

## SATCOM On-The-Move Market worth \$69.72 billion by 2030, growing at a CAGR of 15.22% -Exclusive Report by 360iResearch

The Global SATCOM On-The-Move Market to grow from USD 22.43 billion in 2022 to USD 69.72 billion by 2030, at a CAGR of 15.22%.

PUNE, MAHARASHTRA, INDIA,

November 9, 2023 /EINPresswire.com/ -- The "<u>SATCOM On-The-Move Market</u> by Component (Antennas, Inertial Measurement Unit, Inertial Navigation Units), Platform (Airborne, Land, Naval), Frequency, Vertical, Application - Global Forecast 2023-2030" report has been added to 360iResearch.com's offering.



### The Global SATCOM On-The-Move

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The SATCOM On-The-Move (SOTM) market is experiencing growth owing to the increasing demand for high-speed connectivity in remote locations across various sectors, such as defense, maritime, aviation, and land-based transportation. SOTM systems enable reliable and secure communication for individuals, vehicles, ships, and aircraft while in motion. Major application areas include defense & homeland security, emergency response, maritime communications, aeronautical communications, commercial vehicle fleet management, and media broadcasting. Advancements in technology have led to the development of more efficient satellite tracking systems capable of maintaining stable connections during rapid movement. In addition, the growing emphasis on network-centric warfare and intelligence gathering by defense forces worldwide necessitates real-time data sharing and communication without geographical

constraints. Low earth orbit (LEO) satellite constellations present potential opportunities for market growth by offering faster data transfer rates with lower latency than traditional geostationary earth orbit (GEO) satellites. LEO networks have smaller coverage footprints, enabling higher capacity utilization through frequency reuse. However, several limitations and challenges are affecting the SOTM market. High initial investment and ongoing maintenance expenses may deter potential customers from adopting these solutions. Regulatory challenges such as obtaining spectrum licenses and adhering to national and international communication standards may impede market penetration. Innovations in antenna technology, integration with next-generation satellite networks, and advancements in AI applications are the key factors shaping the future of this market.

Component: Portable and versatile introduction of innovative electronic devices for SATCOM On-The-Move

SATCOM On-The-Move (SOTM) technology ensures seamless communication for mobile platforms such as military vehicles and emergency response teams. Antennas facilitate satelliteground communication, with key features being multi-band frequency support, compact size, and durability. Inertial measurement units (IMUs) measure linear acceleration and angular velocity to determine position in 3D space for accurate vehicle tracking. Inertial navigation units (INUs) calculate vehicle position while integrating data from IMUs to maintain uninterrupted satellite communication during movement or when the GPS signal is lost. Modems and routers ensure high-speed data transmission through SATCOM networks, considering data transfer rates, latency, security features, and frequency band compatibility. Power amplifiers enhance signal strength for robust communication links between satellites and mobile platforms. Radio equipment enables voice communication over SATCOM networks with features including frequency band support, range, audio quality, and interoperability. Receivers decode satellite signals for end-users in on-the-move situations with high performance to minimize data loss due to signal degradation or interference. Transmitters send data or voice signals from ground-based systems to satellites, considering output power levels, frequency band support, modulation schemes, and power-efficient operation.

Frequency: Availability of the appropriate frequency band for SATCOM On-The-Move systems SATCOM On-The-Move systems are essential for maintaining seamless communication across various frequency bands. EHF/SHF-band technology is preferred by military and intelligence agencies due to its high data transfer rates and anti-jamming capabilities. Ka-Band offers higher bandwidth capacities than traditional frequency bands, making it suitable for broadband services and video conferencing. L & S-Bands are used by navigation systems such as GPS/GNSS due to their lower frequency ranges, enabling better signal propagation through obstacles such as buildings or foliage. Multi-band systems operate across diverse frequency bands such as Ka, Ku, L, or S, providing flexible communication options for users with varying requirements. Q-Band has immense potential for high-capacity data transmission and is primarily used for experimental communication systems. VHF/UHF-Band is extensively utilized for short-range terrestrial communications due to its ability to penetrate foliage and urban environments. Military agencies predominantly use X-Band for secure, jam-resistant communication links between ground-based and airborne platforms.

Platform: Evolving needs for defense requirements on air, naval, and land platforms SATCOM On-The-Move (SOTM) systems ensure seamless communication among aircraft, ground troops, and command centers across air, land, and naval domains. These systems facilitate realtime intelligence sharing, situational awareness, surveillance, and reconnaissance. Land-based SATCOM On-The-Move systems focus on uninterrupted communication between mobile ground forces and command centers. Naval SATCOM On-The-Move systems maintain constant communication between ships, submarines, and shore-based command centers. Several manufacturers are committed to enhancing their SATCOM On-The-Move solutions across air, land, and naval segments to cater to the evolving defense requirements across the globe.

