

## Project Data Summary Sheet<sup>234</sup>

Project Number	<b>AIR 9000 Phase 5C</b>
Project Name	<b>ADDITIONAL MEDIUM LIFT HELICOPTERS</b>
First Year Reported in the MPR	2010–11
Capability Type	Replacement
Acquisition Type	MOTS
Service	Australian Army
Government 1st Pass Approval	Sep 07
Government 2nd Pass Approval	Feb 10
Total Approved Budget (Current)	<b>\$633.8m</b>
2014-15 Budget	<b>\$137.8m</b>
Project Stage	<b>Initial Materiel Release</b>
Complexity	ACAT III



### Section 1 – Project Summary

#### 1.1 Project Description

This project is **replacing** the extant Australian Defence Force (ADF) Medium Lift Helicopter capability of CH-47D Chinook helicopters with seven new modernised CH-47F Chinook helicopters, two Transportable Flight Proficiency Simulators (TFPS) and associated supporting systems.

#### 1.2 Current Status

##### Cost Performance

##### In-year

**End of year variance of (\$1.4m) due to (\$0.7m) Foreign Military Sales (FMS) underspend caused by reduced disbursement data from the US for aircraft, \$1.7m overspend in United States (US) Government non-FMS procurement, (\$3.1m) underspend in Australian industry procurement and \$0.7m Foreign Exchange adjustment.**

##### Project Financial Assurance Statement

As at 30 June 2015, Project AIR 9000 Phase 5C 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.**

234 Notice to reader

Future dates and Sections: 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability Delivery Performance), 5.1 (Major Project Risks) and 5.2 (Major Project Issues) are out of scope for the ANAO's review of this Project Data Summary Sheet. Information on the scope of the review is provided in the *Independent Review Report by the Auditor-General* in **Part 3** of this report.

### Schedule Performance

The project successfully achieved Government Second Pass approval on schedule in February 2010. Shortly thereafter and ahead of schedule, a FMS case was signed with the US Government in March 2010.

The project accepted the first TFPS from the US Army in April 2014. The device has been installed into a temporary facility at the 5th Aviation Regiment. **The second TFPS arrived in Townsville in February 2015, and is installed in the temporary facility with the first TFPS.**

**The first four aircraft have been delivered as at June 2015, with the final aircraft (seventh) due to be delivered by August 2015.**

**The project held two Special Flight Permit (SFP) Airworthiness Boards, the first on 26 November 2014 and the second on 3 March 2015. A SFP was issued by the Defence Airworthiness Authority on 28 March 2015 as a result of a Board recommendation and will cover the period until 31 March 2016.**

**All of the Elements of Initial Materiel Release (IMR) were in place by 30 June 2015 and IMR was declared by CASG on 1 July 2015. The endorsement of IMR by the Capability Manager is expected to occur in late July 2015.**

### Materiel Capability Delivery Performance

The CH-47F Chinook helicopter being acquired is a Military-Off-The-Shelf (MOTS) procurement of a US specification CH-47F Chinook, with only minimal essential ADF unique modifications. The CH-47F Chinook has been employed operationally by the US Army for over **seven** years and the capability has achieved outstanding **operational** results. The ADF has **to date taken** delivery of **four** aircraft; **and** there are currently no impediments to the Project achieving the materiel capability performance requirements.

### Note

The capability assessments and forecasts by the project are not subject to the ANAO's assurance review.

## 1.3 Project Context

### Background

Support to the extant ADF CH-47D Chinook fleet is heavily leveraged off the US Army and supporting US industrial base. The US Army is currently several years into a program to replace its entire CH-47D fleet with the modernised CH-47F Chinook helicopter. Beyond 2017, adequate in service logistics and training support from the US Army for the ADF CH-47D will no longer be available. Procurement of the CH-47F will ensure the ongoing viability of a Medium Lift Helicopter capability to the ADF.

The ADF CH-47D fleet is small and loss or severe damage of a single aircraft would result in a significant capability loss. The growth in fleet size (to seven) will enhance the robustness of the ADF Medium Lift Helicopter capability.

With the current ADF CH-47D fleet operationally committed in Afghanistan at time of project approval, a MOTS procurement strategy via the government-government FMS program, offered the lowest risk capability solution in terms of project cost and schedule.

