ISS Aerospace Unveils the Sensus 8 Multimodal Autonomous UAS

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ISS Aerospace (www.issaerospace.com), a leading UK innovator of **cutting-edge** Uncrewed Aerial Systems, is pleased to announce the unveiling of the Sensus 8 multi-sensor UAS. This product brings to market a truly flexible drone platform that integrates, in a modular nature, multiple, large, **industrial sensors** to be able to gain rapid **fused mission data**, utilising **edge computing**.

Several configurations of the Sensus 8 platform will be on display at Drone X, Excel London, on the 7th and 8th of September.

The flagship model integrates Ground Penetrating Radar, LiDAR, Thermal, and Multispectral sensors. It utilises a universal central payload bay, complimented by fore and aft modular sensor rails. Thanks to its 25kg maximum payload capacity and efficient design, the system is well suited to take large LiDAR sensors such as the ASTRALiTe EDGE topo-bathymetric scanner and Yellowscan Voyager/Explorer (pictured).

Data is recorded and **Edge-Processed** onboard reducing the need for large bandwidth RF links to a ground control station. Processed data is **fused** in the onboard Intel I9 workstation allowing for easy to interpret data sets, which support **critical decision making** in a timely manner.

System architecture networks the autopilot, avionics and Intel workstation with an onboard **Nvidia Xavier AI** board. This gives **supercomputer** level processing opportunities in flight and in real time. A natural evolution of the architecture is for autonomous operations based on collected sensor data. As the system generates and records vast amounts, it can be used in real time for navigation, avoidance and on the fly tasking.

The technology was proven earlier this year as part of the UK MoD/Dstl “Map the Gap” challenge - a 6-month rapid R&D cycle to produce a robotic and autonomous system survey capability to enable military bridging of wide, wet gap crossings.

Ryan Kempley, Founder and CEO of ISS Aerospace said “It has been a long-term goal to produce a truly universal and modular UAS solution capable of delivering data from multiple sensors, in real time, to aid critical decision making in both the commercial and defence sectors. Sensus 8 now achieves this with its **multi-modal**, data fusion capabilities. Open architecture allows the onboard processing and universal sensor integration to be accessed and exploited by the end user.”

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