Project Data Summary Sheet[157]

Project Number	**LAND 75 Phase 4**
Project Name	**Battlefield Command Systems**
First Year Reported in the MPR	2015-16
Capability Type	New
Acquisition Type	Australianised MOTS
Capability Manager	Chief of Army
Government 1st Pass Approval	Aug 13
Government 2nd Pass Approval	Aug 13 (Work Package A)
Total Approved Budget (Current)	**$369.1m**
2016–17 Budget	**$32.9m**
Project Stage	**Final** Materiel Release (**FMR**)
Complexity	ACAT II

Section 1 – Project Summary

1.1 Project Description

LAND 75 Phase 4 aims to increase and enhance the Army's networked force acquired under LAND 75 Phase 3.4. The Battle Management System Command and Control (BMS-C2) will provide tactical and operational commanders with enhanced situation awareness tools, evolved command and control, extend the capability into the armoured fighting vehicle fleets and enrich training and simulation to provide a collaborative approach to complex warfighting.

LAND 75 Phase 4 **was initially** divided into four work packages consisting of:

- Work Package Alpha (WP-A) - **Approved**. This work package is expanding the basis of provisioning for M113AS4 (Armoured Personnel Carriers), Protected Mobility Vehicles and G-Wagon.
- Work Package Bravo (WP-B) - **Unapproved**. This work package seeks to integrate the BMS-C2 into additional vehicle platforms.
- Work Package Charlie (WP-C) - **Unapproved**. This work package seeks to implement a mature BMS-C2 training solution.
- Work Package Delta (WP-D) - **Unapproved**. This work package seeks to extend the functionality of the BMS-C2 to support formation headquarters and enhance the dismounted Battlefield Management System.

The unapproved scope of Land 75 Phase 4 Work Packages B, C and D are being considered under Land 200 Tranche 2.
LAND 75 Phase 4 Work Package Alpha is a continuation of LAND 75 Phase 3.4 from the Major Projects Report of 2014-15. Under LAND 75 Phase 3.4, the Commonwealth implemented the core Battle Group and Below – Command, Control and Communications (BGC3) system capability for the Australian Defence Force's Land Force.

LAND 75 Phase 4 WP-A is scoped to provide additional quantities of BGC3 to:

- 294 M113AS4 (Armoured Personnel Carriers),
- 255 Protected Mobility Vehicles,
- 401 G-Wagon Vehicles, and
- 10 Engineering kits.

LAND 75 Phase 4 WP-A will also:

- Design BGC3 to be integrated into the Protected Mobility Vehicle Air Defence Variant (PMADV), and
- Enhance the BGC3 capabilities through extension of the BGC3 Variable Message Format (VMF).

In October 2014, Government approved project closure arrangements for LAND 200 Tranche 1 that finalised the transfer of M113AS4 BGC3 installation activities to LAND 75 Phase 4 from LAND 75 Phase 3.4 that was originally agreed by Government as part of the 2012 Federal Budget.

157 Notice to reader

Forecast dates and Sections: 1.2 (Materiel Capability Delivery Performance), 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability 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.

Following Government 1st Pass approval in August 2013, the Commonwealth conducted a series of Risk Reduction Activities (RRA). These activities allowed further development, refinement and validation of key requirements and operational concepts through the use of Concept Demonstrators to inform future Government consideration.

1.2 Current Status

Cost Performance

In-year

In-year expenditure, to **30 June 2017**, of **$28.7m** resulted in underspend of **$4.3m** against a budget of **$32.9m**. **The variation is due to the delay in signing the Specific Absorption Rate Survey and Quote. Also contributing to the variation is the lower than anticipated spend against Vehicle Movement and Offer Definition Improvement Activity. The removal of the Mission Kits Supplements requirement for the Protected Mobility Vehicles also contributes to the variation.**

Project Financial Assurance Statement

As at 30 June 2017, project LAND 75 Phase 4 has reviewed the project's approved scope and budget for those elements required to be delivered by Defence. Having reviewed the current financial and contractual obligations 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 financial year.

