UM SONOBUOYS

Sonobuoy Mission Pod

Sonobuoy Dispenser for Manned and Unmanned Platforms

Key features

- Role-fit sonobuoy carriage & release system
- Carriage, deployment and processing of G-Size and F-Size Sonobuoys
- Ship or land-based operator station
- MIL-STD-1760E compliant electrical interface
- MIL-STD-8591 mechanical interface using 14" standard bale lugs
- 28VDC Powered (MIL-STD-704)
- Optional conditioning and forced ejection for high altitude / high deployment speed operations

Overview

The Sonobuoy Mission Pod (SMP) provides an on-demand, role-fit sonobuoy dispenser and optional sonobuoy processing solution for fixed-wing and rotary-wing platforms. Designed for rapid front-line installation and removal, the SMP attaches to a MIL-STD-2088 weapon hard-point providing for multi-role operation of existing platforms in an Anti-Submarine Warfare (ASW) capacity.

The SMP removes the need to acquire and maintain a fleet of dedicated ASW platforms, providing for greater flexibility and agility with existing assets. Using a SMP to deploy a multistatic field allows for area clearance significantly quicker, to the same levels of confidence, than can be achieved using dipping sonar.

Conditioning and forced ejection are available For high altitude, high speed operations, providing for deployment at a ceiling height of 30,000ft (9,144m) and maximum speed of 350kts.

Technical Specification

Standalone Pods accommodate all necessary electronics for communication and processing of the sonobuoys whilst relaying data to a remote Control Station. These Pods have no service demands on the host platform other than provision of power and sonobuoy release consent.

Dispenser Pods are limited to sonobuoy carriage only. They can be operated with the electronics hosted either in the platform's avionics bay, or in conjunction with a Standalone Pod. Dispenser Pods utilise a MIL-STD-1760 data exchange to interface with the host platform. The SMP is able to dispense both G-Size and F-Size sonobuoys, and is able to programme sonobuoys fitted with a Remote Function Select (RFS) interface for depth, channel, mode and life settings whilst in-flight (non-RFS sonobuoys are supported when manually programmed prior to load-out).

In order to increase operating range and provide a low-latency operator interface, the Sonobuoy Mission Pod performs sonobuoy processing internally and transmits visual display data to the Control Station. A Sonobuoy Receiver and a Command Function Transmit unit provide for bi-direction reception and control of deployed sonobuoys.

A remote Control Station is provisioned for sonar operators. Communication with the Sonobuoy Mission Pod is achieved via a data link, either line-of-sight or satellite-based for extended range missions. The data link between the Control Station and SMP relays all necessary sonobuoy acoustic information and buoy deployment commands. The Control Station may be sited on surface ships for naval operations or on land, in either fixed or mobile installations, allowing for colocation of sonar operators with operations staff.

Standard configurations

SMP-24

- Suitable for manned or unmanned Rotary Wing and small Fixed Wing platforms
- 32-channel Sonobuoy Receiver /processing system (can be hosted in avionics bay)
- Light-weight SWaP32 Sonobuoy Processor
- Data exchange via line-of-sight data link integrated to SMP

SMP-63

- Ideal for medium-sized, fixed-wing manned MPA or MALE UAS
- 32-channel Sonobuoy Receiver /processing system (can be hosted in avionics bay)
- Light-weight SWaP32 Sonobuoy Processor
- Data exchange via host platform's communication system or line-of-sight data

SMP-40

- Intended for large, manned fixed-wing or HALE UAS
- Sonobuoy conditioning
- Forced ejections
- 64-channel Sonobuoy Receiver /processing system (can be hosted in avionics bay)
- Data exchange via host platform's satellite communication system or line-of-sight data link

Dedicated Sonobuoy Data Relay

- Intended for small Rotary Wing UAS
- Provides sonobuoy processing with data-link to Operator Station
- Designed for operation with a cooperating asset that performs sonobuoy

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