

Thales avionics solutions on first FLYING WHALES airship for safe flight operations

- FLYING WHALES has selected Thales's certifiable FlytX avionics suite and new flight control computer for its first LCA60T airship.
- These certifiable solutions from Thales will provide the capabilities needed to ensure safe flight and optimum manoeuvrability.
- FLYING WHALES and Thales will work together closely to achieve qualification of the LCA160T's onboard technologies by 2024.



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FLYING WHALES has selected certifiable avionics solutions from Thales for its first LCA60T airship. Thales will supply the dual-screen version of its FlytX avionics suite and its latest-generation critical flight control computer. These innovative, compact solutions are ideally suited to ensuring that the future LCA60T flies safely and efficiently. FLYING WHALES and Thales both have strong local roots in the Nouvelle-Aquitaine region of southwest France and will work hand-in-hand to achieve full certification of the airship.

To help ensure a more sustainable future, the giant heavy-lift airship developed by FLYING WHALES is the only solution of its kind to combine huge payload capacity with remarkable operational flexibility. The LCA60T (Large Capacity Airship – 60 Tonnes) is designed to carry up to 60 tonnes of cargo and load and offload in stationary flight to serve hard-to-reach locations. The FlytX avionics suite and new flight control computer from Thales will give the first LCA60T the capabilities needed to ensure safe flying and optimum manoeuvrability.

The FlytX "cockpit of the future" solution has been well received by helicopter pilots and is perfectly suited to the specific needs of future LCA60T aircrews. Based on the latest digital technologies and

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featuring two 15-inch touchscreen interfaces, it includes an intuitive user interface to provide quick and easy access to information, reduce pilot workload and maximise performance and safety. Fully connected, FlytX can be easily interfaced in flight and on the ground with open-world applications with end-to-end cybersecurity protection.

The flight control computer is the brain of the system, relaying instructions from the pilots to the actuators and playing a critical role in ensuring precise control of the airship. Drawing on its experience as a pioneer of fly-by-wire control for commercial aircraft in the 1980s, Thales plans to develop a new generation of flight control computers in Quebec that will combine the highest levels of integrity and performance with an ultra-compact form factor. This system will relay the commands of LCA60T pilots for perfectly controlled flight.

Flight tests of the LCA60T equipped with Thales solutions will commence in 2024. The first LCA60Ts will be assembled in Laruscade in the Nouvelle-Aquitaine region, not far from the headquarters of Thales's avionics business in Mérignac.

"Thales has really taken into account our specific needs as an innovator to integrate their avionics solution on the LCA60T. The success of our airship hinges on our ability to work with real partners that can offer the flexibility and agility we need to complete our development work, and Thales is a prime example of that kind of partner." – **Vincent Guibout, Vice CEO and Chief Technical Officer of FLYING WHALES.**

"We are especially proud that our flight safety expertise is contributing to the development of tomorrow's sustainable transport solutions with FLYING WHALES." – **Marc Duval-Destin, VP Strategy, Product Policy and Innovation for Thales's flight avionics business.**

About Thales

Thales (Euronext Paris: HO) is a global leader in advanced technologies, investing in digital and "deep tech" innovations — connectivity, big data, artificial intelligence, cybersecurity and quantum computing — to build a confident future crucial for the development of our societies. The company provides solutions, services and products that help its customers — businesses, organisations and states — in the defence, aeronautics, space, transportation and digital identity and security markets to fulfil their critical missions, by placing humans at the heart of the decision-making process.

Thales has 81,000 employees in 68 countries. In 2020, the Group generated sales of €17 billion.

About FLYING WHALES

FLYING WHALES is a French company whose innovations and expert teams, with the backing of its industrial consortium, have enabled it to develop an ambitious and unique programme: the LCA60T. The LCA60T is a heavy-lift airship for transporting large and bulky loads, with a payload capacity of 60 tonnes. It is 200 m long and has a vast cargo bay measuring 96 m (L) by 8 m (W) by 7 m (H). The LCA60T is supported by 10 unpressurised helium cells and powered by a 4 MW hybrid electric propulsion unit. Like any other aircraft, the LCA60T will be certified to guarantee maximum flight safety. The LCA60T was originally designed for extracting renewable forestry resources from inaccessible areas. With its unique ability to load and offload cargo in stationary flight, the airship

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offers a timely response to logistical issues and the need to access remote locations around the world with an extremely low environmental footprint. This low-cost solution requires no ground infrastructure and effectively solves the problem of point-to-point delivery of heavy and bulky payloads. FLYING WHALES is also developing FLYING WHALES Services as an operating company for the LCA60T.

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