Project Data Summary Sheet[141]

Project Number	**AIR 7000 Phase 2B**
Project Name	**MARITIME PATROL AND RESPONSE AIRCRAFT SYSTEM**
First Year Reported in the MPR	2014-15
Capability Type	Replacement
Acquisition Type	MOTS
Capability Manager	Chief of Air Force
Government 1st Pass Approval	Jul 07
Government 2nd Pass Approval	Feb 14
Budget at 2nd Pass Approval	$3,577.7m
Total Approved Budget (Current)	$5,375.7m
2018-19 Budget	$472.6m
Project Stage	Initial Materiel Release
Complexity	ACAT II

Section 1 – Project Summary

1.1 Project Description

AIR 7000 Phase 2B seeks to acquire the materiel elements of the Maritime Patrol and Response Aircraft (MPRA) weapon system, including a Through Life Support (TLS) system, as partial replacement of the AP-3C Orion aircraft.

Twelve P-8A Poseidon aircraft will be purchased for the Royal Australian Air Force (RAAF) through a Cooperative Program (CP) with the United States Navy (USN). The scope of the CP includes the Production, Sustainment and Follow-on Development (PSFD) of the United States Navy and RAAF P-8A Poseidon fleet.

1.2 Current Status

Cost Performance

In-year

The project has an **underspend** for this financial year, achieving $**472.4**m at **30 June 19** against a planned in-year budget of $**472.6**m, a variance of $**0.2**m.

Project Financial Assurance Statement

As at **30 June 19**, the AIR 7000 Phase 2B Project Office has reviewed the approved scope and budget for those elements required to be delivered by the project. Having reviewed the current financial and contractual obligations of the 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 August 2014, an Advanced Acquisition Contract (AAC) was signed by the USN, on behalf of Australia, for the first four RAAF P-8A aircraft. The AAC for the second set of four P-8A aircraft was signed in June 2015. The AAC for the third set of four P-8A aircraft was signed in May 2016. The AAC allows the Prime Contractor, Boeing, to acquire long lead items in order to ensure that all required components are available on time for assembly of the P-8A aircraft. The USN placed the full aircraft production contract for the first four Australian P-8A aircraft with Boeing in August 2015. The contract for the second set of four aircraft, Lot 7, was placed in January 2016 and the third set of four aircraft, Lot 8, was placed in March 2017 (total of 12 aircraft).

The third set of four aircraft was approved by government in February 2016 with a budget of $1,295.4m. The additional aircraft and budget has increased the AIR 7000 Phase 2B project scope. As a result of the increased scope, an update to the Materiel Acquisition Agreement (MAA) and Schedule has occurred.

The Royal Australian Air Force (RAAF) accepted the first aircraft in October 2016 ahead of schedule. Since this delivery, positive schedule performance has continued, **with eight aircraft accepted as at 30 June 2019**. The USN have advised that **the remaining four** aircraft **will be delivered** on time. **Aircrew and maintenance training systems were delivered in time to support**

141 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.

commencement of in-country training by 92 Wing at RAAF Base Edinburgh from July 2018.

Final Materiel Release (FMR) and Final Operational Capability (FOC) dates have been revised to June 2022.

Materiel Capability Delivery Performance

The P-8A Poseidon is being developed under a spiral development program by the USN. The spiral development consists of an evolution of increments, each of which has a number of Engineering Change Proposals (ECP) that define the maturing configurations of the increment. The variant of the first P-8A acquired under the scope of Phase 2B is defined as Increment 2, ECP 2.

AIR 7000 Phase 2C proposes to be the first major upgrade of the aircraft purchased under AIR 7000 Phase 2B (predominantly a Mission System upgrade delivered in the later ECPs of Increment 3) subject to future government approval.

The USN declared Initial Operational Capability (IOC) for the Increment 2, ECP 1 aircraft in October 2014, and declared IOC for the Increment 2 ECP 2 aircraft in August 2016. Through the CP, Australia has had significant insight into, and influence on Search and Rescue Kit and Harpoon 1G integration, the work being undertaken on the Increment 2, ECP 2 configuration, and has high confidence that the aircraft (and supporting systems) will provide the capability required by the MAA.

The Materiel Release 2 milestone was achieved in January 2019. This milestone relates predominantly to delivery of the necessary capability elements for 92WG to commence training of aircrew and maintenance personnel in Australia, along with provision of spares and explosive ordnance elements. Air Force subsequently declared achievement of the Operational Capability 2 milestone in February 2019.

Note

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

1.3 Project Context

Background

Project AIR 7000 Phase 2B is an ACAT II project, seeking to acquire the P-8A Poseidon MPRA capability, as partial replacement for the AP-3C Orion capability, under a CP with the USN. IOC was announced in January 2018, supporting the planned withdrawal of the AP-3C Orion to occur in FY18/19.

In December 2011, Government approval was provided to participate in the CP for development of P-8A aircraft and, in March 2012, the Project entered into an initial 10-year Memorandum of Understanding (MoU) with the USN for P-8A PSFD. The MoU defines Australia's contribution towards the joint costs for PSFD, and the separate funding of Australian-unique deliverables and effort.

