



## AMPS – never fly without it.



AMPS has been selected for numerous platforms like CH-47, C-130, CH-53, EH101, UH60, Mi-8, Mi-17, Mi-171, EC145, EC155, EC635, EC645, Cougar, Puma, Panther, Bell 407, P3C, Cessna 208, King Air 200.

## AMPS

Airborne Missile Protection System





# Protection against Surface-to-Air Missile attacks.



Fast Detection and Declaration



Automatic CM Release



Crew Alert



Sufficient Warning Time



Low False Alarm Rate

## The Threat

The armed forces have recognised the increasing threat to its tactical aircraft from infrared guided missiles. More than 500,000 shoulder-fired surface-to-air missiles (MANPADS) are on the worldwide market and partly also in the hands of non-state organisations. A high percentage of the aircraft losses in current and recent conflicts were from ground based defensive systems using IR SAMs.

The threat of IR guided 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 have to deploy more sophisticated solutions for aircraft self-defence. Especially advanced MWS

and sophisticated countermeasures against IR-guided missiles play an important role in this context.

## AMPS System

The AMPS basic configuration is primarily designed for stand-alone installation and operation of an integrated Missile Warner and Counter Measure Dispenser in helicopters and wide-body aircraft.

AMPS system is based on the AN/AAR-60 Missile Launch Detection System (MILDS®) and features also an Electronic Warfare Suite Controller (MCDU), an Inertial Measurement Unit (IMU) as well as a fully integrated Counter Measure Dispensing System (CMDS). AMPS is therefore a complete Stand-Alone Self-Protection System for helicopters and wide-body aircraft against IR-guided SAMs. AMPS can

easily be extended by additional sensors like LWS (ALTAS®-2QB with beamrider channel) and RWR. AMPS is also capable to integrate advanced countermeasures like DIRCM.

MILDS is a passive system and designed to detect, track and give warning of threatening missiles at maximum range and with a very low false alarm rate. The high resolution allows rapid discrimination of stationary and moving UV point sources. This feature permits to operate in both urban and battlefield environments with a minimum of false alarms.

The MCDU which serves as the AMPS Controller, receives the missile indications from the MILDS and activates the optimal countermeasure solution in accordance to its internal algorithms

and logic, taking into account the missile parameters, the platform attitude and others. In addition, it features a user-friendly VGA display, a high resolution audio alarm with recordable alarm messages. The MCDU offers extensive interfaces for future expansion and integration requirements.

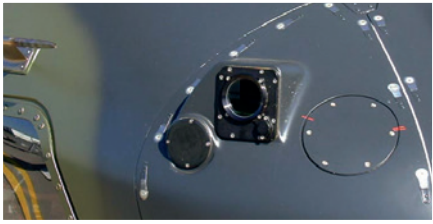
The CMDS is a computer-controlled, threat-adaptive countermeasures dispensing system, which protects the aircraft from ground and air threats by dispensing decoy payloads.



High Angular Accuracy



Optimised 5 Sensor Coverage



Fits to Airframe



High MTBF

AMPS-ML (includes Missile and Laser warner)



Customer provided / optional equipments

Audio Warnings

A/C intercom system

## Easy Installation

- Lowest number of equipment
- Very low weight balance and power consumption
- No interfaces to mission or avionic systems
- Fully integrated CMDS (only one display/control unit for the whole system)
- High reliability

## High Performance MWS

- High spatial resolution providing discrimination between fixed and moving sources and accurate approach direction finding (imaging sensor)
- Multi-threat handling ( $\leq 8$  per system)
- High probability of detection and lowest possible false alarm rate
- Difficult to deceive
- No emissions from the sensors (stealth)
- No cooling, short activation time
- No disturbance from IR light and laser
- Low weight and power consumption
- High degree of redundancy

## Stand-Alone Missile Protection System

- Completely independent system, no connection to a/c avionic or mission system required
- AUTO, SEMI-automatic and manual modes
- High-precision audio alarm messages (user definable)
- NVG compatible system display