

VHF Air Ground Communication Stations Market Forecasts to 2030 – Global Analysis By Station Type (Fixed, Mobile, Automated , Hybrid and Other Station Types), Component Type, Deployment Type, Technology, Application, End User and By Geography

<https://marketpublishers.com/r/V392D46338F2EN.html>

Date: January 2025

Pages: 150

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

ID: V392D46338F2EN

Abstracts

According to Statistics MRC, the Global VHF Air Ground Communication Stations Market is accounted for \$1.4 billion in 2024 and is expected to reach \$2.5 billion by 2030 growing at a CAGR of 9.9% during the forecast period. VHF Air-Ground Communication Stations are facilities that facilitate voice communication between aircraft and ground control units using Very High Frequency (VHF) radio waves. Operating typically between 118 MHz and 137 MHz, these stations enable real-time communication for air traffic control, safety, and coordination of flight operations. They play a crucial role in ensuring safe and efficient air travel, particularly during takeoff, landing, and en route. VHF air-ground communication is vital for maintaining continuous, clear communication between pilots and controllers.

According to a study issued by the Bureau of Transportation Statistics (BTS) , American airlines transported more than 925.5 million passengers in 2019.

Market Dynamics:

Driver:

Rising demand for air travel

The rising demand for air travel is significantly boosting the market. As global air traffic increases, efficient and reliable communication systems become crucial for ensuring

safety and smooth operations. VHF radios, essential for short-range communication between aircraft and ground control, are in high demand to support expanding air routes and improving airspace management. This growth is further fueled by advancements in technology, enhancing communication clarity and coverage.

Restraint:

Interference from other electronic devices

Interference from other electronic devices poses a significant challenge in the market, potentially compromising communication clarity and reliability. Such interference can lead to signal distortion, loss of vital data, and communication gaps between aircraft and ground control. This disruption jeopardizes flight safety, delays air traffic operations, and complicates coordination efforts. To mitigate these risks, stringent equipment standards and frequency management protocols are essential for maintaining system integrity.

Opportunity:

Integration with advanced technologies

The integration of advanced technologies in the market is enhancing communication efficiency and reliability. Innovations such as digital communication systems, advanced signal processing, and data-link technologies are being incorporated to improve voice clarity, expand coverage, and reduce interference. These technologies also enable seamless integration with other air traffic management systems, supporting real-time data exchange, improving situational awareness, and enhancing safety and operational efficiency in modern air travel.

Threat:

Aging infrastructure

Aging infrastructure in the market can lead to reduced system reliability and increased maintenance costs. Outdated equipment may experience frequent malfunctions, resulting in communication disruptions between aircraft and ground control. This can compromise flight safety, cause delays, and hinder effective air traffic management. Upgrading infrastructure is crucial to ensure optimal performance, enhance coverage, and meet growing demands for air travel while maintaining operational efficiency and safety.

Covid-19 Impact:

The COVID-19 pandemic significantly impacted the market, as global air travel demand plummeted, leading to reduced investments in new communication infrastructure. Delays in upgrades and maintenance occurred due to workforce shortages and supply chain disruptions. However, as air travel gradually recovers, the market is witnessing renewed demand for advanced communication systems to enhance safety and operational efficiency, reflecting a growing need for resilient and modernized air traffic control systems.

The receivers segment is expected to be the largest during the forecast period

The receivers segment is expected to account for the largest market share during the projection period due to they are essential for capturing transmissions between aircraft and ground control. These receivers operate in the VHF frequency range, ensuring reliable communication over long distances. With the growth of air traffic, demand for advanced receivers that offer higher sensitivity and better signal clarity is rising. These receivers play a vital role in enhancing communication efficiency and maintaining safety in the aviation industry.

The civil aviation segment is expected to have the highest CAGR during the forecast period

The civil aviation segment is expected to have the highest CAGR during the extrapolated period ensuring safety, efficiency, and coordination in air traffic management. With the growing demand for air travel, the market is expanding, driven by advancements in VHF technology, regulatory standards, and increased aircraft operations. This market supports both commercial and military aviation sectors, enhancing communication reliability in diverse operational environments.

Region with largest share:

North America region is projected to account for the largest market share during the forecast period driven by the region's advanced aviation infrastructure and increasing air traffic. The demand for reliable communication systems in air traffic control, particularly in the U.S. and Canada, is rising due to expanding flight operations and safety requirements. Technological advancements, regulatory compliance, and the need for system upgrades further contribute to the market's expansion in this region.

Region with highest CAGR:

Asia Pacific is expected to register the highest growth rate over the forecast period driven by rising air traffic, technological advancements. The aviation sector in the region is witnessing a surge in air passenger traffic, with increasing domestic and international flights. To accommodate this growing volume, governments and private players are upgrading airport infrastructures and air traffic control systems, including VHF communication technologies. Additionally, technological advancements are also fueling the market's growth.

