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AKERON MP
CLOSE COMBAT
WEAPON SYSTEMS

AKERON MP

FIFTH GENERATION MULTI-PURPOSE
COMBAT MISSILE SYSTEM FOR LAND
AND NAVAL OPERATIONS

Today's battle commander needs to be prepared for operations in both the traditional open terrain as well as in complex urban environments

Where collateral damage is a major issue, the modern ATGM weapon must offer unerring precision as well as extreme flexibility to confront not only heavily armoured MBTs but also soft targets such as a sniper concealed behind a wall. Also of great importance is the need to ensure that the operator has the choice of full hands on control throughout the flight envelope (minimising collateral damage risk) or fire-and-forget to minimise exposure time in a heavy fire zone. Of course with the modern battlefield becoming more and more network enabled, today's ATGM needs to be digitised to be able to play its part in NCW operations. To meet these demands, MBDA has developed AKERON, a unique, fifth generation ATGM missile that represents a quantum advance from the fourth and third generation weapons currently available on the market.



The only currently available fifth generation ATGM

- Next generation, uncooled seeker
- Next generation tandem warhead
- Automatic seeker lock-on
- MEMS IMU for firing on target coordinates
- Lethality against a wide target set including both hot and cold targets
- Two selectable trajectories to defeat the latest generation defences of MBTs and other heavily armoured vehicles







Operational advantages

- The only fully tested, fifth generation anti-tank guided missile (ATGM) in full operational service
- Night/day/all weather operation, even in extremes of climate (from desert to sub-arctic conditions)
- Effective at ranges up to and over 4km
- One missile for all terrain, all combat for unmatched flexibility
- One missile deployable by mounted and dismounted troops as well as from naval craft (stockpile management advantages)
- Lightweight weapon system, easily man-portable
- Always the right lethal effect and trajectory selectable for any target
- Always the right firing mode selectable for any combat configuration
- High quality images provided by seeker and sight in all bands enabling optimised decision making by the operator
- Highly automated system for minimal operator workload
- Long lasting continuous observation capability with a single rechargeable battery
- BLOS firing capability
- Uncooled IR seeker allows repeated lock-on to potential targets without consuming resources
- Optimal gunner survivability thanks to
 - very low system signatures (noise, visual, thermal...)
 - confined space firing capability
 - Non Line Of Sight (NLOS) firing capability
- Suitable for networked operations
- Unjammable data link (fibre optics)
- Collateral damage risk reduction
- Robust and maintenance-free missile
- Optimal gunner safety: no noxious gas, no overpressure, no recoil
- Insensitive Munition (IM)

AKERON MP FOR DISMOUNTED INFANTRY

For rapidly deploying combatants, AKERON MP offers a highly portable solution that can be deployed from both open terrain and very confined spaces

The fully digitised, interactive firing post with embedded sensors, features a number of market-leading features:

- Latest generation IR band 2 and day camera
- Laser range finder, GPS and magnetic compass
- Advanced ergonomics
- Modular architecture to facilitate integration onto combat vehicles
- Full NCW compatibility
- Only 11kg (including tripod and battery)
- Autonomous with battery or can be connected to an external power source

Though the AKERON MP firing post is easy to use and requires very little training to bring an operator up to speed with its full functionality, ongoing training is, of course, vital.

Training in the field with live rounds is costly so MBDA has developed a new generation of simulators:

- Gunnery training simulator for indoor training based on enriched reality technology (real life scenarios that correspond to the customer's expected combat environments can be programmed)
- Combat firing simulator for tactical training in the field





AKERON MP FOR WHEELED AND TRACKED VEHICLES



Armoured combat vehicles and CRVs

MBDA is an experienced systems integrator and as such has worked with the sectors leading armoured vehicle manufacturers. In this respect we can offer a number of integration solutions depending on customer requirements.

AKERON MP with IMPACT

To maximise the operational flexibility of AKERON, MBDA has developed the IMPACT turret.

The 250kg class remote controlled turret provides an optimised battle capability against a wide spectrum of hard and soft targets for a range of manned light combat vehicles. IMPACT features a twin launcher on the land variant deploying two ready-to-fire AKERON missiles and a 7.62mm general-purpose machine gun.



