Army examines Hawkei for light cavalry role

The Hawkei PMV-L looks set to inject new life into Army Reserve units, writes Ian Bostock.

THE THALES AUSTRALIA Hawkei Protected Mobility Vehicle – Light (PMV-L) is well on its way to being rolled out across the Australian Army via Land 121 Phase 4. As of 24 August, 106 Hawkei PMV-L had been delivered to Army units, with just under 1,000 more to follow along with their companion trailers.

The Hawkei is Army’s Land Rover 110 replacement and will undertake the four main roles of command, reconnaissance, liaison and utility (logistics). However, the design and capabilities of the Hawkei are such that it has now evolved into a multi-purpose, role-configurable and digitised vehicle capable of performing a broader spread of roles. It is this potential that has the Army interested in exploring what else Hawkei can do.

One of these additional roles is that of light cavalry vehicle, a role which is described by Army Headquarter’s Director General – Platforms, Brigadier Jeremy King, as being similar to that of cavalry (to locate, dislocate and disrupt the enemy through the conduct of offensive and defensive operations and also security actions) but with lighter, non-armoured fighting vehicle platforms.

“We’re looking to determine what we can now do with our protected mobility vehicle fleets – both Bushmaster and

ABOVE: The 10th Light Horse Regiment now has its full complement of Hawkei vehicles. Images: ADF
now Hawkei – and start to understand that,” BRIG King told DTR.

“Light cavalry is primarily focused on surveillance and reconnaissance and from my perspective, having just declared initial operational capability [IOC] on Hawkei, I feel we’re at the same point that we were with Bushmaster where we acquired it for a specific role and we now operate numerous versions in a variety of functions and roles. I see we are at that same point with Hawkei.

“In that light, the possibilities are endless, and the light cavalry role is but of a number of roles where I suspect we will go out and start trialling and experimenting to understand the flexibility of this platform.”

The plan is to undertake a trial of Hawkei in the light cavalry role with 13th Brigade’s 10th Light Horse Regiment. The trial is expected to run for around 12 months.

“We’ve just declared IOC on this platform, Thales has moved into full rate production and it would be remiss of us not to fully exploit this vehicle and the possibilities that it offers us. 13 Brigade is going to explore one of those opportunities,” BRIG King said.

“In 2019 we did a bit of trialling with the G-Wagon 6x6 around surveillance and reconnaissance, stepping that up and understanding how broadly we can use Hawkei both in terms of its mobility and capability is important. So this is the next step forward.

“Let’s see where the experimentation takes us, but I think for the time being we’ll get these vehicles across to 13 Brigade to let them start experimenting and see what they are capable of and we’ll test and adjust accordingly.”

13 Bde commander Brigadier Brett Chaloner told DTR that the Royal Australian Armoured Corps has been doing a capability review across the spectrum, from heavy armour through to light cavalry.

The brigade will be a test bed for the idea of a hybrid approach to manning which will see it with a combined full-time/part-time force. For 13 Brigade that means around 1,500 personnel in total, including some 500 full-time personnel and the remainder variations on part-time.

“Whether it’s full-time or part-time doesn’t become the discriminator and you do get other environmental factors that are prioritised ahead of that,” BRIG Chaloner said. “In our case, being in Western Australia, we’re a long way away from everyone else, we’re relatively isolated and self-contained and so we won’t get a large number of vehicles. What that forces us to do is look at the platform and the systems

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– **BRIG Jeremy King, DG Platforms**
and sensors it comes with, which are many and quite modular, and then reimagine its employment. So for us, light cavalry is all the things described by Brigadier King earlier but it also includes what I’m describing as a wide area surveillance role or wide area network-enabled role.

“So you can imagine vehicles operating singularly or in pairs and those vehicles being separated by potentially hundreds of kilometres yet still being networked through satellite and other communications systems. The sum total of that system will be that ISR [intelligence, surveillance and reconnaissance] cavalry effect, only delivered by other means within a different context. That, for me, underwrites the effects-based approach the entire Army is starting to pivot towards,” continued BRIG Chaloner.
10 LHR will consist of a regimental headquarters and two squadrons. Each squadron will be up to 100 people strong, with a complete unit strength of 250-300 personnel.

A Squadron will focus on the Bushmaster-based capability (10 vehicles), whilst B Squadron will focus on the Hawkei-based capability at maturity (10 vehicles). Each squadron will comprise two troops of five vehicles.

“We’ve got about another 12 months of design and evolution before we go firm on that structure,” BRIG Chaloner remarked.

