

Latest Spike variant

a 'perfect fit' for Hawkei

A new loitering missile and in-service protected vehicle combination represent a low-risk option for a mobile precision strike capability for the Australian Army.



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LEFT: Powered by a turbo-jet engine, the L-Spike 4X missile combines high flight speed with significant loiter time over the target area. This allows it to 'hunt' for moving targets or targets seeking cover in complex environments such as those typical of archipelagic and littoral regions. Image: Rafael

A NEW MEMBER of the Spike missile family is an ideal weapon system for carriage by the Australian Army's 10-tonne Hawkei light protected vehicle, a defence industry executive has declared.

Speaking with *DTR* about the new L-Spike 4X loitering missile, Rafael Australia's managing director, Golan BG, said that the palletised version would be an obvious candidate for a canister-launched precision strike weapon suitable for mounting on the rear tray of the Hawkei two-door variant.

"It's actually a perfect fit for Hawkei. It uses the same palletised launch canisters as Spike NLOS, which are operationally-proven installed on various light vehicles," he said.

The L-Spike 4X also plugs a capability gap in the Army's offensive fires arsenal, which currently has no precision strike weapon to engage targets between the 8km range of the AGM-114 Hellfire missile fired from its new AH-64E Apache attack helicopters and the 70km effective range of the 227mm rocket fired from the M142 High Mobility Artillery Rocket System (HIMARS).

"The range of the L-Spike 4X hits that sweet spot for Army in terms of range, which is well beyond 10 or 20km but less than 70km," Mr BG added.

Earmarked for replacement across the US military by the longer-range AGM-179 Joint Air-to-Ground Munition (JAGM), Hellfire is considered to

be nearing the twilight of its operational life. A common thread in discussions amongst some analysts suggests Hellfire no longer possesses the stand-off range required to keep pilots and aircraft safe on operations where short-range air defence systems are employed.

It is understood that Rafael has briefed the Australian Army on the ability of L-Spike 4X to hunt enemy air defence systems, both mobile and stationary.

First unveiled at AUSA 2025 last October, the sixth-generation L-Spike 4X offers a step-change in time-to-target capability, being able to strike a target 40km away in 5 minutes. Alternatively, it can reach a target area 40km away and loiter for a further 30 minutes. Time-to-

target is an important factor in effective engagement of time-critical and moving targets. Depending on operational circumstances and conditions, the weapon's range and loiter times can be manipulated according to range, target type, position, pace of target manoeuvre etc.

The combination of a shortened time-to-target with extended loiter times allows L-Spike 4X operators to 'hunt' for targets such as moving vehicles, watercraft and surface vessels, a difficult task in littoral and archipelagic regions and maritime choke points without precision guidance and the ability to actively search for a target that has moved in the time elapsed from missile launch to arrival on target.

In the case of watercraft and ships at sea, this distance/location difference can be significant, with a vessel moving at 15 knots travelling more than 1.25nm in 5 minutes, or 2nm in 5 minutes if moving at a speed of 25 knots.

Features of the L-Spike 4X include a dual seeker (TV and infra-red), dual channel tracker, turbo-jet engine, target tracking, automatic target recognition, hand-over and abort functions and immunity from GPS jamming and contested electromagnetic spectrum conditions. The weapon has a circular error of probability of less than 1m and choice of a multi-purpose or tandem charge high-explosive anti-tank warhead.

The all-up weight of the missile is 34kg, cruise speed is 540km/h and loiter speed 250km/h.

For installation on light vehicles such as the two-door Hawkei, which can accept a 2.25-tonne payload on its rear tray, the palletised launcher module for L-Spike 4X weighs 1.2 tonnes and comprises four canisters, each with a ready-to-fire missile, and a further six loaded canisters alongside. Hawkei's 1.5-tonne accompanying trailer could double that loadout, thereby extending battlefield persistence and self-sufficiency.

Requiring only connection to the carrier vehicle's power supply, the launcher module would utilise Hawkei's open architecture Integral Computing System and onboard electrical power.



ABOVE: The palletised launcher module contains four ready-to-fire rounds of L-Spike 4X plus six reloads. Previous integration studies by Rafael have confirmed that the module would fit on the rear tray of the Hawkei two-door variant. Image: Rafael

To saturate a target and overwhelm air defences, the configuration of the launch module allows L-Spike 4X to be salvo-fired, with a single operator able to supervise and co-ordinate up to four missiles fired simultaneously in a single salvo while retaining human decision authority.

Australia is already a Spike customer, with deliveries of Spike LR2 anti-tank guided missiles to the Army commencing last year. The Spike LR2 will be used in the dismounted and mounted roles, the latter on Army's Block 2 Boxer combat reconnaissance vehicle entering service and the soon-to-arrive Redback infantry fighting vehicle. **DTR**

BELOW: The Army is already using Hawkei as a weapons carrier, having integrated the NASAMS High Mobility Launcher onto the rear tray of the two-door variant under Land 19 Phase 7B. Image: Aust DoD

