MILDS® AN/AAR-60
Missile Warning System

The armed forces have recognised the increasing threat to their tactical aircraft from anti-aircraft infrared guided missiles. By one estimate more than 500,000 shoulder-fired surface-to-air missiles exist and are available on the worldwide market. A high percentage of the aircraft losses in current and recent conflicts were from ground based defensive systems using IR SAMS.

The threat of passive anti-aircraft missiles is evident. They are an undeniable danger to the aircrew and the aircraft.

Facing the Challenge
To counter the increasing threat by IR-guided missiles, countries and armed forces are required to deploy more sophisticated solutions for self-defence of aircraft. Advanced missile warning systems and countermeasures against IR-guided missiles have become critical for survivability.

To meet this threat, HENSOLDT Sensors developed the missile warning system AN/AAR-60, known as MILDS – the solution especially fitting the requirements of helicopters and wide-body aircraft.

Fast detection and declaration combined with automatic countermeasure release and crew alert supports mission success and a safe return of the aircrew and the aircraft.
MILDS® AN/AAR-60
Against short-range air defence missiles and manpads

Function
MILDS AN/AAR-60 is a passive, true imaging sensor device optimised to detect the radiation signature in the UV solar blind spectral band that is emitted from an approaching hostile missile exhaust plume.

MILDS AN/AAR-60 detects incoming missile threats and indicates the direction of arrival at maximum warning time. The inherently high spatial resolution of MILDS combined with advanced temporal processing enables a very high declaration rate while virtually eliminating false alarms. MILDS comprises four to six self-contained detectors that provide high resolution and high sensitivity without extra cooling. Each sensor provides fully processed signals. In addition, no central processing unit is required.

Integration
MILDS represents high quality and stability, combined with integrity and expandability of the entire system without causing any electromagnetic compatibility problems on board. MILDS offers easy installation due to extremely low weight and size but at the same time high comfort and fast processing of missile threats. High MTBF (Mean Time Between Failures) is possible because no moving parts are used in the MILDS systems sensors.

References
More than 7,000 MILDS sensors have been sold worldwide, and are installed on numerous platforms, including NH90, Tiger, CH53, Cougar, Puma, Phanter, EC635, EC 645, CH-47, UH60, EH101, A129, AH1, S70, UH1, AB205, AB412, BK117, KUH, Cheetah, Mi-17, CN235, C295, C27J, C130, P3C, P-1, BBJ, A340, B747.

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>4 Sensors</th>
<th>6 Sensors</th>
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<tbody>
<tr>
<td>Field of View</td>
<td>± 45° EL x 360° AZ full spherical coverage</td>
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<tr>
<td>MTBF</td>
<td>&gt; 9,600 flight hours/LRU</td>
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<td>Angular Res.</td>
<td>DIRCM compatible</td>
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<td>Power Consumption</td>
<td>&lt; 14 W/h per LRU</td>
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<td>Threat Analysis Capability</td>
<td>&gt; 8 threats per LRU</td>
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<tr>
<td>No cooling required</td>
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<tr>
<td>No Mission Data File (MDF) / User Data File (UDF) required</td>
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<tr>
<td>Weight</td>
<td>&lt; 2 kg</td>
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