Key players in the market

Some of the key players in VHF Air Ground Communication Stations market include Honeywell International Inc., Thales Group, Raytheon Technologies, Collins Aerospace, Lockheed Martin, L3Harris Technologies, Saab AB, Leonardo S.p.A., Rockwell Collins, Garmin Ltd., Airbus S.A.S., Boeing Company, Cobham plc, Becker Avionics, Airwave, Eutelsat Communications, General Electric Aviation and Technisonic Industries Ltd.

Key Developments:

In July 2024, Honeywell and Odys Aviation, have signed a memorandum of understanding (MOU) to collaborate on the design of new Ground Control Stations to support the rollout of Odys Aviation's hybrid VTOL aircraft in the Middle East and Pacific.

In June 2024, Thales has announced the unveiling the first two radios in its new HF XL range of resilient high-data-rate wideband HF radios for command posts deployed by land forces in the theatre of operations. They are ideally suited to high-intensity conflict scenarios.

Station Types Covered:

Fixed

Mobile

Automated

Hybrid

Other Station Types

Component Types Covered:

Transmitters

Receivers

Antennas

Control Systems

Power Supply Systems

Signal Processors

Deployment Types Covered:

On-Premise

Cloud-Based

Technologies Covered:

Analog

Digital

Data Link Communication (DLC) Systems

Satellite Communication (Satcom) Integration

Wideband

Applications Covered:

Air Traffic Control (ATC)

Flight Deck Communication

Weather Reporting and Updates

Military Communication

Search and Rescue Operations

Other Applications

End Users Covered:

Civil Aviation

Military Aviation

Aviation Service Providers

Government & Regulatory Bodies

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2022, 2023, 2024, 2026, and 2030
- 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

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY STATION TYPE

- 5.1 Introduction
- 5.2 Fixed
- 5.3 Mobile
- 5.4 Automated
- 5.5 Hybrid
- 5.6 Other Station Types

6 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY COMPONENT TYPE

- 6.1 Introduction
- 6.2 Transmitters
- 6.3 Receivers
- 6.4 Antennas
- 6.5 Control Systems
- 6.6 Power Supply Systems
- 6.7 Signal Processors

7 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY DEPLOYMENT TYPE

- 7.1 Introduction
- 7.2 On-Premise
- 7.3 Cloud-Based

8 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY TECHNOLOGY

- 8.1 Introduction
- 8.2 Analog
- 8.3 Digital
- 8.4 Data Link Communication (DLC) Systems
- 8.5 Satellite Communication (Satcom) Integration
- 8.6 Wideband

9 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY APPLICATION

- 9.1 Introduction
- 9.2 Air Traffic Control (ATC)
- 9.3 Flight Deck Communication
- 9.4 Weather Reporting and Updates
- 9.5 Military Communication
- 9.6 Search and Rescue Operations
- 9.7 Other Applications

10 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY END USER

- 10.1 Introduction
- 10.2 Civil Aviation
- 10.3 Military Aviation
- 10.4 Aviation Service Providers
- 10.5 Government & Regulatory Bodies
- 10.6 Other End Users

11 GLOBAL VHF AIR GROUND COMMUNICATION STATIONS MARKET, BY GEOGRAPHY

- 11.1 Introduction
- 11.2 North America
 - 11.2.1 US
 - 11.2.2 Canada
 - 11.2.3 Mexico
- 11.3 Europe
 - 11.3.1 Germany
 - 11.3.2 UK
 - 11.3.3 Italy
 - 11.3.4 France
 - 11.3.5 Spain
 - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
 - 11.4.1 Japan
 - 11.4.2 China

- 11.4.3 India
- 11.4.4 Australia
- 11.4.5 New Zealand
- 11.4.6 South Korea
- 11.4.7 Rest of Asia Pacific
- 11.5 South America
 - 11.5.1 Argentina
 - 11.5.2 Brazil
 - 11.5.3 Chile
 - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
 - 11.6.1 Saudi Arabia
 - 11.6.2 UAE
 - 11.6.3 Qatar
 - 11.6.4 South Africa
 - 11.6.5 Rest of Middle East & Africa

12 KEY DEVELOPMENTS

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

13 COMPANY PROFILING

- 13.1 Honeywell International Inc.
- 13.2 Thales Group
- 13.3 Raytheon Technologies
- 13.4 Collins Aerospace
- 13.5 Lockheed Martin
- 13.6 L3Harris Technologies
- 13.7 Saab AB
- 13.8 Leonardo S.p.A.
- 13.9 Rockwell Collins
- 13.10 Garmin Ltd.
- 13.11 Airbus S.A.S.
- 13.12 Boeing Company

- 13.13 Cobham plc
- 13.14 Becker Avionics
- 13.15 Airwave
- 13.16 Eutelsat Communications
- 13.17 General Electric Aviation
- 13.18 Technisonic Industries Ltd.