“Depending on how we augment with G-Wagon SRV-like platforms we can certainly expand the offering but the core of the capability will be those 10 Hawkei vehicles. The good thing about Army’s Objective Force is that we are far more agile in our considerations. Let’s just say that over the next few years as we go through the trial and the maturation of the capability, the Army is agile enough to boost numbers to, let’s say, 14 or 16 vehicles per squadron, if required. Once we’ve satisfied ourselves that we’ve matured the capability we will confirm whether we want to grow that capability or sustain it.”

10 LHR, which hasn’t been a regiment since the Second World War and is currently at squadron strength, will re-raise as a regiment on 10 October 2021. It is one of the most storied units in the history of the Australian Army.

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which contemplates littoral and offshore employment as well. It’s not just a West Australian asset,” BRIG Chaloner said.

**WHY HAWKEI?**

Whilst trials have taken place recently with the G-Wagon surveillance and reconnaissance vehicle (SRV) a significant limiting factor is its lack of a communications suite that provides both situational awareness and the ability to mesh into the command network. The G-Wagon SRV is also, of course, a soft-skinned vehicle and not suited to non-permissive environments.

“We’ve moved on in terms of what we’re willing to accept with regard to risk and there are minimum levels of protection that are expected,” BRIG King said. “Certainly G-Wagon SRV is a very capable platform but since we acquired the G-Wagon fleet we’ve adjusted our risk threshold in relation to required protection in non-permissive environments.

“Trialling the G-Wagon SRV has certainly progressed our understanding of what we want to do in terms of our concepts around light cavalry and other things but if we’re serious about a deployable capability in a non-permissive environment then clearly it has some limitations.

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When asked by *DTR* what makes Army believe the Hawkei can fulfil the light cavalry role effectively, BRIG King was clear: “Those three elements: its mobility, communications and protection, throwing in self-protection there as well. It has a ‘P’ for protection at the front of its acronym which
means it’s going to be a heavy vehicle, but there’s that natural friction where we try to keep it as light as we can. When you look at the communications suite that will be fitted to the four-door variant in particular it becomes an extremely capable node within the mesh and it can operate far more effectively in small groups because it’s got the protection to enable it to get itself out of harm’s way if and when it needs to. Therefore, it’s worth testing the vehicle in a light cavalry function, which is about being able to operate out there in small groups at distance from other elements and being able to get itself out of trouble albeit not large-scale fighting.”

BRIG Chaloner also added context around how the Hawkei would operate in the light cavalry role: “When you talk about the G-Wagon SRV, Bushmaster or Hawkei, in most cases they’re not going to operate in isolation of other platforms so there will always be a degree of interrelationship that refers to potential and performance. Equally, the Bushmaster platform operates at times as an infantry mobility vehicle, a command vehicle and an ISR platform. So whilst Hawkei has some limitations based on its size, weight, space and power the arcs of its employment are yet to be fully explored”.

“Our concept of cavalry as the eyes and ears of the force and, in certain cases, enablers that can provide a screen and other effects,” says BRIG Chaloner, “will see Hawkei become part of that system. How we employ in the future is likely to be quite different to how we did it in the past. One of the most important things about the platform is that it has a degree of modularity and flexibility that includes the ability to up-armour it if you need to and an ability to put different systems, sensors and weapons systems on it if you want to. That makes Hawkei more exciting than perhaps some of the older platforms.”

“GROWING OUT THE LIGHT CAVALRY CAPABILITY

According to BRIG King, a successful trial of Hawkei in the light cavalry role is likely to see the capability expanded into other Army Reserve formations.

“Hawkei in the light cavalry role will add another string to our bow in terms of what the capability can do. We’ve got a bunch of units out there in the Reserve brigades that can take the vehicle and harness it and add extra capabilities inside
The four-door Hawkei variant will be the core of the 10 LHR light cavalry capability, this variant possessing more scope in the type of equipment that can be carried. The unit will also receive a pair of two-door utility variants to provide additional load carrying capability and flexibility. A 10 LHR troop will consist of four 4-door variants and one 2-door variant.

The Land 121 Phase 4 Hawkei fleet allocations have been “massaged” to provide the 10 vehicles to 10 LHR.

As with the Hawkei in general service where it is part of the complete equipment schedule, the 10 LHR vehicles will operate with the companion trailer, Able to carry many jerrycans of fuel and water, the trailer is expected to increase a troop’s endurance and operating range as well as provide space for additional stowage.

“The trailer is a significant value-add,” said BRIG Chaloner. "I don’t think the overall impact of towing the trailer is anything that will be of concern from the cavalry perspective.”