Following Government Second Pass in February 2010, the Commonwealth signed a FMS case with the US Government in March 2010. The US Army has finalised its contracts with suppliers for the provision of the aircraft and all other supporting systems specified in the FMS case. Boeing is the principal Original Equipment Manufacturer (OEM) for the CH-47F Chinook.

### Uniqueness

The CH-47F aircraft sought through the Project is a MOTS US Army specification CH-47F Chinook helicopter. The only production configuration difference with the ADF aircraft is the inclusion of a rotor brake to allow for embarked amphibious operations. The rotor brake is a mature design that has been previously certified on other US Army and international variants of the Chinook.

A minimal number of ADF unique modifications will be installed on the aircraft following delivery. All of these modifications are mature designs **with the majority having** previously been integrated and certified on the ADF CH-47D Chinook. Integration of these ADF modifications carries very low technical risk due to the high degree of commonality between the CH-47D and CH-47F aircraft.

The CH-47F is a modern digital aircraft. The Common Avionics Architecture System and Digital Automatic Flight Control System are the two most significant upgrades included on the CH-47F Chinook over its predecessor. These systems have been certified by the US Army and Boeing and are currently in service.

The Project includes delivery of two TFPS to provide an organic ADF CH-47F simulator capability. Previous simulator training support for the CH-47D has been provided by the US Army.

The Cargo Helicopter Management Unit (CHMU) is the organisation responsible for acquiring the CH-47F capability. The CHMU is also responsible for the in-service support to the extant CH-47D capability as well as the CH-47F model following transition into service. Having the CHMU as the single acquisition and sustainment organisation provides **synergies** due to the high degree of commonality between the CH-47D and CH-47F aircraft. **It also allows staff to be prioritised between sustainment and acquisition where vacancies exist in the Unit.**

#### Major Risks and Issues

The current ADF CH-47D Chinook fleet completed operations in Afghanistan on Operation SLIPPER in 2013 reducing some risk involved with the challenges of fielding a replacement CH-47F Chinook fleet in parallel with an operational deployment. There are ongoing resource challenges whilst the CH-47D fleet conducts remediation and there are still transition and capability realisation challenges involved with the transition of aircraft types within the capability. These challenges are exacerbated by the very small size of this niche capability and disproportionate effects of minor changes within each of the Fundamental Input to Capability elements.

Whilst the FMS program affords a significant number of advantages, delegation of many project management and contracting functions to the US Government, coupled with restrictive communications protocols, provides some management challenges to the ADF Project team for this schedule critical Project. **There has been an increase in emergent risks in 2015, as the project nears delivery milestones. The majority of these are a result of either delays in the provision of scheduled US Army deliverables or availability of sufficient resources in the project team and support organisations. The emergent risks of greatest concern are the delivery of Aircraft Survivability Equipment support systems and crashworthy passenger seating, both of which are delays dictated by external agencies with expertise outside the ADFs skill set. CHMU cannot mitigate the Aerospace Systems Engineering delays; CHMU is taking action to accelerate both crashworthy seating programs. The delivery of a maintenance solution is a very recent clarification of project scope and not related to other current training system programs and treatment action will be launched with a high priority. Risks have also been identified in regards to Australian Military Type Certification, ongoing support of the platform, training and the ADF's CH-47 Aircraft publications. Ongoing issues in relation to the management of the FMS case are being managed.**

Defence Support Reform Group (DSRG) advises that the facilities in Townsville are scheduled to be mid way through construction at the time of aircraft delivery and the training complex was not available at the time of the first simulator delivery. The impact of facility delays have been mitigated through robust decanting plans to minimise the effect of construction on the operational unit and project transition activities. The Parliamentary Standing Committee on Public Works sat on 22 May 2014 and construction commenced in December 2014 based on a Parliamentary Expediency Motion in July 2014.

#### Other Current Sub-Projects

**AIR 9000 Phase 7 Helicopter Aircrew Training System (HATS): HATS will be an important link in the training continuum for inductees to the CH-47F training system.**