# Application: Essential role of SOTM technology for several applications in enabling seamless connections

SATCOM On-The-Move (SOTM) applications play a crucial role in various sectors, including aviation, military, remote business operations, and remote work. In-flight connectivity has become essential for both passengers and crew, necessitating internet access for watching live streaming and real-time communication. SATCOM On-The-Move solutions are critical for military command and control centers to maintain situational awareness and execute missions effectively. They enable seamless communication between ground forces, drones, ships, and aircraft during combat operations or humanitarian relief efforts, and these SATCOM systems are tailored for military use with enhanced security features. SATCOM On-The-Move provides secure VPN connectivity for businesses operating in remote locations or those requiring high levels of data security. VPN connections can be maintained even in areas without traditional infrastructure or where land-based networks are unreliable by using satellites instead of terrestrial networks. As remote work and virtual meetings become more prevalent, satellite-based communication systems offer reliable VoIP and video conferencing solutions to enhance productivity. SATCOM On-The-Move ensures uninterrupted voice and video calls even in difficult environments or peak usage times.

Vertical: Enhanced communication capabilities for commercial and, government & defense The vertical segments of the commercial and government & defense sectors have unique needs that dictate their preferences for satellite communication technology. The commercial sector, including industries such as transportation, media broadcasting, and energy exploration, prioritizes cost-effective solutions providing global coverage with flexible bandwidth options tailored to specific requirements. The government & defense sector emphasizes secure communication systems capable of rapid deployment under challenging conditions while ensuring interoperability and resilience against cyber threats. Both sectors demand reliable satellite communication systems; however, their divergent priorities have led to specialized service providers catering to each segment's unique requirements. Commercial and, government & defense sectors can expect enhanced communication capabilities while adhering to critical priorities such as security or industry-specific demands with technological advances continuing rapidly.

#### Regional Insights:

The global SATCOM On-The-Move market encompasses significant growth due to consumer needs and purchasing behavior varying across key countries in the Americas, Europe, and Asia-Pacific. The growth of the market is influenced by factors such as rising demand for advanced satellite communication systems by military forces and enhancements in border security and surveillance capabilities. In North America, increased adoption of satellite communication systems has led to a rise in significant investment in the private sector. Europe shows promising growth potential owing to its focus on improving national defense through advanced communication technology investments. Countries including Saudi Arabia, UAE, South Africa, Israel, and Nigeria drive demand for robust satellite communication systems in the EMEA region. The need for connected military applications has spurred governments to invest in infrastructure upgrades. Asia-Pacific, China, Japan, India, and Australia heavily invest in satellite communications technology to support various sectors. Companies worldwide invest in R&D to develop innovative technologies for SATCOM On-The-Move systems. Both public and private sectors contribute to increased global investments in the SATCOM On-The-Move market.

#### FPNV Positioning Matrix:

The FPNV Positioning Matrix is essential for assessing the SATCOM On-The-Move Market. It provides a comprehensive evaluation of vendors by examining key metrics within Business Strategy and Product Satisfaction, allowing users to make informed decisions based on their specific needs. This advanced analysis then organizes these vendors into four distinct quadrants, which represent varying levels of success: Forefront (F), Pathfinder (P), Niche (N), or Vital(V).

#### Market Share Analysis:

The Market Share Analysis offers an insightful look at the current state of vendors in the SATCOM On-The-Move Market. By comparing vendor contributions to overall revenue, customer base, and other key metrics, we can give companies a greater understanding of their performance and what they are up against when competing for market share. The analysis also sheds light on just how competitive any given sector is about accumulation, fragmentation dominance, and amalgamation traits over the base year period studied.

#### Key Company Profiles:

The report delves into recent significant developments in the SATCOM On-The-Move Market, highlighting leading vendors and their innovative profiles. These include Airbus SE, Alico Systems Inc., ASELSAN Elektronik Sanayi ve Ticaret Anonim Şirketi, Ball Corporation, Celera Motion by Novanta Company, Cobham Ltd., Comtech Telecommunications Corp., EchoStar Corporation, EM Solutions Pty Ltd., General Dynamics Corporation, Gilat Satellite Networks Ltd., Honeywell International Inc., Inmarsat Global Ltd. by Viasat Inc, Intelsat US LLC, Iridium Communications Inc., KVH Industries, Inc., L3Harris Technologies, Inc., Raytheon Technologies Corporation, Satcube, SES S.A., SpaceX, Synertone Communication Corporation, Thales Group, The Boeing Company, Thuraya Telecommunications Company by Al Yah Satellite Communications Company PJSC, and VectorNav Technologies, LLC.

