

# MANPADS Integrated Threat Simulator/Stimulator



The MANPADS Integrated Threat Simulator/Stimulator (MITSS) provides multipurpose threat simulation and training designed to support Developmental Test & Evaluation (DT&E) and Operational Test & Evaluation (OT&E) as well as increasing pilot awareness of foreign man-portable surface-to-air missile (SAM) systems.

The MANPADS Integrated Threat Simulator/Stimulator (MITSS) provides ATR with the capability to simulate “lock on” of threat missiles to trigger an aircraft’s ultra violet (UV) Missile Warning System (MWS). Successful “lock-on” engagement will employ the UV Mallina simulator/stimulator by emulating the UV signature of a Surface-to-Air-Missile (SAM) rocket motors, including shoulder-fired SAM’s and MANPADS. This directly supports tactical development programs against infrared (IR) threats, pilot electronic warfare training, and test and evaluation events.

The MITSS system consists of a Portable Air Defense System (PADS) IR missile launcher assembly and a UV Mallina stimulator, which, when combined create a real-time missile training system. The PADS is an instrumented SA-16 launch tube and seeker. In threat-realistic training it is a shoulder-mounted surface-to-air infrared missile launcher. The Mallina is a medium-range Electro-Optical threat emitter that has the capability to stimulate the UV MWS, a countermeasure system onboard aircraft that senses UV/IR signatures of threat weapons such as missiles.

The PADS-Lite scoring systems increases aircrew/aircraft survivability by providing military aviators the opportunity to

learn the operational and performance characteristics of the threat system. By flying missions against the MITSS, effective threat evasion techniques can be refined.

The PADS-Lite also provides the capability to score and record mission data for pilot performance debriefing and after-action review. A VCR is used to capture and display real-time, mission-recorded video.

These two individual pieces of equipment – the PADS assembly and the Mallina emitter – work cooperatively when connected to interfacing software housed in a portable, ruggedized container.

MITSS provides a closed-loop system ideal for supporting the following:

- Tactics development against IR threats
- Pilot, electronic warfare training and combat training
- Test and evaluation of Missile Warning Sensors and associated hardware/software suites

## FOR MORE INFORMATION

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The MITSS system UV Mallina simulator/stimulator