

## Project Data Summary Sheet<sup>146</sup>

Project Number	<b>AIR 9000 Phase 8</b>
Project Name	<b>FUTURE NAVAL AVIATION COMBAT SYSTEM</b>
First Year Reported in the MPR	2011-12
Capability Type	Replacement
Acquisition Type	MOTS
Capability Manager	Chief of Navy
Government 1st Pass Approval	Feb 10
Government 2nd Pass Approval	Jun 11
Budget at 2nd Pass Approval	\$3,029.6m
Total Approved Budget (Current)	<b>\$3,212.5m</b>
2018–19 Budget	<b>\$142.1m</b>
Project Stage	Initial Materiel Release
Complexity	ACAT II



### Section 1 – Project Summary

#### 1.1 Project Description

AIR 9000 Phase 8 has acquired 24 MH-60R Seahawk Romeo naval combat helicopters, associated weapons and support systems to replace the **previous** 16 S-70B-2 Seahawk Bravo helicopters and the cancelled SH-2G(A) Seasprite helicopters. The aircraft is equipped with a highly sophisticated avionics suite designed to employ Hellfire air-to-surface missiles and Mark (Mk) 54 anti-submarine torpedoes. The aircraft provide Navy with a contemporary helicopter with anti-submarine warfare (ASW) and anti-surface warfare capability.

The acquisition of 24 helicopters enable the Navy to deploy at least eight Seahawks embarked at sea across the ANZAC class frigates and the new *Hobart* class Air Warfare Destroyers (AWD).

#### 1.2 Current Status

##### Cost Performance

###### In-year

**End of financial year underspend of \$24.4m is primarily due to a Defence cash management decision to delay Quarter 4 FMS payment of \$11.9m and other invoices (\$1.2m). Contributing to this was an underspend for activities under the Foreign Military Sales (FMS) cases for AIR9000PH8 of \$4.4m due to reduced disbursements for the acquisition FMS case, and Guided Weapons Branch of \$8.1m due to production issues with explosive ordnance in the US offset by other minor overspends.**

###### Project Financial Assurance Statement

As at **30 June 2019**, project AIR 9000 Phase 8 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.

#### 146 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.

### Schedule Performance

Material Release Three (MR3) **was achieved 11 October 2018. This was** defined as twenty four aircraft in United States Navy (USN) configuration accepted, with sufficient logistics support, including Ships Allowance Limit (SAL), Pack Up Kits (PUKs) and sufficient internal (crew served) machine guns to support eight flights at sea. **The next major milestone will be Material Release Four (MR4), which is defined as:**

- **Weapons Acquisition Closure**
- **Explosive Materiel Branch (EMB) Authorised Maintenance Organisations ready to sustain MH-60R Explosive Ordnance (EO) at the mature rate of effort**
- **The transition of all AIR 9000 Phase 8 Weapons Air to Surface Missiles, Light Weight Torpedo's, non-guided EO and associated Support System Constituent Capabilities to the in-service support agencies.**

### Materiel Capability Delivery Performance

The MH-60R Seahawk helicopter being procured is a Military Off the Shelf (MOTS) product from the USN. The MH-60R Seahawk has been in service with the USN since 2005 and was first deployed operationally by the USN in early 2010. The Australian Defence Force (ADF) has accepted delivery of 24 MH-60R aircraft, and there are currently no known impediments to the Project achieving the materiel capability performance requirements. The aircraft delivery schedule resulted in ADF MH-60Rs being delivered earlier than forecast at Second Pass.

### Note

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

## 1.3 Project Context

### Background

The Defence White Paper 2009 stated that 'As a matter of urgency, the Government will acquire a fleet of at least 24 new naval combat helicopters to provide eight or more aircraft concurrently embarked on ships at sea. These new aircraft will possess advanced ASW capabilities, including sonar systems able to be lowered into the sea and air-launched torpedoes, as well as an ability to fire air-to-surface missiles.'

First Pass Approval for the acquisition of the Future Naval Aviation Combat System to satisfy this requirement was provided by Government on 24 February 2010.

The selection of the MH-60R followed a competitive solicitation process between a US Government FMS case offering the Sikorsky / Lockheed Martin MH-60R Seahawk and a direct commercial sale from Australian Aerospace (now Airbus Group Australia Pacific (AGAP) offering the NATO Helicopter Industries NH90 NATO Frigate Helicopter. Second Pass Approval for acquisition of the MH-60R was provided by Government on 15 June 2011.