## Section 2 – Financial Performance

### 2.1 Project Budget (out-turned) and Expenditure History

Date	Description	\$m	Notes
<b>Project Budget</b>			
Sep 07	Original Approved	3.4	1
Feb 10	<b>Government Second Pass Approval</b>	634.2	
		<b>634.2</b>	
Jul 10	Price Indexation	46.9	2
Jun 15	Exchange Variation	(50.7)	
Jun 15	<b>Total Budget</b>	<b>633.8</b>	
<b>Project Expenditure</b>			
Prior to Jul 14	Contract Expenditure – US Government (AT-B-UDK)	(223.3)	3
	Contract Expenditure – US Government (AT-B-BAH)	(7.9)	3
	Contract Expenditure – US Government (AT-B-UGB)	(7.0)	3
	Other Contract Payments / Internal Expenses	(8.4)	4
		(246.6)	
FY to Jun 15	Contract Expenditure – US Government (AT-B-UDK)	(99.9)	3
	Contract Expenditure – US Government (AT-B-BAH)	(23.6)	3
	<b>Contract Expenditure – US Government (AT-B-UGB)</b>	<b>(2.8)</b>	<b>3</b>
	Other Contract Payments / Internal Expenses	(10.1)	4
		(136.4)	
Jun 15	<b>Total Expenditure</b>	<b>(383.0)</b>	
Jun 15	<b>Remaining Budget</b>	<b>250.8</b>	
<b>Notes</b>			
1	This project's original DMO budget amount is that prior to achieving Second Pass Government Approval.		
2	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was \$16.3m. In addition to this amount, the impact on the project budget as a result of out-turning was a further \$30.6m having been applied to the remaining life of the project.		
3	<b>The scope of this contract is explained further in Section 2.3 – Details of Project Major Contracts.</b>		
4	Major items of expenditure include development of crashworthy seats, Workforce and Operating expenses, Research and Development costs, office expenses, and travel and training expenses.		

### 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
165.9	132.6	137.8	<b>Re-phasing of FMS payments aligned on latest US Army disbursements. Termination Liability (deposit) was released in Financial Year 2014-15. Re-phasing of both AUD and USD procurements from Financial Year 2014-15. PAES – Final Plan: Variance due to foreign exchange adjustment based on revised USD Budget Exchange Rate.</b>
Variance \$m	(33.3)	5.2	Total Variance (\$m): (28.1)
Variance %	(20.1)	3.9	Total Variance (%): (16.9)

### 2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
		(0.7)	FMS	<b>End of year variance of (\$1.4m) due to (\$0.7m) FMS underspend caused by reduced disbursement data from the US for aircraft, \$1.7m overspend in US non-FMS procurement, (\$3.1m) underspend in Australian industry procurement and \$0.7m Foreign Exchange adjustment.</b>
		1.7	Overseas Industry	
		(3.1)	Local Industry	
			Brought Forward	
			Cost Savings	
		0.7	FOREX Variation	
			Commonwealth Delays	
			Additional Government Approvals	
137.8	136.4	(1.4)	<b>Total Variance</b>	
		(1.0)	<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 Jun 15 \$m			
US Government (AT-B-UDK)	Mar 10	513.5	397.0	Reimbursement	FMS	1, 2, 5
US Government (AT-B-UGB)	Dec 11	18.0	22.1	Reimbursement	FMS	1, 3, 5
US Government (AT-B-BAH)	Jun 13	41.6	52.7	Reimbursement	FMS	1, 4, 5
<b>Notes</b>						
1	<b>The scope of this contract is explained further below.</b>					
2	FMS Case AT-B-UDK, Amendment 4, signed in May 14, has further reduced the overall case value due to firm pricing data for aircraft procurement post definitization of the US Army – Boeing aircraft production contract. <b>Amendment 5, which permitted rectification of minor design issues with support systems, was signed on 1 May 2015.</b>					
3	FMS Case AT-B-UGB was created to allow greater management of the aircraft production retrofit activities required to ensure all aircraft are delivered at the same configuration as the final aircraft.					
4	FMS Case AT-B-BAH was created through the removal of the spares package from FMS Case AT-B-UDK. The creation of this case provides Defence with greater control over the procurement of spares required for the project.					
5	Contract value as at 30 June 2015 is based on actual expenditure to 30 June 2015 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).					

Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 15		
US Government (AT-B-UDK)	7	7	CH-47F aircraft	1
US Government (AT-B-UGB)	N/A	N/A	CH-47F aircraft production retrofit kits	
US Government (AT-B-BAH)	N/A	N/A	Spare parts package	
Major equipment received and quantities to 30 Jun 15				
<b>Two</b> Transportable Flight Proficiency <b>Simulators</b> . A quantity of Repairable Items and Spare Parts. <b>Four CH47F aircraft</b> .				
Notes				
1	<b>The first four aircraft have been delivered. The remaining three aircraft will be delivered and reassembled during July and August 2015.</b>			

### 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	CH-47F Chinook helicopter	N/A	N/A	N/A	N/A	1
	Rotor Brake	Feb 12	N/A	Apr 12	2	2
	ADF Unique Modifications	Jul 11	N/A	Jul 12	12	3
Preliminary Design	CH-47F Chinook helicopter	N/A	N/A	N/A	N/A	1
	Rotor Brake	Sep 12	N/A	Feb 13	5	2
	ADF Unique Modification	May 13	N/A	<b>Nov 14</b>	18	3
Critical Design	CH-47F Chinook helicopter	N/A	N/A	N/A	N/A	1
	Rotor Brake	Mar 13	N/A	Jun 13	3	2
	ADF Unique Modifications	Apr 14	N/A	<b>Oct 15</b>	<b>18</b>	3
Notes						
1	CH-47F Chinook helicopter system requirements and design reviews not required as it is a MOTS aircraft.					
2	Rotor brake design has been contracted to Boeing by the US Army. Rotor brake design is a mature design that has been previously certified on other US Army and international Chinook variants. Variance from previous report is associated with changes to aircraft production schedule.					
3	<b>All ADF unique modifications except Crashworthy Pilot Seats (CPS) are mature designs that have been previously certified on the ADF CH-47D Chinook. Since the last report, the project has determined that the existing CH-47D CPS solution does not fit in the CH-47F cockpit and an alternative solution, based on an existing Boeing modification, is currently being finalised. The project is no longer pursuing a blade fold solution as no suitable design exists. The dates provided for ADF Unique Modifications relate to the three most significant modifications, namely the Minigun, CPS and cockpit/cabin ballistic protection. These three key modifications, and a range of other minor modifications incorporated during each rebuild, will enable the project to achieve the materiel pre-requisites for Initial Operational Capability (IOC) due on 31 December 2015.</b>					

#### 3.2 Contractor Test and Evaluation Progress

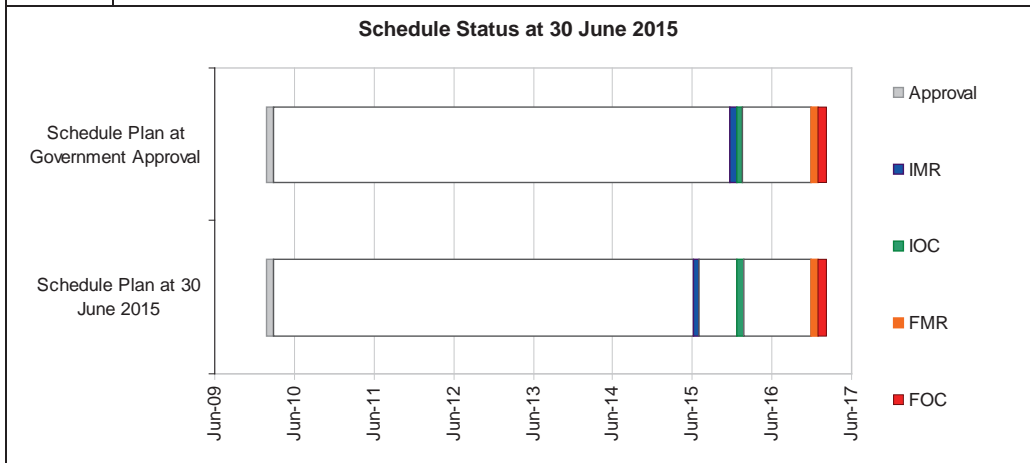
Test and Evaluation	Major System /Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Integration	Rotor Brake	Nov 11 – Feb 14	N/A	Jul 14 – Oct 14	8	1
	<b>ADF Unique Modifications</b>	<b>Dec 15</b>	<b>N/A</b>	<b>Jan 16</b>	<b>1</b>	<b>3</b>
Acceptance	CH-47F Chinook helicopter	Mar 14 – Nov 15	N/A	Mar 15 – <b>Aug 15</b>	(3)	2
	Rotor Brake	Apr 14	N/A	<b>Nov 15</b>	<b>19</b>	1

