

Aerospace Propulsion Systems Market Forecasts to 2034 – Global Analysis By Propulsion Type (Jet Engines, Turboprop Engines, Turboshift Engines, Rocket Engines and Other Propulsion Types), Component, Fuel Type, Technology, Application and By Geography

<https://marketpublishers.com/r/AC111258117DEN.html>

Date: April 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: AC111258117DEN

Abstracts

According to Statistics MRC, the Global Aerospace Propulsion Systems Market is accounted for \$12.5 billion in 2026 and is expected to reach \$39.7 billion by 2034 growing at a CAGR of 15.5% during the forecast period. Aerospace Propulsion Systems encompass engines and power units used in aircraft, spacecraft, and missiles. These include jet engines, rocket motors, turbofans, turboprops, and electric/hybrid propulsion systems. The systems are designed for thrust, efficiency, reliability, and compliance with environmental standards. Advancements focus on fuel efficiency, emission reduction, lightweight materials, and high-performance designs. Demand is driven by commercial aviation growth, defense modernization, and space exploration initiatives. Propulsion systems are critical for achieving operational performance, safety, and sustainability in aerospace applications.

Market Dynamics:

Driver:

Rising demand for fuel-efficient engines

Airlines are under pressure to reduce operating costs and meet stringent emission standards. Modern propulsion systems are being designed to deliver higher thrust while

consuming less fuel, supporting both economic and environmental goals. Rising passenger traffic and expanding airline networks further intensify the need for efficiency. Manufacturers are investing in advanced materials, aerodynamics, and hybrid technologies to enhance performance. This demand for fuel-efficient solutions is reshaping propulsion system development globally.

Restraint:

Competition with established OEMs

Designing, testing, and certifying new propulsion systems requires billions in investment and long timelines. Smaller firms often struggle to compete with established OEMs due to financial barriers. Certification processes add further complexity and expense. Airlines remain cautious about adopting new technologies until cost benefits are proven. While partnerships and government support are helping, capital intensity continues to slow commercialization. This remains a major barrier despite strong demand for innovation.

Opportunity:

Development of next-gen sustainable engines

Manufacturers are exploring hybrid-electric propulsion, hydrogen-powered systems, and advanced turbofans to meet future sustainability targets. These innovations aim to drastically reduce emissions and improve efficiency. Governments are funding R&D programs to accelerate adoption of green aviation technologies. Partnerships between OEMs, airlines, and energy companies are driving progress. Sustainable engines also align with global climate commitments, creating strong market potential.

Threat:

Fluctuating fuel prices impacting adoption

Sudden increases in jet fuel costs can strain airline profitability, leading to deferred fleet modernization. Airlines may prioritize short-term operational savings over investment in new propulsion technologies. Fuel price volatility also complicates long-term planning for manufacturers and operators. While sustainable fuels and hybrid systems offer alternatives, uncertainty in energy markets remains a challenge. This threat underscores the importance of propulsion systems that deliver consistent efficiency

regardless of fuel price fluctuations.

Covid-19 Impact:

The COVID-19 pandemic disrupted the aerospace propulsion systems market. Declines in air travel led to reduced demand for new aircraft and propulsion technologies. Supply chain disruptions and workforce limitations slowed production schedules. However, the crisis accelerated focus on sustainability and cost efficiency as airlines sought to recover. Manufacturers invested in hybrid and electric propulsion systems to prepare for post-pandemic growth. Demand for maintenance and aftermarket services remained resilient. Overall, COVID-19 created short-term challenges but reinforced long-term innovation in propulsion technologies.

The jet engines segment is expected to be the largest during the forecast period

The jet engines segment is expected to account for the largest market share during the forecast period as rising air traffic and airline operations have intensified demand for efficient, reliable, and high-performance propulsion systems. Jet engines remain the backbone of commercial aviation, powering narrow-body and wide-body aircraft. Advances in fuel efficiency and noise reduction are strengthening their appeal. Airlines continue to prioritize jet engine upgrades to meet sustainability goals. Strong demand from both passenger and cargo fleets supports segment leadership.

The geared turbofan technology segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the geared turbofan technology segment is predicted to witness the highest growth rate due to increasing adoption of advanced propulsion designs that deliver superior fuel efficiency and reduced emissions. Geared turbofan engines optimize fan and turbine speeds, improving performance and lowering operating costs. Airlines are increasingly selecting this technology for new-generation narrow-body aircraft. Manufacturers are investing heavily in R&D to enhance reliability and scalability. Regulatory pressure for greener aviation further supports adoption.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share owing to its established aerospace OEMs, strong airline networks, and sustained investment in propulsion R&D. The U.S. leads with major manufacturers such

as GE Aviation and Pratt & Whitney driving innovation in advanced jet engines and hybrid propulsion systems. High demand for fleet modernization and aftermarket services strengthens regional leadership. Government-backed initiatives to support sustainable aviation technologies further accelerate adoption. Robust infrastructure and supply chains provide competitive advantages.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by rising passenger traffic, and growing investments in indigenous aerospace programs. Countries such as China, India, and Southeast Asia are witnessing strong growth in aviation demand, with governments investing heavily in airport infrastructure and domestic propulsion R&D. Local airlines are expanding fleets to meet regional travel needs, while partnerships with global OEMs are accelerating technology transfer and adoption. Rising middle-class populations and increasing tourism further fuel demand.