Project SEA 5510 Stage 1 was approved by Government in June 2017, for the purpose of upgrading the MH-60R Seahawk's combat system, sensors, weapons and countermeasures throughout their operational life to maintain commonality and supportability with the United States Navy. AUD \$527.7m has been approved for Stage 1 from financial year 2018/19 to 2028/29.

### Uniqueness

The Australian MH-60R helicopter has been acquired as a MOTS product, in the same baseline configuration as the USN aircraft. A limited number of Australian unique design modifications are being incorporated now that all aircraft have been delivered. The USN will develop the modifications for incorporation in Australian and USN MH-60R aircraft.

The MH-60R is being acquired as a maritime combat capability. It will have limitations in utility roles such as passenger or cargo transfer.

### Major Risks and Issues

The Project Office (PO) is currently managing **two** open risks with the highest level of pre-mitigation risk being medium, whilst also managing two open issues **which are also rated as medium or below**. However, there are currently no major risks or issues in achieving the MH-60R operational capability milestones on schedule.

### Other Current Related Projects/Phases

Project AIR 9000 Phase 7 Helicopter Aircrew Training System (HATS). HATS will be an important link in the training continuum for inductees to the MH-60R training system.

Project AIR 9000 Phase 2/4/6 Multi-Role Helicopter. The acquisition of 47 helicopters to replace the current Army Black Hawk fleet and Navy Sea King fleet.

**Project SEA 5510-1 – MH-60R Capability Assurance Program (CAP) which was directed by Government to maintain a common baseline with the USN fleet of MH-60R aircraft.**

Project SEA 4000 Phase 3 Air Warfare Destroyer. AIR 9000 Phase 8 is to fund the modifications of the Hobart Class for interoperability with the MH-60R Seahawk 'Romeo' helicopter.

### 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
<b>Project Budget</b>			
Aug 09	Original Approved	0.3	1
Jun 10	Real Variation – Budgetary Adjustment	9.6	2
Jun 11	Government Second Pass Approval	3,019.7	
	Total at Second Pass Approval	3,029.6	
Jun 14	Real Variation – Budgetary Adjustment	(39.2)	3
Jul 10	Price Indexation	0.1	4
Jun 19	Exchange Variation	222.0	
Jun 19	<b>Total Budget</b>	<b>3,212.5</b>	
<b>Project Expenditure</b>			
Prior to Jul 18	Contract Expenditure – US Government (AT-P-SCF)	(1,876.0)	5
	Contract Expenditure – US Government (AT-P-AHV)	(113.3)	5
	<b>Contract Expenditure – US Government (AT-P-KOA)</b>	<b>(53.8)</b>	5
	Contract Expenditure – US Government (AT-B-ZBZ)	(20.2)	5
	Contract Expenditure – Navy – Empire Test Pilots' School	(7.4)	
	Contract Expenditure – US Government (AT-P-GTC)	(3.5)	5
	Other Contract Payments / Internal Expenses	(146.3)	6
		<b>(2,220.5)</b>	
FY to Jun 19	Contract Expenditure – US Government (AT-P-SCF)	(73.8)	5
	Contract Expenditure – US Government (AT-P-AHV)	(4.8)	5
	Other Contract Payments / Internal Expenses	(39.1)	7
		<b>(117.7)</b>	
<b>Jun 19</b>	<b>Total Expenditure</b>	<b>(2,338.2)</b>	
<b>Remaining Budget</b>			
Jun 19		<b>874.3</b>	
<b>Notes</b>			
1	This amount represents the project Budget prior to achieving Second Pass Approval by Government.		
2	Project Development Funds.		
3	Facilities Budget Transfer to Defence Support and Reform Group.		
4	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was \$0.1m, 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 including AIR 9000 Phase 8.		
5	The scope of this contract is explained further in Section 2.3 – Details of Project Major Contracts.		
6	Other includes travel, contractor support, legal support, Non-FMS Procurements, ANZAC and AWD Ship Modifications, and general support activities.		
7	Other includes procurement of <b>AWD Ship Integration of \$24.3m, Contractors Support of \$6.5m, ANZAC Ship Integration of \$4.1m, DSTG of \$1.3m, Spares and consumables of \$0.7m and other minor expenditure of \$2.2m including Freight, general support activities, travel, Resident Project Team and Technical Services.</b>		