	<b>ADF Unique Modifications</b>	<b>Jan 16</b>	<b>N/A</b>	<b>Feb 16</b>	<b>1</b>	<b>3</b>
<b>Notes</b>						
1	Rotor brake acceptance dates are <b>dependent upon Boeing and the US Government releasing an Airworthiness Recommendation and Airworthiness Qualification and Substantiation Report. The rotor brake is being installed on the production line. There will be a limitation preventing use of the rotor brake until it has met Australian Technical Airworthiness requirements. The variance is aligned with the initial aircraft deliveries.</b>					
2	ADF acceptance dates provided by US Army. In September 2012 the US Army advised of a change to the aircraft acceptance dates that delayed early deliveries but brought forward later deliveries. US Army acceptance activities with Boeing will occur in the month prior to acceptance.					
3	<b>Testing and evaluation of ADF Unique Modifications will be performed by the Commonwealth.</b>					

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

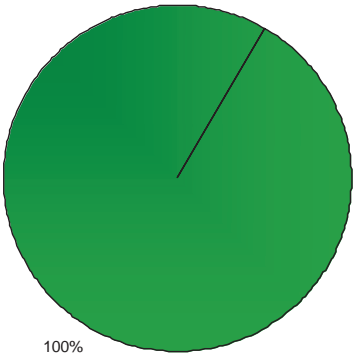
Item	Original Planned	Achieved /Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Jan 16	<b>Jul 15</b>	<b>(6)</b>	<b>1</b>
Initial Operational Capability (IOC)	Jan 16	Jan 16	0	
<b>Materiel Release 2 (MR2)</b>	<b>Feb 16</b>	<b>Feb 16</b>	<b>0</b>	<b>2</b>
Final Materiel Release (FMR)	Jan 17	Jan 17	0	
Final Operational Capability (FOC)	Jan 17	Jan 17	0	

<b>Notes</b>	
1	<b>Variance against IMR is due to redefining the IMR milestone in the latest Materiel Acquisition Agreement with Army (MAA V2.3) to better meet project requirements (i.e. aircraft ready to fly in support of New Equipment Training (NET)). Completion of the requirements in the old MAA will be completed in the same timeframe as originally planned. All of the elements of the IMR were in place by 30 June 2015 and IMR was declared by CASG on 1 July 2015. The endorsement of IMR by the Capability Manager is expected to occur in late July 2015.</b>
2	<b>MR2 provides an interim milestone to support the delivery to Army of an incremental CH-47F materiel subset (in addition to IMR) that has completed acceptance testing, has achieved appropriate certification and suitable for the conduct of operational testing.</b>



## Section 4 – Materiel Capability Delivery Performance

### 4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance	
 <p>100%</p>	<p><b>Green:</b> The Project expects to meet capability materiel requirements, as expressed in the Materiel Acquisition Agreement, 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>
Note	
<p>This Pie Chart does not necessarily represent capability achieved. The capability assessments and forecasts by the project are not subject to the ANAO's assurance review.</p>	

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

Item	Explanation	Achievement
Initial Materiel Release (IMR)	<p>Delivery to Army of an initial CH-47F materiel subset that has completed acceptance testing, has achieved appropriate certification in accordance with ADF Regulations and is suitable for the conduct of both: CH-47D to CH-47F transition training, and initial operational testing. Key completion criteria are: 3 x CH-47F aircraft at US Army production configuration in-service, 2 x TFPS configured to support transition training in-service, and a CH-47F SFP issued. IMR is expected to be endorsed by the Capability Manager in July 2015.</p>	Not achieved.
Final Materiel Release (FMR)	<p>Delivery to Army of the final CH-47F materiel subset (additional to MR2) that has completed acceptance testing, has achieved appropriate certification in accordance with ADF Regulations and is suitable for the conduct of operational testing. At FMR the entire CH-47F materiel system will have been delivered and upgraded or modified to the final Australian configuration where necessary. All supplies will be delivered as per the MAA (Materiel Acquisition Agreement). Key completion criteria are: 7 x CH-47F at final approved configuration in-service, CH-47F final approved configuration training complete, and support arrangements in place to Materiel Sustainment Agreement.</p>	Not 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
There is a chance that the Australian Military Type Certification (AMTC) will be affected by differences / deficiencies in US certification requirements leading to an impact on schedule.	Access to technical data and US Army Subject Matter Experts has been addressed through additional liaison positions, compliance finding visits and Purchase Orders for technical support with OEMs being established. Continue engagement with other countries to leverage off their experience and certification efforts. Maintain configuration commonality with the US Army to prevent ADF unique certification efforts. Continue to engage ADF support agencies to ensure possible issues or testing requirements are identified early.  Risk treatment strategies partially effective. Current residual risk remains medium.
There is a chance that the ongoing support of the ADF CH-47F will be affected by an inadequate transfer of technology and information leading to an impact on capability.	Previous risk treatments are complete. The establishment of a US Army Aircraft Engineering Directorate employed liaison engineer has increased the efficiency and level of technical exchange requests. Technical support contracts with the major OEM are either in place or close to being executed.  Risk treatment strategies partially effective. Current residual risk remains medium.
There is a chance that the project workforce and resourcing will be inadequate leading to an impact on schedule, cost and reputation.	Development of a fully resourced schedule to identify true workforce requirements is ongoing. The Project will continue to push for critical Australian Public Service recruitments, <b>the filling of military vacancies</b> and establish a <b>contracted</b> workforce as required to execute the Project.  Risk treatment strategies partially effective. Current residual risk is <b>high</b> .
There is a chance that the scope of the SFP will be affected by the plan to conduct initial operations using the standard US Army MOTS aircraft prior to the installation of ADF crash protection compliant seating leading to an impact on schedule and capability.	The project schedule requires initial operations to commence prior to completion of the Australian unique modification program which will install ADF crash protection compliant seating. The Project <b>staffed</b> appropriate airworthiness waivers for risk acceptance in order to complete seat modification which will progress acceptance by US Army. <b>A waiver was granted in March 2015 and the SFP was not affected.</b>  <b>This risk has been retired.</b>
There is a chance that the training capability outcome for the qualification of the Australian TFPS may be affected by the US Army design standard of the device leading to an impact on project performance and capability.	ADF TFPS Qualification activities have <b>progressed on schedule</b> for the first TFPS installed at RAAF Townsville.  Risk treatment strategies effective. Current residual risk is medium.

