

ASPIS Advanced Self-Protection Integrated Suite



ASPIS: the Advanced Self-Protection Integrated Suite for the 21st century. ASPIS is an integrated system of electronic warfare equipment that provides a secure electronic shield against anti-aircraft missiles and threat fire control radars.

Benefits

- Fully integrated and internally mounted on F-16 aircraft (Blocks 52+/50/30)
- DRFM-controlled jammer for robust suite of effective countermeasures
- All-aspect RWR coverage; fore and aft jammer coverage
- Performance proven in tests, NATO exercises, and operational deployment with NATO Air Force
- Now in production
- Complete flight-line and intermediate level ground support equipment with software support facility
- In-country reprogrammability allows threat-adaptive changes based on mission profile
- Modular architecture allows easy integration of new technologies and auxiliary EW systems

Developed for the Hellenic Air Force (HAF) in the mid 1990s, ASPIS has been operationally deployed since 1999. The newest version of the system, ASPIS II, is now in production and features a new digital RWR for dense signal environments and a new DRFM-equipped jammer with enhanced resource management and technique-rich capabilities.

Proven Performance and Integration

ASPIS is a proven, modular, highly effective internal EW system demonstrated against real threats in acceptance flight trials, NATO combat exercises, and spontaneous defense of sovereign territory. Designed to detect, identify, and counter a contemporary NATO threat list in a high density environment, ASPIS is the most capable integrated EW suite available today. ASPIS is the only EW suite successfully integrated, proven, and deployed on F-16 Block 52/50/30 aircraft. It can be installed and integrated with

single seat F-16C or dual seat F-16D aircraft. All future F-16 Block 50 aircraft will be delivered with ASPIS II compatible Group A provisions. The system integrates the latest Northrop Grumman ALR-93 radar warning receiver with the Raytheon ALQ-187 jammer and the BAE Systems ALE-47 countermeasures dispenser system for an effective and dependable F-16 self-protection system. ASPIS also offers full in-country reprogrammability of mission threat data and ECM technique libraries, making it threat-adaptive to changes in mission profile over its projected 20+ year operational life.

Low Risk, Low Cost

ASPIS is certified for EMI/EMC and safety-of-flight on the F-16 Block 30/50/52+ aircraft, and it is flight proven, operationally deployed, and organically supported. There are no additional integration costs on F-16 aircraft. The program infrastructure is in place and actively managing the production line.

ASPIS is being produced now in economically viable quantities using modern digital technology in both the RWR/EW suite controller and DRFM-equipped jammer for high reliability and low cost. While providing the most effective self-protection available, the entire integrated ASPIS suite costs less than some jammers currently deployed on existing aircraft or still in development for future aircraft.

Supportable

ASPIS has an in-place and operationally proven flight line and intermediate level support infrastructure, including flight line test sets, intermediate level centralized test sets, spare parts lists, and operator and maintainer training and manuals. It is a complete EW package ready for delivery and deployment with F-16 aircraft.

ASPIS Subsystems



ALR-93(V) Threat Warning System



ALQ-187 DRFM-Based Jammer



ALE-47 Countermeasures Dispenser System

Industrial Participation

ASPIS is built and delivered from six manufacturing sites in Europe and the United States. Applicable to F-16 and other aircraft worldwide, ASPIS is a reconfigurable system that can provide globally appropriate EW performance while being globally produced.

Growth Potential

ASPIS uses a modular, digital, federated architecture that addresses the principles of mission survivability. The architecture easily allows the integration of new technologies to improve capabilities in situation awareness or threat countermeasures. In addition, auxiliary EW systems such as towed decoys, infrared missile approach warning systems, and a low-band jammer may be added to expand the self-protection coverage of ASPIS.

Raytheon ASPIS Team

ASPIS is offered by an unparalleled team focused on providing the ultimate in engineering design expertise and product support. The team is led by Raytheon's Electronic Warfare Systems and is supported by the extensive resources of Northrop Grumman and BAE Systems.

Northrop Grumman's ALR-93(V) provides threat radar detection, identification, and warning, as well as control and coordination of the countermeasure responses available in the ASPIS suite. It offers high sensitivity and high probability of intercept to ensure dependable and timely threat warning in dense signal environments. The ALR-93(V) provides the latest state-of-the-art multiple receiver architecture, including proven digital narrowband receivers and processing



Optional Low-band Jammer

techniques suitable for the self-protection requirements of advanced 21st century fighter aircraft.

Raytheon's ALQ-187 jammer provides the latest in multi-tracker, digital RF memory based ECM that protects the aircraft from multiple simultaneous threats. Addition of the DRFM provides enhanced technique generation capabilities. The ALQ-187 is integrated with the ALR-93(V) to counter modern pulse, pulse Doppler, and continuous wave threats in a dense signal environment, including surface-to-air and air-to-air missiles as well as

anti-aircraft artillery. Providing coverage both forward and aft, the ALQ-187 can be customized in a choice of frequency ranges and effective radiated powers.

BAE Systems' ALE-47 Threat Adaptive Countermeasures Dispenser System (TACDS) provides an integrated, re-programmable, dependable, computer-controlled capability for dispensing expendable decoys (chaff, flares, and others). The ALE-47 can prioritize and automatically dispense the correct type and amount of chaff and/or flares to counter single or multiple threats.



ASPIS is fully integrated on F-16 Block 30/50/52+ aircraft.

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