Project Data Summary Sheet[1]

Project Number	**LAND121 Phase 4**
Project Name	**PROTECTED MOBILITY VEHICLES LIGHT**
First Year Reported in the MPR	2016-17
Capability Type	Replacement
Capability Manager	Chief of Army
Government 1st Pass Approval	Oct 08
Government 2nd Pass Approval	Aug 15
Budget at 2nd Pass Approval	$1,944.9m
Total Approved Budget (Current)	$1,971.5m
2022–23 Budget	$155.7m
Complexity	ACAT I

Section 1 – Project Summary

1.1 Project Description

LAND121 Phase 4 will acquire and deliver into service 1,100 Protected Mobility Vehicles – Light (PMV-L) and 1,058 companion trailers for command, liaison, reconnaissance and utility roles; and the associated training and support systems. The PMV-L will replace around one third of the Land Rover fleet, and represents a brand new capability that will provide the Australian Defence Force (ADF) with a highly protected and deployable light vehicle fleet designed to provide an optimum balance of six fundamental requirements: survivability, mobility, usability, payload, sustainability and communications. The PMV-L fleet will consist of two variants, which may perform specific mission roles:

- 4-Door PMV-L variant: The 4-Door vehicle may perform the following roles:
  - Command – Carriage of up to four personnel with additional integrated electronic command, control and communication systems.
  - Liaison – Carriage of up to four personnel with a general communication fit.
  - Reconnaissance – Carriage of up to four personnel to perform light infantry, reconnaissance and Air Force security functions.
- 2-Door PMV-L variant: The 2-Door vehicle will perform the following role:
  - Utility – Carriage of two personnel and cargo.

Thales Australia Ltd has been contracted by Defence for the development, production and through-life-support of the PMV-L capability. Thales Australia Ltd is also the nominated Prime Systems Integrator for the Integral Computing System (ICS).

1.2 Current Status

Cost Performance

In-year

As at 30 June 2023, Financial Year (FY) 2022-23 expenditure was $153.9m against FY 2022-23 budget of $155.7m. The variation of $1.8m is primarily related to a reduction in Introduction into Service (IIS) and vehicle rollout expenditure. This was due to the halt in vehicle rollout stemming from a braking issue discovered on the vehicles in November 2022.

Project Financial Assurance Statement

As at 30 June 2023, LAND121 Phase 4 has reviewed the projects approved scope and budget for those elements required to be delivered by Defence. Having reviewed the current financial and contractual obligations of Defence for this project, current known risks and estimated future expenditure, Defence considers, as at the reporting date, there is sufficient budget remaining for the project to complete against the agreed scope.

Contingency Statement

The project has not applied contingency in the FY 2022-23.

Schedule Performance

Initial Materiel Release (IMR) and Initial Operational Capability (IOC) were re-scheduled to May 2020 and December 2020 respectively, due to Hawkei reliability issues, design maturity and the production delays caused by Steyr Motors' voluntary administration.

Remedies under the contract, including liquidated damages, were received during FY 2020-21 as a result of the reliability issues. While stop payments had previously been initiated, none occurred during the FY 2020-21 or FY 2022-23.

Army endorsed the declaration of IMR with caveats on 26 May 2020. The caveats related to delays in the delivery of some elements of the Hawkei Support System, and Verification and Validation (V&V) activities, primarily due to COVID-19 restrictions. As at 30

Notice to reader

1. Forecast dates and Sections: 1.2 (Materiel Capability/Scope Delivery Performance), 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability/Scope Delivery Performance), and 5 (Major Risks and Issues) are excluded from the scope of the ANAO's review of this Project Data Summary Sheet. Information on the scope of the review is provided in the *Independent Assurance Report* by the Auditor-General in **Part 3** of this report.

June 2021, all caveats had been resolved.

Defence formally advised Thales Australia Ltd on 30 September 2020 that it had been granted approval to exit Stage Two – Low-Rate Initial Production (LRIP) and enter Stage Three – Full-Rate Production (FRP).

Army's declaration of IOC was deferred a further six months, pending resolution of a vehicle safety incident that occurred on 23 November 2020. Defence temporarily suspended the use of the Hawkei fleet on 25 November 2020 until the issue was resolved. The incident involved the application of the Anti-Lock Braking System under specific operating conditions. The technical solution, developed by Thales Australia Ltd to resolve the issue has been implemented on the ADF's fleet of Hawkei vehicles.

The Hawkei capability commenced Phase-In under the Protected Mobility Family of Vehicles Through Life Support (TLS) Contract on 3 May 2021.

Army declared IOC for the Hawkei capability on 20 May 2021.

Thales Australia Ltd successfully completed all Phase-In activities with the Hawkei Operative Date under the TLS commencing on 26 November 2021.

