# Project Data Summary Sheet[1]

| | |
|---|---|
| Project Number | **AIR5431 Phase 3** |
| Project Name | **CIVIL MILITARY AIR TRAFFIC MANAGEMENT SYSTEM (CMATS)** |
| First Year Reported | 2016-17 |
| Capability Type | Replacement |
| Capability Manager | Chief of Air Force |
| Government 1st Pass Approval | Nov 11 |
| Government 2nd Pass Approval | Dec 14 |
| Budget at 2nd Pass Approval | $731.4m |
| Total Approved Budget (Current) | $1,010.0m |
| 2022–23 Budget | $127.9m |
| Complexity | ACAT I |

## Section 1 – Project Summary

1.1 Project Description

AIR5431 Phase 3 will replace the current Australian Defence Air Traffic System at twelve fixed base Defence locations. The Defence component of the joint project includes; eight Civil Military Air Traffic Management System (CMATS) sites and four Airservices Defence OneSKY Tower (ADOT) sites. The ab-initio training simulator at the Royal Australian Air Force (RAAF) School of Air Traffic Control (SATC) and the Operational Maintenance Trainer at RAAF Amberley will be delivered through the On Supply Agreement (OSA) contract between AIR5431 Phase 3 and the Airservices Australia Pty Ltd OneSKY program.

To meet this OSA obligation, in addition to providing direct services using internal work packages, Airservices Australia Pty Ltd holds the contracts with Thales Australia Ltd, as prime contractor for the CMATS deliveries, and with Saab Australia Pty Ltd, and Frequentis Australasia Pty Ltd for subsystems of the ADOT solution.

In addition to the deliverables under the OSA with Airservices Australia Pty Ltd, AIR5431 Phase 3 will also deliver radio transition and business continuity projects, as well as the management of site works and the provision of Customer Furnished Services (CFS).

1.2 Current Status

**Cost Performance**

In-year

As at 30 June 2023, Financial Year (FY) 2022-23 expenditure was $92.3m against FY 2022-23 budget of $127.9m. The variation is due to a combination of:

- Contract Change Proposal (CCP) amendments to the Air-Ground-Air (AGA) contract milestone delivery dates.
- Payment pause of OSA payments to Airservices Australia Pty Ltd to align with Airservices' suspension of payments to Thales Australia Ltd until the agreed Cost Checkpoint Milestone is achieved.
- Removal of a previous year accrual identified by Airservices Australia Pty Ltd that originally anticipated work outside the payment schedule to be performed by Thales Australia Ltd by 30 June 2023. As this did not occur, the accrual was not required.
- Delay in legacy system costs (procurement of Autotrac II) due to new information on how that amount was reported.
- CFS delivery work execution and start-up has been more difficult than originally anticipated by the project.
- Contractor delay on site preparation and support costs.
- Less than anticipated requirement for contracted workforce due to delays in the prime contract.
- Less than anticipated operating expenses due to lower project management and Air Force operating costs.

Project Financial Assurance Statement

As at 30 June 2023, project AIR5431 Phase 3 has reviewed the projects approved scope and budget for those elements required to be delivered by Defence. Having reviewed the current financial contractual obligations of Defence for this project, current known risks and estimated future expenditure, Defence considers, as at the reporting date, that there is insufficient budget remaining, including contingency, for the project to complete taking into account changes that may result from the Project of Concern (POC) remediation plan.

Contingency Statement

The project has applied for contingency in the FY 2022-23, and received $12.5m to fund the initial additional scope associated with the Life Of Type Extension (LOTE) of the legacy air traffic system, due to delays in the delivery of the project.

In November 2022, once greater detail was provided, the project requested further contingency of $112.8m for the full scope of LOTE, potential contributions to contract changes related to CMATS, and future extensions to the Jacobs Australia Pty Ltd services

Notice to reader

1. Forecast dates and Sections: 1.2 (Materiel Capability/Scope Delivery Performance), 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability/Scope 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.

contract up to FY 2027-28.

**Schedule Performance**

On the 27 October 2022, the Minister of Defence Industry declared AIR5431 Phase 3 would be relisted as a POC due to ongoing cost, schedule and technical challenges with the CMATS aspects of the program. The Minister of Defence Industry has facilitated POC summits in December 2022 and March 2023 between Thales Australia Ltd, Airservices Australia Pty Ltd and Defence leadership to review options to remediate the issues.

In December 2022, Airservices Australia Pty Ltd contracted an external company to conduct a third Independent Baseline Review (IBR) of the CMATS Contract Master Schedule (CMS). The IBR found the Thales Australia Ltd schedule was not credible and their schedule methodology presented a risk to the successful delivery of the program. Accordingly, the POC summit required Thales Australia Ltd, as part of the remediation plan, to address 13 major Corrective Action Requests (CARs) identified by the IBR. At the reporting date, the majority of the CARs were recommended for closure, based on Customer agreement to undertake an independent risk assessment on the final schedule offered for approval.

In order to mitigate potential inefficiencies and cost impacts associated with POC remediation planning and negotiation, a Standstill Deed was prepared to clearly identify low-risk work within the current contract that could continue, and what should be paused awaiting outcomes from POC remediation. The Standstill Deed was at final draft stage at 30 June 2023, and planned for execution during July 2023.

