

MILDS® AN/AAR-60 Block 2

Missile Warning System

The armed forces have recognised the increasing threat to their tactical aircraft from anti-aircraft infrared guided missiles. Estimates state that 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 caused by ground based defensive systems using IR SAM.

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 keep pace with this development on the threat side, HENSOLDT Sensors developed the missile warning system MILDS AN/AAR-60 Block 2, a self-protection solution especially designed for helicopters and wide-body aircraft permitting higher performance and enabling additional functions e.g. sensor internal data recording and Hostile Fire Indication (HFI).

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® Block 2

Against short-range air defence missiles and manpads



Automatic CM Release



High Angular Accuracy



Fits to Airframe, High MTBF



Fast Detection and Declaration



Crew Alert



Data Release



Low False Alarm Rate, Sufficient Warning Time



Coverage Area of a 4-sensor-system

Function

MILDS Block 2 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. It is designed to be the successor of the famous MILDS AN/AAR-60 providing enhanced sensitivity and additional applications like HFI.

MILDS Block 2 detects incoming missile threats and indicates the direction of arrival at maximum warning time. The inherently high spatial resolution of MILDS Block 2 combined with advanced temporal processing enables a very high declaration rate while virtually eliminating false alarms.

MILDS Block 2 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 Block 2 represents high quality and stability, combined with integrity and expandability of the entire system.

MILDS Block 2 offers the same easy installation as MILDS AN/AAR-60. Due to the same form factor and identical interface an upgrade from a MILDS system to a MILDS Block 2 system can be performed by simply replacing all MILDS sensors by MILDS Block 2 sensors. High MTBF (Mean Time Between Failures) is achieved because non-moving parts are used in the MILDS Block 2 sensors.

References

The replacement of a MILDS by a MILDS Block 2 system has been successfully tested on an EC-145 helicopter.

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Specifications Coverage Area: 4 Sensors 90° EL x 360° AZ 6 Sensors full spherical coverage > 14.000 flight MTBF (35 °C) hours/LRU **Angular Accuracy** DIRCM compatible < 14 W per LRU **Power Consumption** > 150 per system **Threat Analysis Capability** (8 threats maximum being reported) No cooling required No Mission Data File (MDF) / User Data File (UDF) required Weight ca. 2 kg



