

More Electric Aircraft Market Forecasts to 2032 – Global Analysis By Aircraft Type (Fixed-Wing Aircraft, Rotary-Wing Aircraft and Unmanned Aerial Vehicles (UAVs)), Aircraft System, Component, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global More Electric Aircraft Market is accounted for \$6.10 billion in 2025 and is expected to reach \$11.59 billion by 2032 growing at a CAGR of 9.6% during the forecast period. A More Electric Aircraft (MEA) is an advanced aviation concept that replaces traditional hydraulic, pneumatic, and mechanical systems with electrically powered alternatives to improve efficiency, reliability, and environmental performance. MEAs utilize electric power for critical functions such as flight controls, actuation systems, environmental control, and onboard power distribution, reducing fuel consumption and maintenance costs. By integrating high-voltage power systems, advanced electrical architectures, and energy storage devices, MEAs enhance overall aircraft performance, support sustainable aviation goals, and enable future innovations like hybrid-electric propulsion and fully electric flight.

Market Dynamics:

Driver:

Advancements in battery and power electronics

Enhanced power density, efficiency, and reliability are enabling the replacement of hydraulic and pneumatic subsystems with electric alternatives. OEMs are integrating advanced power electronics to support distributed propulsion and intelligent energy management. These innovations are reducing fuel consumption, emissions, and

maintenance costs across commercial and defense platforms. Regulatory support for electrification and sustainability is reinforcing adoption across global fleets. These dynamics are positioning battery and power electronics as core drivers of the more electric aircraft market, thereby accelerating market growth.

Restraint:

High capital investment requirements

Smaller manufacturers and Tier 2 suppliers face challenges in scaling innovation within constrained budgets. Integration of new systems requires redesign of airframes, power architectures, and safety protocols. Long development cycles and regulatory hurdles are increasing financial risk for stakeholders. Access to funding and strategic partnerships is critical to overcome entry barriers. These factors are tempering adoption and slowing momentum, despite strong technological potential.

Opportunity:

Supportive government initiatives and investments

National aerospace strategies and defense modernization plans are accelerating deployment of electric subsystems and hybrid propulsion platforms. Governments are investing in testbeds, simulation centers, and certification pathways to streamline commercialization. Collaboration between aviation authorities, OEMs, and research institutions is reinforcing technical validation and safety assurance. Sustainability targets and net-zero commitments are driving long-term policy alignment. These developments are creating favorable conditions for growth in the more electric aircraft market, thereby boosting market expansion.

Threat:

Technological integration and system reliability

Reliability concerns around thermal runaway, electromagnetic interference, and fault tolerance are slowing certification timelines. Manufacturers must invest in redundancy, diagnostics, and real-time monitoring to meet aviation-grade standards. Edge-case failures and system-level interactions require extensive simulation and flight testing. Regulatory scrutiny and public trust hinge on consistent performance across mission-critical scenarios. These limitations are introducing strategic risk and constraining full-

scale deployment.

Covid-19 Impact:

The Covid-19 pandemic disrupted the More Electric Aircraft market, causing temporary supply chain interruptions, production halts, and delays in raw material procurement. Commercial aviation, defence procurement, and aerospace R&D programs experienced reduced activity, impacting development timelines. However, the increased focus on sustainability, energy efficiency, and resilient transport systems partially offset the slowdown. Post-pandemic recovery is driven by growing demand for lightweight, low-emission, and digitally integrated aircraft platforms, along with innovations in high-performance electric subsystems across aviation segments.

The fixed-wing aircraft segment is expected to be the largest during the forecast period

The fixed-wing aircraft segment is expected to account for the largest market share during the forecast period owing to its widespread adoption in commercial, military, and cargo operations. OEMs are integrating electric actuation, power distribution, and thermal management systems into narrow-body and wide-body platforms. Demand for fuel efficiency, reduced maintenance, and quieter operations is reinforcing electrification across fixed-wing fleets. Regulatory mandates for emissions reduction and lifecycle optimization are accelerating technology integration. Compatibility with hybrid propulsion and modular upgrades is supporting scalability, thereby propelling overall market growth.

The military aviation segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the military aviation segment is predicted to witness the highest growth rate driven by demand for high-performance, low-signature, and energy-efficient platforms. Electrification is being prioritized in unmanned aerial systems (UAS), next-generation fighters, and surveillance aircraft to enhance mission capability and reduce logistical burden. Defense agencies are investing in electric power systems for onboard sensors, weapons, and avionics. Integration with hybrid propulsion and advanced energy storage is enabling extended range and operational flexibility. This segment is emerging as a high-growth frontier for electric aviation innovation, thereby boosting market expansion.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share due to its strong aerospace manufacturing base, defense spending, and electrification initiatives. The U.S. is leading in R&D investment, certification programs, and deployment of electric subsystems across commercial and military platforms. Government support for sustainable aviation and clean energy is reinforcing market momentum. OEMs and Tier 1 suppliers are scaling production and pilot programs across regional and long-haul aircraft. Collaboration with research institutions and regulatory bodies is accelerating technology validation.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by expanding air traffic, fleet modernization, and government investment in electric aviation. Countries like China, Japan, India, and South Korea are investing in indigenous aircraft programs and electrification of regional transport. Public-private partnerships are supporting infrastructure upgrades, certification pathways, and pilot deployments. Demand for low-emission, cost-efficient platforms is rising across commercial and defense segments. Regional OEMs and startups are leading in modular electric system development and integration.

Key players in the market

Some of the key players in More Electric Aircraft Market include Airbus SE, Boeing Company, Raytheon Technologies Corporation (RTX), Honeywell International Inc., Safran S.A., General Electric Company, Rolls-Royce Holdings plc, Thales Group, Leonardo S.p.A., BAE Systems plc, Embraer S.A., Bombardier Inc., Mitsubishi Heavy Industries, Ltd., Elbit Systems Ltd. and Moog Inc.

Key Developments:

In June 2025, Airbus partnered with Rolls-Royce and GKN Aerospace under the Clean Aviation Joint Undertaking to advance hybrid-electric propulsion systems for regional aircraft. The collaboration supports EU decarbonization goals and accelerates development of scalable electric architectures for future narrow-body platforms.

In February 2025, Boeing expanded its NeXt division partnerships, including joint R&D with Disney Imagineers and Kittyhawk, to advance electric vertical takeoff and landing (eVTOL) platforms. These collaborations support urban mobility and electric propulsion

innovation for future autonomous aircraft systems.

Aircraft Types Covered:

Fixed-Wing Aircraft

Rotary-Wing Aircraft

Unmanned Aerial Vehicles (UAVs)

Aircraft Systems Covered:

Propulsion Systems

Airframe Systems

Avionics Systems

Landing Gear Systems

Environmental Control Systems

Components Covered:

Power Electronics

Energy Storage Devices

Thermal Management Systems

Electric Motors & Generators

Safety Systems & Advanced Materials

Actuators

Applications Covered:

Power Generation

Power Distribution

Power Conversion

Flight Control Systems

Cabin Systems

End Users Covered:

Civil Aviation

Military Aviation

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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