

MBDA contacts

Sales and Business Development
1 avenue Réaumur
92358 Le Plessis-Robinson cedex – France
Tel. +33 (0) 1 71 54 10 00
Fax +33 (0) 1 71 54 00 01
salesenquiries@mbda-systems.com

www.mbda-systems.com



BRIMSTONE FAMILY

THE BRIMSTONE FAMILY OF
HIGH PRECISION SURFACE
ATTACK WEAPONS



BRIMSTONE

A LIGHTWEIGHT STRIKE MISSILE
WITH ADVANCED DUAL MODE MMW SEEKER

USED AS:

- SEA DEFENCE
- LAND DEFENCE

Brimstone is a lightweight strike missile with advanced dual mode MMW seeker that has been designed to engage a wide range of targets whilst tripling weapon load out.



RAPID ENGAGEMENT AGAINST THREAT ANYTIME AND ANYWHERE

Targets and threats may include stationary and fast moving vehicles in land and naval environments.

The system can be operated in three mode:

- Mode 1** Semi-active laser guidance, to engage static targets with limited/no radar cross section
- Mode 2** SAL and Millimetric Wave radar guidance for fast moving targets in a cluttered environment.
- Mode 3** Fire-and-forget simultaneous target engagement.

Operational advantages

- Text



'ONE MISSILE,
MULTI PLATFORM'

BRIMSTONE

HIGH PRECISION SURFACE ATTACK WEAPON



Brimstone proves the jet operator with a low collateral, tired and tested, close air support weapon that is capable of destroying multiple targets.

The aircraft is armed with multiple Brimstone missiles that offers speed, Flexibility and high achieving results in a single load out (something a helicopter can't do alone).

Operationally deployed in the Afghanistan, Libya and Iraqi conflicts, Brimstone has proven to be the weapon of choice able to perform surgical strikes in time-critical missions against both static and moving/manoeuvring targets, with a true day/night capability.

BRIMSTONE

HIGH PRECISION SURFACE ATTACK WEAPON



Brimstone is operational on Tornado GR4 and integrated on Eurofighter Typhoon and Future Attack Helicopter. The weapon system can also be operated on a wide range of UAVs, land and ship platforms.

Brimstone missiles are equipped with Millimetric Wave radar guidance to reach their target in top speed during cluttered conditions, such as in air combat between air-crafts.

BRIMSTONE

MISSILE INTEGRATED ONTO RAF'S
PROTECTOR RG MK1 AIRCRAFT



BRIMSTONE

MISSILE INTEGRATED ONTO RAF'S PROTECTOR RG MK1 AIRCRAFT

Subtitle

MBDA's Brimstone missile was integrated onto RAF's Protector RG Mk1 Aircraft in 2019. Together, they will provide new capabilities to the Royal Air Force, enabling them to engage high-speed moving and manoeuvrable targets.

The Protector RGMk1 can carry three lightweight (50kg) Brimstone missiles, meaning the pairing of the Brimstone and Protector RG Mk1 ensures a much higher load out than the Reaper platform it has replaced.

This pairing has provided the UK Armed Forces with vital operational advantages and sovereign defence capabilities.

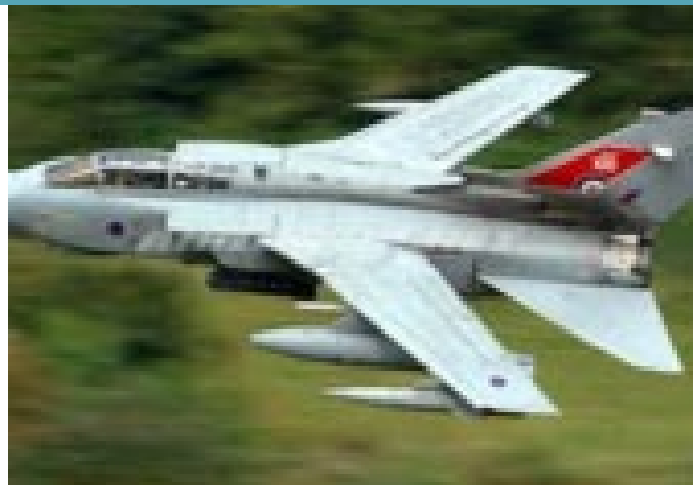
Brimstone is unique in its ability to perform in all domains (land, sea and air). This integration ensures state-of-the-art capabilities on air-to-land defense.



BRIMSTONE

PRECISION STRIKE MISSILE ENTERS SERVICE
ON RAF'S TORNADO GR4, EUROFIGHTER TYPHOON
AND FUTURE ATTACK HELICOPTER

Brimstone missiles are operated onto Tornado GR4 and integrated onto Eurofighter Typhoon and Future Attack Helicopter. The weapon system can also be operated on a wide range of UAVs, land and ship platforms.



Operationally deployed in Afghanistan, Libya and Iraqi conflicts, Brimstone has proven to be the weapon of choice to perform surgical strikes in time-critical missions against both static and moving targets, with day/night capabilities.