Since the March 2023 POC Summit, Defence and Airservices Australia Pty Ltd (the Customer) and Thales Australia Ltd have worked to implement the agreed remediation plan for the project. Thales Australia Ltd has proposed a change in CMATS site rollout and engineering strategy that combines the Release Zero (RZ) and Release 1 (R1) design scope, and shifts capability delivery to Defence sites after commissioning of Civil sites. This approach also introduces the concept of Minimum Viable Product, which has the effect of modifying the existing software release strategy to focus on essential capabilities to conduct safe and secure air traffic operations. Completion of the remediation plan actions will trigger a change to the Initial Operational Capability (IOC) criteria for Defence.

As at 30 June 2023, Thales Australia Ltd have provided a draft schedule to support their POC remediation plan, however as an interim version, it was not fully resourced and relied on planning assumptions that are yet to be negotiated and agreed. The CMS had not been assured against the customer defined Monte Carlo risk appetite, required to ensure a high-level of credibility to enable accurate management of LOTE activities associated with the legacy Air Traffic Management (ATM) system, and site and services planning and preparation at Defence bases.

In June 2023 Saab, Inc. acquired the intellectual property rights from NAV CANADA for the Integrated Tower Automation Suite (INTAS) software product, following NAV CANADA's announcement in June 2022 of their intent to withdraw software support for the product. The change in Original Equipment Manufacturer for INTAS, coupled with a CCP to incorporate the Defence-specific scope for ADOT, and schedule performance challenges experienced in the 12 months prior to July 2022, will result in delays to the delivery of ADOT against the original planned dates, to be validated once Saab, Inc. and Frequentis Australasia Pty Ltd each deliver a formal CMS and Airservices Australia Pty Ltd incorporate these into an Integrated Master Schedule (IMS).

**Materiel Capability/Scope Delivery Performance**

The project has not delivered any materiel capability to date through the OSA. Related Materiel Capability is also being managed by the project outside the OSA including:

- Air-Ground-Air Transition (AGAT) solution delivered by BAE Systems Australia (hardware installed at six sites but cannot be commissioned/activated until the CMATS systems are installed),
- An Australian Defence Air Traffic System (ADATS) LOTE contract with Raytheon Australia Pty Ltd to mitigate realised schedule delays with CMATS and ADOT. Contingency funding has been released to extend the Life Of Type (LOT) for the legacy air traffic system and voice communications switch, but no contracts have yet been entered into, and
- Defence site preparation and support, to support the design requirements of the contractor.

Recognising the lack of capability delivered to date against the original plan agreed to in the OSA, and changes that may result from POC remediation, Defence paused OSA payments to Airservices Australia Pty Ltd and have identified a need to negotiate a new payment schedule that more appropriately links payments to delivery.

Note

Forecast dates and capability assessments are excluded from the scope of the Auditor-General's Independent Assurance Report.

1.3 Project Context

**Background**

Defence and Airservices Australia Pty Ltd sought in 2011 to replace their legacy Air Traffic Control (ATC) systems through the acquisition of a harmonised Australian CMATS that will deliver improvements in safety, efficiency, flexibility, economy and business continuity. A joint solicitation was conducted in June 2013.

AIR5431 Phase 3 received Government Second Pass approval in December 2014 on the basis of tendered agnostic capability, schedule and cost data provisioned by Airservices Australia Pty Ltd in the form of a not-to-exceed) price for the Defence contribution for the common and Defence unique elements delivered under the OSA.

On 18 August 2017, due to concerns over an inability to finalise negotiations within acceptable cost and schedule parameters, AIR5431 Phase 3 was listed as a POC.

In February 2018, AIR5431 Phase 3 was granted a Real Cost Increase (RCI) of $243.0m (including contingency) to cover Defence's contribution for the agreed collaboration options, a transition radio solution (AGAT), ADATS LOTE and facilities preparation costs related to CMATS installation. This RCI allowed Defence to agree to a fixed price contribution for the Defence deliveries under the OSA, which allowed Airservices Australia Pty Ltd to sign contracts with Thales Australia Ltd, and other contractors subsequently, for the joint supplies.

AIR5431 Phase 3 was removed from the POC list on 8 May 2018 as a result of the contract with Airservices Australia Pty Ltd being

established, but remained as a Project of Interest with bi-annual updates to Government.

On the 27 October 2022, the Minister of Defence Industry declared AIR5431 Phase 3 would be relisted as a POC due to ongoing cost, schedule and technical challenges.

During December 2022, a POC summit was led by the Minister for Defence Industry, to initiate senior level discussions on approach to identify high-level remediation goals. A further summit was held in March 2023, to review progress and provide updated direction.

**Uniqueness**

AIR5431 Phase 3 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 ATM system. The activities identified in the National Aviation White Paper for the implementation of a comprehensive, collaborative approach to nation-wide ATM included the procurement of a single solution ATM platform between Civil and Military agencies.

