

Fixed-Wing VTOL UAV Market Size & Share Analysis - Growth Trends and Forecast (2025 - 2030)

> **Industry:** Drones, UAVs & Urban Air Mobility (Aerospace & Defense)
> **Source:** https://www.mordorintelligence.com/industry-reports/fixed-wing-vtol-uav-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 1.32 billion
Projected Forecast (2031)	USD 1.32 billion
Growth Rate (CAGR)	23.48 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

! [Major players in Fixed-Wing VTOL UAV industry] (images/chart_2.png)

! [Fixed-Wing VTOL UAV Market Size] (images/chart_3.png)

! [Fixed-Wing VTOL UAV Market Share by Application, 2024] (images/chart_4.png)

! [Fixed-Wing VTOL UAV Market Share by Mode of Operation, 2024] (images/chart_5.png)

! [Fixed-Wing VTOL UAV Market Growth Rate by Region] (images/chart_6.png)

! [Fixed-Wing VTOL UAV Market Concentration] (images/chart_7.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2030 |
Market Size (2025) | USD 1.32 Billion |
Market Size (2030) | USD 3.79 Billion |
Growth Rate (2025 - 2030) | 23.48 % |
Fastest Growing Market | Asia Pacific |
Largest Market | North America |
Market Concentration | Medium |
Major Players*Disclaimer: Major Players sorted in no particular order

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Market Overview

Fixed-Wing VTOL UAV Market Analysis by Mordor Intelligence The fixed-wing VTOL UAV market size is USD 1.32 billion in 2025 and is forecasted to reach USD 3.79 billion by 2030, expanding at a 23.48% CAGR. Solid demand for runway-independent platforms, faster regulatory approvals in major economies, and breakthroughs in hybrid-electric propulsion underpin this rapid expansion. Defense agencies are scaling procurement programs, prioritizing endurance and austere-site operations, while commercial operators move from trials to fleet deployments in mapping, inspection, and package delivery. Investment flows toward larger payload classes and long-range variants, signaling a shift from niche tactical uses toward mainstream civil and dual-use missions. Competition remains moderately fragmented as incumbents seek scale through acquisitions, and specialized start-ups exploit propulsion and autonomy niches.

Key Report Takeaways* By application, intelligence, surveillance, and reconnaissance (ISR) captured 46.89% of the fixed-wing VTOL UAV market share in 2024 and is advancing at a 25.34% CAGR through 2030.

* By propulsion type, electric systems held 53.75% of the fixed-wing VTOL UAV market size in 2024, while fuel-cell variants posted the fastest 27.56% CAGR to 2030.

* By mode of operation, remotely piloted systems held a 46.24% share in 2024, while autonomous platforms are set for a 25.01% CAGR to 2030.

* By MTOW class, the 25 to 150 kg segment accounted for a 37.90% share of the fixed-wing VTOL UAV market size in 2024; platforms above 150 kg are progressing at a 25.78% CAGR through 2030.

* By range, medium-range aircraft led with 41.25% share in 2024, whereas long-range models are expanding at a 26.34% CAGR to 2030.

* By geography, North America commanded 36.55% of the fixed-wing VTOL UAV market share in 2024, and Asia-Pacific records the highest 24.89% CAGR through 2030.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of Fixed-Wing VTOL UAV Market* Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Rising global demand for runway-independent ISR and surveillance platforms | +4.2% | North America, Asia-Pacific | Medium term (2-4 years) |

Expansion of commercial mapping and aerial surveying applications | +3.8% | North America, Europe | Short term (≤ 2 years) |

Progress in regulatory approvals for beyond visual line-of-sight (BVLOS) operations | +5.1% | North America, European Union | Short term (≤ 2 years) |

Technological advancements in hybrid-electric propulsion systems | +4.6% | North America, Europe | Medium term (2-4 years) |

Adoption of UAVs for environmental monitoring in hazardous sites | +2.9% | Europe, North America | Long term (≥ 4 years) |

Growing use of high-wind-capable UAVs for offshore wind farm inspections | +3.4% | Europe, North America, Asia-Pacific | Medium term (2-4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The fixed-wing VTOL UAV market remains moderately fragmented. Incumbents leverage scale, while specialists differentiate through propulsion or autonomy. AeroVironment's revenue surge and FreedomWerx facility highlight a strategy of vertical integration and acquisition-driven expansion. Joby and L3Harris joined forces i

n 2025 to merge eVTOL expertise with defense integration, targeting hybrid military platforms.

Disruptors such as Shield AI's tail-sitter V-BAT gain traction for ship-borne missions, bypassing complex tilt-wing mechanisms. Technology convergence is accelerating: aerospace primes partner with software houses to embed AI navigation, while electronics firms enter the airframe space. Certification expertise and regulator relationships constitute key competitive moats alongside traditional performance metrics.

Fixed-Wing VTOL UAV Industry Leaders* AeroVironment, Inc.

* Lockheed Martin Corporation

* Quantum-Systems GmbH

* Thales Group

* Textron Inc.

* *Disclaimer: Major Players sorted in no particular order
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Component Component 3 Scope Of The Report Bottom

Global Fixed-Wing VTOL UAV Market Report ScopeBy ApplicationIntelligence, Surveillance, and Reconnaissance (ISR) |
Combat Operations |
Border Management |
Others |

Segmentation Accordion Item

By GeographyNorth America | United States |
| Canada |
| Mexico |
Europe | United Kingdom |
| France |
| Germany |
| Italy |
| Rest of Europe |
Asia-Pacific | China |
| India |
| Japan |
| South Korea |
| Australia |
| Rest of Asia-Pacific |
South America | Brazil |
| Rest of South America |
Middle East and Africa | Middle East | Saudi Arabia |
	United Arab Emirates
	Rest of Middle East
Africa	South Africa
	Rest of Africa

Frequently Asked Questions

How large is the Fixed-Wing VTOL UAV sector in 2025?

The Fixed-Wing VTOL UAV market size stands at USD 1.32 billion in 2025.

What is the growth outlook through 2030?

The market is projected to reach USD 3.79 billion by 2030, registering a 23.48% CAGR.

Which application area generates the most revenue?

ISR platforms account for 46.89% of 2024 revenue and maintain the fastest 25.34% growth pace.

Which region is expanding fastest?

Asia-Pacific leads growth with a 24.89% CAGR due to rising defense procurements and commercial projects.

What propulsion technology is gaining momentum beyond batteries?

Hydrogen fuel-cell systems are the fastest-growing propulsion segment, expanding at 27.56% CAGR.