### 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
138.6	167.0	142.1	<p><b>PBS to PAES: The variance was due to a planned increase in production of explosive ordinance in the US and implementation of the AWD ship alteration package.</b></p> <p><b>PAES to Final Plan: The variance is due to lower than planned production of explosive ordinance in the US and delays in invoicing for work on ANZAC and AWD ship integration.</b></p>
Variance \$m	28.4	(24.9)	Total Variance (\$m): 3.5
Variance %	20.5	(14.9)	Total Variance (%): 2.5

## 2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
		1.2	Australian Industry	The cash expenditure achievement to 30 June 2019 is \$117.7m. EOFY underspend of \$24.4m is primarily due to Corporate cash management decision to delay Quarter 4 FMS payment of \$11.9m and other invoices (\$1.2m). Contributing to this was a further underspend for activities under the Foreign Military Sales (FMS) cases for AIR900PH8 of \$4.4m due to reduced disbursements for the acquisition FMS case and Guided Weapons Branch of \$8.1m due to production issues with explosive ordnance in the US offset by other minor overspends.
		(12.5)	Foreign Industry	
			Early Processes	
		(13.1)	Defence Processes	
			Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
142.1	117.7	(24.4)	<b>Total Variance</b>	
		(17.2)	<b>% Variance</b>	

## 2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature \$m	30 June 19 \$m			
US Government (AT-P-SCF)	Jun 11	2,090.3	2,400.7	Variable	FMS	1, 3
US Government (AT-P-AHV)	Aug 11	168.1	202.4	Variable	FMS	1, 3
US Government (AT-B-ZBZ)	Jan 12	12.3	20.2	Variable	FMS	1, 2, 3
US Government (AT-P-GTC)	Feb 13	10.9	3.5	Variable	FMS	1, 3, 4
US Government (AT-P-KOA)	May 17	53.8	53.8	Variable	FMS	1,3, 5
<b>Notes</b>						
1	The scope of this contract is explained further below.					
2	Increased quantity of Tactical and Training Missiles in FMS Case.					
3	Contract value as at 30 June 2019 is based on actual expenditure to 30 June 2019 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).					
4	Contract AT-P-GTC was closed in July – September 2017 Quarter, with formal advice being received on 5 March 18 that no further billing will be received on this contract.					
5	This contract was signed in financial year 2016/17 with payment made in financial year 2017/18.					
Contractor	Quantities as at		Scope	Notes		
	Signature	30 June 19				
US Government (AT-P-SCF)	24	24	MH-60R, synthetic training devices, and associated mission and support systems			
US Government (AT-P-AHV)	Classified	Classified	Mk 54 Torpedoes			
US Government (AT-B-ZBZ)	Classified	Classified	AGM-114N Hellfire Air to Surface Missiles			
US Government (AT-P-GTC)	N/A	N/A	RAN MH-60R Detachment – Naval Air Station Jacksonville, Florida support			
US Government (AT-P-KOA)	N/A	N/A	MH-60R aviation spares			
Major equipment received and quantities to 30 June 19						

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A quantity of Mk 54 Torpedos delivered in August 2014  
 A quantity of Hellfire Missiles delivered in August 2014  
 'BRomeo' Seahawk Training Device delivered in October 2014  
 Tactical Operational Flight Trainer 1 delivered in February 2015  
 Aircraft 1 through 24 were delivered between December 2013 and August 2016  
 Rear Crew Trainer delivered in August 2016  
 Tactical Operational Flight Trainer 2 delivered in October 2016  
 Helicopter Support Facility (HMAS *Stirling*) was accepted in December 2016  
 Composite Maintenance Trainer delivered in December 2017

### 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	MH-60R Helicopter	N/A	N/A	N/A	N/A	1
	ADF Mission System Options – Phase 1	Jan 14	Jan 14	Apr 14	3	2
	ADF Mission System Options – Phase 2	Nov 14	Nov 14	Nov 14	0	2
	Air Warfare Destroyer	Dec 14	Dec 14	Jan 15	1	3
Preliminary Design	MH-60R Helicopter	N/A	N/A	N/A	N/A	1
	ADF Mission System Options – Phase 1	Mar 14	Mar 14	Jun 14	3	2
	ADF Mission System Options – Phase 2	Mar 15	Mar 15	Apr 15	1	2
	Air Warfare Destroyer	Dec 15	May 17	May 17	17	3
Critical Design	MH-60R Helicopter	N/A	N/A	N/A	N/A	1
	ADF Mission System Options – Phase 1	Jun 14	Jun 14	Jun 14	0	2
	ADF Mission System Options – Phase 2	May 15	May 15	May 15	0	2
	Air Warfare Destroyer	Dec 16	Dec 17	Dec 17	12	3
<b>Notes</b>						
1	MH-60R helicopter system requirements and design reviews were not required as it a MOTS helicopter procured through FMS.					
2	The ADF Mission System Options were split into two phases. Phase 1 Statements of Work (SOWs) for ADF Unique Mission System Options were agreed by the PO, USN, Sikorsky and Lockheed Martin. Director General Technical Airworthiness has endorsed SOWs in accordance with Technical Airworthiness Regulations. Dates are reflective of Phase 1 design reviews. SOW for Phase 2 was released as part of USN request for tender 26 February 2014, with contract signature with Lockheed Martin achieved in October 2014.					
3	The AWD requires modification to enable the MH-60R aircraft to operate at full capability as the AWD certification baseline is based on a classic Seahawk aircraft. The modification works required to integrate the MH-60R aircraft will be conducted following the delivery of each AWD. With the reorganisation of the AWD Alliance the aviation upgrade effort has been delayed.					