Key players in the market

Some of the key players in Aerospace Propulsion Systems Market include GE Aerospace, Rolls-Royce, Pratt & Whitney, Safran Aircraft Engines, Honeywell Aerospace, MTU Aero Engines, CFM International, IAE International Aero Engines, Aero Engine Corporation of China, NPO Saturn, Klimov, Eurojet Turbo, Ukrainian Motor Sich, IHI Corporation and Mitsubishi Heavy Industries.

Key Developments:

In March 2025, Pratt & Whitney launched geared turbofan upgrades optimized for sustainable aviation fuel (SAF). The innovation enhanced efficiency and reduced lifecycle emissions, reinforcing its dominance in narrowbody propulsion.

In February 2025, MTU expanded maintenance and overhaul services for geared turbofan engines in Europe. The expansion strengthened aftermarket capabilities and supported long-term fleet sustainability.

Propulsion Types Covered:

Jet Engines

Turboprop Engines

Turboshaft Engines

Rocket Engines

Other Propulsion Types

Components Covered:

Compressors

Combustors

Turbines

Exhaust Systems

Fuel Systems

Other Components

Fuel Types Covered:

Aviation Turbine Fuel

Biofuels

Hydrogen Fuel

Synthetic Fuels

Other Fuel Types

Technologies Covered:

Geared Turbofan Technology

Open Rotor Engines

Additive Manufacturing

Digital Engine Control (FADEC)

Lightweight Materials

Other Technologies

Applications Covered:

Commercial Aviation

Military Aviation

Business Aviation

Space Launch

UAVs

Other Applications

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

§ Saudi Arabia

§ United Arab Emirates

§ Qatar

§ Israel

§ Rest of Middle East

Africa

§ South Africa

§ Egypt

§ Morocco

§ Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

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

Contents

1 EXECUTIVE SUMMARY

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY PROPULSION TYPE

- 5.1 Jet Engines
- 5.2 Turboprop Engines
- 5.3 Turboshift Engines
- 5.4 Rocket Engines
- 5.5 Other Propulsion Types

6 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY COMPONENT

- 6.1 Compressors
- 6.2 Combustors
- 6.3 Turbines
- 6.4 Exhaust Systems
- 6.5 Fuel Systems
- 6.6 Other Components

7 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY FUEL TYPE

- 7.1 Aviation Turbine Fuel
- 7.2 Biofuels
- 7.3 Hydrogen Fuel
- 7.4 Synthetic Fuels
- 7.5 Other Fuel Types

8 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY TECHNOLOGY

- 8.1 Geared Turbofan Technology
- 8.2 Open Rotor Engines
- 8.3 Additive Manufacturing
- 8.4 Digital Engine Control (FADEC)
- 8.5 Lightweight Materials
- 8.6 Other Technologies

9 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY APPLICATION

- 9.1 Commercial Aviation
- 9.2 Military Aviation
- 9.3 Business Aviation
- 9.4 Space Launch
- 9.5 UAVs
- 9.6 Other Applications

10 GLOBAL AEROSPACE PROPULSION SYSTEMS MARKET, BY GEOGRAPHY

- 10.1 North America
 - 10.1.1 United States
 - 10.1.2 Canada
 - 10.1.3 Mexico
- 10.2 Europe
 - 10.2.1 United Kingdom
 - 10.2.2 Germany
 - 10.2.3 France
 - 10.2.4 Italy
 - 10.2.5 Spain
 - 10.2.6 Netherlands
 - 10.2.7 Belgium
 - 10.2.8 Sweden
 - 10.2.9 Switzerland
 - 10.2.10 Poland
 - 10.2.11 Rest of Europe
- 10.3 Asia Pacific
 - 10.3.1 China
 - 10.3.2 Japan
 - 10.3.3 India
 - 10.3.4 South Korea
 - 10.3.5 Australia
 - 10.3.6 Indonesia
 - 10.3.7 Thailand
 - 10.3.8 Malaysia
 - 10.3.9 Singapore
 - 10.3.10 Vietnam
 - 10.3.11 Rest of Asia Pacific