The Increment 3 Project Arrangement was signed in September 2012 to enable Australia to participate in the incremental upgrade to Phase 2B. This upgrade will be incorporated under AIR 7000 Phase 2C.

In February 2014, Government Second Pass Approval was for the Project to acquire eight P-8A Poseidon aircraft, along with associated support and training systems. The Government approved the acquisition of an additional four (4) aircraft in February 2016.

The Project Office issues Procurement Requests (PRs) to advise the CP of Australia's intent to acquire materiel through the CP. After an appropriate scope, schedule and cost have been advised by the CP, the Project Office issues a Letter of Authority (LOA) which provides Australia's financial commitment for the acquisition. The Project formally submitted its first PR through the CP in June 2014, which covered aircraft, aircrew training devices, aircraft spares, aircraft support and test equipment, transition training and other support elements.

On 4 September 2014, Defence signed a LOA authorising the USN to procure Australian P-8A initial aircraft spares.

In May 2015, the USN signed the contract for Australia's P-8A Aircrew Training Devices to be delivered in 2017-18.

Sustainment and in-service support will provide opportunities for Australian Industry involvement. Further opportunities exist for Australian Industry in facilities and infrastructure development.

In accordance with the approved acquisition strategy, opportunities for Australian Industry participation in the broader USN P-8A Global program will exist on a competitive contracting basis throughout the life-cycle of the P-8A. Opportunities include component manufacture, component repair, and research and design services.

AIR 7000 Phase 2B also seeks to generate Australian industry participation in the acquisition, sustainment and follow-on development phases of the program through the Australian Industry Capability and Boeing Global Supply Chain.

Uniqueness

The RAAF P-8A aircraft will be identical to the USN P-8A aircraft, except for minor configuration differences due to national requirements (such as different aircraft marking schemes). Other support elements, such as training devices and spares, will also be kept as common as technically possible.

AIR 7000 Phase 2B is acquiring, and sustaining, the P-8A capability through a Government to Government CP with the USN. This arrangement is distinctly different from the traditional Foreign Military Sales (FMS) or Direct Commercial Sales (DCS) arrangements. The benefits of a CP include significantly enhanced insight and influence over the development of the weapon system, better awareness and control of project costs drivers and risks, better access to technical and sustainment data, and access to the USN wholesale spares warehouse.

There are 16 Commonwealth personnel embedded in the USN Program organisations to provide input, insight and influence across the P8 program. These embedded team members are referred to as Cooperative Program Personnel (CPP).

Major Risks and Issues

The Project is currently mitigating **schedule** risks associated with the Mk 54 Torpedo **delivery and UNIPAC III (Objective) Search and Rescue kit development**.

MR2 was declared to Air Force with minor spares (Fly Away Kit) deficiencies and an outstanding qualification requirement for the Operational Flight Trainer (pilot simulator). Neither of these deficiencies represented an operational impact, resulting in Air Force declaring OC2 in February 2019. The Project Office is working to remediate these deficiencies.

All other previously reported major risks and issues have been either retired, downgraded or transferred to sustainment to manage.

The Project Office relocated to Surveillance and Response SPO at RAAF Base Edinburgh in January 2019. Since this time, the Project has conducted a review of all risks and issues.

Other Current Related Projects/Phases

Project AIR 7000 Phase 1B received Second Pass approval in June 2018 to acquire a High Altitude Long Endurance, Remotely Piloted Aircraft System for patrol and surveillance purposes. The selected aircraft was the MQ-4C Triton platform, procured through a Cooperative Program with the United States Navy, similar to the P-8A acquisition. The Triton forms a critical aspect of the 'Family of Systems' approach, to replace the AP-3C Orion Capability. The Australian Government announced the investment decision through a joint media release statement on 26 June 18.

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 07	Original Approved	144.1		1
Jul 10	Real Variation – Real Cost Decrease	(21.7)		2
Dec 11	Real Variation – Transfer	(38.0)		3
Apr 12	Government Intermediate Consideration	83.5		4
Feb 14	**Government Second Pass Approval**	3,409.8		5
	Total at Second Pass Approval		3,577.7	
Mar 16	Real Variation – Scope	1,295.4		6
Jun 18	Real Variation – Transfer	1.0		6
			1,296.4	
Jul 10	Price Indexation		20.5	7
Jun 19	Exchange Variation		481.1	
Jun 19	**Total Budget**		5,375.7	
	Project Expenditure			
Prior to Jul 18	Contract Expenditure – Aircraft Acquisition Payments – Lot 6	(775.3)		8
	Contract Expenditure –Aircraft Acquisition Payments – Lot 7	(552.9)		
	Expenditure – Aircraft Acquisition Payments – Lot 8	(546.3)		
	Contract Expenditure – Aircrew Training System Contract	(268.8)		
	Contract Expenditure – Aircraft Government Furnished Equipment	(186.4)		
	Contract Expenditure – Aircraft Retail Spares	(122.2)		9
	Contract Expenditure – PSFD MoU Contributions	(111.9)		
	Contract Expenditure – Increment 1 Contribution	(66.0)		
	Other Contract Payments/Internal Expenses	(800.6)		9,10
	Other adjustments to cash reporting	2.4		
			(3,428.00)	
FY to Jun 19	Contract Expenditure – Aircraft Acquisition Payments – Lot 7	(231.3)		
	Contract Expenditure Aircrew Training System	(89.6)		
	Contract Expenditure – Aircraft Acquisition Payments –Lot 8	(48.7)		
	Contract Expenditure – PSFD MoU Contributions	(9.4)		
	Other Contract Payments/Internal Expenses	(93.4)		11
			(472.4)	
Jun 19	Total Expenditure		(3,900.4)	
Jun 19	Remaining Budget		1,475.3	
				Notes