#### 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	ADF Mission System Options – Phase 1	Aug 15	Aug 15	Aug 15	0	1
	ADF Mission System Options – Phase 2	Sep 18	Aug 20	Aug 20	23	1, 2
	Air Warfare Destroyer	Jun 20	Jun 20	Jun 20	0	3
Acceptance	ADF Mission System Options – Phase 1	Aug 16	Aug 16	Sep 16	1	1
	ADF Mission System Options – Phase 2	Sep 18	Feb 20	Feb 20	17	1, 2
	Acceptance of first MH-60R	Jun 14	Dec 13	Dec 13	(6)	4
	Acceptance of final MH-60R	Sep 18	Aug 16	Aug 16	(25)	4
	Air Warfare Destroyer	Jun 20	Jun 20	Jun 20	0	3
<b>Notes</b>						

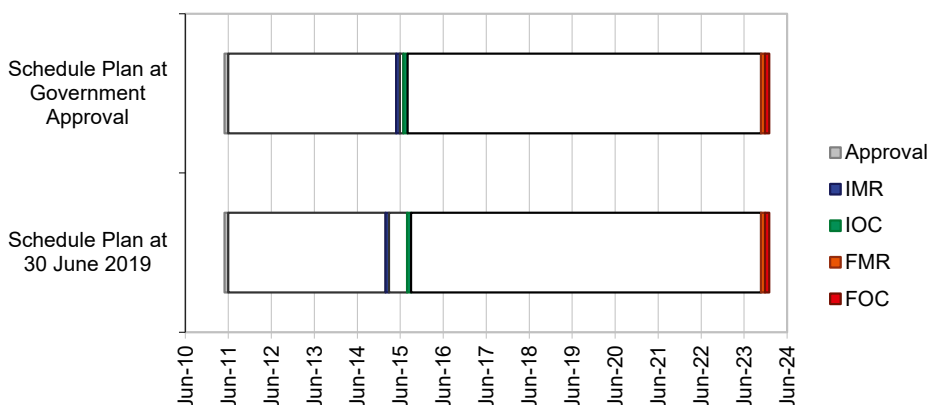
1	The ADF Mission System Options were split into two phases. Phase 1 SOW for ADF Unique Mission System Options was agreed by the PO, USN, Sikorsky and Lockheed Martin. SOW for Phase 2 was released as part of USN request for tender 26 February 2014, and contract signature with Lockheed Martin was achieved in October 2014. <b>Phase 1 was accepted post commencement of System Integration due to it being a hardware installation, whereas Phase 2 will be accepted post receipt of a Flight Clearance Recommendation due to it being predominantly a software package that will be integrated into the fleet commencing approximately six months post acceptance.</b>
2	Schedule delays have been experienced with Phase 2, due in part to the Commonwealth having limited control over the development schedule with numerous schedule movements to the right being experienced.
3	<b>The dates disclosed in the table are the forecast dates for the Air Warfare Destroyer System Integration and Acceptance milestones for Ship 3 (the final ship to undergo modification).</b>
4	The project negotiated early delivery dates for all 24 MH-60R aircraft following acceptance of the Letter of Offer and Acceptance. This was, in part due to the US Government sequestration experienced in the early years of the program.