Schedule Performance

In the 2012 Federal Budget, the Government moved Battle Management System (BMS) installation into M113AS4 from LAND 75 Phase 3.4 to the then unapproved LAND 75 Phase 4 WP-A, leaving design activities with LAND 75 Phase 3.4. In the Government Approval of WP-A in 2014 the remaining M113AS4 design work was transferred from LAND 75 Phase 3.4 to LAND 75 Phase 4 WP-A.

LAND 75 Phase 4 WP-A has achieved Initial Materiel Release (IMR), with the completion of 36 PMV Command Variant vehicles. The project continues to install the BGC3 system into vehicles in accordance with the materiel release milestones.

The project has conducted design and system testing on the full scope of VMF messages being delivered under WP-A. System level regression testing (Conformance to standard testing) **will be conducted as a single test Program synchronised with In Service Support Release**.

The installation of the Protected Mobility Air Defence Variant **commenced in May 2017 and is expected to be completed by July 2017.**

In the 2013 Government Approval of LAND 75 Phase 4 there is no Initial Operational Capability (IOC) and Final Operational Capability (FOC) linked to LAND 75 Phase 4 WP-A. IOC and FOC are linked to WP-B-D, which is the element of LAND 75 yet to be approved by Government.

The unapproved scope of Land 75 Phase 4 Work Packages B, C and D are being considered under Land 200 Tranche 2 which is due for Government consideration in 2017. Final Materiel Release (FMR) will constitute the final deliverable for the Project.

Materiel Capability Delivery Performance

The project achieved Initial Materiel Release (IMR) of 36 PMCV BGC3 installed vehicles in June 2016.

Final Materiel Release (FMR) for the project is scheduled to be achieved by **October** 2017.

Note

Forecast dates and capability assessments are excluded from the scope of the review.

1.3 Project Context

Background

LAND 75 Phase 4 WP-A received Government Combined First and Second Pass Approval in August 2013. LAND 75 Phase 4 WP-A is a Contract Change Proposal (CCP) to the BGC3 Contract and the CCP was executed with the Prime Contractor on 19 December 2013.

LAND 75 Phase 4 WP-A has delivered additional BGC3 installed into the following platforms:

- 36 Protected Mobility Command Vehicle (PMCV),
- **126** Protected Mobility Troop Vehicle (PMTV),
- **61 Protected Mobility Ambulance Variant (PMAV),**
- 12 Protected Mobility Electronic Warfare (PMVEW) vehicle installation kits,
- 5 PMCV engineering vehicle installation kits,
- 5 PMTV engineering vehicle installation kits,
- 26 G-Wagon General Service Vehicles,
- **123** G-Wagon Manoeuvre Vehicles,
- **123** G-Wagon upgrades from General Service Vehicle to Manoeuvre Vehicle,
- 129 G-Wagon Command and Control vehicle installation kits, and
- **294** M113AS4 Armoured Personnel Carriers.

Uniqueness
The capability being delivered under LAND 75 Phase 4 WP-A is a continuation of the capability delivered under LAND 75 Phase 3.4. LAND 75 Phase 4 WP-A does contain design development for the PMADV variant of Bushmaster, which is based largely on the PMCV design delivered under LAND 75 Phase 3.4. The software development of enhanced VMF BGC3 capability does introduce software engineering development scope.
Major Risks and Issues
Nil.
Other Current Sub-Projects
Nil.
Note
Major risks and issues are excluded from the scope of the review.

Section 2 – Financial Performance

2.1 Project Budget (out-turned) and Expenditure History

Date	Description	$m		Notes
	Project Budget			
Nov 13	Original Approved		319.0	1
Jun 15	Real Variation – Real Cost Increase		8.5	2
Jun 17	Exchange Variation		41.6	
Jun 17	**Total Budget**		369.1	
	Project Expenditure			
Prior to Jul 16	Contract Expenditure – Elbit Systems Limited	(274.0)		3
	Other Contract Payment / Internal Expenses	(19.7)		4
			(293.7)	
FY to Jun 17	Contract Expenditure – Elbit Systems Limited	(22.6)		3
	Other Contract Payment / Internal Expenses	(6.2)		5
			(28.7)	
Jun 17	**Total Expenditure**		(322.4)	
Jun 17	**Remaining Budget**		46.7	

Notes	
1	This project's original budget amount represents a combined First and Second Pass for Work Package Alpha as well as a First Pass for Work Package Bravo to Delta.
2	Real Cost Increase for M113AS4 design effort from LAND 75 Phase 3.4.
3	Expenditure against LAND 75 Phase 4.
4	Other expenditure comprises: Contractor Support ($9.1m), Operating Expenditure ($6.3m), Consultants ($3.7m), Minor Capital ($0.6m) and expenditure not attributable to the Prime contract.
5	Other expenditure comprises: Contractor Support ($2.9m), Consultants ($2.6m) Operating Expenditure ($0.6m) and expenditure not attributable to the Prime contract.

