

Air And Missile Defense Radar Market Size & Share Analysis - Growth Trends and Forecast (2025 - 2030)

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

Executive Market Summary

Market Metric	Details
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Base Market Size	USD 7.79 billion
Projected Forecast (2031)	USD 7.79 billion
Growth Rate (CAGR)	6.13 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

![Major players in Air And Missile Defense Radar industry](images/chart_2.png)

![Air and Missile Defense Radar Market (2025 - 2030)](images/chart_3.png)

![Air and Missile Defense Radar Market: Market Share by Platform](images/chart_4.png)

![Air and Missile Defense Radar Market: Market Share by Frequency Band](images/chart_5.png)

![Air and Missile Defense Radar Market CAGR (%), Growth Rate by Region](images/chart_6.png)

![Air and Missile Defense Radar Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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![ESOMAR](images/chart_17.png)

![GPTW](images/chart_19.png)

Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market Overview	Study Period 2019 - 2030
Market Size (2025)	USD 7.79 Billion
Market Size (2030)	USD 10.49 Billion
Growth Rate (2025 - 2030)	6.13 %
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

Air And Missile Defense Radar Market Analysis by Mordor IntelligenceThe air and missile defense radar market size stands at USD 7.79 billion in 2025 and is projected to reach USD 10.49 billion by 2030, reflecting a 6.13% CAGR during the forecast period. Robust spending aimed at countering hypersonic, ballistic, and maneuverable missiles, accelerated fleet modernization across navies, and the pivot from mechanically scanned arrays to gallium-nitride (GaN) Active Electronically Scanned Array (AESA) architectures are the primary growth catalysts. Investments in artificial intelligence-enabled signal processing, multi-domain command-and-control frameworks, and layered counter-UAS portfolios further reinforce expansion prospects for the air and missile defense radar market. Defense agencies are also reallocating budgets toward software-defined upgrades that extend radar service life while enhancing resilience against electronic countermeasures. Finally, steady export demand from allied nations seeking interoperability with US and NATO systems underpins the near-term revenue outlook.

Key Report Takeaways* By platform, ground-based radars led with 47.56% of the air and missile defense radar market share in 2024, while naval-based systems are advancing at a 6.78% CAGR to 2030.

* By range capability, long-range sensors commanded 49.24% of the air and missile defense radar market size in 2024; short-range solutions are forecasted to expand at a 6.81% CAGR through 2030.

* By frequency band, L/S bands accounted for 38.37% share of the air and missile defense radar market in 2024, and Ku/Ka/mm-Wave technologies are growing at a 7.21% CAGR to 2030.

* By technology, AESA platforms captured 46.77% share and delivered the fastest 7.35% CAGR through 2030 within the air and missile defense radar market.

* By geography, North America held a 38.85% share of 2024 revenues, whereas Asia-Pacific registered the highest 7.01% CAGR to 2030.

Key Market Trends

Market Trends and InsightsDrivers Impact Analysis of Air And Missile Defense Radar Market*Driver | (~) % Impact on CAGR Forecast | Geographic Relevance | Impact Timeline |

Escalating threat from hypersonic, ballistic, and maneuverable missile systems | +1.2% | Global; high in North America, Europe, Asia-Pacific | Medium term (2-4 years) |

Growing adoption of multi-domain integrated air and missile defense architectures | +0.9% | North America, Europe, expanding Asia-Pacific | Long term (≥4 years) |

Technological shift toward GaN-based AESA radars offering full-spectrum 360° coverage | +1.1% | Global; led by North America, Europe | Medium term (2-4 years) |

Rising demand for counter-UAS and layered air defense capabilities | +0.8% | Global; emphasis Middle East, Asia-Pacific | Short term (≤2 years) |

Emergence of AI-driven radar data fusion for real time threat classification | +0.7% | North America and Europe, with Asia-Pacific adoption | Medium term (2-4 years) |

Increasing emphasis on mobile, networked radar platforms for forward area surveillance | +0.6% | Global, with focus on contested regions | Short term (≤ 2 years) |

Source: Mordor Intelligence |

Competitive Landscape

Competitive Landscape

The air and missile defense radar market exhibits moderate concentration: RTX Corporation, Lockheed Martin Corporation, Northrop Grumman Corporation, and Leonardo S.p.A. collectively dominate multi-domain programs, leveraging integrated sensor-to-shooter portfolios and decades-old customer intimacy. Contract timelines stretch 10 to 15 years, reinforcing incumbency advantages and deterring new entrants. However, open-architecture mandates and modular designs lower integration barriers, enabling component specialists to capture subsystem niches.

Strategic themes revolve around GaN fabrication expansion, AI-powered track classification, and multi-mission re-programmability. RTX's Massachusetts fab ramp-up lifted T/R module output 40% in 2024, underpinning SPY-6 and TPY-2 pipelines. Lockheed Martin's USD 950 million THAAD upgrade integrates its interceptor and radar franchises, fortifying its share in exo-atmospheric defense. Emerging threats spur partnerships—Saab-Hanwha's Korean AESA joint venture, HENSOLDT-Rheinmetall's counter-UAS alliance—widening technology diffusion and bolstering optionality for defense ministries.

While top primes retain procurement primacy, value-chain whitespace persists in digital beamforming software, cyber-hardened signal processors, and lightweight composite radomes. Suppliers targeting these domains can secure footholds even as overall concentration persists within the air and missile defense radar market.

Air And Missile Defense Radar Industry Leaders* RTX Corporation

- * Lockheed Martin Corporation
- * Northrop Grumman Corporation
- * Thales Group
- * Leonardo S.p.A.

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

Global Air And Missile Defense Radar Market Report ScopeSegmentation OverviewBy
PlatformGround-based |
Naval-based |
Airborne-based |

Segmentation Accordion Item

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

Frequently Asked Questions

What is the projected value of the Air and Missile Defense Radar market by 2030?

The air and missile defense radar market is forecasted to reach USD 10.49 billion by 2030, growing at a 6.13% CAGR.

Which platform segment contributes the most revenue today?

Ground-based systems lead with 47.56% share of 2024 revenues due to their pivotal role in homeland and forward-deployed defense.

Which region is expanding fastest?

Asia-Pacific is advancing at a 7.01% CAGR through 2030, fueled by modernization programs in Japan, India and Australia.

Why are GaN-based AESA radars gaining traction?

GaN delivers higher power density, better thermal management and multi-beam agility, driving AESA adoption and a 7.35% CAGR through 2030.

How are supply chain challenges impacting deliveries?

Limited GaN wafer capacity and extended semiconductor lead times have stretched radar deliveries by up to 12 months since 2024.

What role do counter-UAS requirements play in new procurements?

Rising drone threats are boosting demand for short-range Ku/Ka-band radars, the fastest-growing range segment at a 6.81% CAGR.