1	Government First Pass Approval to initiate the Project and progress the project to Intermediate Consideration. At First Pass, AIR 7000 entered the Spiral 1 MoU with the USN for development of the P-8A weapon system.
2	Hand back of contingency funding due to retirement of specific Increment 1 MoU risks.
3	Reallocation of funding to Defence Support and Reform Group to develop AIR 7000 Phase 2B facilities requirements.
4	Government Intermediate Consideration Funding Approval required to progress the project to 2nd Pass Government approval. Includes costs of project planning documentation development and contractor project support services.
5	Government Second Pass Approval to fund the acquisition of eight P-8A aircraft, and associated support systems and sustainment arrangements.
6	Government Second Pass Approval to fund the acquisition of an additional four P-8A aircraft and associated support systems. Whilst funding approval was provided under AIR7000 Phase 2D, funds have been merged with AIR7000 Phase 2B for administration and reporting purposes as it relates to the delivery of one capability. $1m was transferred from DST Group due to surplus funds in FY2017-18.
7	Until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was $17.4m. In addition to this amount, the impact on the project budget as a result of out-turning was a further $3.1m having been applied to the remaining life of the project.
8	Amounts differ from the previous year due to a revalidation of life to date expenditure.
9	**Reclassification of "Contract Expenditure – Aircraft Retail Spares" due to prior year (FY17/18) error. Figure reported in USD instead of AUD increase of AUD $10.7m offset by a reduction in "Other Contract Payments".**
10	Other expenditure to **30 June 2018** was comprised of Maintenance Training Device scoping and acquisition costs of $**102**.4m, Increment 3 contributions of $**84.1**m, Wholesale Spares Pool of $39.2m, Operational Load Management $39m, Aircrew Maintenance and Training costs of $**36.6**m, MK 54 acquisition costs of $**36.6**m, Sonobuoys acquisition cost of $**37.2**m, Commonwealth Project Personnel (CPP) expenses of $22m, Mission Support System (MSS) of $21.2m, DIRCM spares of $20.3m, Tactical Operational Centre/Mobile Tactical Operational Centre (MTOC) scoping and acquisition costs of $19.5m, Engine Spares $16.8m, Support and Test Equipment (S&TE) acquisition costs of $**21.6**m, Search and Rescue (SAR) Kit $**11.8**m, CIOG Single Integration Environment of $**13.6**m, ICT Co-operative Solution payment of $4.9m, Field Service Representative (FSR) payments of $4.6m, Training System Support Services/Spares of $**20.7m, Sustainment Transition $29.2m, SNS Reliability Retrofit $24.7m, Spare Engine $23.4m, Strategic Support Partnership Contract (SSPC) $15.7m, Air to Air Refuelling $14m, Transportation Training Systems $9.9m, Training Systems Support $4.6m, Ordnance $2.9m** and other operating expenditure not attributable to the listed major contracts of $**124.1**m.
11	Other expenditure to **30 June** 19 was comprised of **Objective Search and Rescue (SAR) store Integration Services $0.8m, Aircraft Retrofit costs $4.2m, Air to Air Certification Services $5.7m, Objective SAR Kit development and delivery $1.9m,** Air to Air Refuelling certification $**0.2**m**, Spares Sonobuoys $4.7m, Ordnance Equipment $8.8m,** Strategic Support Partnership (SSPC) **and Major Service Provider Contracts (MSP) $11.8m, PSFD MoU Inc 3 Payment $14.2m,** Support and Test Equipment (S&TE) $**10.1**m, **Spares $0.6m, CIOG ICT integration $7.5m,** Maintenance Training Devices **LoA 27 $11.3m** and other operating expenditure not attributable to the listed major contracts of $**11.6**m.

2.2A In-year Budget Estimate Variance

Estimate PBS $m	Estimate PAES $m	Estimate Final Plan $m	Explanation of Material Movements
592.3	**408.9**	**472.6**	PBS – PAES: **The reduction of $183.4m is due to: Bringing forward Aircraft Payments in FY17/18 from FY18/19 value $150m and deferring $33.4m of procurement to future years in-line with CFO strategic AMCIP funding guidance.** PAES – **The variance is due to delays of payments to FY19/20 for Aircraft payments of $37m, Training System Sustainment contract of $10m, Training System Spares of $11m, and CIOG ICT Integration payments of $5m. In addition, $125m was brought forward from FY19-20 for Aircraft Payments, resulting in an increase to the budget.**
Variance $m	(**183.4**)	**63.7**	Total Variance ($m): (**119.7**)
Variance %	(**31**)	**15.6**	Total Variance (%): (**20.2**)

