



BRIMSTONE: FUTURE ATTACK HELICOPTER WEAPON (FAHW)

ADVANCED DUAL MODE, MULTI-ROLE, MULTI-EFFECT, PRECISION SYSTEM



MBDA's proposed FAHW solution builds on the highly acclaimed Brimstone missile (98.7% effectiveness achieved during in-theatre operations) to specifically meet attack helicopter requirements by providing the operator with the ability to reliably and simply engage, in both direct and indirect fire modes, a wide range of target types with its multi-effect warhead.

This target set includes fast moving vehicles, MBTs and other armoured vehicles, structures, FIACs (Fast Inshore Attack Craft) as well as airborne enemy helicopters.

MBDA's proposed FAHW solution features an IM-compliant rocket motor and multi-effect, tandem-shaped charge warhead with an impact, delayed or proximity fuse capability. Its dual mode seeker provides flexible engagement modes to maximise the helicopter's target acquisition, designation and fire control system.

One missile for multiple platforms, Brimstone is designed to be integrated onto attack helicopters, fixed wing aircraft (including fast jets), land vehicles, naval platforms and UAVs.

Operational advantages

- Optimised design for attack helicopter requirements
- One missile for all missions (including fast and agile land and maritime threats)
- All-weather, fire-and-forget capability
- Dual mode seeker for low collateral, precision strike
- High off-boresight angle capability
- Significantly increased engagement envelopes and survivability
- IM safety and potent anti-FIAC capability for embarked operations
- Innovative training solutions





Capability against agile land targets at speeds up to 70mph



Capability against agile maritime targets in congested environments



Seeker

- 94GHz millimetric Wave (mmW) radar
- Semi-Active Laser (SAL)

Flexible modes of engagement

- SAL, SAL/mmW, mmW modes. In dual mode, SAL guidance can handover to mmW guidance for increased accuracy once the missile determines the exact target being designated
- Rapid salvo capability (mmW only mode) for area, column and point kill
- Point attack utilising mmW guidance for all-weather, low visibility engagements

Effects

- Effective against a wide variety of ground (including all known conventional and reactive armour) and air targets
- Low collateral damage in restrictive engagement scenarios

Navigation and guidance

- Next generation IMU and autopilot for precision at range
- Inertial mid-course navigation and seeker determination for target acquisition
- High bandwidth guidance and agility for fast manoeuvring targets

Propulsion

- Cast double base propellant rocket motor
- Strip steel laminate motor case

Technical characteristics/specifications

- **Weight:** 50kg
- **Length:** 1.8m
- **Diameter:** 180mm
- **Guidance:** Millimetric wave radar and semi-active laser
- **Warhead:** Multi-effect, tandem-shaped charge with adaptive fusing