Final Materiel Release (FMR) and Final Operational Capability (FOC) have been rescheduled from December 2022 and June 2023, to December 2023 and June 2024 respectively. The rescheduled FMR and FOC were formalised during the October Integrated Investment Program Portfolio Budget Statement (PBS) Biannual Update 2022 and will be reflected in the next Materiel Acquisition Agreement (MAA) update.

On 11 November 2022, Thales Australia Ltd advised Defence that it had identified a new issue impacting the brakes on the Hawkei. Defence has accepted Thales Australia Ltd's recommendation to restrict the use of the Hawkei fleet as a precautionary measure until Thales Australia Ltd determines the root cause of the issue. Once the root cause has been identified, Defence and Thales Australia Ltd will work closely to determine any remedial action required to resolve the issue.

In June 2023 Thales Australia Ltd proposed an interim solution to fix the issue until an enduring solution addresses the root cause. Thales Australia Ltd and Defence are working closely to implement this interim solution to meet Defence priorities.

Materiel Capability/Scope Delivery Performance

16 PMV-L pre-production baseline vehicles and nine trailers were delivered for development and testing purposes under Stages One and Two. The acceptance process for the LRIP vehicles and trailers commenced in January 2018, with the first vehicles being formally accepted by the Commonwealth in March 2018. As at 30 June 2023 the Commonwealth has accepted 874 vehicles and 891 trailers.

Defence conducted a trial involving the deployment of two Hawkei vehicles to Iraq and Afghanistan. The vehicles were deployed into Iraq as part of Task Group Taji and then redeployed in April 2018 to the Australian contingent in Kabul, Afghanistan. This trial commenced in December 2017 and concluded in August 2018. The key trial objectives included the identification of operational and support issues and deployment considerations for the Hawkei capability.

Thales Australia Ltd advised the Commonwealth on 29 November 2018 that the Hawkei engine supplier, Steyr Motors, had entered into voluntary administration, which would result in a delay in the supply of engines. Thales Australia Ltd advised Defence that it had acquired Steyr Motor Australia Pty Ltd on 23 August 2019. Thales Australia Ltd's procurement of Steyr Motor Australia Pty Ltd will ensure the continuity of engine supply and the long-term sustainability of the Hawkei program. The IMR milestone was re-scheduled to May 2020 due to Hawkei reliability issues, design maturity and production delays caused by Steyr Motor Australia Pty Ltd entering voluntary administration.

The Hawkei support system continues to be developed. Operator Training commenced at the Army School of Transport in September 2018. Maintainer Training commenced in November 2019 at the Army School of Electrical and Mechanical Engineers.

A Hawkei Operational Test and Evaluation (OT&E) activity was successfully conducted in August 2020 to inform Army's declaration of IOC.

The Systems Acceptance Audit (SAA) was conducted in two parts on 8 September 2020 and 1-3 December 2020. SAA Part One confirmed that the Hawkei mission and support systems met the required specification. Thales Australia Ltd was granted approval to exit SAA Part One on 16 September 2020.

SAA Part Two confirmed the Hawkei FRP design baseline and associated support system is delivered as contracted. Thales Australia Ltd was granted approval to exit SAA Part Two on 20 August 2021.

LAND121 Phase 4 has rolled out 423 Hawkei vehicles as at 30 June 2023, to Army units in Perth, Adelaide, Brisbane, Darwin and Townsville, as well as to Army training units in Puckapunyal and Bandiana.

Note

Forecast dates and capability assessments are excluded from the scope of the Auditor-General's Independent Assurance Report.

1.3 Project Context

Background

LAND121 Phase 4 addresses the ADFs land mobility assets emanating from the absence of lightweight and light class field vehicles with the requisite levels of ballistic and blast protection.

Government agreed First Pass Approval in October 2008, to pursue the development of a next generation PMV-L by joining the United States (US) Joint Light Tactical Vehicle (JLTV) Program (Option One) and at the same time retain the possibility of acquiring a Market Available Vehicle (MAV) in the event JLTV proves unsuitable (Option Two).

In May 2009, Government directed that an Australian indigenous option for PMV-L be considered. In June 2009, a Manufactured and Supported in Australia (MSA) Option (Option Three) was pursued through the release of a Request for Proposal. In 2009, Defence joined the US JLTV Program Development Group funding.

First to Interim Pass funding was provided in November 2009 following approval of MAA V2.0, where Government agreed that LAND121 Phase 4 would return to Government for an Interim Pass decision on which option was to be pursued to Second Pass.

