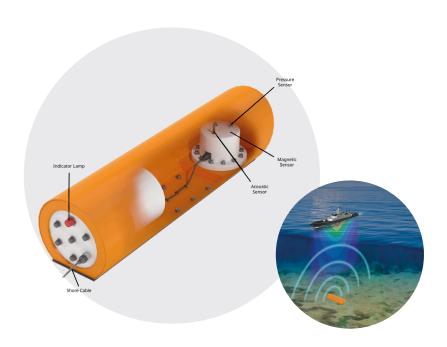
# ULTRA MARITIME

# TRANSMAGplus Training Mine



#### **Key features**

- High accuracy multi-influence
  - Magnetic
  - Acoustic
  - Pressure
  - Seismic and electric options
  - Sensitivity suitable for any ship type
- Control and data acquisition
  - Operator reconfigurable advanced fire algorithms
  - Built-in-test to confirm sensor functionality
  - All signature data stored for analysis
- Flexible configuration
  - EOD diver, mining and countermining training
  - Vulnerability testing
  - Target signature gathering
  - Battery or cables up to 10km from shore
- Highly reliable
  - Sensors proven with 10 year underwater use
  - Titanium connectors for long life
  - Built-in-test to confirm sensor functionality

#### Overview

Ultra Electronics TRANSMAGplus Exercise and Training Mine can simulate the latest generations of modern mines in a shorter and lighter package.

The TRANSMAGplus training mine utilises Ultra's proven MUWS16 sensors and analysis software to offer the highest accuracy and reliability in an exercise and training mine.

The TRANSMAG sensors are used by NATO and Commonwealth navies to measure and analyse multi-influence signatures and in the training mine system these sensors are packaged within a mine-shaped housing to provide a lightweight easily deployed product for use to train both divers and MCM crew.

The use of the modular MUWS16 sensing capability means that any underwater influence can be fitted and analysed. Magnetic, pressure and acoustic influences are provided as standard. Seismic and electric field are available as options. Electromagnetic bandwidths up to 3kHz are offered as standard and acoustic frequencies up to 100kHz.

User configurable mine algorithm settings are included. An acoustic and visual firing signal is provided. All underwater influences are available either in standard or optional mode. No explosives or detonators are fitted.

# ULTRA MARITIME

# Operation Performance Summary

## Maximum operational depth

60m

#### Housing

No magnetic, electric or acoustic signature generation

Sensor package and data logging package in separate internal watertight housings

## **Processing**

Operator configurable: levels, delays, etc (Real-time configurable in cabled mode) Multi-band processing (digital filtering) Compensation for Exercise Mine Attitude Adjustable gain

GPS time stamped signature data in cabled mode

#### Cables

Cable length options up to 10km from shoremode

# Other options

Accurate underwater positioning of sensor in up to 60m water depth

Accurate RTK GPS tracking of target vessel Internal data recording

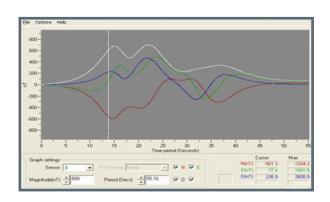
Fire indication light and audible signal mode

## Standard bandwidths

3kHz magnetic 100KHz acoustic 10Hz pressure



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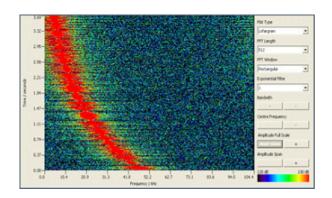
## Real-time viewers on shore (cabled mode)

Narrowband

Third octave

Comparison with operator selected targets

Audio on shore



#### System Features

Battery powered mode

Ease of use with Windows Operating Systems for shore side software

Data compatible with TRANSMAGplus analysis software packages

#### System Benefits

Ship signature capture, with database
Assessment of own ship mine threat vulnerability
Test and assessment of mine algorithm actuation
Assists with ship's compliment MCM training
Assists with EOD countermining operations training