

Amelia and Thales announce the successful large-scale deployment of their contrail-avoidance project

Solution reduced the climate impact of flights, saving more than 2,000 tonnes of CO₂-equivalent emissions in one year



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Airline Amelia and Thales today announced the successful large-scale deployment of their contrail-avoidance solution. This initiative, [launched in 2024 on Amelia flights between Paris and Valladolid](#) (Spain), optimizes flight plans by modifying aircraft altitude rather than lateral trajectory in order to avoid the formation of condensation trails (contrails). This reduces the climate impact of each flight while limiting additional fuel consumption.

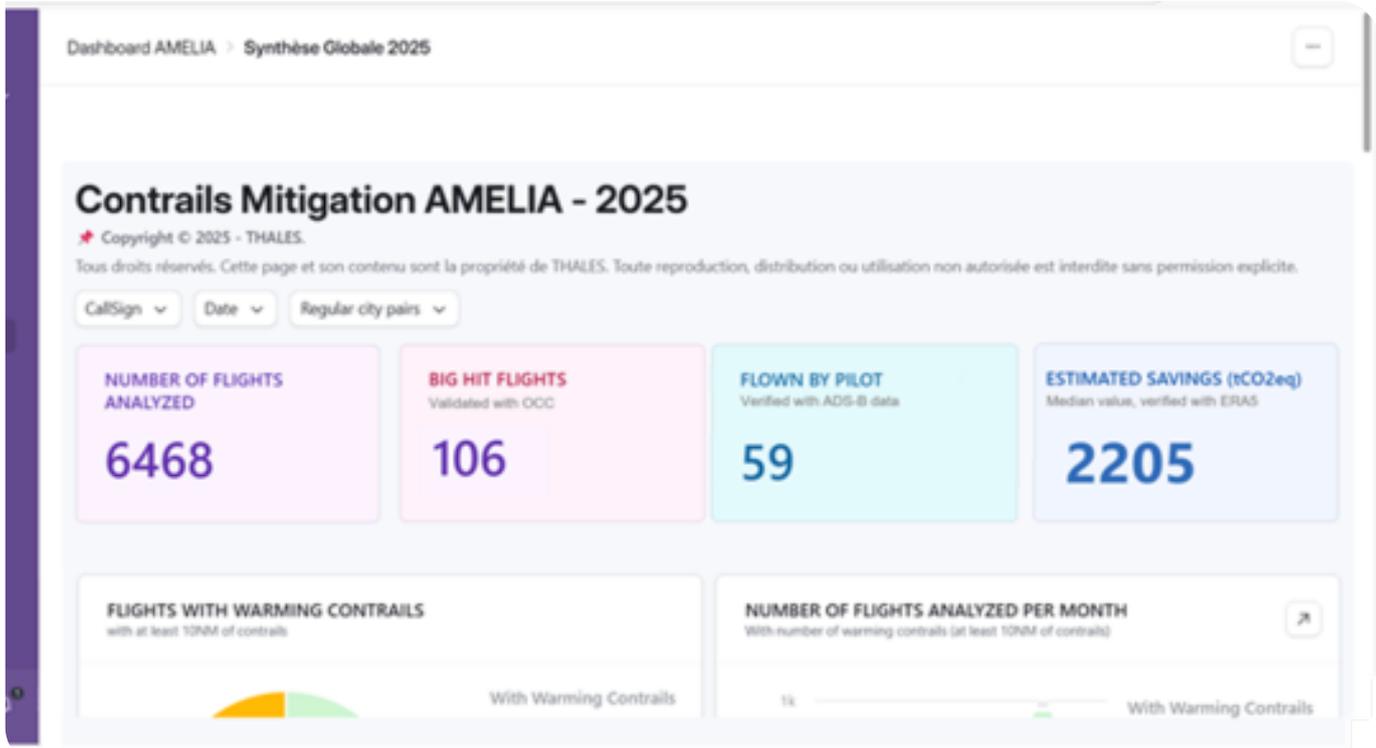
In 2025, Amelia deployed this solution across all eligible flights, including Airbus A319/320 and Embraer ERJ-145 aircraft. According to the climate-impact estimation models used, this avoided more than 2,000 tonnes of CO₂e during 2025 and reduced the average climate impact¹ per flight by around 70%. The initiative is part of the [DECOR](#) project, supported by the France 2030 investment plan.

