

Aircraft flight control system market Size, By Component, By Technology Type, By Aircraft Type, By Application, Forecast 2025 - 2034

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Abstracts

The Global Aircraft Flight Control System Market was valued at USD 17.3 billion and is estimated to grow at a CAGR of 8.8% to reach USD 39.8 billion by 2034. This growth is primarily fueled by the rising number of air travelers worldwide, tighter aviation safety regulations, and the rapid development of electric and hybrid aircraft technologies. As the aerospace industry moves toward more sustainable and efficient operations, advanced flight control systems are becoming integral to modern aircraft designs. These systems enhance performance, reduce pilot workload, and improve flight safety, which continues to be a top priority across both commercial and military aviation sectors.

Despite the positive outlook, the market is facing challenges due to new geopolitical developments. The retaliatory tariffs imposed by the Trump administration in April 2025 have created roadblocks for manufacturers. Higher import duties, particularly on components sourced from China, are driving up costs for OEMs and complicating global supply chains. This has led major manufacturers, including Boeing, to encounter difficulties in maintaining production schedules and has resulted in a slowdown in order fulfillment, especially from Chinese buyers. To counterbalance this, companies are now looking toward other regions, such as India, to offset losses and maintain growth momentum.

In terms of technology, the market is divided into hydromechanical systems, fly-by-wire (FBW) systems, power-by-wire (PBW) systems, and others. Fly-by-wire systems dominate the market with a 55.7% share and are valued at USD 9.6 billion in 2024. These systems are projected to grow at a CAGR of 9.4% over the forecast period. Their dominance is driven by their ability to replace traditional mechanical controls with

electronic systems, improving overall aircraft handling and safety. Additionally, advancements in automation and integrated technologies are expected to elevate the demand for these systems further. Meanwhile, power-by-wire systems are gaining traction as the fastest-growing segment, projected to register a CAGR of 11.7%.

When segmented by component, the aircraft flight control system market includes flight control computers, cockpit controls, sensors, actuators, and others. The actuator segment currently leads the market with a 37.8% share and is valued at USD 6.5 billion as of 2024, growing at an annual rate of 7.9%. These components are essential for executing commands and moving flight control surfaces in response to electronic inputs. Continuous improvements in actuator performance and weight reduction are critical for optimizing aircraft efficiency. The sensor segment, on the other hand, is expanding rapidly and is expected to grow at the fastest pace with a CAGR of 11.7%.

By aircraft type, the market is categorized into fixed-wing and rotary-wing aircraft. Fixed-wing aircraft hold the largest market share of 58.8%, valued at USD 10.1 billion in 2024, and are anticipated to grow at a CAGR of 8.3%. Enhanced demand for high-performance and long-range aircraft is driving the integration of advanced flight control systems in this segment. Rotary-wing aircraft, while having a smaller share, are gaining momentum and are expected to expand at a CAGR of 9.5% over the forecast period.

Based on application, the market spans business and general aviation, commercial aviation, and military aviation. Commercial aviation takes the lead with a 44% market share. However, the business and general aviation segment is expanding at the fastest pace, with a market size of USD 3.6 billion in 2024 and a forecasted CAGR of 10.3%. Increased emphasis on aircraft performance, safety enhancements, and the integration of next-generation control systems are driving adoption in the business aviation sector.

Regionally, North America represents the largest share of the global aircraft flight control system market, accounting for more than 35.2% of the total in 2024. The region remains at the forefront of aerospace innovation, supported by strong investments in advanced technologies and autonomous flight capabilities. The United States alone has achieved a CAGR of 8.9%, reaching a market value of USD 5.3 billion in 2024. Meanwhile, Asia Pacific is emerging as the fastest-growing region, with a projected CAGR of 10.1%, fueled by increased air travel demand and aircraft production across emerging economies.

The aircraft flight control system market remains fragmented, with a large number of players participating across various segments. The top three companies—Honeywell

International Inc., Collins Aerospace, and BAE Systems—collectively account for 18.2% of the total market share, with Honeywell leading at 10.7%. These companies continue to strengthen their market positions through strategic mergers, acquisitions, and investments in digital and autonomous flight technologies. Recent consolidation activities indicate a growing focus on enhancing digital capabilities and maintaining competitiveness in a dynamic market environment.