In May 2010, Government agreed that the MSA (Option Three) be further investigated prior to Interim Pass through the conduct of initial prototyping activities. Stage One MSA funding was provided in July 2011 to assess six developmental Line of Departure vehicles, two from each of the three companies - Force Protection Europe Ltd, General Dynamics Land Systems-Australia and Thales Australia Ltd. The procurement process determined that there were no off-the-shelf options available that met all ADF requirements. Government refined its direction in December 2011 that:

- Directed Defence to cease active participation in the US JLTV Program but continue to monitor the US JLTV Program, given its potential to provide an alternative at Second Pass; and,
- Select Thales Australia Ltd's PMV-L as the preferred vehicle for further development and testing under Stage Two of the MSA (Option Three).

MSA Stage Two funding was provided in April 2012 that enabled Thales Australia Ltd to carry out further development of their PMV-L, culminating in a program of trials and testing of the prototypes in late 2013. A Risk Reduction Activity aimed at reducing residual technical risk to an acceptable level was carried out in 2014.

In August 2015, Government provided Second Pass Approval for LAND121 Phase 4 to acquire the Thales Australia Ltd's PMV-L. LAND121 Phase 4 contract was established in October 2015 for 1100 PMV-L vehicles and 1058 trailers based on a minimum fifty percent of the production or manufacturing costs to be incurred in Australia.

Support requirements for the PMV-L have been incorporated into the existing Protected Mobility Vehicle-Medium (Bushmaster) TLS Contract. It is anticipated that integrating the support arrangements for both fleets will reduce the overall cost of ownership of the vehicle systems by approximately $270.0m over the 15-year life of the vehicle systems. In October 2021, Government approved a reduction to project scope of two Hawkei vehicles for buy-back by Thales Australia Ltd to support a potential export opportunity. The reduction in the total quantity of vehicles to be delivered to the Commonwealth from 1,100 to 1,098 has been formalised in an acquisition contract change and will be reflected through an update to the MAA.

Uniqueness

LAND121 Phase 4 is a developmental project specifically designed to meet the ADFs requirements. The uniqueness of the PMV-L stems from the combination of the following in a single vehicle:

- A high level of blast, ballistic and fragmentation protection, enabling greater deployability within high risk operational environments.
- External Air Transport Mass, enabling the capability to be the ADFs only protected vehicle capable of being lifted by ADF Chinook helicopters.
- A next-generation Generic Vehicle Architecture based C4I solution - ICS.
- Utilise a modular armour system to enable enhanced protection based on mission specific roles.

Major Risks and Issues

The project currently has four high rated risks and one high rated issue (pre-mitigation rating).

The four high rated risks in section 5.1 are:

- There is a risk that misalignment of interdependent project schedules to support Hawkei integration will delay the rollout to Army.
- There is a risk that disruptions as a result of the COVID-19 pandemic, major conflict and/or event will cause supply chain delays.
- There is a risk there will not be time to train the quantity of personnel required to undertake Hawkei IIS Training to achieve Army's Directed Training Requirement (DTR) by FOC.
- There is an emergent risk that insufficient prime vendor resourcing may impact project schedule and performance due to the inability to deliver contractual deliverables on time or to the expected standard.

The one High rated issue in section 5.2 is the rollout of the Hawkei and the establishment of its support system being impacted by constrained resourcing which delays the delivery of Integrated Logistics Support Deliverables.

Other Current Related Projects/Phases

LAND121. Is a multi-phased program providing the ADF with current-generation high-capability field vehicles, modules and trailers. The other current LAND121 projects are:

- **LAND121 Phase 3B – Medium and Heavy Capability.** This project is providing the ADF with 2,536 protected and unprotected medium and heavy vehicles, along with 1,582 matched trailers. This will provide payloads of between four and 70 tonnes for a range of logistics functions, including vehicle recovery, freight, bulk liquid distribution and personnel carriage.
- **LAND121 Phase 5B – Medium and Heavy Capability within the Non-Combat Vehicles Program.** This project is a follow-on acquisition from LAND121 Phase 3B, and is providing the ADF with an additional 1,044 medium and heavy vehicles, 872 modules and 812 trailers.

LAND200 Tranche 2 – Battlefield Command Systems. This project seeks to expand and evolve the Battle Management System – Command and Control (BMS-C2) and supporting Tactical Communications Network from Battle Group (BG) to Brigade Headquarters. LAND200 Tranche 2 is also scoped to enhance data interoperability and information exchange with other government agencies and Coalition partners by integrating the BMS-C2 onto the Mission Partner Environment. Refer to Section 2.3 for further information relating to the contractual arrangements between LAND200 Tranche 2, LAND121 Phase 4 and Thales Australian Ltd.

