Project Data Summary Sheet[158]

Project Number	**JP 9000 Phase 7**[159]
Project Name	**Helicopter Aircrew Training System**
First Year Reported in the MPR	2015-16
Capability Type	Replacement
Acquisition Type	Australianised COTS
Capability Manager	Chief of Navy
Government 1st Pass Approval	February 2007
Government 2nd Pass Approval	August 2014
Budget at 2nd Pass Approval	$483.8m
Total Approved Budget (Current)	$481.6m
2018-19 Budget	$88.5m
Project Stage	Final Contract Acceptance
Complexity	ACAT II

Section 1 – Project Summary

1.1 Project Description

JP (AIR[2]) 9000 Phase 7 will provide a new Helicopter Aircrew Training System (HATS) to prepare Navy and Army aircrew for conversion to operational aircraft. JP 9000 Phase 7 will replace the current systems based on Squirrel and Kiowa helicopters.

The project will deliver a total aircrew training solution based around 15 Airbus EC135T2+ helicopters, three Thales Flight Simulators and numerous other synthetic training devices, together with system support and joint delivery for an initial award term of approximately eight years, with further optional award terms of three years recurring.

1.2 Current Status

Cost Performance

In-year

As at **30 June 2019 the Project end of financial year expenditure to budget variance was overspent by $3.5m primarily due to the earlier than expected presentation of the Prime Contractor Price Variation claims for Final Acceptance, previously forecast for July 2019 payment.**

Project Financial Assurance Statement

As at 30 June 2019, JP 9000 Phase 7 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 during the financial year.

Schedule Performance

The revised schedule, delivered in April 2016 to address program delays, has facilitated **the achievement of Initial Operational Capability, Initial Operational Release, Final Materiel Release and on time completion of Final Acceptance, closing the Acquisition Contract.**

Final Materiel Release was achieved in April 2019.

FOC is forecast to be achieved during Quarter 4 2020, for declaration in December 2020. The forecast date has been adjusted from September to December to reflect the expected completion rather than commencement of the quarter.

Materiel Capability Delivery Performance

158 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.

159 HATS was originally approved as an AIR project but since second pass it has been managed and reported as a Joint project. For finance reporting purposes the title 'AIR' must be retained. The remainder of this report will refer to JP 9000 Phase 7.

During the reporting period the Pilot, Aircrewman and Aviation Warfare Officer Trial Courses, which facilitated Commonwealth testing, were completed. The Sensor Operator Trial Course commenced on completion of the Aircrewman course and was also completed.

On completion of minor rectification work, the four Training Management Packages (TMPs) were accepted by the Commonwealth. Acceptance of the Pilot TMP constituted Initial Operational Capability and permitted commencement of further training courses.

Note

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

1.3 Project Context

Background

JP 9000 Phase 7 is intended to provide a rotary wing training capability for Navy and Army, to meet the future rotary training needs of the Australian Defence Force (ADF). The Project will deliver a system that encompasses live, synthetic and classroom aviation instruction to overcome the broadening gap between current rotary training systems and the advanced operational helicopters in the current and planned future ADF inventories.

The Project achieved Government First Pass approval in February 2007 and Second Pass approval in August 2014. Both Acquisition and Support Contracts were signed on 14 November 2014.

The Acquisition contract delivered a total aircrew training solution based around 15 Airbus EC135T2+ helicopters, three Thales Flight Simulators and numerous other synthetic training devices. Boeing Defence Australia (BDA) was responsible for the development and set to work on a training delivery and management system which includes Training Management Packages based on Defence identified competencies and competency levels. Training development was conducted in accordance with the Defence Training Model.

The Support Contract provides for system support and joint delivery for an initial award term of approximately eight years, with further optional award terms of three years recurring. The Support Contract is performance based with Key Performance Indicators relating to aircraft, simulator and instructor availability and includes a Continuous Improvement and Efficiency Program.

Uniqueness

As a direct capital acquisition utilising ASDEFCON developed performance based contracts there are no truly unique aspects to the project.

