

VL MICA

Vertically-launched,
all-weather air defence
weapon system



Surface-to-Air Missile: Make in India

For navies looking for a vertically launched, high performance surface-to-air missile system to upgrade the air defences of their frontline ships, VL MICA, capable of reaching four times the speed of sound and dealing with multiple targets simultaneously, offers an ideal solution. Should the Indian Navy opt for this solution, production would be undertaken in India by L&T MBDA Missile Systems Limited ('L&T MBDA'), the joint venture set up between the international engineering conglomerate, Larsen & Toubro and MBDA, Europe's leading missile and missile systems company. Highly compact (thanks to the launcher's inbuilt efflux management system) and not dependent on dedicated tracking radars, VL MICA is ideal for retrofits as well as new-builds.

Apart from providing the Indian defence sector with all the benefits associated with the transfer of the latest generation surface-to-air technologies, VL MICA offers distinct operational and logistics advantages, given that India already operates the MICA missile on the IAF's recently upgraded Mirage 2000 combat aircraft.

The VL MICA naval air defence system provides unmatched self and local-area defence capability. It is currently deployed by navies around the world as the sole or main air defence system on board a wide range of surface vessels.

The VL MICA system deploys the unique MICA missile, which is the only missile in the world equipped with two, interoperable, state-of-the-art seekers (Imaging IR or active RF), providing superior features to counter all types of threat (anti-ship missiles, aircraft, helicopter, PGMs, smart bombs, etc).

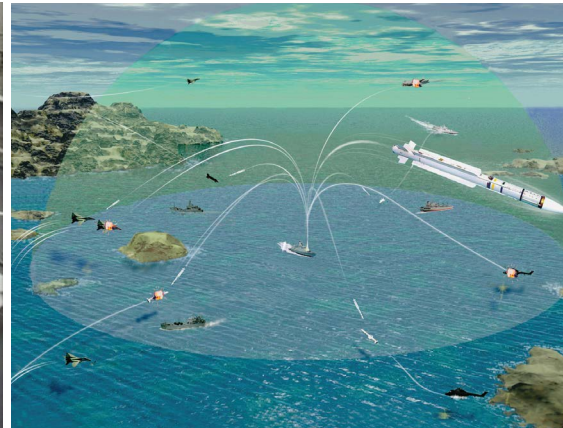
VL MICA offers a very high single-shot kill probability and simultaneous multiple-shot capability (autonomous guidance, extremely high firing rate).

Operated from the ship's combat system, using existing air defence sensors, VL MICA has no need for a dedicated fire control system.

The missile is stored and vertically launched from its individual storage container (no need for a VLS), providing 360° engagement coverage. Several ship programmes have been carried out that have demonstrated how the modularity and compact nature of VL MICA facilitates the system's installation on a wide range of warships, both new-build and retrofit.

In addition to VL MICA's many operational advantages, low maintenance, reduced manpower requirement and very long service life are key features.

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| • All-weather |
| • Vertical launch (360° coverage) |
| • Simultaneous multi-target, high rate of fire |
| • Active RF and Imagery IR seekers |
| • Outstanding defence capability against saturating anti-ship attacks |
| • Light, modular and compact |



Missile Guidance

- Mid-course inertial guidance with in-flight target data update (Up-link)
- In-flight seeker lock-on followed by homing guidance
- Active RF monopulse Doppler seeker or passive imaging IR seeker

Lethal chain

- RF proximity fuze
- Impact fuze
- High explosive focused fragmentation warhead

Aerodynamics

- Long chord wings for high manoeuvrability
- Tail control surfaces
- Thrust Vector Control (TVC) for initial control and very short interception

VL MICA ammunition

- The missile is stored and vertically launched from its sealed container (with integrated efflux duct)
- Modular installation of up to 16 VL MICA missiles on board

Shipset

- Easy installation with one electronic cabinet
- Use of onboard air surveillance and tracking sensors
- Operated from the ship's CMS
- Simple and flexible ammunition installation

Missile characteristics

- Weight: 112 kg
- Length: 3.1 m
- Diameter: 160 mm

Ammunition characteristics (container with missile)

- Weight: 480 kg
- Length: < 4 m



L&T MBDA Missile Systems Limited is a Joint Venture of Larsen & Toubro Limited and MBDA

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