Emergent Risks (risk not previously identified but has emerged during 2014-15)	
Description	Remedial Action
The delivery of Aircraft Survivability Equipment support systems (In-Country Reprogramming (ICR)) may be affected by delivery delays in leading to an impact on the scheduled FMR.	Awaiting confirmation from US Army that contracts are in place for APR-39 Radar Detection Set. Common Missile Warning System (CMWS) ICR mitigations still in work with US Army confirmation of software approach to determine whether the schedule is achievable.  Risk treatment strategies partially effective. Current residual risk is high.
The maintenance of Aircrew Orders, Instructions and Publications (OIP) may be affected by overtasking of extant resources leading to an impact on continuing airworthiness and timely maturity of the Australian CH47F AIS.	Directorate of Aviation Capability Management (DACM) Medium Lift Helicopter (MLH) manning has been supplemented by C Squadron allowing for Edition 1 to be released in April 2015 and Edition 2 to be on track for AMTC.  Risk treatment strategies effective. Current residual risk is medium.
AMTC/IOC may be affected by delays in the delivery of Multi-Year 2 (MYII) Interactive Electronic Technical Manuals (IETM) leading to an impact on maintenance supportability.	Significant pre-emptive work is occurring to reduce the turn around time required once the US Army release the Draft IETM as well as improvements to the current Letter of Authorisation (LOA) as a fall back plan. Pre-review of the draft indicates a good product that should be workable until authorised version is released in September/October 2015. Reliant on US Army with no ability to accelerate their schedule.  Risk treatment strategies partially effective. Current residual risk is medium.
The provision of crashworthy passenger seating will be affected by delays in both the Main Cabin Upgrade (MCU) and US Army Crash Resistant Troop Seat (CRTS) programs leading to an impact on cost or schedule.	With no product on the market, the project is investigating ways to accelerate both prospective products. Once CH-47F trials of the MCU occur later in 2015 CHMU will be in a position to determine details of a way forward. Contingency funding will be required to achieve a solution prior to 2018 as it is not feasible to continue waiting for the US Army solution when a crashworthy solution could be developed internally.  Risk treatment strategies not yet effective or able to be progressed. Current residual risk is extreme.
The delivery of an acceptable sustainment training plan may be affected by availability of required training devices leading to an impact on schedule and capability.	Direction to acquire training aids in support of ongoing CH-47F Trade training was confirmed to be within scope of the project in June 2015. Cargo Helicopter Management Unit (CHMU) can now progress activities to acquire necessary equipment through US Army and/or Direct Commercial Sales (DCS).  Nil mitigation enacted at this point. Contingency funding to be allocated. Risk is currently extreme due to unscheduled cost.

