

Thales completes successful first flight of new UAS with range capabilities of over 100 km

- With a hybrid propulsion system for optimum safety, endurance and discretion, Thales's UAS 100 long-range unmanned air system for civil, government and military users will be able to operate at ranges of more than 100 km.
- UAS 100 combines world-class flight safety performance with the compact design required for unmanned air systems, and complies with future European regulations for drone flights over populated areas.
- The system will meet the requirements of a broad range of missions, including infrastructure inspection, coastal surveillance, border surveillance, event security, search-and-rescue and military operations.



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Thales has successfully completed the first flight of a half-scale prototype of its UAS 100 long-range unmanned air system. Developed in partnership with Issoire Aviation and Hionos, and with the support of the French Ministry of the Armed Forces via the Defence Innovation Agency (AID), UAS100 will help meet demand for more cost-effective drone missions with a lower environmental impact.

Unmanned air systems have significant commercial potential, with hundreds of thousands of drones due to enter service over the next 10 years. As a result, airspace management and the aerospace ecosystem will become considerably more complex, creating new safety and security

challenges and obliging civil aviation authorities to tighten their regulatory demands. To meet these challenges, Thales is proposing a long-range, long-endurance UAS developed with the support of the AID and capable of meeting future flight safety, security and certification requirements.

From infrastructure inspection, coastal surveillance, border surveillance and event security to search-and-rescue and military operations, UAS100 will meet mission requirements while operating in full compliance with general aviation regulations. Its flight avionics combine the certified levels of flight safety and security of Thales's solutions for the aerospace sector with the low weight and compact design needed for integration on board a light UAV.

The UAS 100 system will offer range capabilities in excess of 100 km and its jam-resistant navigation system will ensure safe operation even in dense or cluttered electromagnetic environments. It is powered by two electric motors as well as an internal combustion engine, guaranteeing the discretion needed to accomplish its missions and operate over populated areas, while ensuring the necessary endurance and resilience to failure.

With a level of system redundancy and security unmatched on the light UAS market today, the Thales solution will natively meet the requirements of the new European SC-LUAS (Special Condition - Light Unmanned Aircraft Systems) regulations. The system will reduce operating costs and improve the environmental footprint of drones, opening up new opportunities for inspection and surveillance operations and expanding the capabilities of government services and the armed forces.

The innovation has been developed in record time thanks to a close partnership between Thales, Isoire Aviation and Hionos. Isoire Aviation, pioneer of the all-carbon aircraft, has provided unique know-how in aerostructure design and manufacturing, while Hionos has made an important contribution to the project with its autopilot software solutions for drones.

"With this new long-range UAS, Thales is providing the trusted solution needed for civil, government and military inspection and security applications. As well as meeting today's operational requirements, the new system paves the way for the air mobility solutions of tomorrow." **Yannick Assouad, Executive Vice-President, Avionics, Thales**

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