Support products and services

Acoustic miss distance indicator

Meggitt 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
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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*

<table>
<thead>
<tr>
<th>CALIBRE (mm unless indicated)</th>
<th>MAXIMUM DETECTION RANGE (Metres)</th>
<th>ON SCREEN HIT BOUNDARY (Metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.62</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>12.7 (1/2&quot;, 0.5&quot;)</td>
<td>18</td>
<td>4</td>
</tr>
<tr>
<td>25</td>
<td>17</td>
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<td>57</td>
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</tr>
<tr>
<td>5&quot; (127mm)</td>
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</tr>
<tr>
<td>RAP/70</td>
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</table>

* 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.

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