At the time of decision to enter into the 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 Australia Pty Ltd and Defence have established and continued to refine the joint delivery structure without the benefit of adapting from proven existing models.

**Major Risks and Issues**

Airservices Australia Pty Ltd and Defence manage risks separately in accordance with their respective risk management frameworks. The CMATS and ADOT joint program risk and issues register is maintained by Airservices Australia Pty Ltd using the Airservices Australia Pty Ltd risk matrix, and considers risks that collectively impact Defence and Airservices Australia Pty Ltd. AIR5431 Phase 3 operates a risk register for Defence specific/unique risks and issues. All major risks that have an impact on AIR5431 Phase 3 delivery have been recorded, regardless of where they are managed.

During the reporting period, the risks identified for AIR5431 Phase 3, the CMATS joint program and ADOT continue to relate to the categories of contractor performance, schedule, resourcing, customer furnished (materials, supplies, services, data) and program delivery, as follows:

- Contractor performance covering system design processes, engineering approaches, Human Factors, baseline management, quality assurance of technical activities/documentation, compliance with customer constraints, achievement of milestones, governance and resource composition to deliver the capability.
- Scheduling of activities in an IMS, informed by credible CMS to enable the management of resources, obligations, critical path priorities and constraints.
- Resourcing sufficiency and suitability across the OneSKY program, including adequate support to key contractor-led activities such as major design reviews, testing activities and site integration and verification, which may include onerous and ongoing travel obligations.
- Customer Furnished Materials, Supplies and Services including provision, delivery, non-compliance, delays to, deficiencies in, or unavailability of Defence third-party systems, Chief Information Officer Group and Security and Estate Group (SEG) infrastructure and networks.
- Program delivery risks associated with the delivery of the collaboration options and supplies and services in accordance with the OSA, design, delivery and through-life support of ADOT.

Overall increase in risk since the previous report is emerging, due to the increasing cost and schedule impact of addressing critical system design aspects later than planned in the design cycle and issues associated with the future of INTAS as a technology solution for ADOT. Some of the Defence obligations have reduced, in part due to their relationship to milestones in the Thales Australia Ltd schedule, which has experienced high levels of delay.

The key issues impacting Defence and requiring active management include:

- Fitness for purpose of the OSA to manage the on-supply of sustainment services from Airservices Australia Pty Ltd.
- The increased cost of the project Major Service Provider (MSP) resources as a result of contractor delays.
- Premature exit of the Critical Design Review (CDR) with major deficiencies in the design that require addressing prior to exiting system verification.
- Through-life supportability of the INTAS product for ADOT may not be viable following NAV CANADA's announcement that they are ceasing system development of the INTAS product.

**Other Current Related Projects/Phases**

- **AIR5431 Phase 1.** Deployable Defence ATM Capability will introduce Deployable ATM command and control systems into the Australian Defence Force inventory. This phase has no impact on the ability of AIR5431 Phase 3 to deliver its outcomes.
- **AIR5431 Phase 2.** Fixed Defence ATC Surveillance System will replace the existing fixed base Defence ATC surveillance radars. AIR5431 Phase 3 is highly reliant on AIR5431 Phase 2 to deliver ATC surveillance data at some sites, prior to the commissioning of those sites.

Note

Major risks and issues are excluded from the scope of the Auditor-General's Independent Assurance Report.

## Section 2 – Financial Performance[2]

2.1 Project Budget (out-turned) and Expenditure History

| Date | Description | $m | | Notes |
|---|---|---|---|---|
| | **Project Budget** | | | |
| Dec 14 | Original Approved (Government Second Pass Approval) | 731.4 | | 1 |
| | **Total at Second Pass Approval** | | **731.4** | |
| Dec 17 | Real Variation – Budgetary Adjustment | (6.8) | | 2 |
| Feb 18 | Real Variation – Real Cost Increase | 247.5 | | 3 |
| Nov 21 | Real Variation – Transfer | 1.7 | | 4 |
| Dec 21 | Real Variation – Transfer | 15.5 | | 4 |
| Feb 22 | Real Variation – Transfer | 17.6 | | 4 |
| Mar 23 | Real Variation – Transfer | (0.6) | | 5 |
| Jun 23 | Exchange Variation | 3.6 | | |
| Jun 23 | **Total Budget** | | **1,010.0** | 6 |
| | **Project Expenditure** | | | |
| Prior to Jul 22 | Contract Expenditure – Airservices Australia Pty Ltd | (356.6) | | |
| | Contract Expenditure – Jacobs Australia Pty Ltd – Integrated Work Package (IWP) | (68.4) | | |
| | Contract Expenditure – BAE Systems Australia Pty Ltd | (42.8) | | |
| | Other Contract Payments / Internal Expenses | (51.1) | | |
| | | | (518.9) | |
| FY to Jun 23 | Contract Expenditure – Airservices Australia Pty Ltd | (61.6) | | 8 |
| | Contract Expenditure – Jacobs Australia Pty Ltd – IWP | (14.4) | | |
| | Contract Expenditure – BAE Systems Australia Pty Ltd | (13.1) | | |
| | Other Contract Payments / Internal Expenses | (3.2) | | 7 |
| | | | (92.3) | |
| Jun 23 | **Total Expenditure** | | **(611.2)** | |
| | | | | |
| Jun 23 | **Remaining Budget** | | **(398.8)** | |