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan $m	Actual $m	Variance $m	Variance Factor	Explanation
			Australian Industry	**Minor variances in some costs incurred during FY18/19.**
			Foreign Industry	
			Early Processes	
		(0.2)	Defence Processes	
			Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
472.6	472.4	(0.2)	**Total Variance**	
		0	**% 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			
PSFD MoU - Contributions (US Government)	Mar 12	130.4	133.3	Cost Ceiling (Capped)	MoU	1, 8
Aircraft Government Furnished Equipment (GFE) (US Government)	Apr 14	142.9	234.9	Variable	MoU	2,7,8
AAC and Aircraft Production Lot 6 (US Government)	Aug 14	159.0	775.3	Variable	MoU	3,7,8,10
Retail Aircraft Spares (US Government)	Sep 14	122.1	122.2	Variable	MoU	4,7,8
Aircrew Training Systems (US Government)	Dec 14	275.4	358.4	Variable	MoU	5,7,8,10
AAC and Aircraft Production Lot 7 (US Government)	Jun 15	182.5	784.3	Variable	MoU	6,7,8
AAC and Aircraft Production Lot 8 (US Government)	May 16	139.0	735.4	Variable	MoU	8, 9

Notes

1	PSFD MoU shared contributions are limited to a cost ceiling, which can only be changed upon mutual written consent of the Participants. Australia is responsible for paying a proportion of the total costs based on the relative number of Australian aircraft in the overall fleet.
2	Aircraft GFE to be procured via contract arrangements between the USN and various suppliers for Lot 6, Lot 7 and Lot 8 aircraft. Price represents the total value of contracts expected to be awarded and for which Section 23 Commitment Approval has been obtained. The USN are procuring the GFE on behalf of Australia as part of a consolidated US Government purchase.
3	Lot 6 Aircraft AAC – signature allowed the prime contractor, Boeing, to procure long-lead aircraft components prior to entering into fully defined contract arrangement. Lot 6 production contract for acquisition of the first four aircraft was signed on 21 August 2015.
4	Retail aircraft spares requirements to be procured via US Naval Supply Systems Command (NAVSUP) contracts, from USN inventory or via other US Government agency arrangements. The majority of retail spares are to be procured via NAVSUP.
5	Aircrew Training Devices - signature allowed the prime contractor, Boeing, to acquire the required long-lead parts, commence engineering and program management activities in support of Australian P-8A training device production. A fully defined contract was signed May 2015.
6	Lot 7 Aircraft AAC – signature allowed the prime contractor, Boeing, to procure long-lead aircraft components prior to entering into fully defined contract arrangement. Lot 7 production contract for acquisition of the second set of four aircraft was signed in January 2016.
7	'Contract signature' dates in this table are based on the date each LoA was issued by AIR 7000 Phase 2 project office. LoAs are issued by the project formally authorising the commitment and/or obligation of funds for contract execution or efforts to satisfy Australian-unique requirements.
8	Contract value as at **30 June 2019** is based on actual expenditure to **30 June 2019** and remaining commitment at current budget exchange rates.
9	Lot 8 Aircraft AAC – signature allowed the prime contractor, Boeing, to procure long-lead aircraft components prior to entering into fully defined contract arrangement. Lot 8 production contract for acquisition of the third set of four aircraft was signed in March 2017.
10	These contract values have changed due to the separation of LOT 6 and LOT 8 contract reporting.

Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 19		

PSFD MoU - Contributions (US Government)	N/A	N/A	Australia's contribution to shared costs from 2012-13 to 2021-22 based on the original purchase of eight aircraft. Includes contribution to production, sustainment and follow-on development for common efforts, and project overhead and administration costs.	1
Aircraft Government Furnished Equipment (GFE) (US Government	Various	Various	Items to be procured in support of production of Lot 6 (aircraft 1-4), Lot 7 (aircraft 5-8) and Lot 8 (aircraft 9-12).	2
AAC Lot 6 (US Government)	Various	Various	Four Lot 6 aircraft and long-lead P-8A aircraft components.	3
Retail Aircraft Spares (US Government)	Various	Various	Initial spares buy for the first eight aircraft.	
Aircrew Training Systems (US Government)	Various	Various	Training Systems Support Centre, Weapons Tactics Trainers, Part Task Trainer, Operational Flight Trainers, Mission Systems Desktop Trainers and Training Support.	
AAC Lot 7 (US Government)	Various	Various	Four Lot 7 aircraft and long-lead P-8A aircraft components.	4
AAC Lot 8 (US Government)	Various	Various	Four Lot 8 aircraft and long-lead P-8A aircraft components.	5

Major equipment received and quantities to 30 Jun 19
To date, **eight** aircraft and two Mobile Tactical Operations Centres (MTOCs) have been delivered.

Notes	
1	No equipment delivered as part of this MoU.
2	GFE delivery will be to prime contractor for aircraft production.
3	The contract for acquisition of the first four aircraft was signed in August 2015, with all four aircraft being delivered.
4	The contract for acquisition of the second four aircraft was signed in January 2016, **with all four** aircraft **being** delivered.
5	No equipment has been delivered as part of this contract. The contract for the acquisition of the third set of four aircraft was signed in March 2017.

