

ATN Multilink Expansion in European Airspace

One link, many networks. AMEA demonstrates that several air-ground communication links can work together in daily flight operations, so that a datalink message between pilots and controllers always finds its way.

DURATION

48 months

1 Oct 2025 to 30 Sept 2029

EU CONTRIBUTION

EUR 26.9 M

Connecting Europe
Facility, Transport

CONSORTIUM

16 partners

Coordinated by Collins
Aerospace

FLIGHT CAMPAIGN

2027–2029

47 Iris-equipped aircraft in
Sept. 2026, more than 200
targeted

Why multilink

Aviation connectivity enables data exchange between aircraft and ground stations in support of safe, sustainable and efficient air traffic management. Today's safety services rely on VDL Mode 2, a terrestrial datalink that faces increasing congestion in European airspace.

SESAR research recommended a multilink infrastructure to address this congestion: next-generation technologies complement existing links through seamless switching. AMEA accelerates their deployment.

Building on ESMA

AMEA is the direct operational extension of ESMA, the SESAR demonstrator that validated initial Iris SATCOM and IPS capabilities for SESAR Solution #109 (air traffic services datalink using SatCom Class B). Where ESMA proved the technology, AMEA moves to large-scale demonstration in normal commercial operations.

Two complementary demonstrations

Multilink ATN/OSI. Extend the ESMA baseline with multilink capabilities within aircraft avionics and ground ATM networks, across several communication service providers, so that resilience and system performance with high volumes of data exchange can be measured and analysed.

Next-generation ATN/IPS. Implement and validate the secure, IP-based air-ground network of the future, with a scalable public key infrastructure, airborne IPS avionics and next-generation gateways.

From early 2027 to September 2029, the consortium validates concrete ATS B1 and B2 scenarios in European airspace on aircraft from partner airlines during normal commercial flights. The ATN/IPS network is validated lab-to-lab from 2028, around Boeing's aircraft systems laboratory in Seattle.

Key messages

Airlines: more airspace users experience operational multilink, which provides reliable and efficient datalink communication.

Technology: next-generation datalink (ATN/IPS) brings extended performance and features, including security.

Air navigation service providers: wide multilink deployment enables capacity increases and more reliable communication, while reducing aviation's carbon footprint.

The consortium

Aircraft manufacturers, avionics suppliers, communication service providers, airlines, air navigation service providers and EUROCONTROL: the expertise, resources and vision to manage the complex integration and expansion of multilink capabilities across Europe.

Collins Aerospace	Coordinator · avionics	KLM	Airline
Airbus	Aircraft manufacturer	ENAI	Air navigation services
Boeing	Aircraft manufacturer · research	DFS	Air navigation services
Honeywell	Avionics	DSNA	Air navigation services
Airtel ATN	ATN networks	NATS	Air navigation services
SITA	Communication service provider	EUROCONTROL	European ATM network
Frequentis	Ground communication	Obizco	Communication, dissemination and exploitation
ESSP	Satellite communication services		
Air France	Airline		

Milestones

1 October 2025	Project start, kick-off meetings of the work packages
June 2026	Initial multilink ATN/OSI demonstration plan approved by CINEA and the SESAR 3 JU
September 2026	ATN/IPS demonstration plan submitted
Early 2027	EASA approval of the multi-CSP ground infrastructure, then start of the commercial flight campaign
2028–2029	ATN/IPS lab-to-lab validation exercises
During the project	Two stakeholders' workshops and a demo day, dates to be announced on the website
30 September 2029	Project end

Communication and dissemination

Work Package 4, led by Obizco, carries the key messages to EU airlines, air navigation service providers, the wider industry and institutions, and to non-EU stakeholders for a consistent approach. Channels: the project website, LinkedIn and X, a periodic newsletter, presence at Airspace World and the SESAR Innovation Days, two stakeholder workshops, a demo day and a public demonstration report.

FOLLOW AMEA

Website: ameaproject.eu · LinkedIn: linkedin.com/showcase/amea-project · X: [@AMEAproject_eu](https://twitter.com/AMEAproject_eu) · SESAR JU: sesarju.eu/projects/AMEA

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