The vehicles delivered to 10 LHR came fitted with the Platt MR550 ring mount and may in due course receive the standard-issue remote weapon system.

There is no intention to modify or swap out the Hawkei’s fibreglass bonnet with an armoured one, as BRIG King explains: “There is a P at the front and an L at the back of the name ‘PMV-L’ and there’s always been that constant friction in the design in trying to deliver the requisite levels of protection but also ensure it stays a light vehicle and one that can be readily transported etc. The fibreglass bonnet is probably the culmination of some of those design trade-offs from our perspective; it’s an acceptable trade-off in order to give us the performance and protection we need”.

The Hawkei’s performance and mobility has been a highlight of its introduction, with feedback from training organisations and trainees described as “excellent” by BRIG King.

“It is a different vehicle with a different centre-of-gravity to other in-service vehicles and it will take some time for us to become comfortable in regard to what it can and can’t do, but it terms of its mobility over cross-country terrain: outstanding. All the feedback so far has been extremely positive in relation to its operation. From our perspective, we would not be putting Hawkei over in 13 Brigade if we did not have confidence in what the vehicle can do or its performance. It is an immensely impressive vehicle,” BRIG King said.

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Army’s suite of options. So, we’re really excited about what 13 Brigade’s about to do with this platform, but more broadly the opportunities to adjust and expand how we make the best use of the platform. We’re getting 1,100 of these vehicles at this point in time and whilst we have traditional protected mobility roles already allocated it would be remiss of us under the Army Objective Force not to fully exploit the capabilities that it offers.

“We’re not going into this to see it fail. We see some really good opportunities and possibilities in relation to the usage of Hawkei and we’re confident this is an effective capability. We’ve got similar units across the other Reserve brigades that could potentially leverage off this in the future but right now we’re very keen to do this trial and see where 13 Brigade can take it.

“2nd Division as the Reserve division will primarily operate Hawkei PMV-L in that function. At this point in time the Hawkeis that are going out to 1, 3, 6, 7, 16 and 17 brigades and Air Force are against the traditional functions I suppose. We’ll start small and we’ll test with 13 Brigade and expand where it makes sense to do so.”

The other Reserve units that are similar to 10 LHR are:

• 4th/19th Prince of Wales’s Light Horse of 4th Brigade that is based in Victoria and currently equipped with the Bushmaster Protected Mobility Vehicle – Medium (PMV-M);
• 1st/15th Royal New South Wales Lancers of 5th Brigade in Sydney and Canberra and equipped with the Bushmaster PMV-M;
• 3rd/9th Light Horse (South Australian Mounted Rifles) of 9th Brigade in Adelaide with the Bushmaster PMV-M and G-Wagon SRV; and
• 12th/16th Hunter River Lancers of 11th Brigade based in Tamworth in northern New South Wales and Ca-boorture in Queensland and equipped with the Bushmaster PMV-M.

“My experience with the Reserves in the past is that they will explore every possible opportunity to make this platform work and find new and interesting ways potentially to make the platform effective,” BRIG King said.

“There’s been a trickle down of older equipment to the Reserves in the past, but what we’re seeing here is the reverse of that where Hawkei has literally just achieved IOC and is about to commence full rate production and one of the first units to receive it is a Reserve regiment. This is a case of front-loading the Reserves with a best-of-breed capability.”

10 LHR TRIAL

The full complement of 10 Hawkei PMV-L arrived at the unit’s Irwin Barracks in Perth last month where they joined a full complement of qualified drivers. IOC for the unit’s light cavalry capability is scheduled for 10 October and comprises re-raising of the regiment, 10 Hawkeis, 10 Bushmasters and all vehicle drivers and operators.

“They’ve got the qualified drivers and they then need to properly develop the depth of knowledge and understanding of how to employ the vehicle within our context and this part of the operating environment,” BRIG Chaloner said. “What I don’t have at the moment are the onboard sensors and communications system. That will come next.”

Whilst there is a good deal that can be achieved in the space of 12 months, BRIG King does not want to be too dogmatic about terms of reference or a fixed timeline for the trial.

“Let’s see where it takes us. I keep referring to the possibilities that this platform offers us so we’re happy to be led by that initial part of the trial and if it takes us down a couple of rabbit holes in terms of identifying follow-on opportunities then we are happy to pursue those.

“Now we’re through IOC, Army is very positive in relation to Hawkei; we need to be and we have no reason not to be, if I’m honest. You’ll see us getting on the front foot now with Hawkei.”

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