LAND154 Phase 4 – Joint Counter Improvised Explosive Device Capability. This project replaces the ADF's existing Force Protection Electronic Counter Measures (FPECM) capability through improved military off-the-shelf technology, procured via the US Foreign Military Sales program. FPECM mission systems will include both a Dismounted System and a Vehicle Mounted System (VMS). The VMS will be integrated onto a range of ADF mobility platforms, including the Hawkei.

LAND19 Phase 7B – Short Range Ground Base Air Defence. This project will acquire a new Short Range Ground Based Air Defence capability, replacing Army's existing RBS-70 system. Under the scope of LAND19 Phase 7B, the tactical radar and high mobility launcher system will be integrated onto the Hawkei mission system.

Note
Major risks and issues are excluded from the scope of the Auditor-General's Independent Assurance Report.

Section 2 – Financial Performance[2]

2.1 Project Budget (out-turned) and Expenditure History

Date	Description	$m		Notes
	Project Budget			
May 08	Original Approval (Government First Pass Approval)	1.8		1
Nov 09	Real Variation – Scope	5.7		2
Jul 11	Real Variation – Scope	31.5		3
Apr 12	Real Variation – Scope	48.4		
Sep 15	Government Second Pass Approval	1,857.6		
	Total at Second Pass Approval		**1,944.9**	4
Jul 10	Price Indexation		0.4	5
Jun 23	Exchange Variation		26.2	
Jun 23	**Total Budget**		**1,971.5**	
	Project Expenditure			
Prior to Jul 22	Contract Expenditure – Thales Australia Ltd (Prime Contract)	(1,362.6)		
	Contract Expenditure – Thales Australia Ltd prototyping activities (MSA Stage One and Stage Two Contract)	(58.7)		6
	Other Contract Payments / Internal Expenses	(105.9)		7
			(1,527.1)	
FY to Jun 23	Contract Expenditure – Thales Australia Ltd (Prime Contract)	(137.7)		
	Other Contract Payments / Internal Expenses	(16.2)		8
			(153.9)	
Jun 23	**Total Expenditure**		**(1,681.0)**	
Jun 23	**Remaining Budget**		**290.5**	9

Notes	
1	This amount reflects funding approval at Government First Pass Approval.
2	This amount reflects approval to undertake MSA Stage One prototyping.
3	This amount reflects funding approval at Interim Pass for MSA Stage Two prototyping.
4	The Budget and Expenditure amounts do not reflect the $43.0m paid in 2009. Due to the payment being provided by Capability Development Group and was not part of the LAND121 Phase 4 project budget.
5	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was $0.3m. In addition to this amount, the impact on the project budget as a result of out-turning was a further $0.1m having been applied to the remaining life of the project.
6	These expenditures relate to pre Second Pass costs associated with exploring the Government initiated MSA Option (Option Three) and the contracts are now closed.
7	Other Contract Payment/Internal Expenses comprise of: External Service Providers ($32.4m), Non-Prime contracts ($29.6m); MAV prototyping activities ($17.7m); Support Contract Phase-In Payments ($8.3m); costs related to testing/ trials ($8.0m); project administrative costs ($5.9m); legal costs ($2.2m) and US JLTV Program ($1.8m).
8	Other Contact Payment/Internal Expenses comprise of: Non-prime contracts ($8.9m); External Service Providers ($6.4m); admin and legal costs ($0.8m); cost related to testing/trials ($0.02m).
9	Totals in the columns may not total due to rounding.

2.2A In-year Budget Estimate Variance

Estimate PBS $m	Estimate PAES $m	Estimate Final Plan $m	Explanation of Material Movements
170.3	152.8	155.7	PBS to Portfolio Additional Estimates Statement (PAES): The variation is primarily due to the schedule delays caused by the braking problem. PAES to Final Plan: The variation is primarily due to Foreign Exchange updates.
Variance $m	(17.5)	3.0	Total Variance ($m): (14.5)
Variance %	(10.3)	1.9	Total Variance (%): (8.5)

Notice to reader

2. As per the JCPAA 2022-23 MPR Guidelines, financial figures in the PDSS have been rounded to one decimal point. Section 2 financial tables may include totals and percentages that are impacted due to the rounding of the original financial data.

