+357 96 030922
info@marketpublishers.com

Sonobuoy Market Report by Function (Active, Passive, Special Purpose), Technology (Bathythermo Buoy, Directional Command Activated, Data Link Communications, Directional Frequency Analysis and Recording, Low Frequency Analysis and Recording, and Others), Installation (Spring, Pneumatic, Free-Fall, Cartridge), Size (Size A, Size B, Size C, and Others), Range (Short Range, Long Range), Application (Defense, Commercial, and Others), and Region 2024-2032

https://marketpublishers.com/r/S0E6B491A1B8EN.html
Date: August 2024
Pages: 136
Price: US$ 3,899.00 (Single User License)
ID: S0E6B491A1B8EN

Abstracts

The global sonobuoy market size reached US$ 496.7 Million in 2023. Looking forward, IMARC Group expects the market to reach US$ 785.6 Million by 2032, exhibiting a growth rate (CAGR) of 5.16% during 2024-2032. The global expansion and modernization of naval fleets by various countries, the growing environmental awareness and regulations, collaborations between defense agencies, research institutions, and industry players, and changing geopolitical dynamics are some of the major factors propelling the market.

A sonobuoy is a compact, specialized device used in underwater acoustic surveillance and reconnaissance. It serves as a vital tool for naval and maritime operations, as well as scientific research in oceanography. They are typically deployed from aircraft or ships into the ocean. Once deployed, they sink to a predetermined depth and begin to transmit acoustic signals and collect underwater sound data. These signals can include sonar pings, underwater communication, and ambient noise. The products are equipped

+357 96 030922
info@marketpublishers.com

with hydrophones, which are sensitive underwater microphones, to detect and record these acoustic signals. The collected data is then transmitted to the deploying platform, where it can be analyzed to identify and track submarines, marine life, or other underwater activities.

The global market is primarily driven by the rapid expansion and modernization of naval fleets across several countries. As naval forces increase their capabilities to secure maritime territories and protect interests at sea, the procurement of advanced systems becomes imperative for effective anti-submarine operations. Also, the growing environmental awareness and regulations are driving the need in environmental monitoring, particularly for assessing the impact of human activities on marine ecosystems. Sonobuoys equipped with hydrophones are valuable tools for passive acoustic monitoring of marine life and the effects of climate change on oceans. Collaborations between defense agencies, research institutions, and industry players foster innovation and drive R&D efforts in the market. Joint initiatives and shared resources contribute to the development of cutting-edge technology and ensure that sonobuoys continue to meet the changing requirements. Changing geopolitical dynamics, regional tensions, and threats in maritime domains are prompting nations to invest in underwater surveillance and ASW capabilities. These shifts in global politics drive procurement and modernization programs, further stimulating the demand.

Sonobuoy Market Trends/Drivers:

Increasing Maritime Security Concerns

With maritime trade routes being the lifeline of international commerce, the need to safeguard these routes from potential threats, especially submarines, has never been more critical. As tensions persist in various geopolitical regions, countries are investing significantly in naval capabilities. Sonobuoys, being essential tools for anti-submarine warfare (ASW), play a pivotal role in detecting, tracking, and neutralizing underwater threats. Nations are augmenting their defense budgets to enhance their ASW capabilities, impelling the demand for advanced and integrated systems. This heightened focus on maritime security is not only supporting defense procurement but also fostering innovation in the technology, making them more efficient and versatile.

Expanding Commercial Applications

The growing product utilization in commercial sectors is impelling the growth of the market. The offshore oil and gas industry, in particular, is increasingly adopting

+357 96 030922
info@marketpublishers.com

sonobuoys for environmental monitoring and underwater surveys. Sonobuoys equipped with hydrophones can detect and record marine mammal vocalizations, enabling compliance with environmental regulations and minimizing the impact of industrial activities on marine life. Additionally, the scientific community is utilizing the product in oceanographic research to study marine ecosystems, the behavior of marine species, and climate change effects. As these applications expand, the demand for specialized product variants tailored to commercial needs is on the rise, opening up new revenue streams and market opportunities.