Major Risks and Issues

Whilst the significant issue of schedule compression, was closed on achieving commencement of the trial course (Pilot) in January 2018, the schedule continued to prove challenges right up to Final Acceptance. Challenges to schedule were overcome by the parties continuing to work collegially and pragmatically to achieve best for program outcomes.

Other Current Related Projects / Phases

The HATS project influences the following aircraft platforms by providing aircrew training to feed into their operational flying conversions:

AIR 9000 Phase 8 Future Naval Aviation Combat System Helicopter (Seahawk Romeo).

AIR 9000 Phase 2/4/6 Multi-Role Helicopter (MRH90).

Additional Medium Lift Helicopters (Chinook).

Armed Reconnaissance Helicopter (ARH Tiger).

The following projects directly influence HATS:

AIR 5428 Pilot Training System which provides students to HATS for rotary wing conversion.

Multi role Aviation Training Vessel (MATV), MV SYCAMORE. MV SYCAMORE was delivered to Navy in 2017 and EC135 day and night operations were approved in June 2018.

J 0028 HATS Facilities Project providing training, accommodation and maintenance facilities. Handover of all J0028 facilities was achieved by April 2017.

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			
Feb 07	Original Approval	13.6		1
Nov 13	Real Variation – Transfer	(3.2)		2
Jun 14	Real Variation – Transfer	(1.6)		2
Sep 14	Government Second Pass Approval	475.0		
	Total at Second Pass Approval		483.8	
Jul 10	Price Indexation		2.4	3
Feb 19	Real Variation – Transfer		(0.1)	2
Jun 19	Exchange Variation		(4.5)	
Jun 19	**Total Budget**		481.6	
	Project Expenditure			

Prior to Jul 18	Contract Expenditure – Boeing Defence Australia (BDA) – Acquisition Contract	(233.7)		
	Contract Expenditure – BDA – Support Contract Phase In	(38.7)		
	Contract Expenditure – Jacobs Australia	(7.2)		
	Other Contract Payments/Internal Expenses	(13.7)		4
			(293.3)	
FY to Jun 19	Contract Expenditure – BDA – Acquisition Contract	(47.4)		
	Contract Expenditure – BDA – Support Contract Phase In	(42.5)		
	Contract Expenditure – Jacobs Australia	(1.3)		
	Other Contract Payments/Internal Expenses	(0.8)		5
			(92.0)	
Jun 19	**Total Expenditure**		(385.2)	
Jun 19	**Remaining Budget**		96.3	

Notes	
1	The project's original budget amount prior to achieving Second Pass Government approval.
2	Transfer of budget to Estate and Infrastructure Group for Facilities Activities.
3	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was $2.4m, applied only to the portion of the budget approved at First Pass. From July 2010 all project budgets were approved by Government in out-turned dollars.
4	Other Expenses mainly comprised of: Contractor Support ($7.7m), Salaries ($2.9m), Legal ($1.5m), Travel and Training ($1.5m).
5	Other expenditure is mainly comprised of Contractor Support ($0.8m).

2.2A In-year Budget Estimate Variance

Estimate PBS $m	Estimate PAES $m	Estimate Final Plan $m	Defence's Explanation of Material Movements
90.3	89.0	88.5	PBS – PAES: Variation is due to **schedule refinement to Boeing Contract initial start by half of a month.** PAES – Final Plan: Variation is due **to reduced budget requirement for Contractor and minor facilities work**.
Variance $m	(1.3)	(0.5)	Total Variance ($m): (1.8)
Variance %	(1.4)	(0.6)	Total Variance (%): (2.0)

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan $m	Actual $m	Variance $m	Variance Factor	Explanation
		3.5	Australian Industry	**As at 30 June 2019 the Project end of financial year expenditure to budget variance was overspent by $3.5m primarily due to the earlier than expected presentation of the Prime Contractor Price Variation claims for Final Acceptance, previously forecast for July 2019 payment.**
			Foreign Industry	
			Early Processes	
			Defence Processes	
			Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
88.5	92.0	3.5	Total Variance	
		3.8	% Variance	

2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature $m	30 Jun 19 $m			
BDA – Acquisition	Nov 14	311.6	281.1	Firm	ASDEFCON	1
BDA – Support Phase In	Nov 14	68.6	81.2	Firm	ASDEFCON	1,3
Jacobs Australia ISC	Dec 14	10.2	9.0	Firm	ASDEFCON	2

Notes	
1	Contract value as at 30 June 19 is based on actual expenditure to 30 June 19 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).
2	On 01 Dec 17, exercised Contract extension options, extending the Contract until 22 December 2019.