Contents

CHAPTER 1 METHODOLOGY & SCOPE

- 1.1 Market scope & definition
- 1.1 Base estimates & calculations
- 1.2 Forecast calculation
- 1.3 Data sources
 - 1.3.1 Primary
 - 1.3.2 Secondary
 - 1.3.2.1 Paid sources
 - 1.3.2.2 Public sources

CHAPTER 2 EXECUTIVE SUMMARY

- 2.1 Industry 360° synopsis, 2021 - 2034

CHAPTER 3 INDUSTRY INSIGHTS

- 3.1 Industry ecosystem analysis
- 3.2 Trump administration tariffs analysis
 - 3.2.1 Impact on trade
 - 3.2.1.1 Trade volume disruptions
 - 3.2.1.2 Retaliatory measures
 - 3.2.2 Impact on the industry
 - 3.2.2.1 Supply-side impact (raw material)
 - 3.2.2.1.1 Price volatility
 - 3.2.2.1.2 Supply chain restructuring
 - 3.2.2.1.3 Production cost implications
 - 3.2.2.2 Demand-side impact
 - 3.2.2.2.1 Price transmission to end markets
 - 3.2.2.2.2 Market share dynamics
 - 3.2.2.2.3 Consumer response patterns
 - 3.2.3 Key companies impacted
 - 3.2.4 Strategic industry responses
 - 3.2.4.1 Supply chain reconfiguration
 - 3.2.4.2 Pricing and product strategies
 - 3.2.4.3 Policy engagement
 - 3.2.5 Outlook and future considerations

- 3.3 Supplier landscape
- 3.4 Profit margin analysis
- 3.5 Key news & initiatives
- 3.6 Regulatory landscape
- 3.7 Impact forces
 - 3.7.1 Growth drivers
 - 3.7.1.1 Surge in global air travel
 - 3.7.1.2 Growing urban air mobility (UAM)
 - 3.7.1.3 Initiatives stringent safety regulations
 - 3.7.1.4 Growing emphasis on passenger safety
 - 3.7.1.5 Emergence of electric and hybrid aircraft
 - 3.7.2 Industry pitfalls & challenges
 - 3.7.2.1 High development and integration costs
 - 3.7.2.2 Growing cybersecurity concerns
- 3.8 Growth potential analysis
- 3.9 Porter's analysis
- 3.10 PESTEL analysis

CHAPTER 4 COMPETITIVE LANDSCAPE, 2024

- 4.1 Introduction
- 4.2 Company market share analysis
- 4.3 Competitive positioning matrix
- 4.4 Strategic outlook matrix

CHAPTER 5 MARKET ESTIMATES & FORECAST, BY COMPONENT TYPE, 2021 - 2034 (USD MILLION & MILLION UNITS)

- 5.1 Key trends
- 5.2 Flight control computers
- 5.3 Cockpit control
- 5.4 Sensors
- 5.5 Actuators
- 5.6 Others

CHAPTER 6 MARKET ESTIMATES & FORECAST, BY TECHNOLOGY TYPE, 2021 - 2034 (USD MILLION & MILLION UNITS)

- 6.1 Key trends

- 6.2 Hydromechanical systems
- 6.3 Fly-by-wire (FBW) systems
- 6.4 Power-by-wire (PBW) systems
- 6.5 Others

CHAPTER 7 MARKET ESTIMATES & FORECAST, BY AIRCRAFT TYPE, 2021 - 2034 (USD MILLION & MILLION UNITS)

- 7.1 Key trends
- 7.2 Fixed-wing
- 7.3 Rotary-wing

CHAPTER 8 MARKET ESTIMATES & FORECAST, BY APPLICATION, 2021 - 2034 (USD MILLION & MILLION UNITS)

- 8.1 Key trends
- 8.2 Business & general aviation
- 8.3 Commercial aviation
- 8.4 Military aviation

CHAPTER 9 MARKET ESTIMATES & FORECAST, BY REGION, 2021 - 2034 (USD MILLION & MILLION UNITS)

- 9.1 Key trends
- 9.2 North America
 - 9.2.1 U.S.
 - 9.2.2 Canada
- 9.3 Europe
 - 9.3.1 UK
 - 9.3.2 Germany
 - 9.3.3 France
 - 9.3.4 Italy
 - 9.3.5 Spain
 - 9.3.6 Russia
- 9.4 Asia Pacific
 - 9.4.1 China
 - 9.4.2 India
 - 9.4.3 Japan
 - 9.4.4 South Korea

9.4.5 Australia

9.5 Latin America

9.5.1 Brazil

9.5.2 Mexico

9.5.3 Rest of Latin America

9.6 MEA

9.6.1 UAE

9.6.2 South Africa

9.6.3 Saudi Arabia

CHAPTER 10 COMPANY PROFILES

10.1 Astronics Corporation

10.2 BAE Systems

10.3 Collins Aerospace

10.4 Curtiss-Wright Corporation

10.5 Eaton

10.6 Honeywell International Inc.

10.7 Liebherr

10.8 Moog Inc.

10.9 Parker Hannifin Corp

10.10 Saab AB

10.11 Safran

10.12 Thales Group

10.13 Triumph Group

10.14 Woodward Inc.

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