2.2A In-year Budget Estimate Variance

Estimate PBS $m	Estimate PAES $m	Estimate Final Plan $m	Defence's Explanation of Material Movements
52.6	26.5	32.9	PBS-PAES: The variation relates to later than expected payments for final acceptance and physical configuration audit activities. PAES-Final Plan: The variation relates to the inclusion of two milestone payments for Protected Mobility Air Defence Variant and Variable Message Format Physical and Functional Configuration Audit activities.
Variance $m	(26.1)	6.3	Total Variance ($m): (19.8)
Variance %	(49.6)	23.9	Total Variance (%): (37.6)

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan $m	Actual $m	Variance $m	Variance Factor	Explanation
			Australian Industry	At 30 June 2017, the project had an underspend of $4.3m against its year to date budget of $33.0m. The variation is due to the delay in sign the Specific Absorption Rate Survey and Quote. Also contributing to the
		(4.1)	Foreign Industry	
			Early Processes	
			Defence Processes	
			Foreign Government Negotiations/Payments	

			Cost Saving	variation is the lower than anticipated spend against Vehicle Movement and Offer Definition Improvement Activity. The removal of the Mission Kits Supplements for the Protected Mobility Vehicles also contributes to the variation.
			Effort in Support of Operations	
			Additional Government Approvals	
32.9	28.7	(4.1)	**Total Variance**	
		(12.6)	**% Variance**	

2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature $m	30 Jun 17 $m			
Elbit Systems Limited	Dec 13	204.3	335.2	Variable	ASDEFCON	1,2,3

Notes	
1	This includes escalation on the Milestone as the contract is in Base Date Quarter three 2007 prices.
2	**The increase in contract value is due to the Survey and Quote 044 activities.**
3	Contract value as at 30 June 2017 is based on actual expenditure to 30 June 2017 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).

Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 17		
Elbit Systems Limited	666	960	BGC3 installed into M113, PMV and G-Wagons	1,2,3

Major equipment received and quantities to 30 Jun 17

Protected Mobility Vehicle Command Variant (PMCV) – 36
Protected Mobility Vehicle Troop Variant (PMTV) – **126**
Protected Mobility Ambulance Variant (PMAV) – 61
Protected Mobility Vehicle Electronic Warfare (PMEW) – 12
Protected Mobility Vehicle Command Variant (Engineering Quantities) – 5
Protected Mobility Vehicle Troop Variant (Engineering Quantities) – 5
G-Wagon General Service Variant – 26
G-Wagon Manoeuvre Variant –**123**
G-Wagon General Service Variant to Manoeuvre Variant Upgrade –**123**
G-Wagon Command and Control Variant – 129
M113AS4 Armoured Personnel Carrier –**294**

Notes	
1	CCP 019 executed on 19 December 2014 for the supply of BGC3 vehicle installation kits for M113AS4.
2	CCP 022 executed on 9 December 2015 for the installation of BGC3 vehicle installation kits into the M113AS4.
3	**Survey and Quote 044 executed on 28 March 2017 for the installation of BGC3 vehicle installation kits into the PMADV.**

Section 3 – Schedule Performance

3.1 Design Review Progress

Review	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
Preliminary Design	PMADV	Jun 14	Sep 14	Jan 15	7	1
Detailed Design	M113AS4	Dec 11	N/A	Feb 15	38	2
	PMADV	Dec 15	Nov 15	Mar 16	6	3
Functional Configuration Audit	M113AS4	Sep 15	N/A	Oct 15	1	
	PMADV	Nov 15	**Mar 17**	**Jun 17**	**19**	**4**
	VMF Software	Mar 17	N/A	**N/A**		**5**
Physical Configuration Audit	M113AS4	Sep 15	N/A	Oct 15	1	**6**
	PMADV	Nov 15	Apr 17	**Jun 17**	**19**	**4**
	VMF Software	Mar 17	N/A	**N/A**	4	**5**