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan $m	Actual $m	Variance $m	Variance Factor	Explanation
		(1.8)	Australian Industry	The variation is primarily related to a reduction in IIS and vehicle rollout expenditure. This was due to the halt in vehicle rollout stemming from a braking issue discovered on the vehicles in November 2022.
		-	Foreign Industry	
		-	Early Processes	
		-	Defence Processes	
		-	Foreign Government Negotiations/Payments	
		-	Cost Saving	
		-	Effort in Support of Operations	
		-	Additional Government Approvals	
155.7	153.9	**(1.8)**	**Total Variance**	
		(1.2)	**% Variance**	

2.3A Details of Project Major Contracts – Price

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature $m	30 Jun 23 $m			
Thales Australia Ltd	Jul 10	9.0	58.7	Firm or Fixed	Standard Defence Contract	3
Thales Australia Ltd	Oct 15	1,328.5	1,573.0	Firm or Fixed	Standard Defence Contract	1, 2, 3, 4, 5 6, 7

Notes	
1	Price variation from Contract Signature is due to approved Contract Change Proposals (CCP), predominantly to progress the development and integration of ICS.
2	Contract value as at 30 June 2023 is based on actual expenditure to 30 June 2023 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).
3	Price variation from contract signature was to exercise the MSA Stage Two option.
4	The contract has been re-evaluated as being a 'fixed' price because the contract value is 'fixed', plus price escalation.
5	The contract price and scope were increased under CCP078 to incorporate the LAND200 Tranche 2 design work.
6	Costs related to the LAND200 Tranche 2 design, procurement and installation will be funded by LAND200 $12.5m, while this project contributes $2.0m primarily for the design, development and installation of the vehicle installation harnesses for Royal Australian Air Force and Protected Mobility Integrated Capability Assurance vehicles.
7	The contract incorporates liquidated damages received during FY 2020-21 of $6.2m via CCP086.

2.3B Details of Project Major Contracts – Contracted Quantities and Scope

Contractor	Contracted Quantities as at		Scope	Notes
	Signature	30 Jun 23		
Thales Australia Ltd	2 PMV-L	8 PMV-L	Design, develop and demonstrate prototype vehicles.	-
Thales Australia Ltd	1,100 PMV-L 1,058 Trailers	1,098 PMV-L 1,058 Trailers	Thales Australia Ltd is contracted to deliver 1,098 PMV-L (633 4-Door and 465 2-door vehicles) and 1,058 Trailers.	1, 2, 3

Major equipment accepted and quantities to 30 Jun 23
Defence received 10 pre-production baseline vehicles and five trailers from Thales Australia Ltd on schedule for the purpose of various test and evaluation activities under Stage One (Engineering and Manufacturing Development) of the LAND121 Phase 4 Acquisition Contract. Defence received an additional six pre-production baseline vehicles and four trailers for reliability testing, and V&V activities in Stage Two. The Commonwealth has accepted 874 vehicles and 891 trailers as at 30 June 2023, which includes the 138 vehicles and 138 trailers required for IMR.

Notes	
1	The 16 test vehicles and nine test trailers for development and testing activities are in addition to the 1,098 PMV-L and 1,058 trailers.
2	In October 2021, Government approved a reduction to project scope of two Hawkei vehicles for buy-back by Thales Australia Ltd to support a potential export opportunity. The reduction in the total quantity of vehicles to be delivered to the Commonwealth from 1,100 to 1,098 has been formalised in an acquisition contract change and will be reflected through an update to the MAA.
3	The contract incorporates liquidated damages received during FY 2020-21 of $6.2m via CCP086.

2.4 Australian Industry Capability

Summary
The project has contracted Australian Industry Capability (AIC) targets to meet MSA requirements that is captured in Thales Australia Ltd's AIC Plan across the areas of manufacturing and production.
Note
AIC Plans for contracts worth more than $20 million are published on Defence's website. Australian Industry Capability is excluded from the scope of the Auditor-General's Independent Assurance Report.

Section 3 – Schedule Performance

3.1 Design Review Progress

Review	Major System/Platform Variant	Original Planned	Current Contracted	Achieved/ Forecast	Variance (Months)	Notes
Detailed Design	PMV-L and Trailer	Mar 16	N/A	Apr 16	1	1
	Integral Computing System (ICS)	Jan 17	N/A	Dec 16	(1)	2
Preliminary Design	ICS	Sep 16	N/A	Sep 16	0	-
Critical Design	PMV-L, Trailer and ICS	Apr 17	Aug 17	Oct 17	6	3
Support System Detailed Design (Operator)	Support System	Jun 17	Jun 18	Aug 18	14	4, 5
Support System Detailed Design (Maintainer)	Support System	Jun 17	Jan 19	Jun 20	36	5, 6

Notes	
1	The variance is due to the Contractors delay in closing out the action items.
2	The Contractor and the project agreed to conduct the review early, thus the early achievement. The Commonwealth approval of ICS Detailed Design Review Minutes of Meeting was achieved on 19 December 2016.
3	The variance is due to the vehicle performance exceeding the number of critical failures allowable under Reliability Growth Trial (RGT). Stage One (Engineering and Manufacturing Development) was extended by a four-month period via CCP032 (executed 5 April 2017) to allow Thales Australia Ltd to remediate the critical failures and to undertake an additional RGT in order to fulfil the contractual requirements under Stage Two.
4	The variance of Support System Detailed Design Review (SSDDR) of 14 months is due to the LRIP baseline not being ready for review until Critical Design Review exit in October 2017 and the contractor failed to meet the entry criteria in the SSDDR Checklist.
5	The SSDDR was split into separate 'Operator' and 'Maintainer' reviews after the execution of CCP055 in November 2018 to align the training deliverables with the IIS of the capability.
6	An additional eight-month delay to SSDDR (Maintainer) occurred due to delays in finalising the Hawkei Reliability Program, which impacted the finalisation of the FRP vehicle baseline. The Commonwealth confirmed formal exit of SSDDR to Thales Australia Ltd on 19 June 2020.