Section 3 – Schedule Performance

3.1 Design Review Progress

Review	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
Component Advance Development	Multi-Mission Maritime Aircraft (subsequently called the P-8A Poseidon)	N/A	N/A	2002	N/A	1
System Design Development (SDD) - Milestone B	P-8A SDD	May 04	May 04	May 04	0	2
Design Readiness Review	P-8A SDD	Jul 07	Aug 07	Aug 07	1	
Milestone C	P-8A SDD	May 10	Aug 10	Aug 10	3	3
FRP Decision	P-8A Increment 2	Apr 13	Dec 13	Jan 14	8	4,5

Notes	
1	Component Advance Development was a competitive award to multiple contractors to define alternative Multi Mission Aircraft concept system architectures and evaluate associated risks and proposed mitigations.
2	SDD phase was used to design, develop and test the P-8A system.
3	Milestone C represents Low Rate Initial Production (LRIP) Approval and entry into the Production and Deployment Phase.
4	US Defense Acquisition Board approved the deferral of the Full Rate Production (FRP) decision from the original planned to allow for completion of the testing and subsequent reporting as well as adding an additional LRIP (Lot IV).
5	AIR 7000 Phase 2B relies on the Design Review processes of the USN.

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	Fleet Release 30 (Increment 2 ECP 1)	Apr 14	Dec 14	Dec 14	8	1
	Fleet Release 40 (Increment 2 ECP 2)	Aug 15	Aug 16	Aug 16	12	1,2
	Fleet Release 46 (Increment 2 ECP 3)	Apr 17	Oct 17	Nov 17	7	1,3
Acceptance	Accept and deliver Lot 6 Aircraft (1-4)	Nov 16 – Sep 17	Nov 16 –Aug 17	Oct 16 - Jul 17	(2)	4, 7
	Accept and deliver Lot 7 Aircraft (5-8)	Dec 17 – Sep 18	Dec 17 –Aug 18	Oct 17 – **Jun 19**	**10**	5**, 7**
	Accept and deliver Lot 8 Aircraft (9-12)	Aug 19 – Feb 20	Aug 19 – Feb 20	Aug 19 – **Feb** 20	**0**	6, 7
	MTOC and two Deployable **MTOCs**	Sep 16 – Aug 18	Nov 16 – Dec **19**	Feb 17 – **Dec** 19	**16**	8
	Training System	Jan 18 – Mar 18	Mar 18 –Jun 18	Mar 18 – Jul 18	4	9

Notes	
1	Fleet Releases are the final configurations for the incremental builds of the P-8A Weapon System. Increment 2 is being delivered through a number of smaller Engineering Change Proposals. Variance from original planned dates are due to changes in the Boeing / USN schedule.
2	Due to data disclosure issues FR 40 was updated to 40.1 and finalised in November 2016.
3	Fleet Release 50 was re-titled Fleet Release 46 to align with the management of the Lot 8 production contract. The capabilities planned were unchanged as the change was solely based on nomenclature. The release of this variant was delayed by seven months due to developmental issues in the new capabilities to be incorporated.
4	Australian Lot 6 aircraft **were delivered** in October 2016, February 2017, April 2017, and July 2017.
5	Australian Lot 7 aircraft **were delivered** in October 2017, January 2018, May 2018, and **June** 2019.
6	Australian Lot 8 aircraft are scheduled for delivery in August 2019, September 2019, October 2019, and **February** 2020.
7	Australia **adopted** a model of Recognition of Prior Acceptance for Aircraft certification.
8	Variance is due to an additional Mobile Tactical Operations Centre (MTOC 32) **being added to project scope. Further, the delay from February 2019 to December 2019 is due to a reprogramming of MTOC32 delivery with the US Navy.**
9	Variance from original planned date is due to the inability of the Original Equipment Manufacturer (OEM) to deliver the full Training System as per the contract. All training devices are contracted to be delivered prior to the commencement of the first conversion training courses.

3.3 Progress Toward Materiel Release and Operational Capability Milestones

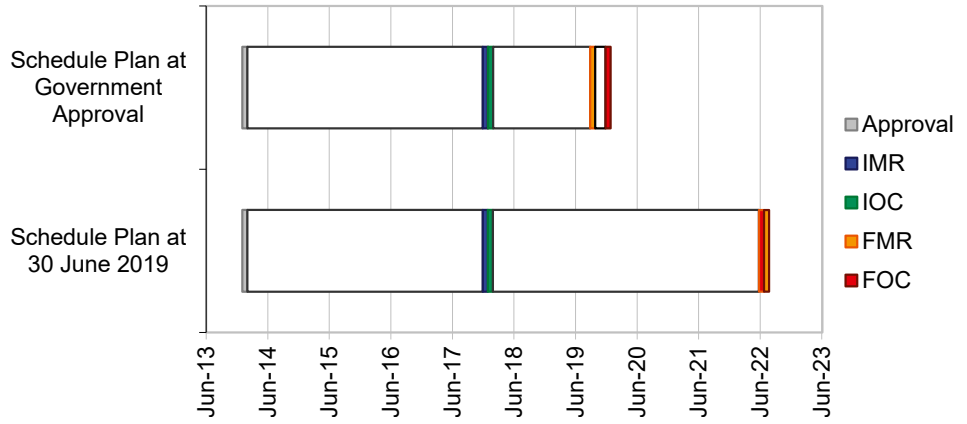
Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Materiel Release 1 (MR1)	Jan 17	May 17	4	1, 2
In Service Date (ISD)	Nov 16	May 17	6	1
Initial Materiel Release (IMR)	Jan 18	Nov 17	(2)	3

