

Military Radars Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Missiles, Defense Systems & Radars (Aerospace & Defense)
> **Source:** https://www.mordorintelligence.com/industry-reports/military-radar-market
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
Base Market Size	USD 13.49 billion
Projected Forecast (2031)	USD 13.49 billion
Growth Rate (CAGR)	4.55 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

! [Major players in Military Radars industry] (images/chart_2.png)

! [Military Radars Market Size] (images/chart_3.png)

! [Military Radars Market Share by Platform, 2025] (images/chart_4.png)

! [Military Radars Market Share by Technology, 2025] (images/chart_5.png)

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Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market OverviewStudy Period | 2019 - 2031 |
Market Size (2026) | USD 13.49 Billion |
Market Size (2031) | USD 16.84 Billion |
Growth Rate (2026 - 2031) | 4.55 % |
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

Military Radars Market Analysis by Mordor Intelligence The military radars market size is expected to grow from USD 12.75 billion in 2025 to USD 13.49 billion in 2026 and is forecast to reach USD 16.84 billion by 2031 at a 4.55% CAGR over 2026-2031. Demand is shifting from platform-centric purchases to network-enabled sensor ecosystems that link radar outputs across air, land, sea, space, and cyber domains to support real-time joint decision-making. Growth is driven by open architectures, multi-function AESA adoption, and digital signal processing advancements, enhancing range, discrimination, coverage, and enabling faster software-based upgrades through improved technical capabilities. Regions with recapitalization programs emphasize air and missile defense, early warning, and counter-drone missions, necessitating 360-degree surveillance and rapid tracking updates to enhance operational readiness and situational awareness. Suppliers are responding with modular building blocks and software-defined features to shorten upgrade cycles and protect installed bases.

Key Report Takeaways* By platform, land systems accounted for 39.21% of revenue in 2025, while airborne platforms are forecasted to grow at a 6.15% CAGR through 2031.

* By product type, tracking and fire control captured a 31.57% share in 2025, and surveillance and airborne early warning are projected to grow at a 6.45% CAGR to 2031.

* By technology, software-defined radars held 48.75% share in 2025, while quantum radars are projected to grow at a 5.85% CAGR through 2031.

* By range, long-range systems accounted for a 41.25% share in 2025, and medium-range systems are set to advance at a 5.33% CAGR through 2031.

* By component, antennas held a 26.85% share in 2025, and signal processors are expected to record the fastest growth at a 6.73% CAGR through 2031.

* By geography, North America accounted for 37.38% of the military radars market share in 2025, and Asia-Pacific is forecasted to be the fastest-growing region at a 7.12% CAGR through 2031.

Key Market Trends

Market Trends and Insights Drivers Impact Analysis of Military Radars Market* Driver | % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Growing geopolitical tensions and defense modernization budgets | +1.8% | Global, with concentration in NATO members, Indo-Pacific (Japan, South Korea, Australia), and Middle East | Medium term (2-4 years) |

Rapid deployment needs for counter-UAS and hypersonic threats | +1.2% | North America, Europe, Asia-Pacific, with early adoption in Israel and UAE | Short term (≤ 2 years) |

Shift toward multi-function AESA and software-defined radar | +1.0% | Global, led by US, European consortia, and emerging defense exporters (South Korea, Turkey) | Medium term (2-4 years) |

Integration of radar data into joint all-domain command-and-control (JADC2) | +0.9% | North America and Five Eyes nations, expanding to NATO and Indo-Pacific allies | Long term (≥ 4 years) |

Modular open systems architecture (MOSA) driving lifecycle cost savings | +0.5% | US and NATO member states implementing Title 10 USC mandates | Long term (≥ 4 years) |

Under-ice and arctic surveillance requirements due to polar route opening | +0.3% | Arctic rim nations (US, Canada, Norway, Russia), with spillover to Nordic states | Long term (≥ 4 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The military radars market is moderately concentrated, with key players such as Lockheed Martin Corporation, RTX Corporation, Northrop Grumman Corporation, BAE Systems plc, and Israel Aerospace Industries Ltd. accounting for a significant share of the projected 2025 revenue. Prime contractors maintain leadership through broad portfolios and deep integration capabilities, while regional champions and specialized integrators grow share in targeted niches.

