SPEAR NETWORK ENABLED PRECISION SURFACE ATTACK

The next generation air launched Surface Attack Weapon for F-35 and Strike/Fighter aircraft

SPEAR is funded and in development by MBDA to meet the UK’s Selective Precision Effects At Range air launched requirement. The weapon will maximize its turbojet motor, multi-mode seeker, and secure data link to give the F-35 and other strike fighters the stand-off and precision they need to face the most challenging threats on land and at sea. Recent conflicts have demonstrated the need for precision strike weapons that can operate night and day in all weather conditions against severe countermeasures and importantly attack moving and maneuvering targets. Powered by a turbojet engine, SPEAR has the beyond horizon reach that glide-only weapons can’t match, to ensure that the aircraft remains safely away from hostile air defense units.

SPEAR is equipped with the latest generation multi-effects warhead, designed to meet the demands of the future combat mission.

SPEAR will allow the warfighter to reduce the numbers of different weapons within inventory while also extending the operator’s ability to engage mobile, fleeting and re-locatable targets far beyond the horizon.

SPEAR will provide high aircraft survivability with a low collateral damage solution.

- In development for F-35 internal carriage or external carriage on strike/fighter aircraft
- Multiple sensor seeker for true day/night, all-weather use in contested environments
- Turbojet propulsion provides greater range and survivability than glide-only weapons
- Network-enabled, two-way secure data link enhances stand-off advantages
- Low collateral damage and multi-effect warhead for precision effects and lethality
- High internal and external load-outs with 4-shot launcher
- Based on the combat proven Dual Mode Brimstone missile
Fitted with the latest generation multi sensor seeker designed to operate in all combat conditions and to be able to engage a wide range of target types both on land and sea. SPEAR is based on the combat-proven Dual Mode Brimstone missile and using that heritage and growth, SPEAR will be effective against:

- Air Defense Units, Ballistic Missile launchers
- Defended structures
- Fast moving and maneuvering vehicles
- Main Battle Tanks, Self-Propelled Guns, Armored Personnel Carriers
- Naval vessels

**Missile characteristics**

- Weight: <220 lbs
- Length: <80 inches
- Diameter: 7 inches
- Guidance: Multi mode seeker & INS/GPS
- Warhead: Multi Effect

**Seeker**

Multi mode seeker providing increased selectivity in complex scenarios

**Navigation and Guidance**

Robust Inertial Navigation augmented with GPS throughout the operating envelope

**Network Enabled**

Two way data link allows in-flight updates, retargeting and abort functions. SPEAR can be used in both Fire and Forget and Semi Active Laser designation modes as well as fully Network Enabled

**Warhead**

Multi Effect warhead with multiple fusing options allowing tuneable effects to target thereby enhancing lethality while minimising collateral risk

**Propulsion**

Turbojet propulsion for high sub-sonic speed and long reach providing operational flexibility and increased weapon and platform survivability

**Architecture**

MIL Std 1760 and UAI compliant for current and future platform compatibility