### 3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved /Forecast	Variance (Months)	Notes
In-Service Date (ISD)	Jun 14	Jan 14	(5)	1
Initial Materiel Release (IMR)	Jun 15	Mar 15	(3)	2
Initial Operational Capability (IOC)	Aug 15	Sep 15	1	3
Materiel Release 2 (MR2)	Dec 16	Dec 16	0	4
Materiel Release 3 (MR3)	Jun 19	<b>Oct 18</b>	<b>(8)</b>	5
Materiel Release 4 (MR4)	Dec 20	Dec 23	36	6
Final Materiel Release (FMR)	Dec 23	Dec 23	0	
Final Operational Capability (FOC)	Dec 23	Dec 23	0	

Notes	
1	Revised aircraft delivery schedule.
2	The project declared IMR in March 2015, three months ahead of schedule and the Capability Manager signed-off IMR in July 2015.
3	The Capability Manager declared IOC on 25 September 2015, 25 days later than originally scheduled. Navy linked MH-60R IOC to Anzac Class ship aviation upgrades, which resulted in extra technical assessments that resulted in the minor delay.
4	The project achieved MR2 in December 2016 on schedule.
5	<b>The project achieved MR3 in October 2018 ahead of schedule due to the early delivery of aircraft, logistics support being established and sufficient trained personnel being available for deployment.</b>
6	The MR4 milestone schedule has been delayed in the last MAA update (V3.3) to align with the Capability Realisation Plan Operational Capability Milestone OC4.

#### Schedule Status at 30 June 2019



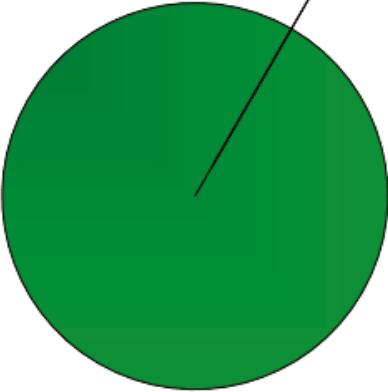
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Note
Forecast dates in Section 3 are excluded from the scope of the review.

## Section 4 – Materiel Capability Delivery Performance

### 4.1 Measures of Materiel Capability Delivery Performance

1. Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance	
	<p><b>Green:</b> The project is currently meeting capability requirements as expressed in the Materiel Acquisition Agreement and supporting suite of Capability Definition Documentation and in accordance with the requirements of the relevant Technical Regulatory Authorities.</p>
	<p><b>Amber:</b> N/A</p>
	<p><b>Red:</b> N/A</p>
<p>Note</p> <p>This Pie Chart represents Defence's expected capability delivery. Capability assessments and forecast dates are excluded from the scope of the review</p>	

### 4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	<ol style="list-style-type: none"> <li>Five aircraft in USN configuration, Tactical Operational Flight Trainer and supporting systems,</li> <li>Establishment of key Sustainment organisations,</li> <li>Initial stock of Mk 54 Torpedoes and Hellfire Missiles, and</li> <li>Modification of one ANZAC class ship for interoperability with MH-60R Seahawk helicopter.</li> </ol>	Achieved
<b>Initial Operational Capability (IOC)</b>	<p><b>One fully mission capable flight is available for operational deployment with associated support systems including training, facilities and supplies.</b></p> <p><b>IOC was achieved in September 2015.</b></p>	<b>Achieved</b>
Final Materiel Release (FMR)	<ol style="list-style-type: none"> <li>All 24 aircraft delivered and Australian Mission System Options implemented,</li> <li>Full EO fit-out and all Mk 54 Torpedos and Hellfire Missiles delivered,</li> <li>All ANZAC class ships and Air Warfare Destroyers modified for interoperability with MH-60R Seahawk helicopter, and</li> <li>Final Training Management Package.</li> </ol> <p>Achievement is scheduled for December 2023.</p>	Not yet achieved
<b>Final Operational Capability (FOC)</b>	<p><b>The full range of operational capabilities, including all upgrades and modifications required to comply with the ADF environment and a support system including training and infrastructure.</b></p> <p><b>Achievement is scheduled for December 2023.</b></p>	<b>Not yet Achieved</b>