| Notes | |
|---|---|
| 1 | In addition to direct project costs, Defence received approximately $175.0m for Major Capital Facility costs and enabling Information and Communications Technology costs. |
| 2 | 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. |
| 3 | An 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) ATC radio equipment site, leaving $247.5m for Capability Acquisition and Sustainment Group (CASG) related costs (additional CMATS costs, AGAT radio solution, ADATS LOTE 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. |
| 4 | Air Force Group Project Budget transferred to CASG as part of FY 2021-22 Additional Estimates for financial management purposes. Subsequent transfers include an adjustment for FY 2020-21 underspend and a transfer from SEG to Air Force Group for funding related to existing tower demolition. |
| 5 | Air Force Group Project Budget (part of CASG budget) transferred to SEG for funding related to ATC Communications Facilities Study. |
| 6 | The total budget included planned expenditure for the AGAT solution, ADATS LOTE and Defence site preparation and support. These procurements have been incorporated into Section 2.3 as each agreement was reached. |
| 7 | Other Contract Payments in FY 2022-23 include ($2.0m) expenditure on site preparation, ($0.6m) on legacy ATC automation system Autotrac II update procurement and the remaining ($0.6m) being other contract payments/internal expenses. |
| 8 | Payment pause of OSA payments to Airservices Australia Pty Ltd took effect March 2023, to align with Airservices' suspension of payments to Thales Australia Ltd, until the agreed Cost Checkpoint Milestone is achieved. |

Notice to reader

2. As per the JCPAA 2022-23 MPR Guidelines, financial figures in the PDSS have been rounded to one decimal point. Section 2 financial tables may include totals and percentages that are impacted due to the rounding of the original financial data.

2.2A In-year Budget Estimate Variance

| Estimate PBS $m | Estimate PAES $m | Estimate Final Plan $m | Explanation of Material Movements |
|---|---|---|---|
| 122.8 | 130.6 | 127.9 | Portfolio Budget Statement (PBS) to Portfolio Additional Estimate Statement (PAES): Variation is primarily due to a reduced number of transition radio site rollouts.<br>PAES to Final Plan: Variance was due to exchange rate changes. |
| Variance $m | 7.8 | (2.7) | Total Variance ($m): 5.1 |
| Variance % | 6.4 | (2.1) | Total Variance (%): 4.2 |

2.2B In-year Budget/Expenditure Variance

| Estimate Final Plan $m | Actual $m | Variance $m | Variance Factor | Explanation |
|---|---|---|---|---|
| | | (35.2) | Australian Industry | The variation is due to:<br>• CCP amendments to the AGA contract milestone delivery dates ($2.9m);<br>• Payment pause of OSA payments to Airservices Australia Pty Ltd and removal of June 2023 Accrual ($31.5m);<br>• Delay in legacy system costs (procurement of Autotrac II) ($2.3m);<br>• Slower than expected CFS delivery work execution and start-up ($1.7m);<br>• Less than anticipated requirement for contracted workforce due to delays in the prime contract ($1.8m); and<br>• Less than anticipated operating expenses due to lower project management and Air Force operating costs ($1.2m). |
| | | - | Foreign Industry | |
| | | - | Early Processes | |
| | | (0.4) | Defence Processes | |
| | | - | Foreign Government Negotiations/Payments | |
| | | - | Cost Saving | |
| | | - | Effort in Support of Operations | |
| | | - | Additional Government Approvals | |
| 127.9 | 92.3 | **(35.6)** | **Total Variance** | |
| | | **(27.9)** | **% Variance** | |

2.3A Details of Project Major Contracts – Price

| Contractor | Signature Date | Price at | | Type (Price Basis) | Form of Contract | Notes |
|---|---|---|---|---|---|---|
| | | Signature $m | 30 Jun 23 $m | | | |
| Jacobs Australia Pty Ltd – Integrated Support Contract (ISC) | Dec 14 | 107.7 | 27.0 | Variable | Modified Standard Defence Contract | 1, 2 |
| Airservices Australia Pty Ltd | Feb 18 | 521.0 | 547.8 | Firm or Fixed | On Supply Agreement | 1, 3 |
| Jacobs Australia Pty Ltd – IWP | Dec 18 | 47.0 | 86.2 | Variable | Integrated Work Package | 1, 4 |
| BAE Systems Australia Pty Ltd – AGA Transition System | Nov 19 | 67.4 | 70.6 | Firm or Fixed | Support Contract Survey & Quote | 1 |

| Notes | |
|---|---|
| 1 | Contract value as at 30 June 2023 is based on actual expenditure to 30 June 2023 and remaining commitment at current budgeted exchange rates, and includes adjustments for indexation (where applicable). |
| 2 | The Jacobs ISC contract was closed following the transition to a Branch wide Jacobs IWP contract. |
| 3 | CMATS will be procured via the contracts (Acquisition) and (Support) between Airservices Australia Pty Ltd and Thales Australia Ltd. Airservices Australia Pty Ltd manages both contracts with Thales Australia Ltd on behalf of Defence through the OSA. Due to exchange rate variance, the addition of Defence approved scope and the inclusion of contract (Support), the price of the OSA will increase over time. |
| 4 | The project workforce structure is based on the CASG First Principles Review with 80% of the project staff being delivered under the IWP contract. Contract value is the estimated project share of the Branch IWP contract and is based on the current Purchase Order commitment of the estimate of project expenditure for work packages to the end of December 2024. However, some of the requested contingency is to fund extended project office and contractor costs caused by the delays. Further costs may result from agreed POC remediation plan, but are not yet accounted for due to a lack of data. |