<p>The development of technician Training Management Plans may be delayed due to limited Subject Matter Expert (SME) availability leading to an impact on schedule and capability.</p>	<p>Options to increase manning and support have been investigated and progress will be closely monitored.</p> <p>Risk treatment strategies currently being initiated. Current residual risk is medium.</p>
<p>The currency of ADF's CH-47F aircraft publications may be affected by new restrictions on US Department of Defense (DoD) websites leading to an impact on capability and compliance.</p>	<p>The 'pull' system of US Army publication support has always been a concern; this was escalated when US DoD websites changed their restrictions denying ADF members in Australia access to see when publication updates are released in order to request the update. Limited support from US Army and ADF Supply Liaison Officer (SLO) are not sufficient mitigation. A US Army Aviation and Missile Command (AMCOM) Liaison Officer is being investigated both for short term visits as an immediate mitigation and enduring presence. Contingency funds to be allocated.</p> <p>Risk treatment strategies currently being initiated. Current residual risk remains high.</p>

## 5.2 Major Project Issues

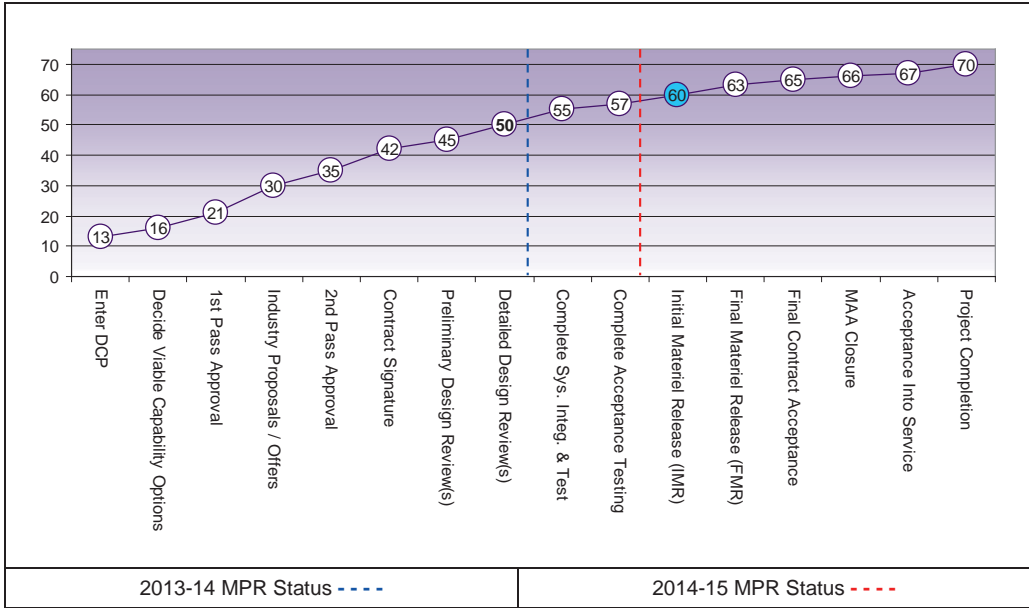
Description	Remedial Action
<p>Inadequate performance in project management of the FMS case by the US Army is currently impacting on cost and schedule for the CH-47F Mission and Support Systems and may also impact on capability and reputation if this issue is not appropriately managed.</p>	<p>Continued performance monitoring of US Army project management efforts by the in country ADF Project Liaison Officer. Increased overseas travel to enable greater level of direct interaction between ADF and US Army. Maintain Resident Project Team, co-located with US Army implementing organisation to provide further oversight. Increased ADF oversight through monthly telecon meeting between Directors, quarterly Interim Program Reviews and establishment of specialist Integrated Product Teams has been effective. <b>Ongoing mitigation required due to the recent departure of two members of the US Government team. US Army team have temporary measures in place to mitigate.</b></p>
<p>Delays to the commencement of the Parliamentary Standing Committee on Public Works review and approval process for the construction of maintenance facilities at 5 Aviation Regiment Townsville has resulted in an overlap between CH-47F Introduction into Service and the facilities construction phase. This issue will impact on the efficient and effective Introduction into Service of the CH-47F and may impact the schedule to IOC.</p>	<p><b>The Parliamentary Standing Committee on Public Works sat on 22 May 2014 and construction commenced in December 2014 based on a Parliamentary Expediency Motion in July 2014.</b> Significant work between DMO, Army and Defence Support and Reform Group has developed robust decanting plans to minimise effect of construction on the operational unit and project transition activities. DMO upgrading some existing unit facilities as temporary work areas during the transition and until the facilities program is complete.</p> <p><b>The project are no longer stakeholders in the facilities upgrade which is being managed by DSRG and Headquarters Forces Command.</b></p>