10.4 South America

10.4.1 Brazil

10.4.2 Argentina

10.4.3 Colombia

10.4.4 Chile

10.4.5 Peru

10.4.6 Rest of South America

10.5 Rest of the World (RoW)

10.5.1 Middle East

10.5.1.1 Saudi Arabia

10.5.1.2 United Arab Emirates

10.5.1.3 Qatar

10.5.1.4 Israel

10.5.1.5 Rest of Middle East

10.5.2 Africa

10.5.2.1 South Africa

10.5.2.2 Egypt

10.5.2.3 Morocco

10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

11.1 Industry Value Network and Supply Chain Assessment

11.2 White-Space and Opportunity Mapping

11.3 Product Evolution and Market Life Cycle Analysis

11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

12.1 Mergers and Acquisitions

12.2 Partnerships, Alliances, and Joint Ventures

12.3 New Product Launches and Certifications

12.4 Capacity Expansion and Investments

12.5 Other Strategic Initiatives

13 COMPANY PROFILES

13.1 GE Aerospace

13.2 Rolls-Royce

- 13.3 Pratt & Whitney
- 13.4 Safran Aircraft Engines
- 13.5 Honeywell Aerospace
- 13.6 MTU Aero Engines
- 13.7 CFM International
- 13.8 IAE International Aero Engines
- 13.9 Aero Engine Corporation of China
- 13.10 NPO Saturn
- 13.11 Klimov
- 13.12 Eurojet Turbo
- 13.13 Ukrainian Motor Sich
- 13.14 IHI Corporation
- 13.15 Mitsubishi Heavy Industries

List Of Tables

LIST OF TABLES

Table 1 Global Aerospace Propulsion Systems Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Aerospace Propulsion Systems Market, By Propulsion Type (2023–2034) (\$MN)

Table 3 Global Aerospace Propulsion Systems Market, By Jet Engines (2023–2034) (\$MN)

Table 4 Global Aerospace Propulsion Systems Market, By Turboprop Engines (2023–2034) (\$MN)

Table 5 Global Aerospace Propulsion Systems Market, By Turboshaft Engines (2023–2034) (\$MN)

Table 6 Global Aerospace Propulsion Systems Market, By Rocket Engines (2023–2034) (\$MN)

Table 7 Global Aerospace Propulsion Systems Market, By Other Propulsion Types (2023–2034) (\$MN)

Table 8 Global Aerospace Propulsion Systems Market, By Component (2023–2034) (\$MN)

Table 9 Global Aerospace Propulsion Systems Market, By Compressors (2023–2034) (\$MN)

Table 10 Global Aerospace Propulsion Systems Market, By Combustors (2023–2034) (\$MN)

Table 11 Global Aerospace Propulsion Systems Market, By Turbines (2023–2034) (\$MN)

Table 12 Global Aerospace Propulsion Systems Market, By Exhaust Systems (2023–2034) (\$MN)

Table 13 Global Aerospace Propulsion Systems Market, By Fuel Systems (2023–2034) (\$MN)

Table 14 Global Aerospace Propulsion Systems Market, By Other Components (2023–2034) (\$MN)

Table 15 Global Aerospace Propulsion Systems Market, By Fuel Type (2023–2034) (\$MN)

Table 16 Global Aerospace Propulsion Systems Market, By Aviation Turbine Fuel (2023–2034) (\$MN)

Table 17 Global Aerospace Propulsion Systems Market, By Biofuels (2023–2034) (\$MN)

Table 18 Global Aerospace Propulsion Systems Market, By Hydrogen Fuel

(2023–2034) (\$MN)

Table 19 Global Aerospace Propulsion Systems Market, By Synthetic Fuels

(2023–2034) (\$MN)

Table 20 Global Aerospace Propulsion Systems Market, By Other Fuel Types

(2023–2034) (\$MN)

Table 21 Global Aerospace Propulsion Systems Market, By Technology (2023–2034) (\$MN)

Table 22 Global Aerospace Propulsion Systems Market, By Geared Turbofan Technology (2023–2034) (\$MN)

Table 23 Global Aerospace Propulsion Systems Market, By Open Rotor Engines (2023–2034) (\$MN)

Table 24 Global Aerospace Propulsion Systems Market, By Additive Manufacturing (2023–2034) (\$MN)

Table 25 Global Aerospace Propulsion Systems Market, By Digital Engine Control (FADEC) (2023–2034) (\$MN)

Table 26 Global Aerospace Propulsion Systems Market, By Lightweight Materials (2023–2034) (\$MN)

Table 27 Global Aerospace Propulsion Systems Market, By Other Technologies (2023–2034) (\$MN)

Table 28 Global Aerospace Propulsion Systems Market, By Application (2023–2034) (\$MN)

Table 29 Global Aerospace Propulsion Systems Market, By Commercial Aviation (2023–2034) (\$MN)

Table 30 Global Aerospace Propulsion Systems Market, By Military Aviation (2023–2034) (\$MN)

Table 31 Global Aerospace Propulsion Systems Market, By Business Aviation (2023–2034) (\$MN)

Table 32 Global Aerospace Propulsion Systems Market, By Space Launch (2023–2034) (\$MN)

Table 33 Global Aerospace Propulsion Systems Market, By UAVs (2023–2034) (\$MN)

Table 34 Global Aerospace Propulsion Systems Market, By Other Applications (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

I would like to order

Product name: Aerospace Propulsion Systems Market Forecasts to 2034 – Global Analysis By Propulsion Type (Jet Engines, Turbo-prop Engines, Turbo-shaft Engines, Rocket Engines and Other Propulsion Types), Component, Fuel Type, Technology, Application and By Geography

Product link: <https://marketpublishers.com/r/AC111258117DEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/AC111258117DEN.html>