AKERON MP FOR WHEELED AND TRACKED VEHICLES

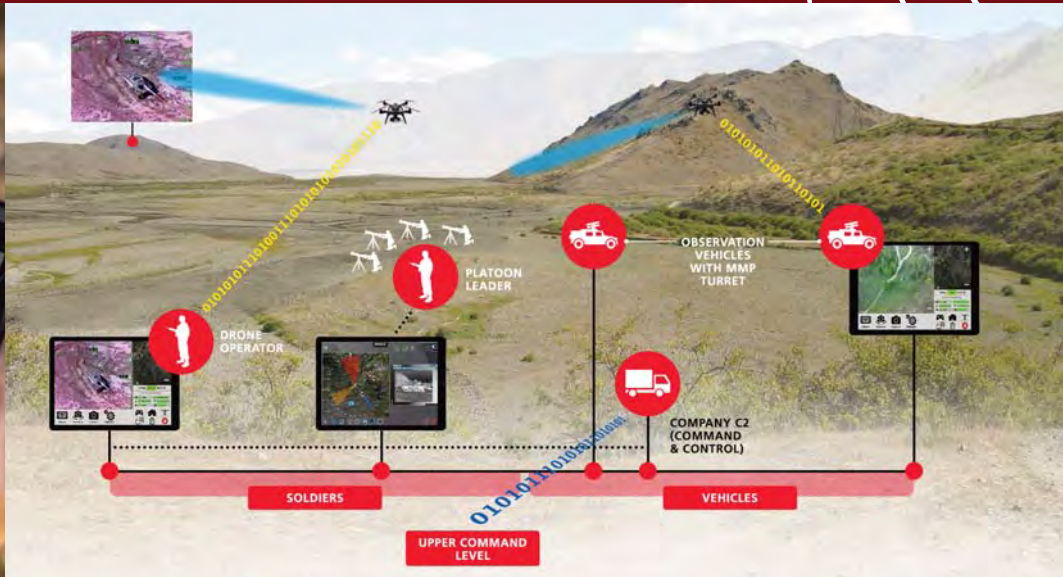
To face the challenges of high-intensity warfare, there is a strong need to bolster the armament of a medium turret, or even remote weapons station with the latest ATGM capability.

MBDA has developed a suite of AKERON MP integration kits, suitable for any turret configuration and vehicle type, be it a tracked or wheeled vehicle.



AKERON MP WITH LYNKEUS

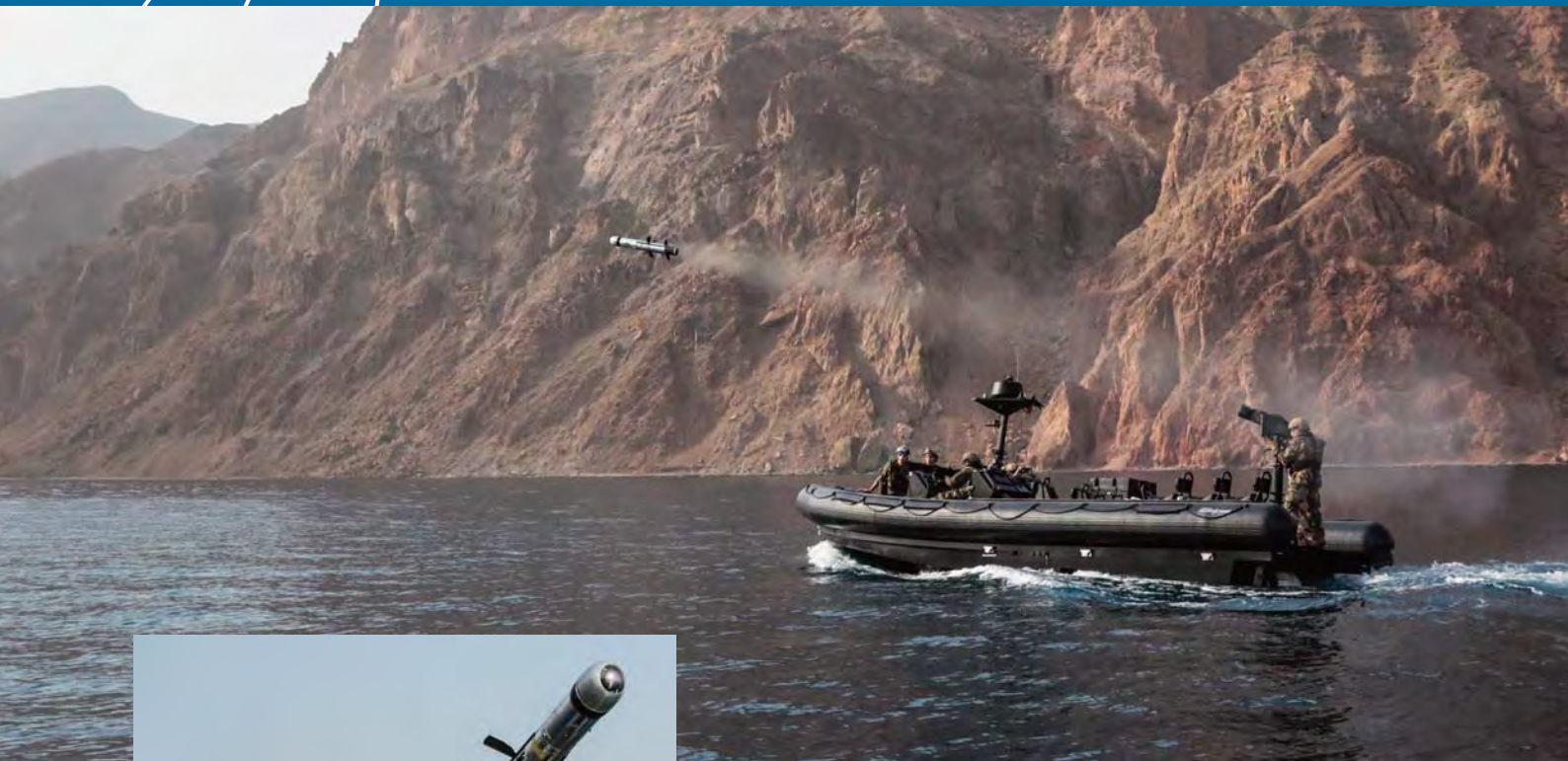
AN INNOVATIVE SYSTEM DESIGNED TO MAXIMISE DEPLOYMENT OF AVAILABLE BATTLE RESOURCES IN THE FIELD