2.3B Details of Project Major Contracts – Contracted Quantities and Scope

| Contractor | Contracted Quantities as at | | Scope | Notes |
|---|---|---|---|---|
| | Signature | 30 Jun 23 | | |
| Jacobs Australia Pty Ltd – ISC | N/A | N/A | Service based integrated support. | 1 |

| | | | | |
|---|---|---|---|---|
| Airservices Australia Pty Ltd | N/A | N/A | Through the OSA Airservices Australia Pty Ltd will deliver: CMATS combined control tower and approach centres at Amberley (including Oakey approach), East Sale, Williamtown, Tindal and Nowra; consolidated Darwin and Townsville approach services at Airservices Australia Pty Ltd Brisbane approach centre; CMATS control tower systems at Darwin, Townsville and Pearce; ADOT systems at Richmond, Oakey, Edinburgh and Gingin; a simulator system at SATC and an Operational Maintenance Trainer at Amberley. | 2 |
| Jacobs Australia Pty Ltd – IWP | N/A | N/A | Service based integrated support. | - |
| BAE Systems Australia Pty Ltd | N/A | N/A | Procurement, design, integration and installation of an AGAT system across the 12 Defence sites. This includes the procurement and integration of radio communications equipment that will supplement the existing AMACCS (currently sustained by BAE Systems Australia Pty Ltd) to enable transition of CMATS. | - |

| Major equipment accepted and quantities to 30 Jun 23 |
|---|
| Nil |

| Notes | |
|---|---|
| 1 | This Jacobs ISC contract was closed following the transition to a Branch wide Jacobs IWP contract. |
| 2 | This was a result of agreeing alternate control tower systems for Oakey, Gingin, Richmond and Edinburgh (previously referred to as the Four Alternate Tower Solution and now referred to as the ADOT system will be delivered within the agreed fixed-price cap of $521.0m. The obligation for Airservices Australia Pty Ltd to provide ADOT was established through the OSA signed 22 February 2018. The ADOT Statement of Work and Functional Performance Specification are the subject of negotiations between Defence and Airservices Australia Pty Ltd. |

2.4 Australian Industry Capability

| Summary |
|---|
| The project has no contracted Australian Industry Capability (AIC) targets or AIC Plan in place for Airservices Australia Pty Ltd. Thales Australia Ltd, as the prime systems integrator for the CMATS system, was required to establish an Australian Industry Participation Plan using the model developed by Department of Industry, Science and Resources.<br><br>The project has an AIC plan in place for BAE Systems Australia Pty Ltd with contracted AIC commitments. BAE Systems Australia Pty Ltd are required to identify Local Industry Capability in the support of their procurement, design, integration and installation activities.<br><br>The project has no contracted AIC targets or AIC plan in place for Jacobs Australia Pty Ltd. The project sources Jacobs Australia Pty Ltd - IWP services via the Air and Space Surveillance and Control Branch MSP contract through 12-monthly work packages funded by AIR5431 Phase 3 for relevant scope of work. |
| Note |
| AIC Plans for contracts worth more than $20 million are published on Defence's website. Australian Industry Capability is excluded from the scope of the Auditor-General's Independent Assurance Report. |

## Section 3 – Schedule Performance

3.1 Design Review Progress

| Review | Major System/Platform Variant | Original Planned | Current Contracted | 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 | Dec 19 | 2 | 2, 4 |
| Critical Design RZ | CMATS | Apr 20 | Sep 20 | Dec 20 | 8 | 2, 5 |
| Design Release Baseline Review (DRBR) RZ (Block 1) | CMATS | Apr 21 | Jun 21 | Jun 21 | 2 | 7, 5 |
| Support System CDR RZ | CMATS | Apr 20 | Jun 21 | Nov 21 | 19 | 8 |
| Preliminary Design Review R1 Final | CMATS | Jan 22 | Oct 24 | To Be Announced (TBA) | N/A | 3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| CDR R1 | CMATS | Sep 22 | Aug 24 | TBA | N/A | 3 |
| Preliminary Design Review R2 | CMATS | Jun 23 | Apr 25 | TBA | N/A | 3 |
| CDR R2 | CMATS | Feb 24 | Dec 25 | TBA | N/A | 3 |
| System Requirements | Alternate Towers Via Airservices Australia Pty Ltd | Not yet agreed | N/A | N/A | N/A | 6 |