3	**The price of BDA Support Contract has increased due to early commencement of Pilot, Aircrewman and Aviation Warfare Officer Training courses. Funds were brought forward from the recurring services contract as detailed in Contract Change Proposal 003.**

Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 19		
BDA – Acquisition	Various	Various	15 EC 135 Helicopters 3 Full Flight Simulators 17 associated synthetic training devices 4 Training Management Plans Training Management System	
BDA Support Phase In	N/A	N/A	System support and joint delivery for an initial award term of approximately 8 years.	
Jacobs Australia ISC	N/A	N/A	Provide specialist engineering support, integrated logistics and training design.	

Major equipment received and quantities to 30 June 19

15 EC 135 Helicopters.
3 Full Flight Simulators.
6 Training Management Plans.
Training Management System.
17 Synthetic Training Devices, comprising:

- 2 Tactical Part Task Trainers.
- 10 Desktop Trainers.
- 2 Virtual Reality Trainers.
- 1 Marshalling Virtual Reality Trainer.
- 1 Aircraft Replica Trainer.
- 1 EC-135 Helicopter Underwater Escape Trainer Module.

Notes

	N/A

Section 3 – Schedule Performance

3.1 Design Review Progress

Review	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
System Requirements	System Requirements Review	Sep 15	N/A	Jan 16	4	1
	System Definition Review	Feb 16	N/A	Dec 16	10	2
Critical Design	Aircraft Replica Trainer	Jan16	Nov 16	Feb 17	13	3
	Support System Detailed Design Review	Jun 16	N/A	Jun 17	12	4

Notes

1	Variance due to slow ramp up of Contractor workforce and scheduling/resource issues identified through the Integrated Baseline Review and complimentary Schedule Compliance Risk Assessment Methodology (SCRAM) review.
2	Additional delay to System Definition Review resulted from BDA remediation and re-planning efforts, including emergent issues identified through remediation activities.
3	Hardware design activity is only applicable to the ART, as all other aspects are predominantly COTS devices/technology. Design review for ART is a combined preliminary and critical process. A Contract Change Proposal was signed in November 2015 to move the ART Design Review so that it logically occurred after the System Definition Review.
4	Additional delay to Support System Detailed Design Review resulted from emergent issues identified during development of aspects of the support system.

3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
System Integration	Piloting Course Readiness – Pilot	Dec 17	N/A	Dec 17	0	1
Acceptance	First EC135T2+ helicopter	Mar 16	N/A	May 16	2	
	Final EC135T2+ helicopter	Feb 17	N/A	Dec 17	10	2
	Final Acceptance	Mar 19	N/A	Mar 19	0	

Notes

1	This milestone is closely associated with the System Acceptance Audit which will constitute acceptance of the mission systems, support system and training system elements to achieve Initial Materiel Release (see section 4.2), and will be achieved at the same time.

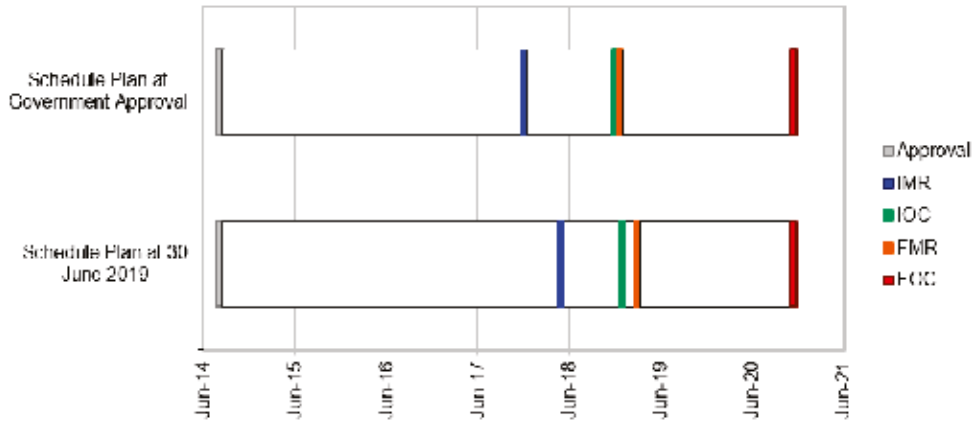
2	Delay was due to retention of aircraft N52-007, by Airbus Helicopters, in Germany as prototype for development of an air-conditioning retrofit Engineering Change. Remaining helicopters were modified in Australia by BDA at no additional cost to the Commonwealth.

