

Project Data Summary Sheet¹³²

Project Number	AIR 5431 Phase 3
Project Name	Civil Military Air Traffic Management System (CMATS)
First Year Reported in the MPR	2016-17
Capability Type	Replacement
Acquisition Type	Developmental
Capability Manager	Chief of Air Force
Government 1st Pass Approval	Nov 11
Government 2nd Pass Approval	Dec 14
Budget at 2 nd Pass Approval	\$731.4m
Total Approved Budget (Current)	\$974.2m
2017–18 Budget	\$94.4m
Project Stage	Contract Signature
Complexity	ACAT I



Section 1 – Project Summary

1.1 Project Description

AIR 5431 Phase 3 seeks to replace the current Fixed Base Defence Air Traffic Management and Control Systems at 12 Australian Defence Force (ADF) fixed base locations with a new harmonised system, referred to as the Civil Military Air Traffic Management System (CMATS). The CMATS component of AIR 5431 Phase 3 is being conducted as a joint acquisition program with Airservices Australia (Airservices). New and refurbished control towers and approach centres, and upgraded network infrastructure, is being delivered under separately funded works through the Estate and Infrastructure Group, the Chief Information Officer Group and Air Force.

1.2 Current Status

On 18 August 2017 the Ministers for Defence and Defence Industry announced this project as a Project of Concern. AIR 5431 Phase 3 was subsequently removed from the Project of Concern list on 8 May 2018 with the criteria for removal met at contract award.

Cost Performance

In-year

In-year expenditure is \$94.1m against a budget of \$94.4m. **The underspend is due to a delay in the receipt of the final joint Legal Invoice plus minor variations against the ISC Contract and Project Management Expenses.**

Project Financial Assurance Statement

As at 30 June 2018, Project AIR 5431 Phase 3 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 for this project, current known risks and estimated future expenditure, Defence considers, **as at the reporting date**, there is **sufficient** budget remaining for the project to complete against the agreed scope.

Contingency Statement

The project has not applied contingency in the financial year.

Schedule Performance

Contract signature with Thales was originally **anticipated for** October 2015; **however, this did not occur until February 2018**, over two years later than expected. The offer and negotiation process **was** protracted, **primarily due to the difficulties experienced by Thales in producing an acceptable offer that represented value for money for Defence and Airservices, an underestimation of the time required to settle the requirements, total cost and cost attribution of a harmonised capability and alignment of customer approval processes through two separate governance structures.** Defence **obtained** approval for a Real Cost Increase (RCI) to its Second Pass budget **in February 2018 on the basis of an updated fixed price Defence contribution to the CMATS program.**

In light of the delays experienced reaching contract signature, an executable schedule that fits within the **original** Defence Second Pass approved Materiel Acquisition Agreement (MAA) milestone dates and associated scope definition for the AIR 5431 Phase 3 Initial Operational Capability (IOC) **is not achievable.** Prior to 30 June 2017, Defence assessed achievement of IOC and Final Operational Capability (FOC) within the window agreed at Second Pass as high risk. **Based on the contract delivery schedule on the date of contract signature, reforecast IOC is November 2022 and FOC is October 2025.** The reforecast dates will be verified once Thales **achieves Integrated Baseline Review and the milestone dates are** accepted by **Airservices and Defence.**

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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.

Material Capability Delivery Performance

CMATS has not delivered any material capability to date. System Requirements Analysis (conducted under Advanced Work Order (AWO) 2) was completed in **January 2018**, and **System Definition Review is forecast for the last quarter of 2018**. As a result of affordability constraints, **Defence has agreed to a number of CMATS scope changes to deliver an equivalent capability more cost effectively. The most significant changes are:**

- **Airservices supplying alternative, non-CMATS Tower Air Traffic Management systems at four locations – Edinburgh, Richmond, Gingin and Oakey;**
- **Relocating Darwin and Townsville Approach from Darwin and Townsville to the Airservices Approach Centre in Brisbane; and**
- **Relocating Oakey approach from Oakey to Amberley.**

Low schedule maturity continues to be a source of risk to both the IOC and FOC delivery **and is not likely to be remediated until Thales achieves Integrated Baseline Review.**

Note

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

1.3 Project Context

Background

AIR5431 Phase 3 will acquire a fixed Air Traffic Management (ATM) system to replace the existing Australian Defence Air Traffic System (ADATS) capability (Tower and Approach Centres) at 12 ADF fixed base locations, and a simulator system for the School of Air Traffic Control (SATC). Defence is procuring for its replacement ATM capability under AIR 5431 Phase 3, a common Civil Military Air Traffic management and control System (CMATS) through a joint acquisition and support program with Airservices, also referred to as OneSKY Australia (OneSKY).

Beyond the joint CMATS procurement, Defence is also acquiring elements necessary for successful integration of the CMATS into the broader Defence ATM system.

