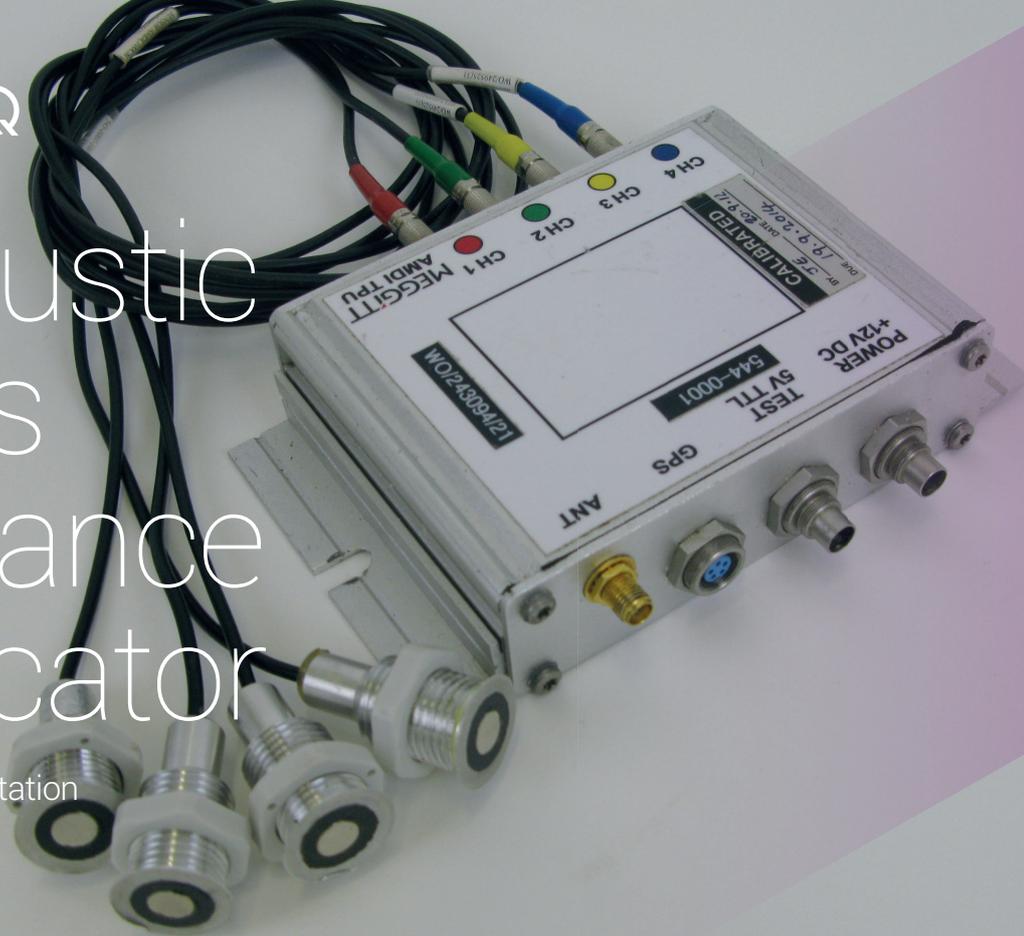


QINETIQ

Acoustic Miss Distance Indicator

Target augmentation



QinetiQ Target Systems' acoustic miss distance indicator (AMDI) is a multi-role scoring system for gunnery training and weapons assessment for surface and airborne dynamic targets. AMDI may be fitted to tow targets, remotely piloted vehicles or drones, sleeve targets, marine (boat or platform) and ground targets. When shots or projectiles are fired at a target, AMDI transmits the direction and distance of the near misses to the base station which displays the results of the shooting in real time. AMDI is in service with land, naval and air forces around the world for training and/or weapon system assessment.

Principle of operation

AMDI works by detecting the conical shock wave generated by all supersonic projectiles. The shock wave of a passing projectile or supersonic missile is measured by an array of sensors and a processor unit mounted on the target. The data from these sensors is then telemetered to the base station in a high-integrity digital form where it is automatically analysed and the location of the projectile is displayed.

Target equipment

The AMDI system uses rugged, solid state, high-frequency sensors which are resistant to water immersion. A digital electronics and telemetry system is incorporated for the highest performance and stability. The target processor unit is small, light and consumes little electrical power. The target equipment can be provided in a variety of configurations allowing user installation into a variety of target types.

Base station

The base station, capable of simultaneous dual target operation, is a compact all-in-one receiving and data presentation unit. Its easy-to-use menus and prompts aid the operator. It calculates the miss distances and sectors using data from the target. Target configuration and projectile calibre information data (entered by the user) is saved on an internal data storage device. Results are printed graphically on the ground station display with running totals, status and session information of scoring results. The optional, blue-tooth printer provides almost instantaneous hard copy evidence of scoring results for shooter performance analysis by a director of practice. Scoring data may also be transferred to a personal computer for a more detailed analysis.

Key features

- Sensor electronics available to fit all target types
- Portable base station allows simple installation in vehicle, vessel or aircraft
- High resolution miss-distance and 12-sector scoring
- Rugged system with waterproof sensors
- Simultaneous dual target capability

Specifications

Detection method	Ultrasound. Supersonic projectiles/missiles only		
Telemetry link	1 watt FSK digital link 300 to 470 MHz		
Base station power	110/240 V ac		
Base station display	1024 x 768 LCD		
Base station printer	Optional battery powered (rechargeable) thermal printer with blue tooth connectivity		
Base station size	361 x 289 x 165mm; weight 9.7 kg		
Calibre/Diameter	7.62mm upwards		
Rate of fire	Greater than 6,000 rounds per minute		
Scoring resolution	30° sectors. Miss distance in metres and tenths		
Distance accuracy*	±1 metre or maximum 15% (on average) of actual miss distance, whichever is greater		
Angular accuracy*	±15 degrees		
Typical detection range*	Calibre (mm unless indicated)	Maximum detection range* (metres)	On screen hit boundary (metres)
	7.62	6	6
	12.7 (1/2", 0.5")	8	4
	20	16	4
	25	17	4
	30	19	4
	35	23	4
	40	30	4
	57	42	8
	76	57	8
	5" (127mm)	100	16
	Rapier	68	8
	RBS 70	49	8

* These figures represent the maximum that can be achieved and are dependent upon correct set-up data being installed by the user at the commencement of each trial/mission.



Compact, powerful system for accurate assessment.

Note: Due to continuous process improvement, specifications are subject to change without notice.

Collaborating with QinetiQ

At QinetiQ we bring organisations and people together to provide innovative solutions to real world problems, creating customer advantage.

Working with our partners and customers, we collaborate widely, working in partnership, listening hard and thinking through what customers need. Building trusted partnerships, we are helping customers anticipate and shape future requirements, adding value and future advantage.

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