

# Global Airborne Telemetry Market Size Study & Forecast, by Technology, Application, Component, End User, Operating Environment, and Regional Forecasts 2025-2035

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## Abstracts

Global Airborne Telemetry Market is valued approximately at USD 6.8 billion in 2024 and is anticipated to grow with a robust CAGR of 6.00% over the forecast period 2025–2035. Airborne telemetry, a critical enabler of real-time communication between airborne systems and ground stations, is reshaping the landscape of defense intelligence, aerospace testing, and advanced R&D efforts. As global defense forces and commercial aerospace players ramp up the deployment of unmanned aerial vehicles (UAVs), hypersonic systems, and next-gen aircraft, telemetry systems are tasked with capturing and transmitting intricate flight dynamics and performance data instantaneously. The continuous evolution in sensor technologies, miniaturization of transmitters, and emergence of AI-enhanced analytics are augmenting the relevance and indispensability of airborne telemetry systems.

The rapid acceleration of R&D initiatives across military and commercial aerospace sectors has acted as a catalyst in driving the demand for sophisticated telemetry technologies. In the military domain, real-time telemetry is imperative for evaluating missile trajectories, UAV navigation, and system diagnostics under complex environmental conditions. Similarly, in the automotive and healthcare industries, telemetry systems are transforming how real-time data is acquired, interpreted, and responded to—streamlining diagnostics and elevating performance assessments. Despite this upward momentum, certain inhibitors such as frequency spectrum allocation challenges, data security risks, and the rising sophistication of electronic countermeasures continue to pose concerns. However, these challenges are being actively addressed through satellite-based telemetry solutions and the integration of

hardened, encrypted data protocols.

From a geographical standpoint, North America is projected to maintain its dominance over the forecast timeline, owing to its deeply entrenched defense infrastructure, unparalleled aerospace R&D capabilities, and sustained investments from entities like NASA, DARPA, and the U.S. Department of Defense. Europe follows closely, with strong aerospace industry footholds in France, Germany, and the UK, which are investing heavily in cross-border defense collaborations and real-time data integration for joint operations. Meanwhile, Asia Pacific is anticipated to exhibit the fastest growth rate during 2025–2035, driven by expanding military budgets, increasing indigenous aircraft production in China and India, and supportive government policies promoting aerospace innovation. Countries in the Middle East are also pursuing telemetry advancements, particularly for securing borders and enhancing UAV capabilities in adverse terrains.

Major market players included in this report are:

L3Harris Technologies, Inc.

BAE Systems plc

Honeywell International Inc.

Leonardo S.p.A.

Cobham Limited

Curtiss-Wright Corporation

Lockheed Martin Corporation

Safran S.A.

Thales Group

Northrop Grumman Corporation

Raytheon Technologies Corporation

General Dynamics Corporation

Teledyne Technologies Incorporated

Ultra Electronics

Kratos Defense & Security Solutions, Inc.

#### Global Airborne Telemetry Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period – 2025–2035

Report Coverage – Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the market are explained below:

By Technology:

Radio Frequency Telemetry

Infrared Telemetry

Optical Telemetry

Satellite Telemetry

By Application:

Aerospace & Defense

Research & Development

Automotive Testing

Healthcare Monitoring

By Component:

Transmitters

Receivers

Sensors

Data Acquisition Systems

By End User:

Government Agencies

Commercial Enterprises

Research Institutions

## Military Organizations

### By Operating Environment:

Urban

Rural

Remote

Adverse Weather Conditions

### By Region:

#### North America

U.S.

Canada

#### Europe

UK

Germany

France

Spain

Italy

Rest of Europe

#### Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

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