Initial Operational Capability (IOC)	Feb 18	Jan 18	(1)	3
Materiel Release 2 (MR2)	Dec 18	**Jan 19**	**1**	4
Operational Capability 2 (OC2)	Jan 19	**Feb 19**	**1**	**6**
Materiel Release 3 (MR3)	Dec 19	**Dec 19**	**0**	
Operational Capability 3 (OC3)	Jan 20	**Jan 20**	**0**	
Final Materiel Release (FMR)	Oct 19	**Jun 22**	**32**	**5**
Final Operational Capability (FOC)	Jan 20	**Jun 22**	**29**	**5**

Notes

1	Variance due to the delay in accepting the first MTOC actually occurring in February 2017.
2	When declaring MR1, CASG acknowledged the Threshold Search and Rescue Store capability would not be delivered until IMR. This was achieved, at the completion of Operational Test & Evaluation (OT&E) activities late in November 2017.
3	Due to positive schedule performance across all areas of the project all requirements for IMR were delivered prior to forecast date, enabling Air Force to claim IOC on schedule.
4	**Variance of one month is due to time taken for CASG and Air Force to perform analysis of minor MR2 deficiencies. This was necessary to confirm that P-8 capability would not be affected by these minor deficiencies.**
5	FMR & FOC dates have **slipped** to accommodate the purchase of **four additional aircraft, and internal project replanning.**
6	**Air Force declared OC2 despite two minor MR2 deficiencies relating to spares (Fly Away Kit) and Operational Flight Trainer (pilot simulator) qualification. The Project Office is working to remediate these deficiencies.**

Schedule Status at 30 June 2019

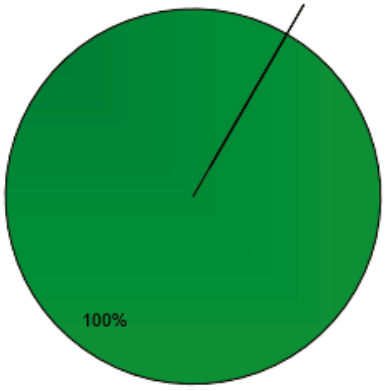


Note

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 is currently meeting 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)	• 4 x P-8A aircraft delivered to RAAF Edinburgh (EDN).
	• 2 x MTOCs (previously delivered) in the following configurations:
	  ○ 1 x MTOC installed within Main Operating Base (MOB) temporary facility (not readily deployable).
	  ○ 1 x MTOC temporarily installed at Forward Operating Base (FOB) either within interim fixed facility or deployable shelters.
	• 7 x trained aircrews.
	• 3 x trained Mission Support System teams.
	• 7 x trained maintenance teams.
	• Delivery of spares, Ground Support Equipment (GSE) and Support and Test Equipment (S&TE) to support MOB and FOB operations.
	• Publications to support supply, maintenance and operations for IOC.
	• Network Connectivity between all delivered P-8A aircraft and Australian Single Information Environment.
	• **Delivery of Threshold Search and Rescue (SAR) store capability.**
	IMR was achieved in November 2017.
		Achieved

Initial Operational Capability (IOC)	• **Delivery of 4 P-8A aircraft able to deliver up to 1,000hrs Flying Rate of Effort;** • **Minimum of 4 mission capable crews in MISR missions** • **Trained and authorised maintenance and support staff to conduct MOB and FOB (Darwin) operations** • **Delivery of spares, GSE and S&TE to support MOB and FOB (Darwin) operations** • **Delivery of 2 MTOCs: MOB and FOB (Darwin) with Single Information Environment (SIE) interface**	**Achieved**

	• **Established training arrangements in place to conduct ongoing transition, conversion and sustainment training** • **Completion of Initial Operational Test & Evaluation (IOT&E)** • **Award of Australian Military Type Certificate (AMTC) and Service Release** **IOC achieved in January 2018.**	
Final Materiel Release (FMR)	• 12 x P-8A aircraft delivered to EDN. • All spares, GSE and S&TE to support the additional Rate of Effort (6,600 hours) at both MOB and FOB. • **One MTOC to be semi-permanently installed and operational in Darwin, totalling 3 MTOCs delivered and installed**. • Three Media Fly Away Kits delivered and interfaced with SIE sufficiently to allow organic deployment to non-MTOC supported bases. FMR is expected to be achieved in **June 2022**.	Not yet achieved
Final Operational Capability (FOC)	• **12 x P-8A aircraft** • **3 x Fly Away Kit MTOC with SIE interface** • **Support systems in place to enable the delivery of the full 6,600hrs of annual Flying Rate of Effort** • **Additional spares to support 6,600hrs annual Flying Rate of Effort** **FOC is expected to be achieved in June 2022.**	**Not yet achieved**
Note		