The rapidly changing operational environment demands higher levels of agility, resilience and adaptability, in support of virtual and physical battlefields. The key issues are to get tactical superiority on land by sharing the tactical situation on the battlefield. Developed by MBDA, Lynkeus application allows collaborative combat. Through Lynkeus system and its network, all the actors of a combat group or echelon share the tactical situation on the battlefield and

update in real-time all relevant combat information automatically and in a collaborative way before engaging the enemy. The information provided by mini-drone, infrared and radar surveillance systems, and of course mounted and dismounted optical items deployed by soldiers and transmitted through Lynkeus network, enhances use and terminal efficiency of MBDA missiles on the battlefield.

AKERON MP FOR NAVAL APPLICATIONS



AKERON MP can provide a number of solutions for naval platforms including RHIBs (Rigid Hulled Inflatable Boats) and USVs (unmanned surface vessels). The land system firing post needs only to be inserted into a suitably positioned mount which can be easily retrofitted onto RHIBs and other small craft.



For FACs and larger craft, a twin-launcher IMPACT turret (minus the machine gun) is available. The AKERON missiles are housed in a specially designed, remotely-controlled naval launcher to provide a very effective inner point self defence capability.





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FIFTH GENERATION MULTI-PURPOSE
COMBAT MISSILE SYSTEM FOR LAND
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AKERON MP missile characteristics

- Range: in excess of 4,000m
- Two firing modes:
 - LOBL (Lock-On-Before-Launch)
 - LOAL (Lock-On-After-Launch)
- Passive dual band seeker (uncooled IR Band 2 and colour TV channels)
- Real-time data link (fibre optic)
- Two-stage propulsion system with soft launch and smokeless characteristics
- Multi purpose tandem warhead (2-in-1) capable of defeating 1,000mm of RHA, 2,000mm of concrete
- Selectable trajectories: low altitude direct attack/high altitude top attack
- Length: 1.3m in tactical canister
- Diameter: 140mm
- Weight (including tube): 15kg
- Maintenance-free

IMPACT specifications

- Overall weight (excl. missiles): 250kg
- Gyrostabilised
- Remote control station
- Ergonomic loading
- FN 7.62mm machine gun
 - Rate of fire: 650-1,000rpm
 - Range: 1,000m
 - Integral waste bag

Firing post optronics

(also within IMPACT)

- Infra-red sight (band 2)
- Colour TV (for daytime use)
- GPS
- Laser range finder
- North finder (firing on coordinates)
- Networkable