Lockheed Martin's agreement in January 2026 with the US government to expand PAC-3 MSE production to 2,000 missiles per year by 2033 illustrates how capacity expansions in adjacent segments influence radar-linked demand for engagement-quality tracking and cueing. RTX Corporation is scaling air defense production and modernization activities, including the FAA's selection of Collins Aerospace for next-generation cooperative and non-cooperative surveillance radars under the radar system replacement program, which showcases dual-use capability that also benefits military applications.

Evolving standards and procurement policies are reshaping competitive strategy toward open, upgradeable, and interoperable designs that can scale across platforms and coalitions. Independent oversight has pushed for better planning to realize MOSA's promised benefits, a dynamic that favors primes and integrators with proven open-architecture track records and supplier networks. Collectively, these developments indicate steady, moderate concentration in the military radars market with strong positions for established primes and meaningful openings for regionally focused and technology-led challengers.

Military Radars Industry Leaders* Lockheed Martin Corporation

* Northrop Grumman Corporation

* RTX Corporation

* BAE Systems plc

* Israel Aerospace Industries Ltd.

* *Disclaimer: Major Players sorted in no particular order

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Component Component 3 Scope Of The Report Bottom

Global Military Radars Market Report ScopeMilitary radars are specialized electronic systems that use radio waves to detect, track, and identify objects such as aircraft, missiles, ships, and vehicles. By gauging an object's distance, direction, speed, and altitude, these radars furnish vital data for surveillance, early warnings, and weapon control, underscoring their importance in national defense and battlefield awareness. Engineered for mobility and all-weather operation, these advanced systems adeptly manage multiple targets, bolstering operations across air defense and border security.

The military radars market is segmented by platform, product type, technology, range, component, and geography. By platform, the market is segmented into land, naval, airborne, and space. By product type, the market is segmented into surveillance and airborne early warning radars, tracking and fire control radars, multifunction radars, weapon locating and C-RAM radars, ground penetrating radars, weather radars, counter-drone radars, and others. By technology, the market is segmented into software-defined radars, conventional radars, and quantum radars. By range, the market is segmented into short-range, medium-range, and long-range. By component, the market is segmented into antennas, transmitters, receivers, signal processors, power amplifiers, stabilization systems, and others. The report also covers the market sizes and forecasts for the military radars market in m

major countries across different regions. For each segment, the market size is provided in terms of value (USD).

By PlatformLand |
Naval |
Airborne |
Space |

Segmentation Accordion Item

By GeographyNorth America | United States |
| Canada |
| Mexico |
Europe | United Kingdom |
| France |
| Germany |
| Russia |
| 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 | United Arab Emirates |
	Saudi Arabia
	Israel
	Rest of Middle East
Africa	South Africa
	Rest of Africa

Frequently Asked Questions

What is the current size of the military radars market and how fast is it growing?

The military radars market size is USD 12.75 billion in 2025 and is projected to reach USD 16.84 billion by 2031 at a 4.55% CAGR.

Which segments are growing fastest in military radars and why?

Airborne platforms, surveillance and AEW products, medium-range systems, and signal processors are growing fastest due to multi-mission demand, 360-degree coverage, and software-defined upgrades.

Which regions lead demand and growth for military radars?

North America holds the largest share at 37.38% in 2025 while Asia-Pacific is the fastest growing at a 7.12% CAGR through 2031.

How are open architectures changing military radars procurement?

MOSA and related standards encourage interoperable, upgradeable radars, reducing vendor lock-in and speeding insertion of new waveforms and processors.

What technologies are most influential in military radars today?

Multi-function AESA, GaN power devices, software-defined radar, and advanced sig

nal processors drive performance, with quantum concepts progressing through research.

What recent deals illustrate momentum in military radars?

Awards include PAC-3 MSE scale-up, FAA radar modernization with RTX's Condor Mk3 and ASR-XM, ECRS Mk2 production, AURORA space surveillance deployment, and IAI's 250th MMR delivery.