Section 5 – Major Risks and Issues

5.1 Major Project Risks

Identified Risks (risk identified by standard project risk management processes)	
Description	Remedial Action
The Project identified schedule risks associated with the Mk 54 torpedo.	• The Project is working collaboratively with the FMS case manager, the Capability Managers and the USN, to ensure the risk is avoided.
The Project identified schedule risks associated with the UNIPAC III (objective) Search and Rescue Kit.	• The Project has increased resources to identify and assist with program remediation actions, including enhanced collaboration with supplier and working closely with USN to approve and deliver this capability. This risk has a low impact on capability as the interim Search and Rescue capability approved and is in place.
The project has identified a capability risk, in that the USN Interactive Electronic Technical Manuals (IETM) may not be integrated with Defence systems by required date.	• **This is no longer a risk due to the stand-alone IETM solution being introduced into service March 2019. The risk has been retired and will no longer be reported.**
There is a chance that the HAAWC capability will be delivered post FMR leading to failure to achieve the MAA milestone.	• **The HAAWC capability has been de-linked from the FMR milestone. While this capability remains within the scope of AIR 7000 Phase 2, the Risk has been retired and will no longer be reported.**
The ICT solutions established to provide Engineering and Maintenance support systems for ADF P-8A fleet, may be affected by COA projects external to AIR7000. This may affect the automated processing of data, crucial to the USN in providing Integrated Logistics Support to the ADF fleet.	• **COA agencies are using an alternate solution to transfer data; using manual methods.** • **A Data Issue Working Group (DIWG) has been created to ensure the requirement within the Outstanding Phase 2 Cooperative ICT deliverables accurately reflect the USN requirements and therefore this risk is unlikely to be realised. The risk has been retired and will no longer be reported.**
KC-30 AAR data may not releasable to Boeing, restricting the ability to implement the high fidelity simulation required in the aircraft flight simulator. This poses a risk to the effectiveness of aircrew training.	• **Data has been provided and aero modelling incorporated. The next upgrade is due to commence in July 2019 with testing to follow. Qualification activity in November 2019 will provide fidelity of simulated AAR capability.**

	• **Risk has been downgraded to Low and will no longer be reported.**
Emergent Risks (risk not previously identified but has emerged during 2018-19)	
Description	Remedial Action
N/A	**N/A**

