

EQUIPMENT PROFILE: SEPTEMBER 2024

# HAWKEI MUSCLES UP FOR GBAD ROLE

The combination of Hawkei and NASAMS creates a potent capability for the ADF. **Ian Bostock** reports.



AS PART OF its quest to introduce an advanced short-range ground-based air defence (SRGBAD) capability under Land 19 Phase 7B, the Australian Army is fielding two distinct types of launchers for the National Advanced Surface-to-Air Missile System (NASAMS).

One is Kongsberg's standard Mk 2 six-missile canister launcher that is transported by HX77 8x8 truck and deployed onto the ground for firing, and the other being an Australian adaptation of a lightweight launcher in service with Norway. This latter solution is the key component of the Australianised 'Enhanced NASAMS' capability package (comprising leading-edge Australian sensor technology and vehicle solutions) and integrates the Raytheon High Mobility Launcher (HML) onto the rear

**ABOVE: The Hawkei-NASAMS variant is the first example of Hawkei being adopted for a weapons carrier role.**

Images: Raytheon



**Ian Bostock**

Founder & Editor

ABOUT THE AUTHOR

tray of the two-door Hawkei Protected Mobility Vehicle – Light manufactured by Thales Australia in Bendigo.

The Hawkei-NASAMS platform provides the ability to deploy a mobile SRGBAD capability by C-130J Hercules and C-17A Globemaster III aircraft and via landing craft in support of littoral

manoeuvre operations. In contrast, the Mk 2 canister launcher is only transportable by C-17 and landing craft and does not possess the same autonomy and flexibility to redeploy tactically during an operation.

The relative compactness of the Hawkei-NASAMS vehicle permits ease of concealment once deployed in an operational setting. This reduces detectability which, in turn, enhances survivability against long-range fires, loitering munitions and drone strikes. The baseline Hawkei vehicle also provides a measure of protection for the crew from kinetic and blast threats.

## HIGH MOBILITY LAUNCHER

Originally developed for the US Army's now-cancelled Surface Launched AMRAAM program that sought to equip the in-service High Mobility Multi-purpose Wheeled Vehicle (HMMWV) with a launcher for the AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM), the HML is now part of Kongsberg's NASAMS launcher options. It is currently in use by the Royal Norwegian Air Force and Norwegian Army where the system entered service in 2018 and 2022 respectively. In each case, the HML is mounted on the flat-bed M1152 Expanded Capacity HMMWV.

The HML integrated onto Hawkei features 360° traverse and is powered by the vehicle's batteries. Target engagement is conducted remotely from the truck-mounted Fire Distribution Centre (FDC) command and control node, although it is understood an on-board launcher control terminal facility enables the two crew members to fire

the missiles in an emergency.

With an arsenal of six missiles in total, the launch element of the HML comprises six rails that allow a flexible loadout combination of radar-guided AMRAAMs and the latest AIM-9X Block II missiles equipped with an imaging infra-red seeker.

The Hawkei-NASAMS platform is capable of wireless communication with the NASAMS FDC while on the move, enabling commanders to operate mobile GBAD platforms in less than 10 minutes from halting a road march to missile off rail.

Raytheon Australia confirmed with DTR that the HML is able to fire the

**BELOW: The Hawkei-NASAMS platform is entering service with 16 Regt based in South Australia.**



## HAWKEI-NASAMS SPECIFICATIONS

|                    |  |
|--------------------|--|
| Weight             | 10.9 tonnes  |
| Dimensions         | 6m long, 2.4m wide, 2.4m high  |
| Time Into Action   | <10 minutes  |
| Time Out of Action | 2 minutes  |
| Armament           | 6 x missiles total   |
| Target Types       | Aircraft (fixed/rotary-wing)<br>Cruise missiles<br>Medium-large UAVs |
| Target Engagement  | Up to 6 targets at once  |
| Crew               | 2  |
| Traverse           | 360°   |
| Power Supply       | Vehicle batteries  |

new C8 variant of AMRAAM. The HML is also compatible with the longer range AMRAAM-ER, which provides a significant increase in engagement range and altitude. While not yet in service with the Australian Defence Force (ADF), AMRAAM-ER has been successfully integrated by other NASAMS users and provides a marked advantage against both current and evolving air threats.

The company said that the HML was assembled, integrated onto an in-service Hawkei vehicle and tested within Australia over a 24-month period, making use of local industry involvement where possible.

The integration of the NASAMS HML onto Hawkei represents the first example of the vehicle being used as a weapons carrier, with the two-door



**ABOVE: The Hawkei-EOIR variant is equipped with a mast-mounted MTS-A electro-optic infra-red sensor suite.**

single cab variant showing the versatility of its 2.25-tonne capacity cargo bed.

In addition to the launcher vehicle, a Hawkei-NASAMS fire team comprises an electro-optic infra-red (EOIR) sensor suite variant and a CEA Technologies active electronically scanned array tactical fire control radar variant, both also mounted on the two-door Hawkei.

The Hawkei-EOIR variant is equipped with the Raytheon AN/AAS-52 Multi-spectral Targeting System (MTS)-A. Mounted atop a 5m telescopic mast, the MTS-A is a high resolution, day/night passive multi-wavelength sensor suite with an integrated laser rangefinder that provides long-range target identification and real-time tracking. It is already used by the ADF on the Royal Australian Navy's MH-60R Seahawk helicopters.

NASAMS will be operated by the 10th Brigade's 16th Regiment, Royal Australian Artillery, based in Woodside, South Australia. Land 19 will also cover the construction of new facilities for 16 Regt at the Edinburgh Defence Precinct, with relocation scheduled for late 2025.

Raytheon Australia declined to confirm how many Hawkei-NASAMS are to enter service or when initial and final operational capability would be achieved.

The Australian Army conducted its first live firing of NASAMS (Mk 2 canister) at the Woomera test range in South Australia in November 2023. **DTR**