| Notes | |
|---|---|
| 1 | Airservices Australia Pty Ltd entered into contact with Thales Australia Ltd 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 | RZ is the initial Defence system build for the first five Defence 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 Australia Pty Ltd to operate Brisbane and Melbourne Air Traffic Centres. Release 2 (R2) is a software release that represents the full CMATS functionality. |
| 3 | Thales Australia Ltd is undertaking a schedule re-plan of the CMATS contract to support their POC remediation strategy. This may affect the timing of ADOT sites, due to the Frequentis Australasia Pty Ltd Voice Communication System dependency between the CMATS and ADOT. Once the project accepts the revised CMS from Thales Australia Ltd as part of POC remediation, the dates in the table will be updated. |
| 4 | Although the design review was exited in December 2019, a number of technical issues were not resolved but were planned for completion by August 2020. This was not achieved and the issues rolled into CDR activities. |
| 5 | CMATS CDR was exited with a number of significant deficiencies. These are being managed through a new process called a DRBR. DRBR was completed in June 2021 but the specifications at DRBR still require updating to meet the entry criteria for the formal RZ system verification activity. Thales Australia Ltd now expects these deliverables to be provided Quarter 3, 2023. |
| 6 | Airservices Australia Pty Ltd signed contracts with Saab, Inc. and Frequentis Australasia Pty Ltd in December 2020. While these contractors have provided some schedules to Airservices Australia Pty Ltd, they are yet to be baselined and assessed in concert with an IMS developed by Airservices Australia Pty Ltd, to align the design, integration and site rollout activities across ADOT and CMATS. |
| 7 | This milestone is not part of the original contract milestones and is specific to the Deed negotiated with Thales Australia Ltd to complete the significant number of outstanding actions arising from CDR RZ. However, the DRBR in June 2021 was for an interim specification and did not meet the entry criteria for entry into Test Readiness Review RZ. |
| 8 | The variance is due to a combination of impacts of schedule delay to previous design milestones, and for the period June 2021 to November 2021, due to late delivery of the Contractor Data Requirements List artefacts to the customer prior to entering the review. |

3.2 Contractor Test and Evaluation Progress

| Test and Evaluation | Major System/Platform Variant | Original Planned | Current Contracted | Achieved/ Forecast | Variance (Months) | Notes |
|---|---|---|---|---|---|---|
| RZ System Verification | CMATS | N/A | Mar 22 | TBA | N/A | 4 |
| System Acceptance | SATC – CMATS | Jan 22 | Jun 23 | TBA | N/A | 3 |
| | RAAF Base East Sale - CMATS | May 22 | Sep 23 | TBA | N/A | 3 |
| | RAAF Base Amberley - CMATS | Jun 22 | Oct 23 | TBA | N/A | 3 |
| | RAAF Base Edinburgh - ADOT | Jun 22 | TBA | TBA | N/A | 1, 3 |
| | RAAF Base Pearce - CMATS | Oct 22 | Mar 24 | TBA | N/A | 3 |
| | RAAF Base Gingin - ADOT | Oct 22 | TBA | TBA | N/A | 1 |
| | RAAF Base Tindal - CMATS | Nov 22 | Mar 24 | TBA | N/A | 3 |
| | Army Aviation Centre Oakey - ADOT | Nov 22 | TBA | TBA | N/A | 1, 3 |
| | RAAF Base Townsville - CMATS | Nov 23 | Sep 26 | TBA | N/A | 3 |
| | Naval Air Station Nowra - CMATS | Mar 24 | Oct 26 | TBA | N/A | 3 |
| | RAAF Base Williamtown - CMATS | Apr 24 | Oct 26 | TBA | N/A | 3 |
| | RAAF Base Darwin - CMATS | Apr 24 | Sep 26 | TBA | N/A | 3 |
| | RAAF Base Richmond - ADOT | May 24 | TBA | TBA | N/A | 1 |
| RZ System Acceptance | CMATS | Aug 22 | Nov 23 | TBA | N/A | 2 |
| Release 1 (R1) System Acceptance | CMATS | Jul 24 | Jan 27 | TBA | N/A | 3 |
| Release 2 (R2) System Acceptance | CMATS | Feb 25 | Jun 27 | TBA | N/A | 3 |
| Final Acceptance | CMATS | Aug 25 | Sep 27 | TBA | N/A | 3 |

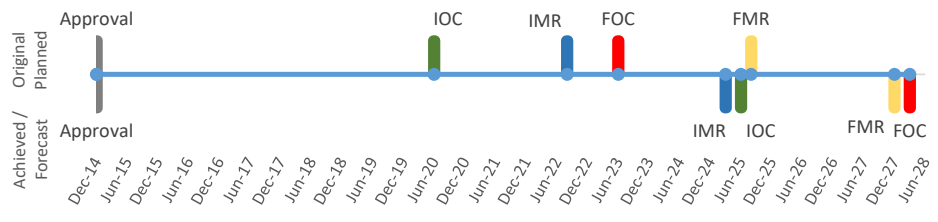
| Notes | |
|---|---|
| 1 | The planned date was based on the original contract before these sites were de-scoped from the Thales Australia Ltd contract. Forecast dates are expected to be updated once the ADOT schedules have been agreed. |
| 2 | RZ System Acceptance includes East Sale Tower and Approach (including the SATC), Amberley Tower and Approach including consolidated Oakey Approach and Edinburgh ADOT. The selected sites constitute the AIR5431 Phase 3 IOC, as the combination of these sites demonstrates all possible system variants for Defence's portion of the CMATS system. |
| 3 | An IBR was completed in Quarter 4, 2022 which has prompted a schedule re-plan by Thales Australia Ltd of the CMATS deliverables. This planning is not completed. |
| 4 | Thales Australia Ltd is undertaking a schedule re-plan of the CMATS contract to support their POC remediation strategy. Once the project accepts the revised CMS from Thales Australia Ltd as part of POC remediation, the dates in the table will be updated. |