Notes	
1	Delays due to the availability of Government Furnished Equipment.
2	Delays in LAND 75 Phase 3.4 due to complex design issues.
3	Delays by contractor not achieving entry criteria for Detailed Design PMADV.
4	**Delays by contractor not achieving entry criteria for Functional Configuration Audit and Physical Configuration Audit for PMADV.**
5	**Final release to be synchronised with In Service Support Release.**
6	Delays due to approval of user handbooks and manuals.

3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
Conformance to Standard Testing	VMF Software	Nov 16	N/A	N/A	(2)	1, 2
First Article Factory Testing	PMADV	Jul 16	N/A	Dec 16	5	3

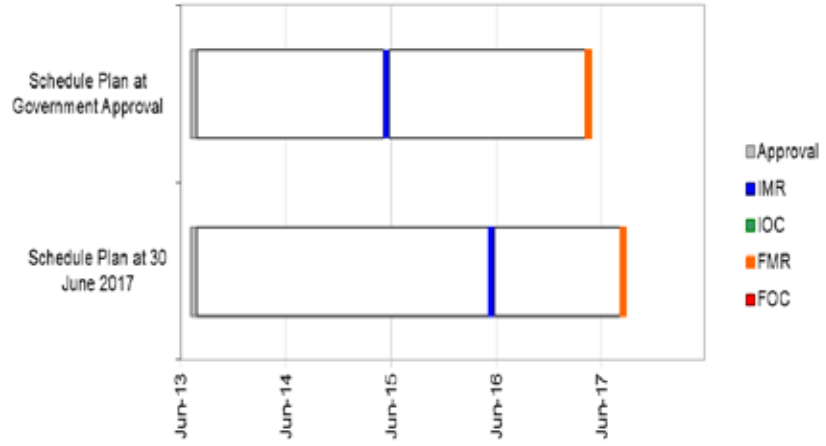
Notes	
1	System integration was completed under LAND 75 Phase 3.4.
2	Conformance to standard testing to be conducted as a single test program synchronised with In Service Support Release.
3	Delays due to approval of acceptance test report.

3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Jun 15	Jun 16	12	1
Materiel Release 2	Feb 16	Oct 17	20	2
Materiel Release 3	Mar 16	Oct 17	19	2
Materiel Release 4	Nov 16	Oct 17	11	3
Materiel Release 5	Dec 16	Oct 17	10	2
Materiel Release 6	Mar 17	Oct 17	7	4
Final Materiel Release (FMR)	Jun 17	Oct 17	4	4,5

Notes	
1	Installations for IMR were delivered in July 2015, However the achievement of IMR did not occur until June 2016 after design acceptance was achieved.
2	Delayed due to provision of Government Furnished Equipment to Contractor. Delivery of Supplies achieved in June 2017. Administrative action underway to recognise completion of Materiel Release by the Capability Manager which is scheduled to be achieved by October 2017.
3	Delivery of Supplies achieved in February 2016. Administrative action underway to recognise completion of Materiel Release by the Capability Manager which is scheduled to be achieved by October 2017.
4	Delayed due to provision of Government Furnished Equipment to Contractor. Delivery of Supplies is expected to be achieved in July 2017. Administrative action underway to recognise completion of Materiel Release by the Capability Manager which is scheduled to be achieved by October 2017.
5	When the unapproved scope of Land 75 Phase 4 Work Packages B, C and D is transferred to Land 200 Tranche 2 (currently being considered), FMR will constitute the final deliverable for the Project.

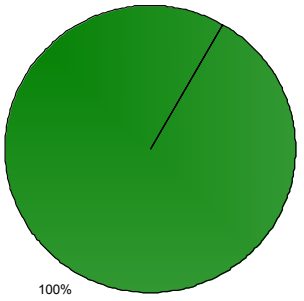
Schedule Status at 30 June 2017



Note
Forecast dates in Section 3 are excluded from the scope of the review.

