During the flight, real time radar products, EO/IR imagery, and Command & Control (C2) data were passed via SATCOM to operators at Naval Air Station Key West. The combination of sensors illustrated the power of wide-area detecting and tracking with radar, cross-cueing sensors, and subsequent identification with EO/IR.

NSP-5 is a program of record-based, all-weather, day and night multi-mode radar. Operating from Vanilla UAS, the NSP-5 demonstrated real-time SAR imaging, Maritime Moving Target Indication (MMTI) and Inverse SAR (ISAR). The multi-mode NSP-5 is also capable of Coherent Change Detection (CCD), and Ground and Dismount MTI (GMTI/DMTI) over land. Together, the Vanilla and NSP-5 present a highly capable persistent ISR solution.

If you're interested in hearing more, please contact Greg Pappianou, Platform Aerospace's Chief Growth Officer (greg.pappianou@platformaero.com) or Ryan Bartley, IMSAR's VP of Business Development (ryan.bartley@imsar.com).

About Platform Aerospace & IMSAR
Platform Aerospace is a service-disabled veteran-owned small business (SDVOSB) dedicated to supporting the warfighter and its customers' success. Platform is AS9100D and ISO 9001:2015 certified, and specializes in manufacturing, aviation modification and prototyping, and cutting-edge aerial ISR products.

IMSAR LLC is a privately owned small business based in Springville, UT, that specializes in lightweight, low-power Synthetic Aperture Radar (SAR) and radar image processing. IMSAR first introduced its core hardware, the NanoSAR radar, in 2008. Since then, IMSAR has continued to enhance the capability and reduce the size of its flagship radar systems. For more information, visit www.imsar.com.

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