Technological Advancements and Miniaturization

Advancements in sensor technology have led to the development of highly sensitive and compact hydrophones, enabling sonobuoys to detect faint underwater sounds more accurately. Furthermore, ongoing improvements in communication and data transmission systems have enhanced real-time data retrieval, providing operators with timely and critical information for decision-making. Miniaturization efforts have also led to smaller, lightweight product variants that can be deployed more efficiently, reducing logistical challenges and costs. These technological leaps are driving adoption not only in traditional defense applications but also in emerging sectors such as underwater research, offshore energy, and marine conservation, expanding the overall global market's size and potential.

Significant growth in the maritime industry across the globe is one of the key factors creating a positive outlook of the market. Furthermore, the increasing adoption of sonobuoys to detect the presence of other submarines and monitor underwater seismic waves is also driving the market growth. Sonobuoys also find extensive applications across the oil and gas industry wherein they are used for mapping the composition of the seabed layers to identify salt domes and oil deposits. This, along with various technological advancements, such as the utilization of advanced sensing, range and direction capabilities, is acting as another growth-inducing factor. Active sonobuoys are incorporated with advanced radio transducers, receivers and acoustic sensing systems to enhance operational efficiency. Other factors, including increasing defense expenditure and the growing adoption of unmanned underwater vehicles, are expected to drive the market further.

Sonobuoy Industry Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global sonobuoy market report, along with forecasts at the global, regional, and country levels

+357 96 030922
info@marketpublishers.com

for 2024-2032. Our report has categorized the market based on function, technology, installation, size, range, and application.

Breakup by Function:

- Active
- Passive
- Special Purpose

Passive dominates the market

The report has provided a detailed breakup and analysis of the market based on the function. This includes active, passive, and special purpose. According to the report, passive represented the largest segment.

Passive function minimizes the risk of revealing the presence to potential targets, as it doesn't emit detectable acoustic signals that can be intercepted. Moreover, passive function are exceptionally effective in tracking stealthy submarines that operate quietly beneath the ocean's surface. Their ability to pick up faint underwater sounds allows for the precise localization and tracking of submerged threats. Also, they are well-suited for applications beyond military anti-submarine warfare. They find extensive use in scientific research, environmental monitoring, and marine mammal studies. Their non-intrusive listening capabilities enable researchers to study the natural behavior of marine species, monitor oceanographic phenomena, and even conduct passive acoustic monitoring for seismic activities or volcanic eruptions.

Breakup by Technology:

- Bathythermo Buoy
- Directional Command Activated
- Data Link Communications
- Directional Frequency Analysis and Recording

+357 96 030922
info@marketpublishers.com

Low Frequency Analysis and Recording

Others

Directional frequency analysis and recording dominates the market

The report has provided a detailed breakup and analysis of the market based on the technology. This includes bathythermo buoy, directional command activated, data link communications, directional frequency analysis and recording, low frequency analysis and recording and others. According to the report, directional frequency analysis and recording represented the largest segment.

Directional frequency analysis and recording (DIFAR) sonobuoys are designed to detect and record underwater sounds with remarkable precision and accuracy. They achieve this through the use of directional hydrophones, which are equipped with multiple sensors that can determine the direction from which sound signals originate. This directional capability is invaluable in anti-submarine warfare, as it allows for precise tracking and localization of submarines and other underwater targets. DIFAR can effectively discern between multiple sound sources, helping operators differentiate between friendly vessels and potential threats. This technology has greatly improved the efficiency of naval operations and contributed to maritime security. Furthermore, DIFAR technology has developed over time, incorporating advanced signal processing techniques and miniaturization of components.

Breakup by Installation:

Spring

Pneumatic

Free-Fall

Cartridge

Pneumatic dominates the market

The report has provided a detailed breakup and analysis of the market based on the

+357 96 030922
info@marketpublishers.com

installation. This includes spring, pneumatic, free-fall, and cartridge. According to the report, pneumatic represented the largest segment.

