

ADVANCED SMART ONBOARD DATA INTERFACE MODULE (ASMODIM)

Providing an embedded training capability to engage in Live Fire and Simulated Weapons Exercises for Increased Proficiencies



As the brains of the TESS training system, the Advanced Smart Onboard Data Interface Module (ASMODIM) interfaces with air and ground vehicles to provide collective Force-on-Force and Force-on-Target weapons systems training.

For the AH-64D/E Apache attack helicopter, it interfaces electronically to the aircraft weapons systems to provide a training mode, weapons emulation, and a simulated weapons inventory.

Player events and engagement data is actively monitored, tracked, recorded and transmitted via the telemetry network to the Exercise Command and Control system for real-time monitoring and After Action Review (AAR).



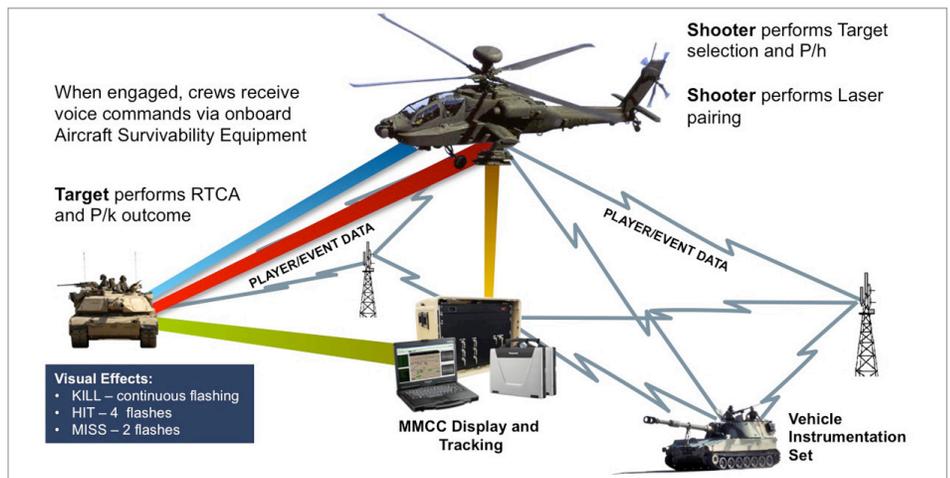
WEAPONS TRAINING

The ASMODIM computes MILES or Geometric Pairing solutions and processes Simulated Area Weapon Effects (SAWE) data for all weapons. Aircraft and targeted vehicles are Geometrically Paired by their GPS positions for the purpose of Real-Time Casualty Assessment (RTCA). The ASMODIM selects a target from its player position database in the appropriate weapons impact footprint, and computes Ph/Pk algorithms specific to each weapon type and player type. It then informs the target via the data link that it is selected for assessment and transmits

RTCA feedback directly to the aircraft weapons processor and ground station through the onboard telemetry radio.

ASE EMULATION

The ASMODIM integrates with the AH-64 Aircraft Gateway Processor (AGP) to enable emulation of the Aircraft Survivability Equipment (ASE) functionality of Infrared (IR) Common Missile Warning Systems (CMWS), active IR jamming systems, IR countermeasures, radar warning systems (APR-39), radar jamming systems, and laser warning receiver systems (AN/AVR-2A/B).

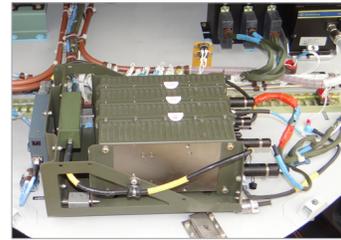




New vs Legacy



SMODIM in UH-60M



SMODIM in UH-72A



SMODIM in CH-47F

NETWORK COMMUNICATIONS

The ASMODIM maintains a dynamic position database through player-to-player communications. The onboard telemetry radio supports simultaneous distribution to multiple locations providing network communications. The radio acts as a message repeater to overcome Line of Sight (LOS) interruptions.

Telemetry radios operate at 902-928 MHz for CONUS operations and 220-400 MHz for OCONUS operations.

DATA PROCESSING

The ASMODIM provides continuous Built-In Test (BIT), network radio message processing, MILES Laser decoding, GPS position data, mission data recording, Ph/Pk processing, and RTCA notification.

UPGRADES

The ASMODIM replaces the legacy MSMODIM and is fully backwards compatible with Aviation TESS. Upgrades include an interchangeable radio module with 1.3 Mbps data speed, interchangeable receivers, multiple data interface options, expandable memory, HD-SDI and ethernet video, and advanced weapon simulation augmented by DTED and Geometric Ranging.

Integrates with any Weapons Platform for the Total Live Training Experience

UAS CONTROL

Supports live training simulation of AH-64 aircrew level IV control for both tactical and virtual Unmanned Aerial Systems (UAS).

MONITORED PARAMETERS

- » Player ID
- » Position/Location and Heading
- » Pitch, Roll and Yaw
- » Radar Altitude
- » ASE Status (on/off)
- » Ammunition Inventories
- » Range to Target
- » Selected Sight
- » Selected Designator Laser Code and Missile Seeker Code
- » Sight Azimuth
- » Target Position
- » Weapon Event/Release
- » Missile, Rocket and Gun Firing
- » Real Time Casualty Assessment

ASMODIM INTERFACES / MODES

- » (4) RS-422/485 Full Duplex Channels
- » ARINC 429 (3) RX, (1) TX Channels
- » (1) 10/100 Base-T, (1) GB Ethernet
- » (8) RS-232
- » HD-SDI & Ethernet Video from aircraft through-sight
- » (1) Available Expansion Slot to allow for additional components such as a flight data recorder, data management system, image capturing, diagnostics, etc.
- » Optional Encryption Module, FIPS-140-2

A Program of Record since 1989; in use at U.S. Army Home Stations, Combat Training Centers, and Ten Countries

SMODIM FIELDED PLATFORMS:

- » AH-64D/E Apache Longbow
- » WAH-64 Westland Apache
- » UH-72A Lakota
- » CH-47D/F Chinook
- » UH-60A/L/M Blackhawk
- » OH-58D/F Kiowa Warrior
- » LYNX Attack Helicopter
- » UAS: Gray Eagle/ Shadow/Raven/Puma
- » Aircraft Survivability Equipment Trainer (ASET) IV
- » Avenger Air Defense
- » M270, M270A1 Multiple Launch Rocket System (MLRS)
- » High Mobility Artillery Rocket System (HIMARS)



Jim Barker, Vice President Business Development
 jbarker@inter-coastal.net
 (480) 981-6898

www.inter-coastal.com



ANY MISSION, ANY ENVIRONMENT, ANY PLATFORM