3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Contracted	Achieved/ Forecast	Variance (Months)	Notes
Maintenance Demonstration	PMV-L, Trailer and ICS	Dec 16	Dec 16	Jul 17	7	1
Reliability Growth Trial	PMV-L and Trailer	Mar 17	Jul 17	N/A	N/A	2
Reliability Demonstration Test (RDT)	PMV-L and Trailer	Feb 18	N/A	Nov 18	9	3
Development Test & Evaluation (DT&E)	PMV-L, Trailer and ICS	Mar 17	Sep 17	Sep 17	6	4
Initial Maintenance Evaluation (ME)	PMV-L, Trailer and ICS	Oct 17	Jan 18	Jun 18	8	5
Final Maintenance Evaluation	PMV-L, Trailer and ICS	TBA	N/A	TBA	N/A	5, 6
Acceptance Verification and Validation (AV&V)	PMV-L, Trailer and ICS	Jun 18	Jan 19	Jul 20	25	7, 8
Production Reliability Acceptance Test (PRAT)	PMV-L and Trailer	Jun 18	Jan 19	Jun 20	24	8, 9
Low-Rate Initial Production Acceptance Last Batch	PMV-L, Trailer and ICS	Jun 18	Jan 19	Oct 19	16	7, 8
Full-Rate Production Acceptance Last Batch	PMV-L, Trailer and ICS	Oct 20	May 21	Dec 23	37	7, 8, 10

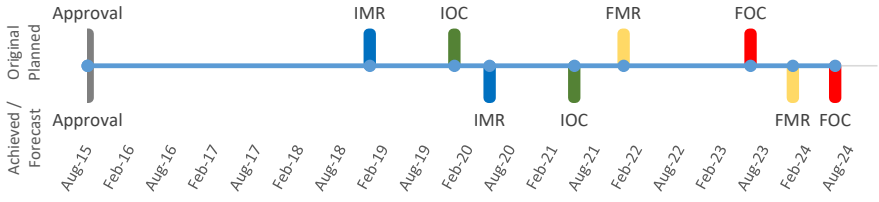
Notes	
1	The variance is due to the Commonwealth rejecting the first two versions of the Maintenance Demonstration Acceptance Verification Reports (AVR) submitted on 24 January 2017 and 30 March 2017. The approved version of the report was submitted to the Commonwealth on 1 June 2017, with the Notice of Approval signed on 3 July 2017.
2	RGT was separated into the following three activities: • RGT Number One was conducted over the period July to December 2016 and provided Thales Australia Ltd with the opportunity to resolve any issues with the vehicles ahead of the formal trial activities that commenced under RGT Number Two. • RGT Number Two commenced in November 2016. In January 2017, the pilot Hawkei vehicles had exceeded the seven allowable critical failures under the contract. Identified key root causes include supplier quality issues and immature components affecting hardware and software integration. A six-week corrective action period was implemented to allow Thales Australia Ltd to undertake engineering upgrades. • RGT Number Three (May to July 2017) followed this, which demonstrated reliability improvements on a number of sub-systems, but a number of recurring failures were evident.
3	Thales Australia Ltd was granted exit of Stage One (Engineering and Manufacturing Development) on 5 September 2017, with the caveat that Thales Australia Ltd continued to address the reliability issues. The RDT was introduced as a CCP to confirm that failures identified during the RGT had been rectified before entering into the Production Readiness Acceptance Test. The nine months delay in completing RDT is due to the delay in remediating the outstanding reliability issues.
4	As part of the extension of Stage One (Engineering and Manufacturing Development), DT&E was extended to facilitate further development testing and to mitigate against the AV&V activities required under Stage Two (LRIP).
5	The approval of AVR for the initial ME was delayed by seven months due to the initial submission of the report being rejected by the Commonwealth, primarily due to the incompleteness of the Interactive Electronic Technical Publication presented by Thales Australia Ltd.
6	Thales Australia Ltd's compliance against the deficiencies identified in the initial ME were addressed in the second ME. Subsequent MEs have been conducted to address engineering changes as the vehicles design developed. The Final ME will be scheduled following the completion of a CCP to incorporate it into the prime contract.
7	AV&V was delayed by 25 months due to the requirement to extend reliability testing, which impacted on the date that the LRIP vehicle build state was established between the Commonwealth and Thales Australia Ltd. The delay in establishing the vehicle build state impacted on vehicle availability to conduct AV&V activities. The reliability issues, design maturity and production delays further impacted the completion of AV&V. Sea, air and rail V&V activities were previously delayed by COVID-19 movement restrictions, but were completed prior to the declaration of IOC. External Airlift of a Hawkei (under a CH-47) is yet to be certified.
8	As part of the extension of Stage One (Engineering and Manufacturing Development), the start dates of some Stage Two (LRIP) and Stage Three (FRP) activities were delayed.
9	PRAT was finalised on 10 June 2020 with the Commonwealth's approval of the Integrated Reliability Maintainability and Testability Report from Thales Australia Ltd.
10	Defence is assessing in detail the projects revised vehicle delivery schedule from Thales Australia Ltd against the projects milestones. The revised schedule factors in delays due to Thales Australia Ltd's FRP capacity, the requirement to uplift early production vehicles to the contracted product baseline, the November 2022 vehicle braking safety issue, and COVID-19 global supply chain challenges. Thales Australia Ltd have proposed an interim solution to fix the vehicle braking safety issue until an enduring solution addresses the root cause. The impact of this will be incorporated into the schedule.