Pneumatic deployment is exceptionally versatile and rapid. Aircraft can release multiple sonobuoys simultaneously in a predetermined pattern over a wide area, covering vast expanses of ocean swiftly. Pneumatic launchers on aircraft are capable of deploying various types, allowing for a comprehensive and adaptable approach to underwater surveillance, including passive and active product variants for different mission requirements. Furthermore, pneumatic deployment ensures a safe distance between the deploying aircraft and the sensitive sensors, minimizing the risk of interference or damage during launch. This safety factor is paramount, as they are delicate instruments with highly sensitive hydrophones that require optimal conditions for accurate data collection.

Breakup by Size:

- Size A
- Size B
- Size C
- Others

Size A dominates the market

The report has provided a detailed breakup and analysis of the market based on the size. This includes size A, size B, size C, and others. According to the report, size A represented the largest segment.

Size A are the largest in the sonobuoy family, characterized by their robust construction and expanded capabilities. These are typically equipped with advanced sensor arrays, including highly sensitive hydrophones, to detect and record underwater acoustic signals with remarkable precision. Their larger size allows for the integration of more sophisticated electronics and extended power sources, enabling longer operational lifespans and enhanced data collection capabilities. Also, they are commonly employed in anti-submarine warfare (ASW) missions, where their extensive sensor arrays and extended endurance make them ideal for detecting and tracking submarines over

+357 96 030922
info@marketpublishers.com

extended periods. Size A are often deployed in patterns or networks, creating a comprehensive underwater surveillance network over a wide area, crucial for securing maritime territories.

Breakup by Range:

Short Range

Long Range

Long range dominates the market

The report has provided a detailed breakup and analysis of the market based on the range. This includes short range, and long range. According to the report, long range represented the largest segment.

Long range are engineered to detect and monitor underwater sounds and activities across expansive distances in the ocean. They are equipped with advanced hydrophones and powerful signal processing systems that enable them to capture acoustic signals from considerable depths and over extended ranges. This extended range capability is particularly crucial in military applications, where the detection and tracking of submarines and underwater threats across vast maritime areas are paramount. These are often employed in anti-submarine warfare (ASW) operations, where their ability to cover extensive oceanic regions provides a tactical advantage. Long-range product variants are typically deployed from aircraft or ships and can be launched in patterns or networks to create a comprehensive underwater surveillance network.

Breakup by Application:

Defense

Commercial

Others

Defense dominates the market

+357 96 030922
info@marketpublishers.com

The report has provided a detailed breakup and analysis of the market based on the application. This includes defense, commercial and others. According to the report, defense represented the largest segment.

Sonobuoys play a critical role in naval exercises, joint operations, and strategic deployments. Their versatility allows them to be launched from various platforms, including maritime patrol aircraft, helicopters, and naval vessels, offering flexibility in addressing diverse operational scenarios. Additionally, their real-time data collection and transmission capabilities empower naval operators with crucial acoustic intelligence, enabling quick response to potential threats and ensuring situational awareness. Beyond their role in defense, it also find applications in search and rescue missions, helping locate and save lives in distress at sea. Moreover, they play a role in surveillance of underwater infrastructure, such as pipelines and cables, helping to protect critical undersea assets from tampering or damage.

Breakup by Region:

North America

United States

Canada

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

+357 96 030922
info@marketpublishers.com

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

North America exhibits a clear dominance, accounting for the largest sonobuoy market share

The market research report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, North America accounted for the largest market share.

North America boasts an extensive and highly advanced defense sector, including naval

+357 96 030922
info@marketpublishers.com

forces with a robust focus on maritime security. The United States, in particular, maintains a formidable naval presence and invests significantly in anti-submarine warfare capabilities. As sonobuoys are essential tools for naval surveillance and anti-submarine operations, the demand for these devices in North America remains consistently high. Moreover, the region houses numerous leading defense contractors and technology innovators who continually develop cutting-edge technologies. This fosters a competitive environment that drives innovation and ensures that North America product are at the forefront of technological advancements. Additionally, North America's expansive coastline and vast maritime territories necessitate a strong commitment to maritime security, further fueling the demand for the product.

