

PASOR MOBILE TRACKING RANGE (MTR)

Portable and rapidly deployable weapons tracking, localisation and recovery assistance

A MOBILE SOLUTION FOR TRACKING TORPEDO PINGERS

The L3Harris portable acoustic sonobuoy range (PASOR) mobile tracking range (MTR) provides support for peacetime torpedo firing by providing weapon tracking, localisation and recovery assistance, as well as range safety services.

The primary capability of PASOR MTR is the tracking and localisation of Mk84 torpedo pingers.

Being portable and rapidly deployed, PASOR MTR makes highly efficient use of valuable time on range, and enables firings of opportunity to occur at very short notice.

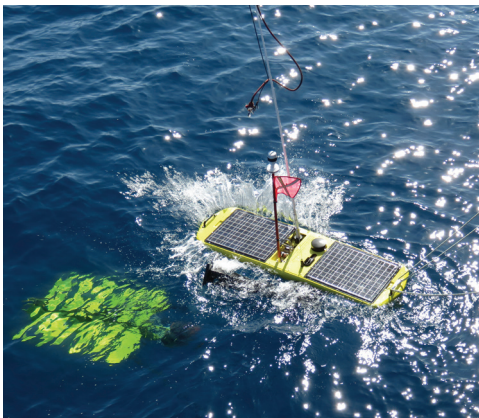
The system is deployed on any vessel with onboard power (including aircraft) with walk-aboard systems and sensors that are deployed over-the-side in minutes.

PASOR MTR includes an AIS receiver, enabling range control functionality. Surface vessels and targets can be tracked using AIS with no further equipment installation required.

With a Mk84 pinger or other telemetry device fitted to the submarine, PASOR MTR becomes a fully cooperative tracking range, enabling full operational awareness of the range area.

PASOR MTR range control facilitates range safety procedures as well as asset management, resulting in safer, more time-efficient testing.

The capabilities of the PASOR MTR have been proven in operations with the Royal Australian Navy.



Waveglider configured as a recoverable station keeping buoy



ACTIONABLE INTELLIGENCE

KEY FEATURES

- > **Portable and rapidly deployable**
- > **Range operational awareness and management of assets through real-time situational awareness displays**
- > **Bidirection communications with range assets (RF and underwater acoustic communications)**
- > **Uses disposable sonobuoys as well as both recoverable or station-keeping RF buoys**

SYSTEM INFORMATION

Sensor subsystem

- PASOR MTR is primarily designed for 53F MOD GPS buoys. Sonobuoys provide many benefits including omnidirectional and directional (DIFAR) capability sensors, zero acoustic self noise, acquisition of signals as quiet as sea state zero, 8-hour life and low operational cost.
- PASOR MTR can also be used with re-deployable long-term deployed station-keeping sensors.

Acquisition, monitoring and analysis subsystem

The acquisition, monitoring and analysis subsystem is a compact walk-aboard 2-person-lift (30 kg) unit. PASOR systems have been deployed on a large variety of vessels ranging from small sailing boats to 70m support ships, and also light aircraft. All required cables and hard drives are stowed within the 6U case. The RF antenna and laptop are packaged separately.

Host platform

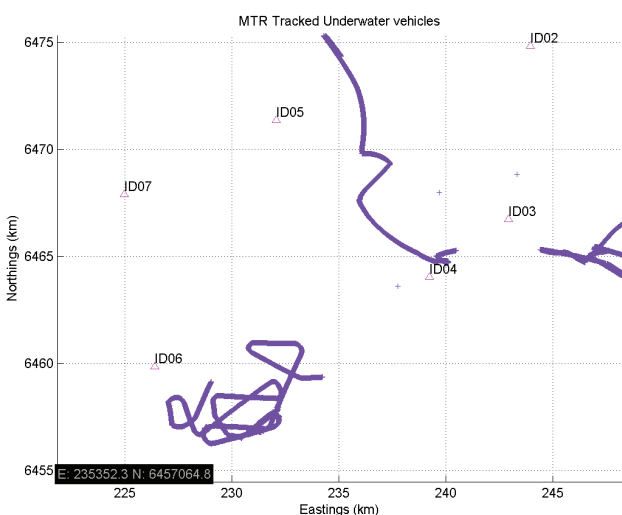
A typical host platform would be a Navy frigate or contracted research vessel. However, selection of a particular host platform does not prevent other assets, such as aircraft or other sensor vessels, from participating in an activity.

PASOR MTR equipment

PASOR MTR is comprised of:	<p>Sensors:</p> <ul style="list-style-type: none"> - Sonobuoy sensor systems (customer supplied) - Alternate reusable sensors available on request <p>Acquisition, monitoring and analysis system:</p> <ul style="list-style-type: none"> - Software defined radio (SDR) - Data acquisition and processing cards - Network ports for connecting multiple analysis laptops - Secure, independently portable USB data storage - Analyst land acquisition laptops loaded with: <ul style="list-style-type: none"> - Acoustic range control software - Analysis software (OATS)
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Weapon recovery

Localisation of the weapon via Mk84 during the run rapidly decreases recovery time, and provides risk mitigation should the end-of-run pinger (Mk17) fail.



Indicative post mission display – surface vessel, sonobuoys and subsea targets

OPTIONS

- > The optional communications sub-system provides 2-way voice communications with the target vessel via VHF and/or underwater telephone. A shock-mounted 4U case is provided, containing the VHF radio and GPM 300 audio (voice) interface hardware, along with all required cables. Antennas are packaged separately. Equipment for this option includes:
 - GPM 300 modem deployed over-the-side of the host platform
 - Voice communications audio interface
 - VHF radio headset
 - Antennas, cables and ancillaries
- > Deployable seabed real-time transponders store the tracking data in real-time, accumulating the data until commanded to uplink to the surface receiving platform.
- > Shore-based operation – by including an RF-SATCOM gateway, this option eliminates the need for Take vessel to be onsite/offshore during ranging operations, reducing cost of operations and improving safety of operational personnel.

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L3Harris reserves the right to amend specifications in the light of continuing development.

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