



SPEAR-EW

NETWORK ENABLED ELECTRONIC WARFARE CAPABILITY



SPEAR-EW is the Electronic Warfare (EW) variant of the SPEAR family of weapons that brings enhanced Suppression of Enemy Air Defence (SEAD) capability and, when used in conjunction with SPEAR, optimises Destruction of Enemy Air Defence (DEAD) capability.

Adapting the SPEAR weapon design, the warhead and seeker are replaced with an increased fuel system and modular EW payload that enables SPEAR-EW to provide enhanced loitering and a broad Electronic Warfare effect across the threat spectrum. SPEAR-EW provides a next generation stand-in EW capability to enhance the survivability of strike aircraft and significantly enhance the survivability of missiles fired at targets, thus acting as a force multiplier.

Product key features

SPEAR-EW has three primary functions to support and complement platform capabilities:

- Deception of threat assets operating in both Naval and Land domains
- Degradation and Suppression of Search and Acquisition Radars
- Provocation and Identification of non-active threat ADUs

These primary functions are enabled by key features of SPEAR-EW:

- High weapon load out to enable a salvo approach and loitering capability for continuous effect on the target
- Extended range for enhanced platform survivability
- Broad frequency range
- Both responsive and command generated Radio Frequency (RF) Jamming Techniques
- Threat signal interrogation and analysis

SPEAR-EW delivers:

- EW capability against:
 - Integrated Air Defence Systems
 - Static and Mobile GBAD systems
 - Suppression of ship based radar systems
- Enhances platform/weapon survivability
- Fully programmable EW payload, against the ever-evolving threat
- High load out for increased persistence
- Increased survivability through enhanced range
- Technology growth path to co-operative weapons and ISTAR capabilities
- Reduced overall Mission costs, delivering force multiplier capability
- Reduced Integration and Through Life Capability costs utilising the SPEAR family

Platform integration

SPEAR-EW utilises the same electrical and physical interfaces as the other SPEAR family of weapons, thereby reducing both platform integration and through life costs. Moreover, SPEAR-EW uses the SPEAR family launcher system, which allows four units to be housed in a single bay of the F-35. A 3-pack launcher is currently under development for compatibility with other platforms such as the Eurofighter Typhoon and Gripen.



SPEAR family

Guidance

- Pre-programmed flight with INS/GPS and two-way data link

Navigation and guidance

- Robust Inertial Navigation, with GPS throughout the operating envelope with pre-programmed flight parameters

Network enabled

- Providing operational flexibility and co-operative weapons/ ISTAR capability

Payload

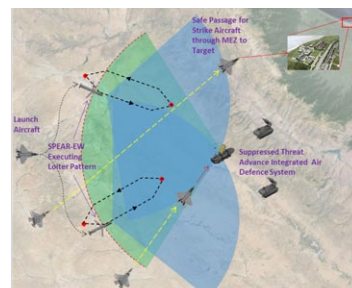
- Modular Electronic Warfare payload, delivering jamming and decoy capability across the threat spectrum

Propulsion

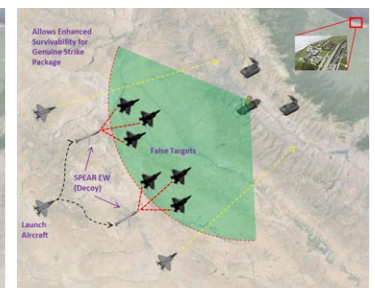
- Turbojet propulsion provides long range and power supply to payload
- Higher fuel capacity providing increased range and loiter time

Architecture

- Mil Std 1760 and UAI compliant for current and future



Stand-in jamming mission profile



Decoy mission profile

Technical details:

Weight: < 100kg
Length: < 2m
Diameter: 180mm

