

Aircraft Communication Systems - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

Aircraft Communication Systems Market Analysis

The aircraft communication systems market size reached a value of USD 12.12 billion in 2025 and is projected to achieve a market size of USD 17.38 billion by 2030, reflecting a 7.48% CAGR. The main growth catalyst is increasing demand for uninterrupted, secure, and multi-orbit connectivity across commercial, defense, and emerging urban-air-mobility fleets. Airlines are re-positioning connectivity from a cost center to a revenue service, while defense programs continue to upgrade tactical datalinks and satellite terminals for contested environments. Rapid digitalization of cockpit avionics, regulatory mandates such as CPDLC and ADS-B Out, and AI-driven spectrum management are stimulating investment across all aircraft classes. Consolidation among connectivity suppliers-seen in Gogo's Satcom Direct purchase-and sustained fleet growth in Asia-Pacific further reinforce momentum for the aircraft communication systems market.

Global Aircraft Communication Systems Market Trends and Insights

SATCOM-enabled in-flight connectivity surge

Airlines are transitioning to multi-orbit architectures that combine LEO, MEO, and GEO capacity to eliminate latency gaps while preserving global reach. Delta Air Lines selected a Hughes multi-orbit solution for more than 400 aircraft, reflecting a paradigm shift toward viewing broadband connectivity as strategic infrastructure. ThinKom's Ka2517 antennas have logged 17 million flight hours with 98% availability across 1,550 aircraft, proving interoperability and reliability. These service upgrades underpin

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revenue-sharing business models that encourage fleet-wide adoption of high-throughput links, reinforcing top-line growth for the aircraft communication systems market.

Mandatory ADS-B Out and CPDLC compliance timelines

ADS-B Out and domestic CPDLC are now required across US airspace, compelling airlines to retrofit VDL Mode 2 radios and communication management units. Parallel European mandates extend to autonomous distress tracking for aircraft above 27,000 kg from January 2025. Honeywell's PM-CPDLC Supplemental Type Certificate offers a ready pathway to compliance using VHF Data Link radios and CMUs. Compulsory timelines accelerate near-term adoption cycles, lifting the demand for aircraft communication systems.

Certification and DO-178/DO-254 cost burden

DO-178C and DO-254 verification costs rise sharply for multi-core and AI-enabled avionics. Collins Aerospace's Mosarc architecture-recently cleared by the FAA-shows a 75% processing uplift without proportional certification costs, yet overall expense remains a headwind. Smaller OEMs face resource constraints, partially tempering the aircraft communication systems market in the medium term.

Other drivers and restraints analyzed in the detailed report include:

Expansion of APAC narrowbody aircraft fleet / Military fleet retrofit programs for secure communications / Cyber-vulnerabilities in IP-based avionics networks /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Antennas captured 39.89% of the aircraft communication systems market share in 2024, led by electronically steered arrays designed for multi-orbit satellites. Satcom Direct's Plane Simple Ka-band ESA exemplifies a high-gain, low-profile design favored on long-haul fleets. The displays and processors category is forecasted to grow at a 9.67% CAGR through 2030, underpinned by Collins Aerospace's FAA-certified multi-core chips that lift cockpit computing capacity by 75%. The aircraft communication systems market size for displays and processors is on a steeper trajectory than legacy hardware. Transponders maintain steady demand as late-adopters meet ADS-B mandates, while communication management units (CMUs) gain from CPDLC roll-outs. Military counter-measure radios and SWaP-optimized SDR modules round out component demand, extending the breadth of the aircraft communication systems market.

A historical look shows hardware-centric growth, which has given way to software-defined functionality. Thales' FlytX tactile display reduces size and power by 30% and supports incremental certification, illustrating how modularity reshapes upgrade cycles. As modular avionics proliferate, procurement volumes migrate from fixed antennas toward processing platforms, keeping lifecycle revenues balanced across the aircraft communication systems market.

Commercial jets generated 53.67% of 2024 revenue as airlines prioritized broadband connectivity and regulatory compliance. Boeing's plan to acquire Spirit AeroSystems signals greater vertical control of avionics integration, which should streamline communication-system fit-outs across narrowbody production lines. Urban-air-mobility (UAM) programs are projected to post an 11.45% CAGR, the fastest in the aircraft communication systems market, driven by Honeywell's Anthem flight deck on Vertical Aerospace's VX4. Military aircraft funding remains significant, illustrated by the E-130J TACAMO and Link-16 modernization contracts. Business aviation adds incremental volume through long-range cabin SATCOM upgrades, such as Bombardier's

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multi-year agreement with Honeywell. Regional jets sustain demand across the expanding APAC fleet, while unmanned systems integrate advanced SDRs and AI processors, deepening tactical use cases within the aircraft communication systems market.

The Aircraft Communication Systems Market is Segmented by Components (Transponder, Display and Processors, Antennas, and More), Aircraft Type (Commercial Aircraft, Military Aircraft, and More), System (Radio Communication System, and More), Connectivity Technology (SATCOM, Tactical Data Links, and More), and Geography (North America, Europe, and More). The Market Forecasts are Provided in Terms of Value (USD).

Geography Analysis

North America retained 35.85% of 2024 revenue thanks to FAA modernization programs and sustained military spending. The FAA's telecommunication infrastructure overhaul across 4,600 ATC facilities continues, providing a robust domestic market for radios, datalinks, and spectrum-management upgrades. US defense contracts-including a USD 269 million BACN task order-reinforce procurement visibility through 2027.

Asia-Pacific is the fastest-growing region, increasing at an 8.42% CAGR through 2030. Aircraft communication systems market investments mirror rising fleets in China, India, and Southeast Asia. China Telecom is piloting nationwide 5G air-to-ground coverage with fewer than 1,000 towers, while India is fitting Vayulink secure radio networks onto its expanding fighter inventory. Regional carriers like Thai Airways have adopted SES multi-orbit connectivity, highlighting commercial pull for advanced SATCOM.

Europe maintains a solid position owing to stringent regulatory leadership. ICAO's updated future air navigation standards mandate cyber-resilient data exchange, spurring adoption of encrypted link management. Thales and Spire Global are deploying 100+ satellites to deliver space-based ADS-B surveillance, slated for 2027 service entry. Airbus HBCplus offers integrated multi-orbit terminals that reduce drag and fuel burn, underlining OEM-level influence on the aircraft communication systems market.

South America, the Middle East, and Africa contribute moderate but growing demand, leveraged by fleet renewals and strategic defense projects. Owing to sparse terrestrial infrastructure, hybrid ATG/SATCOM solutions appeal in these geographies, sustaining a globally diversified growth pattern for the aircraft communication systems market.

List of Companies Covered in this Report:

Honeywell International Inc. / Northrop Grumman Corporation / THALES Group / RTX Corporation / L3Harris Technologies, Inc. / General Dynamics Corporation / Iridium Satellite LLC / Kratos Defense & Security Solutions, Inc. / ViaSat Inc. / Rohde & Schwarz GmbH & Co. KG / Gogo Inc. / Elbit Systems Ltd. / BAE Systems plc / Garmin Ltd. / Orbit Communication Systems Ltd. / Astronics Corporation / Safran Electronics & Defense (Safran SA) /

Additional Benefits:

The market estimate (ME) sheet in Excel format /
3 months of analyst support /

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