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Market Segmentation & Coverage:

This research report categorizes the SATCOM On-The-Move Market in order to forecast the revenues and analyze trends in each of following sub-markets:

Based on Component, market is studied across Antennas, Inertial Measurement Unit, Inertial Navigation Units, Modems & Routers, Power Amplifiers, Radio, Receivers, and Transmitters. The Antennas is further studied across MIMO and Phased Arrays. The Antennas commanded largest market share of 21.23% in 2022, followed by Modems & Routers.

Based on Platform, market is studied across Airborne, Land, and Naval. The Airborne is further studied across Commercial Aircraft, Military Aircraft, and Unmanned Aerial Vehicles. The Land is further studied across Commercial Vehicles, Manpacks, Military Vehicles, Trains, and Unmanned Ground Vehicles. The Naval is further studied across Commercial Ships, Military Ships, and Unmanned Maritime Vehicles. The Land commanded largest market share of 42.12% in 2022, followed by Airborne.

Based on Frequency, market is studied across EHF/SHF-Band, Ka-Band, Ku-Band, L & S-Band, Multi-Band, Q-Band, VHF/UHF-Band, and X-Band. The EHF/SHF-Band commanded largest market share of 21.23% in 2022, followed by VHF/UHF-Band.

Based on Vertical, market is studied across Commercial and Government & Defense. The Commercial is further studied across Aviation, Business & Enterprise, Marine, Media & Entertainment, Telecommunication & Cellular Backhaul, and Transportation & Logistics. The Government & Defense is further studied across Homeland Security & Emergency Management and Military. The Government & Defense commanded largest market share of 69.33% in 2022, followed by Commercial.

Based on Application, market is studied across Airliners Live Connectivity, Command & Control Centers, Virtual Private Network (VPN) Connectivity, and VOIP or Video Conferencing. The Command & Control Centers commanded largest market share of 29.34% in 2022, followed by Virtual Private Network (VPN) Connectivity.

Based on Region, market is studied across Americas, Asia-Pacific, and Europe, Middle East & Africa. The Americas is further studied across Argentina, Brazil, Canada, Mexico, and United States. The United States is further studied across California, Illinois, Indiana, New York, Ohio,

Pennsylvania, and Texas. The Asia-Pacific is further studied across Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The Europe, Middle East & Africa is further studied across Denmark, Egypt, Finland, France, Germany, Israel, Italy, Netherlands, Nigeria, Norway, Poland, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and United Kingdom. The Americas commanded largest market share of 36.45% in 2022, followed by Europe, Middle East & Africa.

Key Topics Covered:

- 1. Preface
- 2. Research Methodology
- 3. Executive Summary
- 4. Market Overview
- 5. Market Insights
- 6. SATCOM On-The-Move Market, by Component
- 7. SATCOM On-The-Move Market, by Platform
- 8. SATCOM On-The-Move Market, by Frequency
- 9. SATCOM On-The-Move Market, by Vertical
- 10. SATCOM On-The-Move Market, by Application
- 11. Americas SATCOM On-The-Move Market
- 12. Asia-Pacific SATCOM On-The-Move Market
- 13. Europe, Middle East & Africa SATCOM On-The-Move Market
- 14. Competitive Landscape
- 15. Competitive Portfolio
- 16. Appendix

The report provides insights on the following pointers:

1. Market Penetration: Provides comprehensive information on the market offered by the key players

2. Market Development: Provides in-depth information about lucrative emerging markets and analyzes penetration across mature segments of the markets

3. Market Diversification: Provides detailed information about new product launches, untapped geographies, recent developments, and investments

4. Competitive Assessment & Intelligence: Provides an exhaustive assessment of market shares, strategies, products, certification, regulatory approvals, patent landscape, and manufacturing capabilities of the leading players

5. Product Development & Innovation: Provides intelligent insights on future technologies, R&D activities, and breakthrough product developments

The report answers questions such as:

- 1. What is the market size and forecast of the SATCOM On-The-Move Market?
- 2. Which are the products/segments/applications/areas to invest in over the forecast period in

the SATCOM On-The-Move Market?

3. What is the competitive strategic window for opportunities in the SATCOM On-The-Move Market?

4. What are the technology trends and regulatory frameworks in the SATCOM On-The-Move Market?

5. What is the market share of the leading vendors in the SATCOM On-The-Move Market?

6. What modes and strategic moves are considered suitable for entering the SATCOM On-The-Move Market?

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