3.3 Progress Toward Materiel Release and Operational Capability Milestones

| Item | Original Planned | Achieved/Forecast | Variance (Months) | Notes |
|---|---|---|---|---|
| Initial Materiel Release (IMR) | Aug 22 | Quarter 2, 2025 | 33 | 1, 2, 5 |
| Initial Operational Capability (IOC) | Jun 20 | Quarter 4, 2025 | 65 | 2, 3, 4, 5 |
| Final Materiel Release (FMR) | Aug 25 | Quarter 4, 2027 | 27 | 1, 2, 5 |
| Final Operational Capability (FOC) | Jun 23 | Quarter 1, 2028 | 56 | 2, 4, 5 |

| Notes | |
|---|---|
| 1 | The IMR and FMR milestones reflect the advice provided to Government in December 2019 and are included in Materiel Acquisition Agreement (MAA) V3. The timing between IMR to IOC and FMR to FOC are constant. The apparent differences in variance between IMR/IOC and FMR/FOC is the result of using a different basis for the original date. The original date for IOC/FOC is the tender documentation whereas the original date used for IMR/FMR is the February 2018 Thales Australia Ltd contract date for those milestones. The IMR/FMR dates are only for the Thales Australia Ltd contract. |
| 2 | The variances in the identified milestones are the result of a number of cumulative factors including: a protracted negotiation period; schedule delays resulting from the inclusion of scope post contract, incorporated through CCPs; and persistent schedule performance issues due to design and technical issues. The reported forecast dates for IOC and FOC are representative of the last formal CMS delivery from Thales Australia Ltd prior to POC status. Thales Australia Ltd participated in an IBR during Quarter 4, 2022 that resulted in corrective actions that, despite the remediation plan, are likely to increase the forecast delay to the IOC and FOC. |
| 3 | IOC also includes RAAF Base Edinburgh ADOT. There is no firm date for RAAF Base Edinburgh delivery. |
| 4 | The POC remediation plan proposed by Thales Australia Ltd is likely to change the definition of Defence IOC and FOC. |
| 5 | Achieved/ Forecast Capability Milestone dates reported against Quarters are conveyed in Calendar Year. |

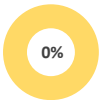
**Schedule Status at 30 June 2023**




| Note |
|---|
| Forecast dates in Section 3 are excluded from the scope of the Auditor-General's Independent Assurance Report. |

## Section 4 – Materiel Capability/Scope Delivery Performance

4.1 Measures of Materiel Capability/Scope Delivery Performance

| Traffic Light Diagram: Percentage Breakdown of Materiel Capability/Scope Delivery Performance | |
|---|---|
|   | **Green:** The project expects to meet the capability requirements as expressed in the Joint Project Directive, MAA and relevant Technical Regulatory Authority. While a number of changes in the way Defence scope is to be delivered through the collaboration options initiated by Airservices Australia Pty Ltd, these will not impact on the safe delivery of Defence air traffic services. |
|   | **Amber:** N/A |

| | |
|---|---|
|  | **Red:**<br>N/A |

| Note |
|---|
| This Traffic Light Diagram represents Defence's expected capability delivery. Capability assessments and forecast dates are excluded from the scope of the Auditor-General's Independent Assurance Report. |

4.2 Constitution of Materiel Release and Operational Capability Milestones

| Item | Explanation | Achievement |
|---|---|---|
| Initial Materiel Release (IMR) | Amberley, East Sale (including SATC) and Edinburgh transitioned from ADATS. | Not yet Achieved |
| Initial Operational Capability (IOC) | Amberley, East Sale, SATC and Edinburgh have been accepted into operational service. | Not yet Achieved |
| Final Materiel Release (FMR) | Delivery of all materiel system elements configured to the final system build for both ADOT and CMATS mission systems. | Not yet Achieved |
| Final Operational Capability (FOC) | All Defence sites have been accepted into operational service. | Not yet Achieved |