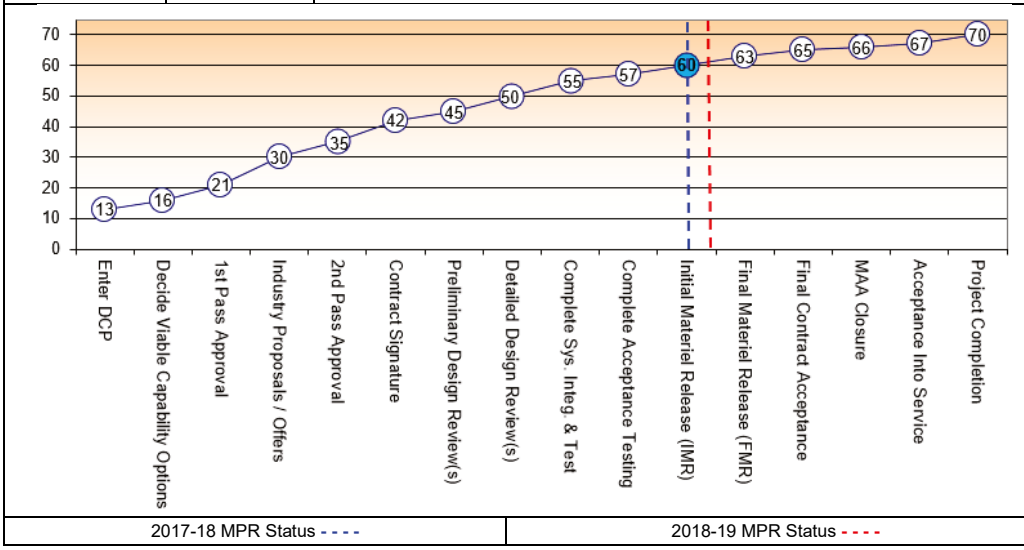
5.2 Major Project Issues

Description	Remedial Action
Unexpected fatigue testing results. During a contracted Wing-Fuselage Full Scale Fatigue Test, Boeing discovered unexpected signs of structural fatigue. USN expect this to be a localized issue affecting a finite number of components that will likely require some additional maintenance or replacement during scheduled depot overhauls, but that would not be expected to have widespread consequences for P-8A fleet operations or fleet longevity.	• Ongoing engagement between Australian and USN subject matter experts to understand the causes of the unexpected signs of fatigue and a suitable Structural Management strategy. • Incorporation of an Operational Loads Monitoring System on aircraft eight scheduled for delivery in October 2018. • **Issue has been transferred to Sustainment Management Unit and is being tracked by P-8A System Safety with risk communication and acceptance via an Airworthiness Issues Paper.** • **NAVAIR continue to investigate results from full scale fatigue test and implement appropriate inspections to ensure the integrity of the aircraft structure through life of type.** • **Aircraft Structural Integrity managers from Joint Program Office oversee NAVAIR's work and ensure Australia is included in any/all structural integrity programs for P-8A.** • **The issue will no longer be reported.**
An issue has arisen in which the Operational Flight Trainer (OFT) cannot obtain the required Level D qualification.	• **The Project Training Systems Management Plan (TSMP) did not predict a Level D OFT until PCU19/RAAF3 which is due for delivery in 2021. The issue has been retired and will no longer be reported. A new medium Risk has been raised to reflect the current assessment and manage resolution of the MR2 deficiency relating to OFT qualification.**
Releasability of aircrew courseware has led to delays in the initial delivery. This is creating inefficiencies in the conduct of the in country training program, but did not delay the train systems in service date.	**Issue of courseware releaseability has been resolved with USN, however will continue to be closely tracked to ensure future deliveries are complete and on time. The issue has been retired and will no longer be reported. A new medium Risk has been raised to focus on the coming upgrades.**
ADF Integrated Logistics Support systems may not provide the depth of data required by the USN to allow for effective support to the ADF fleet.	• **This is no longer an issue as the Logistics Engineering Maintenance Management System (LEMMS) component of the project is delivering the necessary data to the USN. The issue has been retired and will no longer be reported.**
Directed Infra-Red Countermeasure (DIRCM) deficiency: The P-8A self-protection capability comprises multiple elements, which were installed and tested in December 2018. The DIRCM processor is required to allow full functionality, including missile detection and automatic flare dispensing. Currently, the DIRCM processor is not able to load a critical software file; this problem affects the global fleet.	• **This Issue was resolved by the US Navy and accepted by Air Force in June 2019. The item will no longer be reported.**
Fly Away Kit deficiency: The global supply chain for P-8A sustainment is still being refined, resulting in a global shortage of a number of spare parts and GSE.	• **Minor deficiencies against the MR2 spares requirement are being actioned by the Joint Project Office.** • **This item is being managed as a Caveat.**
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							Total
		Schedule	Cost	Requirement	Technical Understanding	Technical Difficulty	Commercial	Operations and Support	
Project Stage	Benchmark	10	8	8	8	9	8	9	60
Initial Materiel Release (IMR)	Project Status	10	8	9	8	9	8	9	61
	Explanation	Requirements: completion of Operational Test and Evaluation, and release of all operating roles for the P-8A aircraft, has confirmed that capability requirements have been successfully achieved.							



Section 7 – Lessons Learned

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
The signed PSFD MoU does not provide explicit detail on those activities which will be undertaken in the interests of both nations by the CP (paid for by shared funding) and those which are Australian unique (paid for in addition to the shared financial contribution). Clearer definition of this division in the MoU would have avoided the post-signature negotiation required to resolve this ambiguity.	Contract Management
The CP model has allowed Australia to work closely with the USN in the future requirements definition and planning for the P-8A. This has been to the significant mutual benefit of both the USN and Australia.	Requirements Management
Precision of description about what is included under the PSFD MoU.	Contract Management
Greater focus in regards to Australian Industry involvement within MoU.	Requirements Management
Scope of the MoU, does not contemplate other USN organisations (NAVSUP, SPAWAR). Consider how support from other US agencies can be assured.	Contract Management
Use of a US Cooperative Program contract support model should be used with caution, if the activity will be subcontracted primarily back to Australian Industry to support. Consider direction contract arrangements within Australia, with reachback to US CONUS OEM as required if IP, export and data support can be assured.	Contract Management
Airworthiness Certification of USN product may not meet Australian WHS requirements. Consider what SFARP approach needs to be taken when introducing into service.	Requirements Management
Export controls need to be closely monitored to ensure the articles receive appropriate Congressional approval in time for shipment, particularly for classified items.	Contract Management

When interfacing with US ICT organisations, it is very difficult to arrange access with the correct subject matter experts. Consider strong relationships under a cooperative program to ensure the right people are making decisions.	Requirements Management
Procurements through different parts of the USN organisation have different schedules and may take significantly longer than others. Ensure the contracting processes and timelines for the organisation conducting the contract management are well understood, before beginning the Procurement Process.	Contract Management
SATCOM connectivity and who pays for each segment is rarely clear. Ensure ownership of each data segment is well understood.	Requirements Management
SPAWAR manages a large number of components in the TOC across the USN, of which only a small number are needed for an aircraft platform. As a consequence, large numbers of "common" TOC components may be changed as part of a suite of TOC upgrades across the USN fleet, and rolled into what was a relatively minor air vehicle change. This may well hold up delivery of a new mission system software drop while awaiting the software regression testing to be complete on the overall configuration build change for the TOC.	Requirements Management
Consider co-location or moving of Acquisition Project staff to the Sustainment organisation as part of **standing up** the **Sustainment Management Unit (SMU).** This will ensure a better flow of knowledge transfer and ownership of the history of a particular requirement. **Co-location of the Project Office with the SMU in January 2019 has already yielded benefits in terms of information transfer and cooperation in capability delivery.**	Resources
Ensure the transition plan is approved well in advance of the first aircraft delivery (12 months or more).	Requirements Management

Section 8 – Project Line Management

8.1 Project Line Management as at 30 June 2019

Position	Name
Division Head	AVM Catherine Roberts
Branch Head	**AIRCDRE David Scheul**
Program Director	**Mr Nigel Linnett**
Project Manager	**WGCDR Andrew Marriott**