Combat aircrafts armed with Brimstone weapons offer reach, speed, flexibility, precision and the capacity to engage with multiple targets at once.

In air-to-ground/in-air combat, Brimstone provides a rapid response for close air support and counter insurgency that is not possible from these aircrafts alone.



TRIPLE WEAPON LOADOUT



BRIMSTONE

BATTLEFIELD ENGAGEMENT

Brimstone missiles are also integrated onto helicopters, fixed wing aircrafts, land vehicles, naval platforms and UAVs.

Brimstone missiles makes the capacity for high load-out to increase combat mass as well as avoiding the complexity of rotating turrets and is also inter-operable between wheeled and tracked platforms.

Brimstone missiles can be used in air-ground combat as well as unmanned ground vehicles (UGVs). Each UGV contains six Brimstone missiles, all of which can engage with moving and static targets/threats from a long range and optimal speed.

Brimstone is effective against a wide variety of targets for land – including all known conventional and reactive armour, maritime and air.



BRIMSTONE ON BOXER

PRECISION SURFACE ATTACK OVER WATCH SYSTEM



The challenges of modern battlefields lead to an increase in demand of tactical land forces having organic capability to engage adversaries with precision at range and in volume.

Integrated onto the modularity of Boxer (a surface launched Brimstone solution provides the commander with the ability to deliver precise anti-armour effects at long ranges) with no modification to the Boxer drive module.

Propulsion

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

Effects

- Effective against a wide range of targets for land, maritime and air (including all known conventional/reactive armour)
- Low collateral damage in restrictive engagement scenarios

Capabilities

- Quick and effective engagement
- Rapid in/out action times
- Broadside firing maximises missile range, as opposed to vertical launch systems
- Achieves co-ordinated effects on multiple targets during a single mission
- Engages in line-of-sight and non-line-of-sight

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BRIMSTONE ON HMT600

PRECISION SURFACE ATTACK OVER WATCH SYSTEM



A modular Brimstone launcher equips the light forces commander with the ability to deliver precision anti-armour effects at long ranges, whilst retaining the high mobility of the HMT600 platform.

Capabilities

- Fast and effective engagement, the Brimstone/HMT module provides over watch capability for light forces.
- Rapid in/out of action times.
- Salvo launch options to achieve co-ordinated effects on multiple targets during a single mission.
- Broadside firing maximises the range of the missile and simplifies platform installation.

Effects

- Effective against a wide range of targets from land, maritime and air, including all known conventional and reactive armour.
- Low collateral damage in restrictive engagement scenarios.

Flexible modes of engagement

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

MARITIME BRIMSTONE



Air launched Brimstone builds upon in-service combat, such as providing defence against fast in-shore attacks and raiding forces.

Maritime Brimstone is easily integrated onto maritime platforms due to the enablement from modular ship architecture. Enables defences such as rapid engagement against the threat of pinpoint kill in cluttered shipping lanes.

Maritime Brimstone has been designed to be modular and can be integrated to a wide variety of vessel types/classes.

- Battle proven, all-weather, rapid fire-and-forget capability against a wide target set.
- Provides maritime vessels with unique multiple, simultaneous engagement capability against fast, manoeuvring and static targets.
- Latest generation of the highly effective Brimstone missile.
- Autonomously guided missile using advanced Millimetric Wave radar seeker.
- Upgradable path to maximise full Brimstone Dual Mode seeker capability.
- Simple integration and operation to enable low operator workload and high operational performance.

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PRECISION SURFACE ATTACK WEAPONS

Technical characteristics

- **Weight:** 50kg
- **Length:** 1.8m
- **Diameter:** 180mm
- **Warhead:** tandem-shaped charge



Seeker

- Millimetric Wave (mmW) radar
- Semi-Active Laser (SAL)
- Mil Std 1760 for maximum platform capacity

Navigation

- Inertial mid-course navigation
- Tandem-shaped charge warhead effective against a wide range of targets
- Defeats all known conventional and reactive armour
- Minimal collateral damage

Propulsion

- Double base propellant rocket motor
- Strip steel laminate motor case

Operational advantages

• Dual seeker mode

Brimstone's seeker provides high accuracy through flexible engagement modes to ensure accuracy of hitting and destroying targets.

• Proven ability against static and moving targets

The wide range of targets that Brimstone is capable against include fast moving vehicles, tanks, armoured cars, bunkers and naval vessels (including Fast In-Shore Attack Crafts).

• IM-compliant

Brimstone holds an IM-compliant rocket motor and multi-effect warhead with delayed or proximity fuse capability, which ensures low collateral damage.

• Fully meets the UK MOD's protector programme requirements.

• Can be used in all weather conditions

This also means that it can be used to destroy targets on land, sea or air.

• Low collateral damage.

• Day and night capabilities.

• Rapid support response for close air support and counter insurgency

that isn't possible through helicopters alone.