## 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

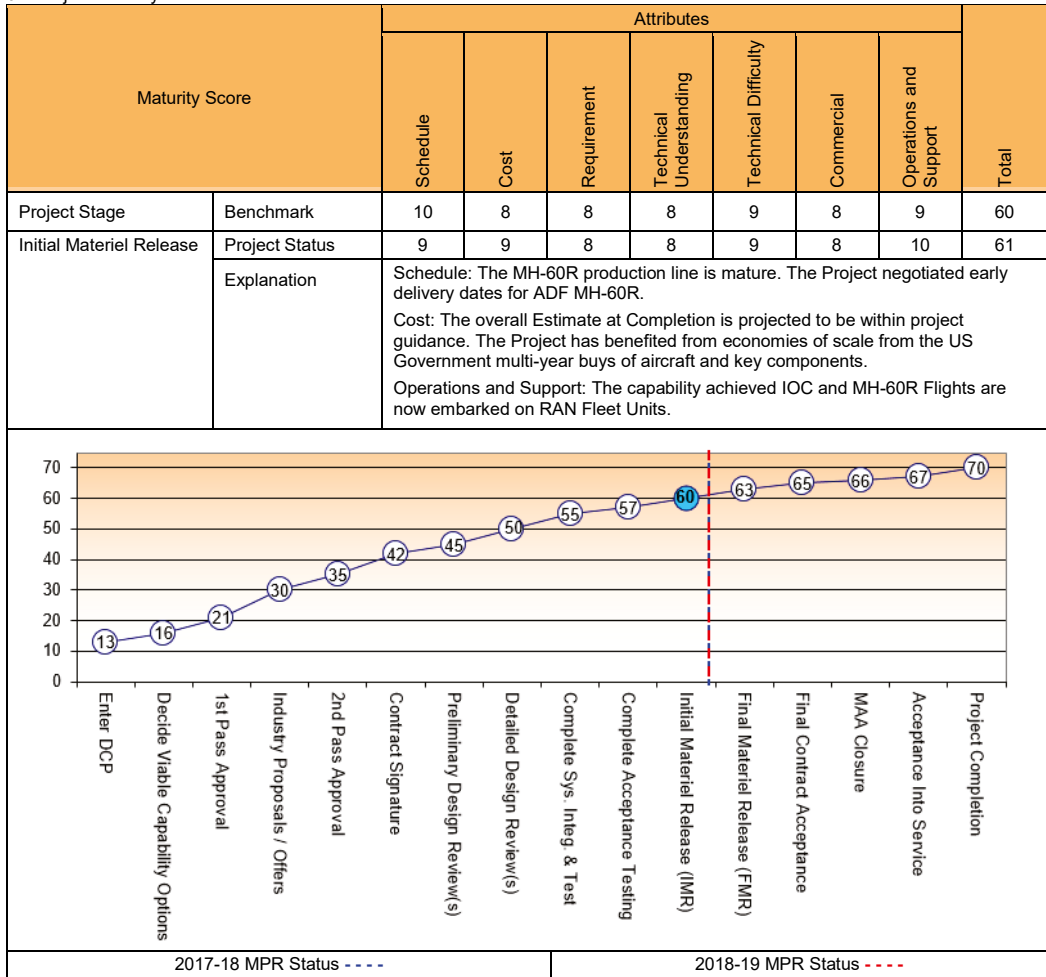
Emergent Risks (risk not previously identified but has emerged during 2018-19)	
Description	Remedial Action
N/A	N/A

### 5.2 Major Project Issues

Description	Remedial Action
N/A	N/A
<b>Note</b>	
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



## Section 7 – Lessons Learned

### 7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
Whilst an FMS program affords a number of advantages, the transfer of a significant amount of project management and engineering functions to the US Government implementing agency (NAVAIR PMA-299) and the weak bargaining position of the Commonwealth, increases the project's exposure to risk (technical, schedule and cost). The resultant level of risk and complexity is often understated and poorly understood.	Contract Management

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The level of Commonwealth contract and financial management involvement and oversight of industry is very low in comparison to that mandated for Direct Commercial Sale contracts, yet both procurement methods confront similar issues. Adequate Commonwealth participation in key project management and technical oversight activities in the US, as provided for in the Government Second Pass submission, is critical to provide the required level of contract management.	
The recruitment process lead times for candidates not already within the ADF or APS can create significant extended vacancies within the Project workforce, and this is exacerbated by the relatively short notice that Defence personnel are obliged to provide for internal transfers.	Resourcing
By procuring MOTS equipment, adhering to the project's clearly defined scope as detailed by government at Second Pass, and effectively using the Program Management Steering Group to prevent potential scope creep, the project has been able to meet or exceed its financial and schedule obligations as detailed within the project's Materiel Acquisition Agreement.	Off-The-Shelf Equipment

## Section 8 – Project Line Management

### 8.1 Project Line Management as at 30 June 19

Position	Name
Division Head	Mr Shane Fairweather
Branch Head	<b>CDRE Peter Ashworth OAM</b>
Project Director	<b>CAPT Adrian Capner</b>
Project Manager	Mr Steven Dik