The strategic objectives of Airservices and Defence for the CMATS program include:

- to harmonise Australia's civil and military air traffic management systems so as to deliver improvements in safety, efficiency, flexibility, economy and business continuity and accords with the Australian Government's policy to maximise the efficiency of Australian airspace through increased cooperation and collaboration between Airservices and Defence; and
- to successfully acquire, transition, support and operate the CMATS across Australia's national airspace and every major civil and military aerodrome in Australia within agreed schedule, cost and performance constraints.

Consistent with the Government's 2013 Policy for Aviation, Defence **will** work jointly with Airservices as the lead agency for the CMATS, to establish a harmonised national air traffic system.

AIR 5431 Phase 3 achieved First Pass approval in November 2011 as part of a combined project with AIR 5431 Phase 2, which included combined Defence Capability Plan (DCP) capital and Net Personnel and Operating Costs (NPOC) provisions. The Project Initial Review Board (PIRB) held in November 2013, subsequently directed AIR 5431 Phase 2 and Phase 3 be presented to government as separate projects, which was noted by the Minister for Defence in March 2014. The revised DCP 2014 included AIR 5431 Phase 2 and Phase 3 as separate projects. A PIRB held April 2014 agreed to seek Second Pass for AIR5431 Phase 3 in December 2014, vice March 2015, to better align with Airservices' project approval timeline and to mitigate the identified Defence risks with the delivery of associated facilities and communications projects.

AIR 5431 Phase 3 achieved Second Pass approval in December 2014 on the basis of tender agnostic capability, schedule and cost data provisioned by Airservices in the form of a Not-to-Exceed (NTE) price for the Defence share of the common and Defence unique elements of the CMATS. **After a period of complex negotiations it became evident that Defence could no longer rely on the NTE and steps were taken by Defence to formally reprioritise funds within the Integrated Investment Portfolio (IIP) to address a price increase to Defence's CMATS contribution. AIR5431 Phase 3 formally returned to Government in February 2018 and was granted a RCI of \$243.0m (including contingency) to cover additional CMATS costs, a transition radio solution (AMACCS), Australian Defence Air Traffic System (ADATS) life-of-type extension and facilities preparation costs related to CMATS installation. Approval of the RCI for AIR 5431 Phase 3 included a requirement that Defence provide 6 monthly updates to Government.**

Airservices and Defence conducted an approach to market in June 2013 and commenced negotiations with Thales in February 2015. The approach undertaken by Airservices **and Defence** was to adopt a five stage negotiation methodology to expose technical, schedule, commercial and cost risks upfront in order to achieve a compliant, value for money outcome for both Defence and Airservices, and consequently a smoother journey once in contract. Phases A and B involved clarification and remediation of non-compliances in the tendered bid in order to obtain a refined offer from the preferred tenderer (Phase C). Phase D provided for the implementation of the AWSA to advance necessary engineering work to reduce schedule and technical risk in the acquisition contract. **Airservices entered Phase E critical negotiations in December 2016 and this concluded with Airservices signing both acquisition and support contracts with Thales in February 2018.**

The joint civil-military acquisition originally intended to procure a largely commercial off-the-shelf (or military off-the-shelf) system; however, the only compliant and viable solutions tendered all required significant development and integration effort to deliver the specified capability. Furthermore, there are no similar civil-military Air Traffic Management systems fielded elsewhere in the world. **Following a long and drawn-out negotiation process, Thales priced a large amount of risk into the fixed price offer to cover uncertainty in software development and site implementation. In order to better manage this risk premium, both parties agreed to move from a Fixed Price to a Target Price Incentive contract. This has the effect of incentivising Thales to deliver the capability at the lowest price possible as risk is only paid for in the event it is realised.**

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The Target Price Incentive model, along with improved relational governance arrangements built into the contract, provide Defence and Airservices stakeholders confidence that challenges presented during contract execution can be overcome collaboratively through transparency of technical, schedule and cost risk between the parties.

Airservices management of the contracts with Thales and on-supply to Defence will be governed by an On-Supply Agreement (OSA) initially established between Defence and Airservices in June 2015 and subsequently updated and resigned in February 2018. In addition to defining the on-supply to Defence of the Defence supplies and services delivered to Airservices by Thales, the revised OSA is underpinned by a principles-based governance framework aligned to that established between Airservices and Thales for the CMATS acquisition and support contracts.

The CMATS program organisation has been structured to ensure Defence provides an equitable contribution towards the delivery of the CMATS. This is achieved through the implementation of a Joint Program Team consisting of both Airservices and Defence subject matter experts, a CMATS Review Group (CRG), consisting of Defence and Airservices senior representatives, and higher level forums above the CRG consisting of the Program Sponsors including CEO Airservices, Chief of Air Force and Deputy Secretary CASG. Whilst the parties have opted for a lead agency construct, the organisation is underpinned by embedded staff and decision-makers to assure that both parties' interests and requirements are addressed in terms of management of the project. However, the dual sponsorship, and the governance and stakeholder management that arises, does lead to challenges where there is a variation between the timelines of approval or organisational direction.