Competitive Landscape:

Numerous key manufacturers invest heavily in R&D to advance technology and improve the performance of the product. This includes developing more sensitive hydrophones, enhancing signal processing capabilities, and increasing the operational lifespan of sonobuoys. R&D efforts also focus on miniaturization and integration of components to create more compact and efficient systems. Furthermore, companies are constantly innovating to stay competitive. This includes exploring new materials, manufacturing techniques, and sensor technologies to make more effective and cost-efficient products. Several companies are diversifying their product lines to offer a range of product variant types, sizes, and technologies to cater to various customer needs. This allows them to serve both military and civilian markets and adapt to changing requirements.

The report has provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the key players in the market include:

General Dynamics Mission Systems

Radixon Group Pty Ltd (Robotron PTY Ltd.)

Sealandaire Technologies Inc.

Sparton Corporation

Tata Advanced Systems

Thales Group

+357 96 030922
info@marketpublishers.com

Ultra Group

Recent Developments:

In May 2023, General Dynamics Mission Systems Canada officially launched its most advanced suite of distributed acoustics processing solutions, including the UYS-506 Sonobuoy Processor. With this launch, operators and decision makers can achieve extended range performance without sacrificing exceptional target detection and identification capabilities.

In January 2022, Ultra group announced partnership with Mahindra Defence Systems Limited, the award of the Integrated Anti-Submarine Warfare Defence Suite (IADS) programme for selected frontline warships of the Indian Navy. IADS provides a powerful multi-sensor ASW capability using an in-line active and passive towed Low Frequency Variable Depth Sonar as well as Torpedo Defence with embedded detection, classification & localisation to defeat detected Torpedo threats.

In April 2021, Elbit Systems of America Completes Acquisition of Sparton Corporation. Combining the superior technology and products with Elbit Systems of America's Airborne Solutions business unit will generate additional capabilities for the customers.

Key Questions Answered in This Report

1. What was the size of the global sonobuoy market in 2023?

2. What is the expected growth rate of the global sonobuoy market during 2024-2032?

3. What are the key factors driving the global sonobuoy market?

4. What has been the impact of COVID-19 on the global sonobuoy market?

5. What is the breakup of the global sonobuoy market based on the function?

6. What is the breakup of the global sonobuoy market based on the technology?

+357 96 030922
info@marketpublishers.com

7. What is the breakup of the global sonobuoy market based on installation?

8. What is the breakup of the global sonobuoy market based on the size?

9. What is the breakup of the global sonobuoy market based on the range?

10. What is the breakup of the global sonobuoy market based on the application?

11. What are the key regions in the global sonobuoy market?

12. Who are the key players/companies in the global sonobuoy market?

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

7 MARKET BREAKUP BY TECHNOLOGY

8 MARKET BREAKUP BY INSTALLATION

+357 96 030922
info@marketpublishers.com

9 MARKET BREAKUP BY SIZE

10 MARKET BREAKUP BY RANGE

11 MARKET BREAKUP BY APPLICATION

12 MARKET BREAKUP BY REGION

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Sonobuoy Market Report by Function (Active, Passive, Special Purpose), Technology (Bathythermo Buoy, Directional Command Activated, Data Link Communications, Directional Frequency Analysis and Recording, Low Frequency Analysis and Recording, and Others), Installation (Spring, Pneumatic, Free-Fall, Cartridge), Size (Size A, Size B, Size C, and Others), Range (Short Range, Long Range), Application (Defense, Commercial, and Others), and Region 2024-2032

Product link: https://marketpublishers.com/r/S0E6B491A1B8EN.html

Price: US$ 3,899.00 (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/S0E6B491A1B8EN.html