3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Dec 18	May 20	17	1, 2
Initial Operational Capability (IOC)	Dec 19	May 21	17	1
Final Materiel Release (FMR)	Dec 21	Dec 23	24	3
Final Operational Capability (FOC)	Jun 23	Jun 24	12	3

Notes	
1	IMR was initially deferred by five months to enable the conduct of an additional vehicle reliability demonstration activity (four months) and the extension of IIS Training and the associated increase in vehicle deliveries (one month). IMR and IOC were re-scheduled by 12 months to May 2020 and December 2020 respectively, due to Hawkei reliability issues, design maturity and production delays caused by Steyr Motor Australia Pty Ltd entering voluntary administration. IOC was further deferred until June 2021, pending resolution of the vehicle safety incident. IOC was declared on 20 May 21.
2	IMR was declared with caveats in May 2020. These caveats have now been resolved.
3	On 4 August 2022 the Capability Manager (Army) advised Government that the FOC of the Hawkei PMV-L will be delayed from June 2023 to June 2024 due to COVID-19 related disruptions, design issues and delays to Thales Australia Ltd's FRP and uplift capacity. The revised FMR and FOC dates of December 2023 and June 2024 were formalised during the October Integrated Investment Program PBS Biannual Update 2022 and will be reflected in the next MAA update.

Schedule Status at 30 June 2023



Note
Forecast dates in Section 3 are excluded from the scope of the Auditor-General's Independent Assurance Report.

Section 4 – Materiel Capability/Scope Delivery Performance

4.1 Measures of Materiel Capability/Scope Delivery Performance

Traffic Light Diagram: Percentage Breakdown of Materiel Capability/Scope Delivery Performance	
	**Green:** The project expects to meet the materiel capability requirements as expressed in the MAA and in accordance with the requirements of the Technical Regulatory Authorities.
	**Amber:** N/A
	**Red:** In October 2021, Government approved the reduction to project scope of two Hawkei vehicles to support an export opportunity. This represents a reduction of 0.2% of the number of vehicles to be delivered by the project. This reduction has not yet been updated within the MAA. Defence continues to support Thales Australia Ltd's pursuit of export opportunities, and will receive royalty fees from any future overseas sales of the Hawkei.
Note	
This Traffic Light Diagram represents Defence's expected capability delivery. Capability assessments and forecast dates are excluded from the scope of the Auditor-General's Independent Assurance Report.	

4.2 Constitution of Materiel Release and Operational Capability Milestones

Item	Explanation	Achievement
Initial Materiel Release (IMR)	The capability delivered at IMR: • 108 PMV-L and 108 Trailers to be delivered in accordance with the Force Generation Cycle; 22 PMV-L and 22 Trailers for IIS Training (increased from 14 PMV-L and 14 Trailers); • Eight PMV-L and eight Trailers for the conduct of V&V, and PRAT; and, • Logistics support arrangements, including Training, Supply and Maintenance Systems. IMR was achieved with caveats in May 2020. As at 30 June 2021, all of these caveats have been resolved.	Achieved
Initial Operational Capability (IOC)	Declaration of IOC was made by the Capability Manager following the conduct of a BG sized OT&E activity to validate the Hawkei Fundamental Inputs to Capability (FIC) components. IOC was declared in May 2021.	Achieved
Final Materiel Release (FMR)	By FMR, the following will be delivered: • 1,098 PMV-L and 1,058 Trailers; and, • IIS Training and transfer of IIS training packages.	Not yet Achieved
Final Operational Capability (FOC)	Declaration of FOC will be made by the Capability Manager supported by the results of OT&E and confirmation by the Capability Acquisition and Sustainment Group (CASG) that the FIC components have been delivered as agreed. The FOC criteria are to be defined by the Capability Manager.	Not yet Achieved