In August 2017 the Minister for Defence agreed with the Minister for Defence Industry and Minister for Infrastructure and Transport that AIR 5431 Phase 3 would be added to Defence's Project of Concern list. Following the announcement that Airservices had signed acquisition and support contracts with Thales in February 2018, the Minister for Defence announced that OneSKY would be removed from the Projects of Concern list having now met the criteria for withdrawal. AIR 5431 Phase 3 was formally removed from the Projects of Concern list on 8 May 2018. In recognition that AIR 5431 Phase 3 will remain complex and require significant governance to ensure capability, cost and schedule risks are adequately managed; AIR 5431 Phase 3 will continue to be managed as a Project of Interest.

Uniqueness

CMATS represents the first time that a Defence project is contributing to a major national infrastructure project. The December 2009 National Aviation White Paper identified the need to implement a harmonised national civil and military air traffic management system. The activities identified in the White Paper for the implementation of a comprehensive, collaborative approach to nation-wide air traffic management included the procurement of a single solution air traffic management (ATM) platform between civil and military agencies.

At the time of decision to enter into a joint project arrangement there was no history of a similar governance structure in operation that aligned with the scope of this project. As a consequence, Airservices and Defence have established and continued to refine the CMATS joint delivery structure without the benefit of adapting from proven existing models.

Major Risks and Issues

While both organisations have risk policy and practices in place, Airservices and Defence manage risk separately in accordance with their respective risk management frameworks. The CMATS joint program risk register is maintained and managed by Airservices on behalf of the CMATS program and considers risk that may collectively impact both Defence and Airservices. AIR 5431 Phase 3 operates a separate risk register for Defence specific/unique risks and issues. All major risks that have an impact on AIR 5431 Phase 3 have been disclosed, regardless of where they are managed.

As a result of achievement of System Requirements Review (SRR), contract execution and approval of an RCI, a number of risks and issues previously disclosed have either been retired or reassessed and downgraded to a rating lower than high or extreme.

Significant risks that require ongoing active management as the joint project enters contract execution include:

- Poor provision of Customer Furnished Materials, Information, Supplies and Services, including significant enabling interfaces such as AMACCS, and CIOG and E&IG infrastructure and networks.
- Security accreditation of CMATS may be impacted as a result of existing Defence and Airservices infrastructure and systems not meeting security requirements.
- Poor coordination between Airservices and Defence during development and implementation of the Defence/Airservices network gateway may impact delivery and performance of dependent Customer Furnished Services (CFS).
- Agreement to consolidate Darwin and Townsville approach services into the Airservices Brisbane approach centre, Oakey approach services into Amberley approach centre and removal of four Defence towers (Richmond, Edinburgh, Gin Gin and Oakey) from CMATS scope in absence of detailed definition and planning, may result in capability impacts/gaps for Defence, delay to the finalisation of Engineering Change Proposals (ECPs), impact the completeness of System Design Review (SDR) and create dependency complexity.
- Poor scope definition, planning and a lack of dedicated and suitably skilled supplier resources, may impact the delivery of the Four Alternate Tower Solution (FATS) at Richmond, Edinburgh, Gingin and Oakey.
- Achievement of SDR exit may be impacted by the Contractor's inadequate resource profile, a failure of the Parties appropriately specifying system interface requirements and convergence of the safety system of system consolidation work required for SDR maturity and the Functional Baseline.
- A failure of the Prime System Integrator (PSI) to align parallel system engineering activities, such as identification and management of interfaces, dependencies and system of systems deliverables, may result in omissions or rework in the development and delivery of a system of systems solution.
- Implementation of CMATS within the Defence ATM environment may be impacted by the functional availability of external Defence and AIR 5431PH3 delivered systems, potentially limiting the ability of the Defence portion of the ATM solution to meet regulatory and licencing requirements.

The current issues impacting Airservices and Defence individually and jointly include:

<ul style="list-style-type: none"> - Insufficient dependent AMACCS system assets during CMATS introduction into service will impact current operations. - The configuration/data management policies, procedures and processes are not suitably established and embedded to effectively implement the Program's configuration and data management activities and obligations.
Other Current Sub-Projects AIR5431 Phase 1 – Deployable Air Traffic Control (ATC) Capability will introduce Deployable Air Traffic Management (ATM) command and control systems into the ADF inventory. AIR5431 Phase 2 – Fixed Base ATC Replacement Capability will replace the existing fixed base defence ATC surveillance radars.
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			
Dec 14	Original Approved (Second Pass Approval)	731.4	
Dec 17	Real Variation – Budgetary Adjustment	(6.8)	1
Feb 18	Real Variation – Real Cost Increase	247.5	2
	Exchange Variation	2.1	
Jun 18	Total Budget	974.2	
Project Expenditure			
Prior to Jul 17	Contract Expenditure - Airservices Australia	(43.3)	3
	Contract Expenditure - Jacobs Australia	(14.2)	
	Other Contract Payments/Internal Expenses	(3.5)	
		(61.0)	
FY to Jun 18	Contract Expenditure - Airservices Australia	(84.5)	3
	Contract Expenditure - Jacobs Australia	(7.3)	
	Other Contract Payments/Internal Expenses	(2.3)	
		(94.1)	
Jun 18	Total Expenditure	(155.1)	
Jun 18	Remaining Budget	819.1	
Notes			
1	This variation is due to administrative decisions to temporarily harvest funds from the project. These funds were returned to the project as part of the RCI approved in February 2018. These funds were part of the original Second Pass approval budget.		
2	A RCI of \$249.7m was approved by Government in February 2018 to cover additional costs related to the acquisition. This includes \$2.2m for Air Force to relocate the current Tindal Australian Military Airspace Control Communications System (AMACCS) air traffic control radio equipment site, leaving \$247.5m for CASG related costs (additional CMATS costs, transition radio solution (AMACCS), Australian Defence Air Traffic System (ADATS) life-of-type extension and facilities preparation costs related to CMATS installation). This figure includes the \$6.8m returned to the project to correct the Budgetary Adjustment which occurred in December 2017. Given this, the total approved RCI above Second Pass approval is \$242.9m including the \$2.2m for Air Force.		
3	Other contract payments/internal expenses: Operating expenditure, contractors, minor contract expenditure and other capital expenditure not attributable to the listed contracts.		

2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Defence's Explanation of Material Movements
66.4	70.0	94.4	PBS - PAES : The variation is due to additional requirements for Australian Military Airspace Control Communications System enhancements. PAES- Final Plan: The Variation is as a result of the payment Schedule agreed with Airservices at contract signature.
Variance \$m	3.6	24.4	Total Variance (\$m): 28.0
Variance %	5.4	34.9	Total Variance (%): 42.2

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2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
		(0.2)	Australian Industry	Year end spend is consistent with the payment profile agreed with Airservices in the On-supply Agreement signed on 22 February 2018. The underachievement is due to late presentation of the Final Legal Invoice by Airservices and minor variations in Project Management and ISC Contract Expenditure.
			Foreign Industry	
			Early Processes	
		(0.1)	Defence Processes	
			Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
94.4	94.1	(0.3)	Total Variance	
		(0.3)	% Variance	

2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature \$m	30 Jun 18 \$m			
Jacobs Australia	Dec 14	107.7	108.4	Variable	Modified ASDEFCON	2
Airservices Australia	Feb 18	521.0m	521.0	Fixed	On Supply Agreement	1,2
Notes						
1	CMATS will be procured via contracts between Airservices and the designated tenderer Thales Australia (Thales). Airservices will manage both the acquisition and support contracts with Thales on behalf of Defence through an OSA established between Defence and Airservices in February 2018.					
2	Contract value as at 30 June 2018 is based on actual expenditure to 30 June 2018 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).					
Contractor	Quantities as at		Scope	Notes		
	Signature	30 Jun 18				
Jacobs Australia	N/A	N/A	Service based integrated support.			
Airservices Australia	N/A	N/A	Through the OSA, delivery of CMATS control tower and approach centres at Amberley (including Oakey approach), East Sale, Williamtown, Tindal and Nowra, consolidated Darwin and Townsville approach services at Airservices Brisbane approach centre, CMATS control towers at Darwin, Townsville and Pearce and a simulator system at SATC.	1		
Major equipment received and quantities to 30 Jun 18						
Nil.						
Notes						
1	Control tower systems for Oakey, Gingin, Richmond and Edinburgh (also referred to as the Four Alternate Tower Solution (FATS)) will be delivered within the agreed fixed-price cap of \$521.0m. The obligation for Airservices to provide FATS was established through the OSA signed 22 February 2018. The FATS Statement of Work and Functional Performance Specification are the subject of negotiations between Defence and Airservices.					

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	CMATS System Requirements Analysis	Aug 17	N/A	Jan 18	5	1
Preliminary Design Rz	CMATS	Oct 19	N/A	Oct 19	0	2,3
Critical Design Rz	CMATS	Apr 20	N/A	Apr 20	0	2,3
Notes						
1	Airservices entered into contact with Thales for the acquisition of the CMATS in February 2018; System Requirements Analysis was achieved later than expected due to an underestimation of the effort required to develop the Functional Baseline.					
2	Dates for Preliminary Design and Critical Design are derived from the contract Delivery Schedule. The forecast dates are subject to revalidation during the Integrated Baseline Review to reflect implementation of the CMATS scope changes.					
3	Rz is the initial Defence system build for the first six Defences sites and represents the minimum software functionality for safe air traffic services at Defence sites. R1 is a software release that represents the minimum functionality required for Airservices to operate Brisbane and Melbourne Air Traffic Centres. R2 is a software release that represents the full CMATS functionality.					

