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Sonobuoy Market Forecasts to 2032 – Global Analysis By Type (Active Sonobuoys, Passive Sonobuoys, Other Types), Size Class, Deployment Method, Application, End User and By Geography

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Abstracts

According to Stratistics MRC, the Global Sonobuoy Market is accounted for $1.89 billion in 2025 and is expected to reach $3.47 billion by 2032 growing at a CAGR of 9.03% during the forecast period. A sonobuoy is a small, disposable electronic device designed to capture and transmit underwater acoustic information. Launched from ships or aircraft, it helps in identifying, tracing, and observing submarine activities. It uses hydrophones to sense underwater sounds and relays the information through radio signals to operators. Widely used in naval defense and scientific studies, sonobuoys are vital tools for submarine detection, maritime security, and oceanographic monitoring in both military and research applications.

Market Dynamics:

Driver:

Increasing naval modernization programs worldwide

Defence agencies are prioritizing acoustic detection technologies to enhance underwater situational awareness and fleet protection. The integration of AI-driven signal processing and real-time data transmission is transforming sonar capabilities. As geopolitical tensions rise, countries are accelerating procurement of advanced sonobuoy arrays for coastal and deep-sea monitoring. Emerging trends include networked sonobuoy systems and autonomous deployment via unmanned aerial vehicles (UAVs). These modernization efforts are expanding the operational scope of

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naval fleets and driving sustained demand across both developed and emerging defense markets.

Restraint:

Limited operational lifespan of sonobuoys

Environmental factors such as salinity, pressure, and temperature fluctuations further degrade sensor performance over time. Manufacturers face challenges in balancing cost-efficiency with durability, especially for expendable units. The push toward miniaturization and lightweight designs often compromises battery life and acoustic fidelity. While innovations in energy harvesting and low-power electronics are underway, widespread adoption remains constrained by cost and reliability concerns. This short lifespan limits scalability for continuous surveillance and poses logistical hurdles for naval operations.

Opportunity:

Development of multi-functional and long-endurance

Advances in composite materials and energy-efficient transducers are enabling longer operational durations without compromising signal quality. Integration with satellite communication and underwater drones is expanding deployment flexibility and data relay capabilities. Defense contractors are exploring modular payloads that allow real-time reconfiguration based on mission needs. Emerging technologies such as AI-based anomaly detection and adaptive beamforming are enhancing threat identification accuracy. These innovations are opening new frontiers for persistent maritime surveillance and multi-domain defense strategies.

Threat:

Competition from alternative underwater detection systems

Sonobuoys face growing competition from fixed seabed sensors, towed arrays, and autonomous underwater vehicles (AUVs) equipped with advanced sonar. These alternatives offer extended coverage, reusability, and integration with broader naval command systems. The rise of satellite-enabled ocean surveillance and synthetic aperture sonar is reshaping underwater detection paradigms. Some navies are shifting toward hybrid systems that combine passive acoustic sensors with magnetic anomaly

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detectors and optical imaging. Cost-benefit analyses increasingly favour platforms with longer lifespans and multi-mission versatility.

Covid-19 Impact

The pandemic disrupted global defence supply chains, delaying sonobuoy production and deployment schedules. Lockdowns impacted component sourcing, especially for specialized sensors and batteries, leading to procurement backlogs. However, the crisis accelerated digital transformation in naval operations, with increased reliance on remote diagnostics and unmanned systems. Defence agencies prioritized automation and resilience, prompting renewed interest in autonomous sonobuoy deployment via UAVs and surface drones. Post-pandemic strategies now emphasize decentralized manufacturing, predictive maintenance, and AI-enhanced acoustic analysis.