3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Dec 17	May 18	5	1
Initial Operational Capability (IOC)	Dec 18	Jan 19	1	
Final Materiel Release (FMR)	Dec 18	Apr 19	4	2
Final Operational Capability (FOC)	Dec 20	Dec 20	0	3

Notes	
1	IMR predicated on acceptance of the Aircraft Replica Trainer, managed through the recovery schedule on a just in time for training basis. Sufficient systems were available to commence trial course in January 2018.
2	FMR delay due to reframing milestone to accommodate Navy acceptance of the Sensor Operator Training Management Package instead of trial course completion and to align with Final Acceptance Milestone.
3	The forecast date has been adjusted from September to December to align with End of Quarter 4 completion timeframe.

Schedule Status at 30 June 2019

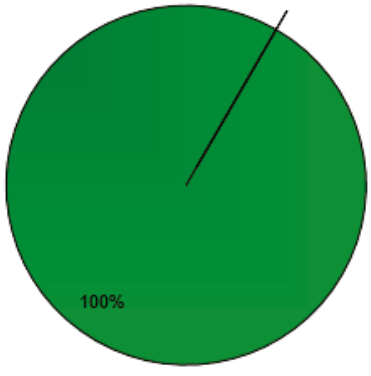


Note
Forecast dates in Section 3 are excluded from the scope of the review.

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 expects to meet capability requirements as expressed in the MAA and supporting suite of Capability Definition Documentation and in accordance with the requirements of the relevant Technical Regulatory Authorities.

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)	• 15 helicopters, 2 Full Flight Simulators, 2 Tactical Part Task Trainers, 2 Virtual Reality Trainers (VRT), 1 Marshalling VRT, 1 Helicopter Underwater Egress Training conversion module, 1 Aircraft Replica Trainer and 10 Desktop Trainers ready to be employed for HATS Piloting courses. • Associated Mission, Support and Training Systems. • IMR was achieved in May 2018.	Achieved
Initial Operational Capability (IOC)	**Initial Operational Capability (IOC): HATS IOC is defined as completion of the first undergraduate Pilot HATS Operator Training Piloting (ie Trial) course (OC-Pilot), with the number of students on that course and the system configuration equal to that expected in the mature system.** **IOC was achieved in January 2019.**	**Achieved**
Final Materiel Release (FMR)	• IMR deliverables, plus one additional full flight simulator and transition of all HATS acquisition products (Mission and Support Systems) and materials to their in-service support agency. • **Achieved in April 2019.**	Achieved
Final Operational Capability (FOC)	**Final Operational Capability (FOC): FOC is achieved when the full scope of the project, including mission systems, support systems and facilities have been accepted into service by Defence.** **FOC is forecasted to be achieved in December 2020.**	**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 2018-19)	
Description	Remedial Action
N/A	N/A

