

NEXT-GENERATION PNEUMATIC SONOBUOY LAUNCH SYSTEMS

Solutions for any airborne maritime patrol application

L3Harris designs and manufactures pneumatic-powered sonobuoy launching systems for anti-submarine warfare applications. Building on our single-launch and rotary multi-launch systems for the P-8A Poseidon, L3Harris is developing next-generation solutions to meet the complex and ever-evolving needs of the maritime patrol community.

MODULAR LAUNCH TUBE (MLT)

The MLT is an individual launch station that is functional as a stand-alone sonobuoy launcher or configurable in multiples for integration into a system-level solution. MLT is sized to release a single A-size sonobuoy from a standard launch container (SLC) or two F- or G- size buoys through the use of adapters. The MLT weighs approximately ten pounds when empty. It operates with charge pressures of 1000 to 5000 psi, and features a buoy sensor to ensure positive carriage and launch.

The MLT is an externally ground-loaded system featuring a twist-to-lock bayonet style engagement mechanism. This builds upon the concept of operations and safety demonstrated by years of field experience on platforms such as the P-3 Orion.

The MLT can be mounted internally within the fuselage or incorporated into an external pod, making it ideally suited for a number of maritime patrol platforms from light, fixed-wing aircraft to helicopters and unmanned aerial vehicles (UAVs).

SONOBUOY DISPENSER SYSTEM

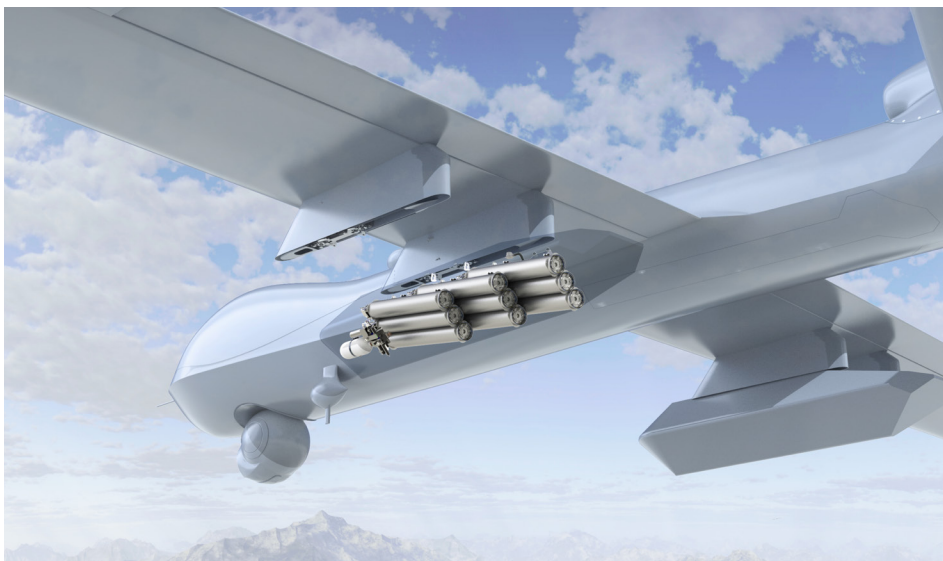
Leveraging the unique capabilities of the new MLT, the L3Harris sonobuoy dispenser system (SDS) is an externally pylon-mounted, multi-station, pneumatic sonobuoy launcher. Using L3Harris adapters, the system is capable of launching a mix of A-, F- or G-size buoys. Designed for ultimate versatility, the SDS concept can be configured in a multitude of MLT arrangements optimized for each platform according to their unique weight, flight envelope, and mission requirements.



Photo credit: Mass Communication Specialist 2nd Class Ian W. Anderson

BENEFITS

- > Expanded product portfolio provides solutions suitable for a wide range of platforms and mission profiles
- > L3Harris' internal investment into developing mature products reduces customer non-recurring expense (NRE) and time to market
- > Design evolutions based on existing systems already in production reduces cost and complexity
- > Adaptability for A-, F- or G-size buoys provides mission flexibility



The SDS consists of any combination of MLTs, a ground charged accumulator, and an electronic control unit (ECU) incorporating Universal Armament Interface (UAI) type-1/2 protocol over a MIL-STD-1760 interface. All of these can be integrated into a bespoke mission-specific external pod.

REDUCED-FOOTPRINT ROTARY

The L3Harris sonobuoy rotary launch system (SRL), currently in use on the P-8A, led to the development of a line of reduced-footprint rotary launchers with common parts for flexible integration on smaller, lightweight platforms. These launchers come in 6-, 8- or 10-shot variants and can incorporate the launch of A-, F- or G-size buoys by pneumatic actuation or gravity drop.

The SRL is suitable for both high and low-altitude applications. Each system:

- > Is reloadable in flight
- > Incorporates a manual override option
- > Integrates into the airframe as an open frame non-pressurized solution
- > Can be combined with a pressurized dome and an integral gate valve

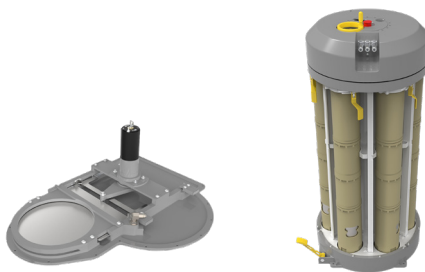
TANDEM BUOY SYSTEM

L3Harris designed a patented retrofit kit system that allows a standard LAU-126/A canister to be modified for the launch of two F- or G-size sonobuoys from a single A-size container. The kits, designed for high-volume manufacture, increase mission loadout and flexibility without any mechanical configuration changes outside of the container.

ADDITIONAL CAPABILITIES

L3Harris seeks new opportunities to design custom solutions to unique problems, including:

- > Larger tubes for non-sonobuoy tube-launched stores
- > Airborne launch of small expendable UAVs
- > Multiple stores per station
- > Micro-munitions launch
- > System integration
- > Gravity drop systems
- > Pressurized systems
- > Unique environmental requirements

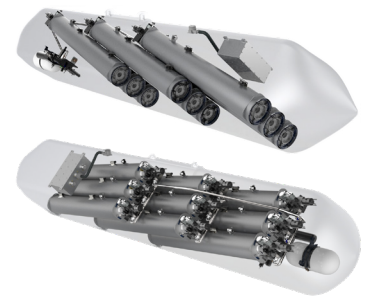


GATE VALVE

6-SHOT ROTARY LAUNCHER CONCEPT

ATTRIBUTES

- > Lightweight and reliable
- > Qualification to military standards
- > UAI type-1/2 compatibility



SONOBUOY DISPENSER SYSTEM POD CONCEPT IN 3X3 CONFIGURATION



MODULAR LAUNCH TUBE



TANDEM BUOY SYSTEM

Next-Generation Sonobuoy Pneumatic Launch System DS8130 MC

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