<p>The MOTS TFPS was not accredited by the US Army to, and was not specifically designed to meet, an Australian Defence Force recognised Synthetic Training Device accreditation standard.</p>	<p>The TFPS Australian Visual Data Base program is sufficiently advanced to demonstrate that it will meet Australian requirements. An ADF TFPS Qualification Strategy has been approved and qualification activities have commenced on the first TFPS which was delivered and installed at RAAF Townsville in April 2014.</p> <p><b>This issue has been retired as the resultant risk from the lack of US accreditation is the achievement of a suitable training qualification for the device which has been raised as a separate risk. See PDSS risk 5 regarding training requirements.</b></p>
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## 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	Project Status	9	9	8	8	8	8	8	58
	Explanation	<ul style="list-style-type: none"> <li><b>Schedule:</b> Some materiel and support systems remain to be delivered, however the project remains confident that FMR will be achieved in January 2017.</li> <li><b>Cost:</b> FMS commitments have gained significant clarity and almost all associated procurement contracts have been awarded and costs determined.</li> <li><b>Technical Difficulty:</b> Conduct of maturing of systems coupled with recent CH-47F training undertaken by project staff with OEM have increased confidence in the management of technical issues that arise.</li> <li><b>Operations and Support:</b> CH-47F is currently being supported under CA15 Materiel Sustainment Agreement. Materiel transition process is underway and support arrangements are well advanced in anticipation of movement to the next phase – transitioning.</li> </ul>							



**Section 7 – Lessons Learned**

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
Whilst the FMS program affords a number of advantages, it should be recognised that the transfer of a significant majority of ADF Project Management functions to the US Government implementing agency 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 the level of Commonwealth contract management involvement and oversight is very low in comparison to that mandated for other forms of procurement such as Direct Commercial Sale contracts. The early establishment of a robust project contract management regime between the project office and US Government implementing agency is essential to ensure an adequate level of contract management oversight.	Contract Management
A reasonable presence of project staff in the US is required for large or technically complex FMS procurements to enable the Commonwealth adequate insight, influence and progress reporting of the US Army and major OEM activities. In-country presence is required prior to Government second pass approval, particularly during FMS case development and negotiation.	Resourcing
Project Government approval schedules are independent to, and can be out of sync with military posting cycles. This can create significant extended vacancies within the Project workforce following Government Second Pass approval, including key positions such as Project Director and Project Manager.	Resourcing
The recruitment process lead times for candidates not already within the ADF or Australian Public Service can create significant extended vacancies within the Project workforce.	Resourcing
Where replacement capabilities are sought, significant synergetic benefits can be achieved through combining or co-locating the acquisition project team with the extant in-service support organisation.	Resourcing

Recognition of prior certification of MOTS equipment by other airworthiness and technical regulatory authorities should be maximised where possible in order to minimise technical and schedule risk. Early ADF regulator involvement in the formal recognition process is considered essential.	Off-the-shelf Equipment
Supporting science and technology outcome requirements will continue to evolve throughout the Project. These requirements need to be reviewed and updated regularly to ensure they remain relevant in the dynamic project environment.	Requirements Management
<b>The application of US Government contingency is not specifically disclosed to the Commonwealth in a Letter of Offer and Acceptance, therefore project cost estimates provided to Government will typically also include Commonwealth-estimated contingency on each of the major items of supply, on top of US Government contingency. The overall result is that the Commonwealth has excess contingency to what was reasonably required to fulfil the project. For MOTS procurements via FMS, the Commonwealth internal contingency provision should be decreased in recognition that the US Army estimates already include a contingency provision.</b>	<b>Contract Management</b>

## Section 8 – Project Line Management

### 8.1 Project Line Management in 2014-15

Position	Name
General Manager	Ms Shireane McKinnie
Division Head	RADM Tony Dalton
Branch Head	BRIG Andrew Mathewson
Project Director	GPCAPT David Scheul (to Jan 15) <b>COL Jeremy King (Jan 15–current)</b>
Project Manager	LTCOL Jeremy King (May 14–Jan 15) <b>LTCOL David Lynch (Jan 15–current)</b>