Section 5 – Major Risks and Issues

5.1 Major Project Risks

Identified Risks (risk identified by standard project risk management processes)		
Ref#	Description	Remedial Action
1	There is a risk that misalignment of interdependent project schedules to support Hawkei integration will delay the rollout to Army.	Thales Australia Ltd to complete an early Long Lead Time Item procurement for LAND200 components. Establishment of a LAND200 communications suite that can be fitted with T1 or T2 radios.
2	There is a risk that disruptions as a result of the COVID-19 pandemic, major conflict and/or event will cause disruption to the supply chain.	Project and Branch senior leadership continue to provide oversight and regularly engage with Thales Australia Ltd leadership to review actions plans. The project office continuous reviews its stockholding strategy, including increasing stock on hand and ordering stock earlier.
3	There is a risk that there will not be enough time to train the quantity of personnel required to undertake Hawkei IIS Training to achieve Army's DTR by FOC.	Adjustment of training milestones in the MAA, as agreed to between the Project Office and the Capability Manager. Establishment of regional training teams to increase training throughput. Working group convened between the Project Office, Capability Manager and Army Logistic Training Centre to develop solutions to address the issue. Working group meets periodically to track DTR achievement. Remedial actions continue to be implemented to achieve DTR in accordance with the current project schedule.

Emergent Risks (risk not previously identified but has emerged during 2022–23)		
Ref#	Description	Remedial Action
1	There is a risk that insufficient prime vendor resourcing may impact project schedule and performance due to the inability to deliver contractual deliverables on time or to the expected standard.	The Commonwealth of Australia provides prioritisation of work packages. Regular contract progress meetings between LAND121 Phase 4 project office and Thales Australia Ltd stakeholders. Fortnightly sync meetings between Thales Australia Ltd and Director General Land Vehicle Systems. A purchase order prioritised delivery of extant work under contract as well as proposed work packages not yet contracted during the commercial wrap-up negotiations.

5.2 Major Project Issues

Ref#	Description	Remedial Action
1	The rollout of the PMV-L and the establishment of its support system has been impacted by constrained resourcing, resulting in delays to the delivery of Integrated Logistics Support Deliverables.	Monitoring of deliverables against agreed schedule. Weekly progress meetings between the project team and the vendor. Fortnightly meetings between senior Commonwealth and vendor representatives.

Note
Major risks and issues in Section 5 are excluded from the scope of the Auditor-General's Independent Assurance Report.

Section 6 – Lessons Learned

6.1 Key Lessons Learned

Description	Categories of Systemic Lessons
In line with Defence instruction and CASG Lessons policy, the project conducts scheduled reviews of its captured lessons information (including any observations, insights and/or lessons identified) as well as lessons information contained within the Defence Lessons Repository. The project has captured six lessons related to Requirements Management, First of Type Equipment, Contract Management, Schedule Management, Resourcing and Governance. The project has not categorised any of its lessons information as a whole of Defence Lesson Learned.	The project has not categorized any of its lessons information as a whole-of-Defence Lesson Learned.
Lesson Type – Insight. Developmental Capability. The PMV-L is a technically complex development project that requires active engagement with the contractor, multiple interagency stakeholders and projects from other domains. Maintaining close collaboration and communication with all stakeholders is critical for understanding the technical requirements for a first-of-type capability, and facilitating proactive risk management and contingency planning.	First of Type Equipment
Lesson Type – Observation. Vehicle Acceptance Resourcing and Planning. The early planning and generation of dedicated Commonwealth Production Liaison and Vehicle Acceptance staff (and processes) enables improved planning in conjunction with the original equipment manufacturer for Vehicle Acceptance and Quality Assurance processes. This improves transition from design into the production and Vehicle Acceptance stage of the program.	Contract Management Governance Resourcing
Lesson Type – Insight. Hawkei Reliability Growth. Reliability programs must incorporate sufficient schedule for reliability growth of the capability to set the conditions for a successful outcome. Reliability fixes must be supported by Objective Quality Evidence before proceeding to the next reliability test.	Schedule Management Requirements Management

Section 7 – Project Structure

7.1 Project Structure as at 30 June 2023

Unit	Name
Division	Land Systems
Branch	Land Vehicle Systems Branch