The passive sonobuoys segment is expected to be the largest during the forecast period

The passive sonobuoys segment is expected to account for the largest market share during the forecast period, due to its cost-effectiveness and stealth capabilities in submarine detection. These devices rely on ambient noise capture, making them ideal for covert operations and wide-area surveillance. Technological advancements in hydrophone sensitivity and digital signal processing are improving detection range and accuracy. Passive systems are increasingly integrated with AI algorithms for real-time classification of underwater threats. Their compatibility with multi-static sonar networks enhances operational efficiency across naval fleets. Rising demand for low-maintenance, expendable surveillance tools is reinforcing the segment’s leadership.

The research institutions segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the research institutions segment is predicted to witness the highest growth rate, driven by expanding oceanographic studies and acoustic research initiatives. These organizations are leveraging sonobuoys for environmental monitoring, marine biodiversity tracking, and underwater seismic analysis. The adoption of long-endurance, data-logging sonobuoys is enabling extended research missions in remote waters. Collaborations with defence agencies and academic consortia are fostering innovation in sensor design and deployment techniques. Trends include integration with cloud-based analytics platforms and real-time telemetry for global data sharing. As climate change and marine conservation gain urgency, research-driven demand for

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sonobuoys is accelerating.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share fuelled by rising defence budgets and maritime security initiatives. Countries like China, India, Japan, and South Korea are investing heavily in anti-submarine warfare capabilities and coastal surveillance infrastructure. Regional navies are adopting advanced sonobuoy systems integrated with UAVs and satellite networks for enhanced coverage. Government-backed modernization programs and indigenous manufacturing are boosting local production and technology transfer. Emerging trends include AI-enabled sonar mapping and multi-sensor fusion for strategic deterrence.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, driven by technological leadership and robust defense R&D funding. The U.S. Navy is pioneering next-gen sonobuoy systems with enhanced signal processing, autonomous deployment, and cloud-based data integration. Defense contractors are collaborating with AI firms to develop predictive acoustic models and threat classification algorithms. Regulatory bodies are streamlining procurement and testing protocols to accelerate innovation cycles. The region is also investing in hybrid surveillance platforms that combine sonobuoys with AUVs and satellite telemetry. As underwater warfare evolves, North America remains at the forefront of acoustic detection innovation.

Key players in the market

Some of the key players profiled in the Sonobuoy Market include Sparton Corporation, Northrop Grumman Corporation, Ultra Electronics, SAAB AB, Thales Group, Klein Marine Systems, General Dynamics Mission Systems, Leonardo S.p.A., RADIXON Group Pty Ltd, Raytheon Technologies, Sealandaire Technologies Inc., BAE Systems, Tata Advanced Systems Ltd., L3Harris Technologies, and Lockheed Martin Corporation.

Key Developments:

In September 2025, Northrop Grumman Corporation’s first Cygnus XL spacecraft successfully launched to the International Space Station aboard a SpaceX Falcon 9

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rocket from Space Launch Complex 40 at Cape Canaveral Space Force Station in Florida in support of NASA's commercial resupply missions.

In August 2025, L3Harris Expands Florida Facility to Support America's Golden Dome. L3Harris Technologies has completed a $100 million expansion at its satellite integration and test facility in Palm Bay to support the Department of Defense's (DOD) urgent need for on-orbit technology for the Golden Dome for America. L3Harris' new investment in Florida adds to the existing capability of the Space Coast and will enable key components for this strategic capability to be delivered during President Trump's second term.

Types Covered:

- Active Sonobuoys
- Passive Sonobuoys
- Special Purpose Sonobuoys
- Other Types

Size Classes Covered:

- Size A
- Size B

Deployment Methods Covered:

- Free-Fall Launch
- Pneumatic Launch
- Spring Launch Systems

Applications Covered:

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- Defence & Military
- Commercial & Civil
- Other Applications

End Users Covered:

- Naval Forces
- Research Institutions
- Other End Users

Regions Covered:

- North America
  - US
  - Canada
  - Mexico
- Europe
  - Germany
  - UK
  - Italy
  - France
  - Spain
  - Rest of Europe

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  - 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

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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 2024, 2025, 2026, 2028, and 2032
- 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

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Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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