

# **Global Airborne Radars Market Size Study, by Component (Antennas, Receivers, Processors, Transmitters, Graphical User Interfaces, Stabilization Systems, Others), by Mode (Air-to-Ground, Air-to-Air, Air-to-Sea), by Dimension (2D, 3D, 4D), by Range (Long Range, Medium Range, Short Range, Very Short Range), by Frequency Band (X-band, C-band, KU-band, S-band, HF/VHF/UHF, KA-band, Multi-band, L-band), by Installation Type (New Installation, Retrofit), by Technology (Active Electronically Scanned Array, Software-Defined Radar, Synthetic Aperture Radar, Digital Beamforming, Multistatic Radar Systems, Low Probability of Intercept), by Application (Defense and Military, Commercial and Business), and Regional Forecasts 2022-2032**

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## **Abstracts**

Global Airborne Radars Market is valued approximately at USD 10.54 billion in 2023 and is anticipated to grow with a robust CAGR of 9.6% over the forecast period 2024-2032. Airborne radars are integral systems mounted on aircraft to detect, track, and monitor various objects, terrain features, and weather conditions. Operating through the emission of radio waves and analysis of the reflected signals, these systems provide critical data on the position, speed, and distance of objects, which is essential for both military and civilian applications. In the defense sector, airborne radars are crucial for

surveillance, target acquisition, and navigation, ensuring that military operations are conducted with high precision and safety. Meanwhile, in commercial aviation, these radars enhance operational safety by monitoring weather conditions, detecting other aircraft, and aiding in navigation. The versatility of airborne radars extends to their use in search and rescue missions, disaster management, and environmental monitoring, where they provide real-time situational awareness and crucial information to ground operators.

The Airborne Radars Market is experiencing significant growth driven by several key factors. The first major driver is the increasing global defense expenditure, propelled by rising geopolitical tensions and the need for modernized military infrastructure. Airborne radar systems are essential for advanced surveillance and target detection, making them a top priority in defense budgets worldwide. Another key driver is the rapid technological advancements in radar systems, including innovations such as Active Electronically Scanned Array (AESA) radars, which offer enhanced detection capabilities, longer ranges, and improved accuracy. These technological strides are transforming airborne radar systems, making them more effective and versatile, thus driving market demand. Additionally, the expansion of Unmanned Aerial Vehicles (UAVs) in both military and civilian roles is further fueling the market. UAVs rely heavily on advanced radar systems for navigation and reconnaissance, leading to a surge in demand for compact and lightweight radar systems. The market presents significant opportunities as well, particularly in the growing civilian applications of airborne radars. These include air traffic control, weather monitoring, and environmental studies, where radar systems enhance safety and operational efficiency. Emerging markets in Asia-Pacific and the Middle East are also investing heavily in modernizing their defense systems, creating lucrative opportunities for airborne radar manufacturers to expand their presence in these regions. However, the market does face challenges, most notably the high development and maintenance costs associated with advanced radar systems. The need for continuous technological upgrades and the complexity of integrating these systems into existing defense infrastructures can be financially burdensome, potentially limiting market growth.

The North American region dominated the global airborne radars market in 2023, accounting for a significant revenue share. This dominance is expected to continue, driven by the region's high demand for intelligence, surveillance, and reconnaissance (ISR) capabilities, particularly for border and coastal surveillance. The Asia-Pacific region is projected to grow at the fastest CAGR during the forecast period, fueled by the ongoing modernization of military capabilities and the increasing focus on acquiring advanced technologies to maintain a strategic edge.

Major market players included in this report are:

Lockheed Martin Corporation

Thales

Leonardo S.p.A.

Hensoldt

Honeywell Aerospace

L3Harris Technologies, Inc.

Elbit Systems Ltd.

Israel Aerospace Industries

Indra

Telephonics Corporation

The detailed segments and sub-segment of the market are explained below:

By Component:

Antennas

Receivers

Processors

Transmitters

Graphical User Interfaces

Stabilization Systems

Others

By Mode:

Air-to-Ground

Air-to-Air

Air-to-Sea

By Dimension:

2D

3D

4D

By Range:

Long Range

Medium Range

Short Range

Very Short Range

By Frequency Band:

X-band

C-band

KU-band

S-band

HF/VHF/UHF

KA-band

Multi-band

L-band

By Installation Type:

New Installation

Retrofit

By Technology:

Active Electronically Scanned Array

Software-Defined Radar

Synthetic Aperture Radar

Digital Beamforming

Multistatic Radar Systems

Low Probability of Intercept

By Application:

Defense and Military

Commercial and Business

## By Region:

### North America

U.S.

Canada

### Europe

UK

Germany

France

Spain

Italy

ROE

### Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

## Latin America

Brazil

Mexico

RoLA

## Middle East & Africa

Saudi Arabia

South Africa

RoMEA

Years considered for the study are as follows:

Historical year – 2022

Base year – 2023

Forecast period – 2024 to 2032

## Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.



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