Section 4 – Materiel Capability Delivery Performance

4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance	
	**Green:** The project is currently meeting capability requirements as expressed in the Material Acquisition Agreement and supporting suite of capability definition documentation.
	Amber: N/A
	Red: N/A
Note	
This Pie Chart represents Defence's expected capability delivery. Capability assessments and forecast dates are excluded from the scope of the review.	

4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	Delivery of 36 installed BGC3 PMCV vehicles. Installations for IMR were delivered in July 2015. However, the achievement of IMR did not occur until June 2016 after design acceptance was achieved.	Achieved.
Final Materiel Release (FMR)	FMR requires the following to be delivered: 36 installed BGC3 PMCV vehicles, 126 BGC3 G-Wagon upgrades from GSV to MNV vehicles, 123 installed BGC3 G-Wagon MNV vehicles, 26 installed BGC3 G-Wagon GSV Dual Cabin vehicles, 126 installed BGC3 PMTV vehicles, 12 BGC3 PMVEW vehicle installation kits, 5 BGC3 PMCV engineering vehicle installation kits, 5 BGC3 PMTV engineering vehicle installation kits, 129 BGC3 G-Wagon Command and Control vehicle installation kits, 294 installed BGC3 M113AS4 Armoured Personnel Carriers, additional VMF messages and 20 installed BGC3 PMADV vehicles. **FMR is expected to be achieved in October 2017.**	Not yet achieved.

Section 5 – Major Risks and Issues

5.1 Major Project Risks

Identified Risks (risk identified by standard project risk management processes)	
Description	Remedial Action
N/A	N/A
Emergent Risks (risk not previously identified but has emerged during 2016–17)	
Description	Remedial Action
N/A	N/A

5.2 Major Project Issues

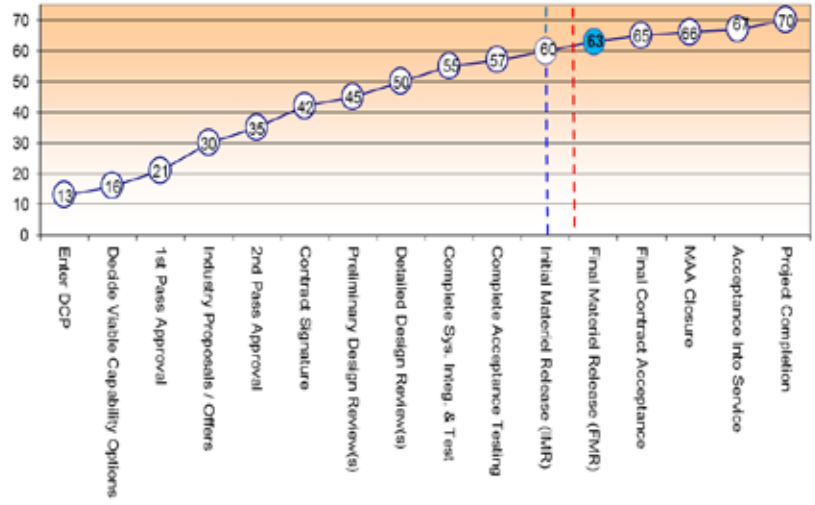
Description	Remedial Action
N/A	N/A

Note
Major risks and issues in Section 5 are excluded from the scope of the review.

Section 6 – Project Maturity

6.1 Project Maturity Score and Benchmark

Maturity Score		Attributes							
		Schedule	Cost	Requirement	Technical Understanding	Technical Difficulty	Commercial	Operations and Support	Total
Project Stage	Benchmark	10	9	9	9	9	8	9	63
Final Materiel Release	Project Status	9	9	9	9	9	8	9	62
	Explanation	• Schedule - Administrative action is underway to recognise completion of Final Materiel Release by the Capability Manager which is scheduled to be achieved by October 2017.							



2015-16 MPR Status - - - -	2016-17 MPR Status - - - -

Section 7 – Lessons Learned

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
N/A	N/A

Section 8 – Project Line Management

8.1 Project Line Management in 2016–17

Position	Name
Division Head	RADM Tony Dalton
Branch Head	Mr Roger Grose (Acting to Jul 16) COL Anthony Taylor (Acting Jul 16–Sep 16) Mrs Alison Petchell (Oct 16–current)
Project Director/Manager	LTCOL Rob Gunn