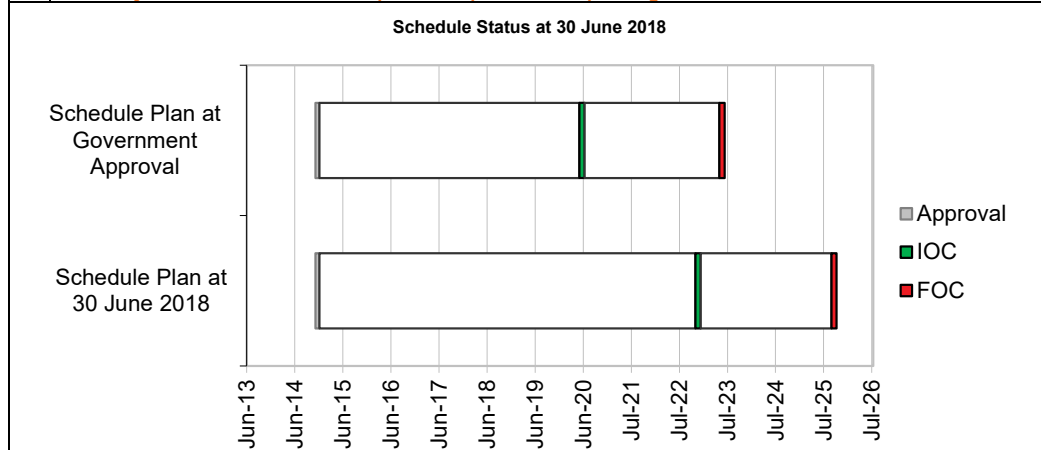
3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved/Forecast	Variance (Months)	Notes
Rz System Integration	CMATS	N/A	TBA	TBA	0	1
System Acceptance	SATC – CMATS	Jan 22	N/A	Jan 22	0	
	RAAF Base East Sale – CMATS	May 22	N/A	May 22	0	
	RAAF Base Amberley – CMATS	Jun 22	N/A	Jun 22	0	
	RAAF Base Edinburgh – FATS	Jun 22	TBA	TBA	0	2
	RAAF Base Pearce – CMATS	Oct 22	N/A	Oct 22	0	
	RAAF Base Gingin – FATS	Oct 22	TBA	TBA	0	2
	RAAF Base Tindal – CMATS	Nov 22	N/A	Nov 22	0	
	Army Aviation Centre Oakey – FATS	Nov 22	TBA	TBA	0	2
	RAAF Base Townsville – CMATS	Nov 23	N/A	Nov 23	0	
	Naval Air Station Nowra – CMATS	Mar 24	N/A	Mar 24	0	
	RAAF Base Williamtown – CMATS	Apr 24	N/A	Apr 24	0	
	RAAF Base Darwin – CMATS	Apr 24	N/A	Apr 24	0	
RAAF Base Richmond – FATS	May 24	TBA	TBA	0	2	
Rz System Acceptance	CMATS	Aug 22	N/A	Aug 22	0	3
R1 System Acceptance	CMATS	Jul 24	N/A	Jul 24	0	
R2 System Acceptance	CMATS	Feb 25	N/A	Feb 25	0	
Final Acceptance	CMATS	Aug 25	N/A	Aug 25	0	
Notes						
1	These dates are expected to be updated once the Integrated Baseline Review is complete.					
2	The Current Planned and Forecast dates are expected to be updated once the FATS agreement is in place.					
3	Rz System Acceptance includes East Sale Tower and Approach (including the School of Air Traffic Control (SATC)), Amberley Tower and Approach including consolidated Oakey Approach and Edinburgh FATS Tower. The selected sites constitute the AIR 5431 Phase 3 IOC, as the combination of these sites demonstrates all possible system variants for Defence's portion of the CMATS system.					

3.3 Progress Toward Materiel Release and Operational Capability Milestones

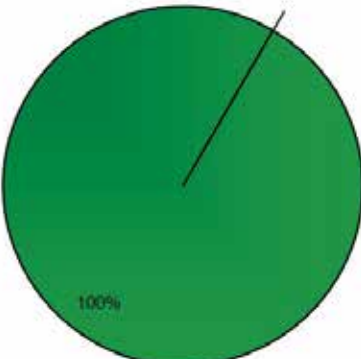
Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	TBA	TBA	TBA	1
Initial Operational Capability (IOC)	Jun 20	Nov 22	29	2
Final Materiel Release (FMR)	TBA	TBA	TBA	1
Final Operational Capability (FOC)	Jun 23	Oct 25	28	2

Notes	
1	The IMR and FMR milestones are expected to be updated once a revised MAA is agreed.
2	The delay to IOC and FOC is due to a protracted period of complex negotiations between the customer and Thales.