Contrails represent a significant but concentrated share of aviation's climate impact - about 5% of flights generate up to 80% of this effect.

A pragmatic approach that pays off: more than 2,000 tonnes of CO₂e avoided*

Far from purely theoretical approaches, Amelia chose precision by focusing on "big hits" - the rare flights where atmospheric conditions favour the formation of persistent contrails with strong warming potential. Selecting these "big hits" helps account for the uncertainty associated with modelling the phenomenon by concentrating avoidance efforts only on cases where the environmental benefit is greatest. The results for 2025 speak for themselves:

- **2,000 to 2,500 net tonnes of CO₂ equivalent avoided after reanalysis using state-of-the-art models**, due to adjustments to flight plans.
- **Only 59 flights** modified over the entire year, out of more than 6,400 flights operated in 2025, were needed to achieve this result.
- **Controlled additional fuel consumption:** the total impact of these changes remained below 0.1% additional fuel consumption across the annual total of the affected flights.



A simplified and robust implementation

The operational maturity of the solution developed by Amelia and Thales - mainly involving adjusting altitude before submitting the flight plan - facilitated its integration into Amelia's flight preparation process across all teams.

"By targeting high-impact flights, we remove the barrier of scientific uncertainty about the magnitude of the phenomenon and focus on immediate action." **Adrien Chabot, Director of Sustainability at Amelia.**

The results were analysed and verified by the scientific start-up Klima. Validation also included spot checks using ground-based cameras with support from SII and Reuniwatt, establishing a direct link between predicted avoidance and the actual observation of contrails on Amelia flights and nearby flights.

“This success is part of Thales’ strategy: harnessing technology to accelerate the transition towards more sustainable and responsible aviation. By integrating contrail avoidance into flight-planning tools, we are demonstrating that measurable climate benefits are possible at scale.”

Yannick Assouad, Executive Vice President, Avionics, Thales.

Looking ahead to 2026

Building on these results, Amelia will continue deploying these solutions in 2026. The objective is to encourage the systematic integration of non-CO₂ impacts into the aviation sector’s decarbonization strategies and into preparations for future European regulatory requirements.

Note on methodology used:

The effects caused by condensation trails (“contrails”) represent a major - though complex - component of aviation’s climate impact. According to current radiative forcing models, their contribution to global warming is estimated to be of the same order of magnitude as CO₂, although the warming mechanisms associated with these two effects are very different.

¹ *Combined impact of CO₂ and non-CO₂ effects*

Climate-impact calculations are based on a methodology using the CoCiP model, **ERA5 reanalysis meteorological data, and are expressed in **EGWP100** (Effective Global Warming Potential over 100 years) to ensure rigorous comparison with CO₂ emissions.*

About Thales

Thales (Euronext Paris: HO) is a global leader in advanced technologies for the Defence, Aerospace, and Cyber & Digital sectors. Its portfolio of innovative products and services helps address several major challenges: sovereignty, security, sustainability and inclusion.

The Group allocates €4.5 billion per year in Research & Development in key areas, particularly for critical environments, such as Artificial Intelligence, Cybersecurity, Quantum and Cloud technologies.

Thales has more than 85,000 employees in 65 countries. In 2025, the Group generated sales of €22.1 billion.

About Amelia

A major player in the aviation industry in Europe and Africa since 1976, Amelia is a French aeronautics group that ensures flight operations and the monitoring and maintenance of its aircraft. Amelia's fleet, consisting of 18 aircraft, meets the needs of its various activities, chartering on behalf of major international airlines, medical evacuations, and charter flights. Amelia is a member of IATA since November 2022, endorsing the wider Fly Net Zero commitment to reach net zero emissions by 2050.

Media Relations

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