List Of Tables

LIST OF TABLES

Table 1 Global VHF Air Ground Communication Stations Market Outlook, By Region (2022-2030) (\$MN)

Table 2 Global VHF Air Ground Communication Stations Market Outlook, By Station Type (2022-2030) (\$MN)

Table 3 Global VHF Air Ground Communication Stations Market Outlook, By Fixed (2022-2030) (\$MN)

Table 4 Global VHF Air Ground Communication Stations Market Outlook, By Mobile (2022-2030) (\$MN)

Table 5 Global VHF Air Ground Communication Stations Market Outlook, By Automated (2022-2030) (\$MN)

Table 6 Global VHF Air Ground Communication Stations Market Outlook, By Hybrid (2022-2030) (\$MN)

Table 7 Global VHF Air Ground Communication Stations Market Outlook, By Other Station Types (2022-2030) (\$MN)

Table 8 Global VHF Air Ground Communication Stations Market Outlook, By Component Type (2022-2030) (\$MN)

Table 9 Global VHF Air Ground Communication Stations Market Outlook, By Transmitters (2022-2030) (\$MN)

Table 10 Global VHF Air Ground Communication Stations Market Outlook, By Receivers (2022-2030) (\$MN)

Table 11 Global VHF Air Ground Communication Stations Market Outlook, By Antennas (2022-2030) (\$MN)

Table 12 Global VHF Air Ground Communication Stations Market Outlook, By Control Systems (2022-2030) (\$MN)

Table 13 Global VHF Air Ground Communication Stations Market Outlook, By Power Supply Systems (2022-2030) (\$MN)

Table 14 Global VHF Air Ground Communication Stations Market Outlook, By Signal Processors (2022-2030) (\$MN)

Table 15 Global VHF Air Ground Communication Stations Market Outlook, By Deployment Type (2022-2030) (\$MN)

Table 16 Global VHF Air Ground Communication Stations Market Outlook, By On-Premise (2022-2030) (\$MN)

Table 17 Global VHF Air Ground Communication Stations Market Outlook, By Cloud-Based (2022-2030) (\$MN)

Table 18 Global VHF Air Ground Communication Stations Market Outlook, By

Technology (2022-2030) (\$MN)

Table 19 Global VHF Air Ground Communication Stations Market Outlook, By Analog (2022-2030) (\$MN)

Table 20 Global VHF Air Ground Communication Stations Market Outlook, By Digital (2022-2030) (\$MN)

Table 21 Global VHF Air Ground Communication Stations Market Outlook, By Data Link Communication (DLC) Systems (2022-2030) (\$MN)

Table 22 Global VHF Air Ground Communication Stations Market Outlook, By Satellite Communication (Satcom) Integration (2022-2030) (\$MN)

Table 23 Global VHF Air Ground Communication Stations Market Outlook, By Wideband (2022-2030) (\$MN)

Table 24 Global VHF Air Ground Communication Stations Market Outlook, By Application (2022-2030) (\$MN)

Table 25 Global VHF Air Ground Communication Stations Market Outlook, By Air Traffic Control (ATC) (2022-2030) (\$MN)

Table 26 Global VHF Air Ground Communication Stations Market Outlook, By Flight Deck Communication (2022-2030) (\$MN)

Table 27 Global VHF Air Ground Communication Stations Market Outlook, By Weather Reporting and Updates (2022-2030) (\$MN)

Table 28 Global VHF Air Ground Communication Stations Market Outlook, By Military Communication (2022-2030) (\$MN)

Table 29 Global VHF Air Ground Communication Stations Market Outlook, By Search and Rescue Operations (2022-2030) (\$MN)

Table 30 Global VHF Air Ground Communication Stations Market Outlook, By Other Applications (2022-2030) (\$MN)

Table 31 Global VHF Air Ground Communication Stations Market Outlook, By End User (2022-2030) (\$MN)

Table 32 Global VHF Air Ground Communication Stations Market Outlook, By Civil Aviation (2022-2030) (\$MN)

Table 33 Global VHF Air Ground Communication Stations Market Outlook, By Military Aviation (2022-2030) (\$MN)

Table 34 Global VHF Air Ground Communication Stations Market Outlook, By Aviation Service Providers (2022-2030) (\$MN)

Table 35 Global VHF Air Ground Communication Stations Market Outlook, By Government & Regulatory Bodies (2022-2030) (\$MN)

Table 36 Global VHF Air Ground Communication Stations Market Outlook, By Other End Users (2022-2030) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East &

Africa Regions are also represented in the same manner as above.

I would like to order

Product name: VHF Air Ground Communication Stations Market Forecasts to 2030 – Global Analysis By Station Type (Fixed, Mobile, Automated , Hybrid and Other Station Types), Component Type, Deployment Type, Technology, Application, End User and By Geography

Product link: <https://marketpublishers.com/r/V392D46338F2EN.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/V392D46338F2EN.html>