Section 4 – Materiel Capability Delivery Performance

4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance	
 <p>A pie chart consisting of a single green circle with a thin black line extending from the center to the edge. The text '100%' is printed at the bottom of the circle.</p>	<p>Green: The project expects to meet the capability requirements as expressed in the Joint Project Directive, Materiel Acquisition Agreement and relevant Technical Regulatory Authority. While a number of Defence related scope changes have been agreed (i.e. Airservices supplying an alternate non-CMATs Tower solution at four Defence sites – Edinburgh, Richmond, Gingin and Oakey; relocating Darwin and Townsville approach from Darwin and Townsville to the Airservices Approach Centre in Brisbane; and relocating Oakey Approach from Oakey to Amberley) these will not impact on the safe delivery of Defence air traffic services.</p> <p>Amber: N/A</p> <p>Red: N/A</p>
<p>Note This Pie Chart does not necessarily represent capability achieved. The capability assessments and forecasts by Defence 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)	Amberley, East Sale (including SATC) and Edinburgh transitioned from ADATS. Forecast achievement date TBA once the revised MAA is agreed.	Not yet achieved
Final Materiel Release (FMR)	Delivery of all CMATS material system elements configured to the final system build. Forecast achievement date TBA once the revised MAA is agreed.	Not yet achieved

Section 5 – Major Risks and Issues

5.1 Major Project Risks

Identified Risks (risk identified by standard project risk management processes)	
Description	Remedial Action
Poor provision of Customer Furnished Materials, Supplies and Services including non-compliance of, deficiencies in, or unavailability, particularly with CIOG and E&IG infrastructure and networks, will result in the customer impacting the contracted schedule.	The Project continues to engage with service providers to bring forward definition and remediation of CMATS interfaces, networks and planned infrastructure in order to reduce the likelihood of delay during site rollout of the system. All interfaces are supported by a delivery plan that has been agreed with the interface supplier.
Delays in obtaining scope and funding approval to progress the procurement of the AMACCS transition solution may result in insufficient AGA assets to enable CMATS transition within the agreed contract schedule.	Progress urgent acquisition of AMACCS design and equipment with additional project funding approved by Government.
Contractor under-performance in delivering the Advanced Work Order's has raised concern over their capacity to effectively deliver the CMATS under the main acquisition contract and has increased the likelihood of inefficiencies resulting in schedule and cost impacts.	This risk has been reassessed as medium as the contracts with Thales have embedded strong contractor/customer collaborative arrangements to drive positive contractor and customer performance. This is applied in the form of a customer/contractor Project Review Board in addition to the performance measures administered under the Target Price Incentive model.
The current approach to aggregate CMATS data within the Defence network may not satisfy the requirements for the Civil Aviation Safety Authority (CASA) accreditation.	The management of this risk is being addressed through an established Network Working Group to assess whether the Defence network architecture is able to meet necessary regulatory/safety requirements and determine what specific characteristics the network will require to be acceptable.

