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MARTE FAMILY THE MARTE FAMILY OF ANTI-SHIP MISSILE SYSTEMS

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MARTE FAMILY LIGHTWEIGHT MEDIUM AND LONG RANGE ANTI-SHIP MISSILE SYSTEMS

The Marte family of anti-ship weapons has been designed to meet the modern challenge offering options for a range of both air and surface launch platforms



Protecting and enforcing the battlespace in the open ocean and in the often cluttered confines of the close littoral is a major aspect of modern naval operations. In peacetime, an effective anti-ship deterrent is equally important to ensure national sovereign interests, whether in home or international waters. Given the advancement of ship defence systems, the modern anti-ship weapon must be equally advanced, capable of defeating the latest ECCM and of operating at a safe stand-off range at any time of night or day and regardless of the prevailing weather conditions.

The Marte family of anti-ship weapons has been designed to meet the modern challenge offering options for a range of both air and surface launch platforms. Therefore, as well as Marte's clear operational advantages in delivering lethality with precision against targets ranging from FACs to frigates and corvettes, the flexibility within the family offers distinct logistics advantages to the user in terms of stockpile management, handling and maintenance.

Operational advantages

- Multi-platform for operational and logistics flexibility
- Fire-and-forget
- Stand-off range survivability for air launch
- All weather, night and day operations
- High defence penetration capability thanks to high subsonic sea-skimming profile and terminal manoeuvres
- High resistance to ECCMs
- Open sea, littoral warfare and, for Marte ER, land attack capability
- Effective against a wide target spectrum
- Flexible and quick Mission Planning System allowing salvo firing and engagement of multiple targets

MARTE MK2/S MARTE MK2/N LIGHTWEIGHT, MEDIUM RANGE ANTI-SHIP MISSILE SYSTEM

Marte MK2/S

Marte MK2/S was designed to provide naval helicopters with an effective means of countering and neutralising a wide spectrum of surface maritime targets at within horizon ranges. Already integrated on NATO shipborne helicopters such as AW101 and NH90, Marte MK2/S is ideal for both littoral and open water operations where a fast reaction time plays a vital role. The weapon's fire control system allows a flexible planning of missile mission, including waypoint and seeker area management.

Marte MK2/N

Marte MK2/N is a direct derivative of MK2/S with the system deploying the same Marte MK2 missile. Suitable as a new build or a retrofit on a wide range of naval vessels from 25 to 50m, the system offers a choice of four different launchers with the flexibility to adapt as requirements evolve (eg. a twin launcher can easily be adapted to a quad and so on). Marte MK2/N fits neatly into the anti-ship spectrum – medium calibre guns for short range, Marte MK2 for medium range and Otomat/Exocet for long range. Unlike a helicopter, a ship armed with Marte MK2/N can stay on station for extended periods. The lightweight fire control system integrates guite easily with modern CMS, featuring state of the art interfaces and a minimal footprint in terms of spaces, power supply and air conditioning needs. A number of alternative integration solutions allow installation of the system as standalone, loosely integrated with a CMS but with a dedicated Marte console or with the HMI embedded within CMS multifunctional consoles.

Launcher characteristics:

- 2 x single launchers: 1,500kg
- 2 x twin launchers: 3,000kg







MARTE ER LIGHTWEIGHT, LONG RANGE ANTI-SHIP MISSILE SYSTEM

Marte ER

Marte ER represents the third generation of the Marte family of anti-ship missiles. The most significant difference between this latest evolution and its MK2 forerunner lies in the introduction of a turbo engine in place of the rocket motor. This more than triples the missile's range with only a minimal addition to its weight. Single or quick sequence salvo firing is possible as are different launch modes (on track, on bearing, visual).

Marte ER has been designed to be used on fast jets and the new generation, naval versions of the European AW101 and NH90 helicopters. Its design takes into consideration that the MK2/S has already been integrated and qualified on these helicopters, so this new addition to the Marte family will use the same mechanical, functional and electrical interfaces. To maintain commonality even further, the same logistics support (handling and maintenance) will apply. Only software changes will be required to the Store Management System in order to deal with the extended ranges now possible. With this same software, the helicopter will be able to deploy both Marte MK2/S and Marte ER. Marte ER will be integrated on the Eurofighter Typhoon.

Similarly, the naval version of the Marte ER ammunition is designed to complement and improve the capabilities of the Marte MK2/N, allowing installation on the same type of platforms keeping very similar installation requirements, giving a significant firepower even on very small fast patrol boats, with minimal needs in terms of weight, space and required power supply.







NEW GENERATION COASTAL BATTERY SYSTEM



Marte Mobile Coastal Defence System

Marte MCDS is a new generation, mobile coastal battery system mounted on trucks and deploying the Marte ER missile. With its deployment flexibility, very rapid firing sequence, autonomous and integrated operational modes, Marte MCDS offers an optimised coastal defence against a wide range of vessels from FACs to frigates and corvettes.

The standard system comprises the following elements:

- a Mobile Control Unit (MCU) with C2 consoles for system operation
- a Mobile Sensor Unit (MSU), with full sensor suite including radar
- up to four Marte Firing Units (MFU) capable of four missiles each
- optional Mobile Reloading Units (MRU) and Mobile Maintenance Units (MMU)

All the elements are installed on standard military trucks including autonomous power generation units and the stabilisation system. Other configurations are possible too, for example without a sensor vehicle and directly integrated



with an existing customer surveillance network. The Marte ER ammunition used on the Coastal Defence System is the same as the one used for naval installation, thus providing additional benefits in terms of stockpile management and Integrated Logistic Support.

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LIGHTWEIGHT MEDIUM AND LONG RANGE ANTI-SHIP MISSILE SYSTEMS

Missile characteristics

Marte is a family of high subsonic anti-ship missiles equipped with a semi-piercing HE warhead and with impact and proximity fuzes.

Marte ER (Naval/ground launcher/helicopter version)

- Weight: < 340kg
- Length: 3.60m

Marte MK2/S

• Weight: 310kg

• Range: > 30km

• Speed: High subsonic

- Max. body diameter: 316mm
- Range: Well beyond 100km
- Speed: High subsonic

Marte ER (Fast combat jet version)

- Weight: 300kg
- Length: 3.60m
- Max. body diameter: 316mm
- Range: Well beyond 100km
- Speed: High subsonic



• Length: 3.85m (logistic container 4m)

• Max. body diameter: 316mm

Marte MK2/N

- Weight: 310kg
- Length: 3.85m (canister 4m)
- Max. body diameter: 316mm
- Range: > 30km
- Speed: High subsonic





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