5.2 Major Project Issues

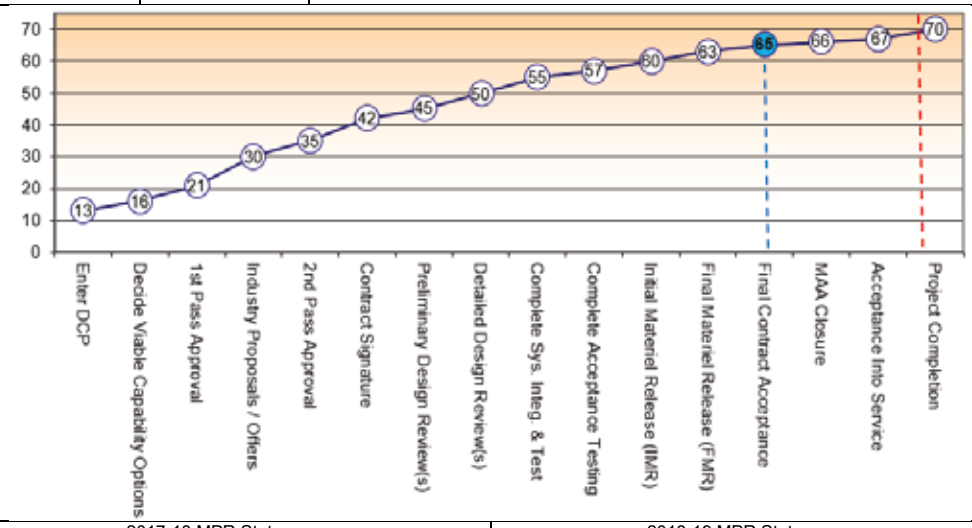
Description	Remedial Action
N/A	**N/A**
Note	
Major risks and issues in Section 5 are excluded from the scope of the review.	

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**	**10**	**9**	9	**9**	9	**65**
Final Contract Acceptance	Project Status	**10**	9	**10**	**10**	**10**	**10**	**10**	**69**
	Explanation	• **Technical Understanding: Defence understands the system which is now operating under sustainment. There are processes in place for continuing support and modification of the system as required through life.** • **Technical Difficulty: All test and evaluation of systems and training outputs have been conducted and found suitable to meet intended needs.** • **Commercial: Contractor performance has met all requirements throughout the acquisition process in timely fashion. Initial indications of in service support performance also meets requirements.**							

		• **Operations and Support: The system is fully operational and all materiel has been transitioned to operations. Sustainment operations commenced in March 19.**



2017-18 MPR Status - - - -	2018-19 MPR Status - - - -

Section 7 – Lessons Learned

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
Where a project has a long gestation period, for whatever reason, the Sponsor and Capability Manager must be closely engaged to ensure the requirements set maintains relevance over time.	Requirements Management
Tenderer/Contractor 'off-the-shelf' claims need to be tested as thoroughly as possible, as soon as possible in the project lifecycle. This requires the availability of, or access to, appropriate and engaged subject matter experts early.	Off-the-Shelf Equipment
Conduct of SCRAM activities during contract negotiation and again prior to IBR were first trialled in this Project, yet the schedule risks were realised very early in the Project. Early use of the SCRAM activity is valuable (risks identified early) and the process should be matured to support selection/negotiation and to baseline activities.	Schedule Management
This Project is one of the first to implement the Integrated Support Contractor (ISC) model to execute traditional Project Office roles. The ISC Contract structure was closely aligned to and reliant on the Prime Contractor's Contract Master Schedule (CMS). Initial CMS deliverables had quality issues manifesting significant second order effects on the ISC contract. Evolution of the ISC construct should recognise risks in lock-stepping the ISC delivery so closely to the Prime Contractor CMS.	Resourcing
The ASDEFCON suite of contract templates are a good initiative for capturing lessons learned from years of project delivery. In endeavouring to capture all lessons the templates have become voluminous with significant inter-relationships. This can make contract execution, and in particular contract changes, very difficult as even a small change in one area may unravel other relationships within the contract suite.	Contract Management
A dedicated Chief Information Officer Group/Information Communication Technology (ICT) subject matter expert assigned to the project through all stages of the acquisition would improve ICT delivery efficiency.	Schedule Management Resourcing

Section 8 – Project Line Management

8.1 Project Line Management as at 30 June 2019

Position	Name
Division Head	Mr Shane Fairweather
Supported by Branch Head	**CDRE Peter Ashworth**
Project Director	**CAPT Adrian Capner**
Project Manager	**LCDR Kerryn McCallum**