Accreditation of CMATS to operate as Protected may be impacted as a result of existing Defence and Airservices infrastructure and systems not meeting the security requirements or further due to CMATS design and boundary issues.	Engage an INFOSEC Registered Assessors Program (IRAP) assessor to better understand the accreditation issues within the current system and approach, outputs from this activity will assist joint security working group to develop the CMATS accreditation plan.
Delivery of CMATS may be impacted by dependent Airservices and Defence organisational inefficiencies, driven by divergent goals, mismatch of delegations or lack of oversight and control, leading to a breach of cost and schedule thresholds for the Defence portion of the CMATS project.	This risk has been downgraded to medium due to execution of a new OSA in February 2018 which agrees a governance structure designed to ensure operational alignment between the OSA and acquisition contract, including the implementation of problem resolution clauses to which Defence maintains a membership.
Insufficient or inappropriate evidence to support the safety argument could result in the CMATS capability, including sub-systems and software, failing to meet assurance requirements and obtain regulator CASA approval.	This risk has been downgraded to medium due to improved engagement with both CASA and Defence Aviation Safety Authority (DASA), appointment of a Design Authority within OneSKY and a collective view that the current controls are effective.
Emergent Risks (risk not previously identified but has emerged during 2017-18)	
Description	Remedial Action
A lack of coordination between Airservices and Defence during development and implementation of the Defence/Airservices network gateway may lead to an impact on the delivery and performance of dependent Customer Furnished Services (CFS).	Ensure a formal agreement is established between CIOG and Airservices (Information Management & Technology division) outlining the requirements and related communications infrastructure required for the Defence/Airservices network gateway.
Agreement to consolidate Darwin and Townsville approach services into the Airservices Brisbane approach centre, Oakey approach services into Amberley and removal of four Defence towers (Richmond, Edinburgh, Gingin and Oakey) from CMATS scope in absence of detailed definition and planning, may result in delays to the finalisation of Engineering Change Proposals (ECPs), impact the completeness of SDR and create dependency complexity.	The OSA established the high-level agreement for the CMATS scope changes. In line with this agreement, progress detailed definition of the required ECPs to remove and/or change the CMATS requirements as well as identify and agree requirements outside of CMATS to reflect the agreed scope changes. Establish a team to work with Airservices to develop the agreement to deliver the FATS.
Poor scope definition, planning and a lack of dedicated and suitably skilled supplier resources, may impact the delivery of the Four Alternate Tower Solution (FATS) at Richmond, Edinburgh, Gingin and Oakey.	Defence have engaged additional resources to provide close management of the FATS agreement development.
Achievement of SDR exit may be impacted by the Contractor's inadequate resource profile, a failure of the Parties appropriately specifying system interface requirements and convergence of the safety system of system consolidation work required for SDR maturity and the Functional Baseline.	The Customer and Supplier engage regularly on program status and performance through the Program Review Board. This collaborative decision-making forum can enact remediation actions to ensure issues are efficiently resolved, activities are de-conflicted and priorities leading to SDR achievement are established.
A failure of the Prime System Integrator (PSI) to align parallel system engineering activities, such as identification and management of interfaces, dependencies and system of systems deliverables, may result in omissions or rework in the development and delivery a system of systems solution.	The Customer and Supplier engage regularly on program status and performance through the Program Review Board. This collaborative decision-making forum can enact remediation actions and enforce the terms and obligations established in the CMATS contract.
Implementation of CMATS within the Defence ATM environment may be impacted by the functional availability of external Defence and AIR5431PH3 delivered systems, potentially limiting the ability of the Defence portion of the ATM solution to meet regulatory and licencing requirements.	Identification and analysis of the Defence ATM functions necessary to meet CMATS system availability requirements is underway. Each function will undergo end-to-end analysis to establish those that don't meet the availability requirements and identify possible mitigation options for shortfalls.

5.2 Major Project Issues

Description	Remedial Action
The funds required to execute the acquisition and sustainment contracts has exceeded the funds approved at Second Pass, this has occurred due to an underestimation of the cost of a harmonised capability and furthermore as a result of preferred supplier cost escalations during negotiation.	This issue has been retired as a result of Defence and Airservices' agreement to a variety of scope rationalisation opportunities which have enabled Airservices to cap Defence's cost exposure. An RCI for AIR 5431PH3 was approved by Government in February 2018 on this basis.
Organisational differences between Airservices and Defence impact joint program team efficiency and performance. Airservices' change program has resulted in significant redundancies within the CMATS program team, this has led to a greater reliance on Defence to resource the program in order to maintain momentum across parallel streams of work.	This issue was retired upon execution of the revised OSA in February 2018. Risks associated with residual casual factors are being managed in accordance with the risk management plan.

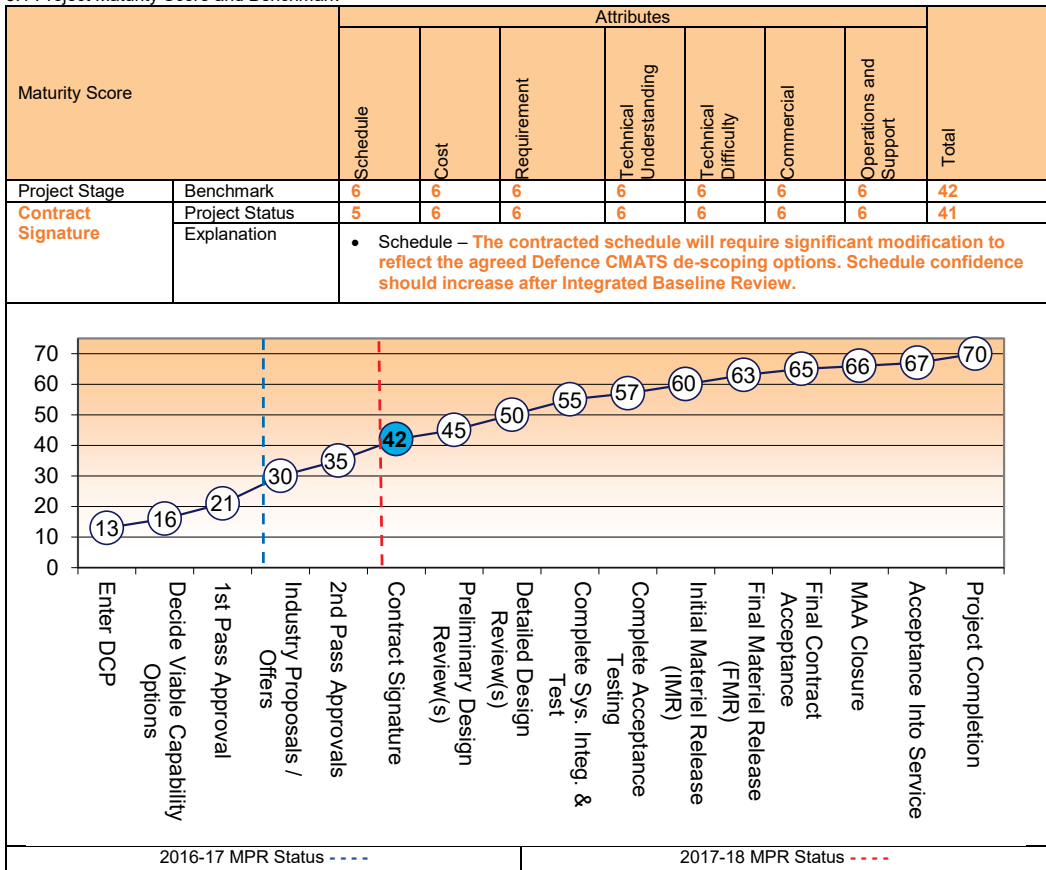
Project Data Summary Sheets

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AIR 5431 Phase 3 is unable to introduce CMATS into service without impacting current operations due to insufficient dependent AMACCS system assets.	While Government has now approved both scope and funding increases for AIR 5431 Phase 3 to progress with procuring identified AMACCS assets, a procurement activity has yet to commence and there is uncertainty around industry's ability to meet delivery timeframes ahead of CMATS site rollout.
E&IG delays to delivery of Airfield Systems Interfaces (ASI) will delay CMATS activation.	This issue has been retired due to new agreed delivery dates as a result of OSA execution resulting in schedule relief for E&IG to develop an end-to-end plan and deliver ASI.
Delays in Airservices dependant projects delivering Airservices CFS, will impact delivery of CFS to the Contractor System Verification Facility (CSVF) at SDR plus 3 months.	This issue has been retired due to new agreed delivery dates as a result of OSA execution resulting in schedule relief for both Airservices and CIOG to undertake the required planning and design to enable CFS to be delivered when required by the contract. Risks associated with residual casual factors are being managed in accordance with the risk management plan.
ADATS will now require a life-of-type extension to ensure ongoing reliable operations until transition to CMATS can be achieved. This is due to delays in achieving executable contracts with Thales.	This issue has been retired due to the approval of an RCI to the AIR 5431 Phase 3 budget, in which the ADATS life-of-type extension requirements were considered and agreed.
A lack of clarity of scope allocated between CIOG and Thales, resulted in a number of facilities and site support activities not being accounted for in Defence project estimates.	This issue has been retired due to the approval of an RCI to the AIR5431 Phase 3 budget, in which the unaccounted facilities and site support requirements received funding approval.
The joint program has yet to define configuration/data management policies, procedures and processes to effectively implement the Program's Configuration and Data Management activities.	Additional configuration and data management resources have been brought on to support design and process reform, however progress towards upgrading the existing configuration management tool has been limited.

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
Set up the Governance structure earlier in the process – the decision regarding lead agency and harmonisation was determined at a strategic level without detailed analysis of the nuances between the two organisations. Although there is now a robust governance structure in place, there are still areas of disunity that are now difficult to change.	Governance
Better communication with Stakeholders - although the establishment of joint project was at the direction of a harmonisation initiative of the Government, the joint project has been slow to re-engage with stakeholders, up to and including Government, to seek refined direction based on prevailing and emerging risks and issues.	Contract management/Governance
A lack of resources at the initiation stage of the project, and during the preparation of the Request For Tender, can create a significant technical and stakeholder management debt that will affect the ability to agree on requirements, forecast a realistic schedule and determine future workforce requirements.	Resourcing
Whilst waiting to initiate dependant projects (i.e. facilities) 'just in time' increases the risk of delays to the delivery of prime mission system, starting dependant projects too early can result in them being delivered so far in advance of the prime mission system, that the outputs of the dependant project no longer satisfy the 'evolved' mission system intent.	Schedule Management

Section 8 – Project Line Management

8.1 Project Line Management in 2017-18

Position	Name
Division Head	RADM Tony Dalton (Nov 15 Aug 17) Mr Ivan Zlabur (Sep 17 – current)
Branch Head	AIRCDRE Sally Pearson (Sep15-Dec17) AIRCDRE Phil Tammen (Dec 17-current)
Project Director	GPCAPT Dick Haines
Project Manager	Ms Georgia Miles