## Section 5 – Major Risks and Issues

5.1 Major Project Risks

| Identified Risks (risk identified by standard project risk management processes) | | |
|---|---|---|
| Ref# | Description | Remedial Action |
| 1 | Poor provision of, or delays to Customer Furnished Materials, Supplies and Services including non-compliance of, deficiencies in, or functional availability third-party systems and infrastructure, or a misalignment of network availability targets, may impact achievement of certification, and result in the customer impacting the schedule. | Treatment involves close coordination with the Sponsor, Systems Program Office, Airservices Australia Pty Ltd Integration team and the contractor to actively manage timely provision of fit for purpose Customer Furnished Material. |
| 2 | Dependency complexity from the collaboration options may lead to divergent goals, reduced control, exposure of cost, scope and schedule thresholds and a breach of OSA obligations resulting in a failure to satisfy customer capability expectations. | Ensure that the OSA remains relevant and that no rights and protections are reduced through variations to the OSA, and that the Defence team understand how the OSA applies. |
| 3 | ADOT system fitness for purpose may be affected by a lack of documented scope, management of ambiguity, allocation of scope between contractors, and poor integration, governance and resourcing, leading to a delayed ADOT that doesn't meet ATM service needs. | Defence staff embedded in the Joint Project Team ensure Defence requirements for ADOT are achieved in accordance with the ADOT Functional Performance Requirements Specification and OSA. |
| 4 | Implementation of CMATS may be impacted by the availability of other third-party delivered systems. | This risk is now being managed within the "provision of or delays to Customer Furnished Materials, Supplies and Services" risk and will not appear in this current form in next year's Major Projects Report. |
| 5 | Thales Australia Ltd's design processes do not recognise Defence facilities constraints, this may lead to schedule delay and increased costs to the customer. | Resolution of outstanding technical issues and through appropriate systems engineering approaches is the subject of POC remediation. |
| 6 | The Joint Software Support Facility may not be available or operationally effective in time for demonstrating systems readiness, this may cause delays to commissioning at sites. | Resolution of outstanding technical issues and through appropriate systems engineering approaches is the subject of POC remediation. |
| 7 | Insufficient Defence and Airservices Australia Pty Ltd project resources, with adequate skills/experience across functional streams, may result in quality and schedule impacts to key activities and milestones. | Timely sourcing of resources with relevant skills/experience, aligned to CMS, is achieved through the MSP. |
| 8 | CMATS system and software verification may be impacted by a failure to resolve outstanding technical issues supported by evidence, leading to an inadequate basis upon which to achieve mandated baselines and milestones, exacerbating delays to schedule and project cost. | Resolution of outstanding technical issues and through appropriate systems engineering approaches is the subject of POC remediation. The project made a successful call on contingency to minimise the project's exposure to this risk, specifically costs associated with contract changes. |
| 9 | The systems engineering approach adopted by Thales Australia Ltd does not align with the contracted software design model, this increases the complexity of baseline management, assurance activities and complicates delivery of a systems solution. | The systems engineering approach adopted by Thales Australia Ltd is the subject of POC remediation strategies. |
| 10 | Thales Australia Ltd's resource profile lacks flexibility, composition of skills and resilience to staff turnover to deliver the requirements for mandated system reviews, cater for Engineering Change Proposals / CCPs, along with emergent scope. | Monitoring of Thales Australia Ltd's approach to resourcing composition is conducted through the Program Review Board. Separately Thales Australia Ltd continue recruitment and retention activities to address the staff turnover and shortages. |

| | | |
|---|---|---|
| 11 | Site acceptance activities may be impacted by a requirement to support long-term and ongoing travel obligations. | Recruitment of resources within proximity of each site remains a key strategy available to the project via the MSP. |
| 12 | Thales Australia Ltd's prioritisation of schedule over quality results in additional work for the Joint Project Team to ensure contract deliverables are fit for purpose, leading to an increase to customer workforce demand. | Continue to enforce Thales Australia Ltd's obligation to undertake quality control and design analysis in accordance with the contract, as well as limiting the number of incremental reviews being conducted. |
| 13 | Lack of a credible IMS for OneSKY program, as a result of poor quality CMS, may impact timely and accurate provision of Customer Furnished Material, ineffective use of Defence resources and business continuity of existing ATM systems. | Continue to leverage existing program governance and controls to articulate the impacts of continuing to proceed with a non-credible schedule. The project made a successful call on contingency to treat the business continuity risk of the existing ATM systems, by extending the LOT of ADATS. |
| 14 | Thales Australia Ltd's Human Factors approach may not support CMATS outcomes, including improved fitness for purpose based on user-centred design and optimised effectiveness of user performance. | Management involves participation of operational experts and end user representatives in working groups, with clear escalation paths. The Joint Project Team is driving Thales Australia Ltd's progress. |
| Emergent Risks (risk not previously identified but has emerged during 2022–23) | | |
| Ref# | Description | Remedial Action |
| 1 | Capability fitness for purpose may be impacted by ambiguity and known issues, a failure of the contractors to deliver the system requirements within the contract terms or budget, limitation of the technology solution to meet ATM service needs and failure to integrate with interfaces and services. | Remediation of the CMATS program is the subject of POC, strategies targeting resolution of risk associated with technical complexity, cost and schedule. |
| 2 | Support system readiness for ADOT commissioning may be impacted by delays to progressing the development of the support system. | Defence is working with Airservices Australia Pty Ltd to define the support system for ADOT through development of a support concept and inclusion of requirements into the specification. |

5.2 Major Project Issues

| Ref# | Description | Remedial Action |
|---|---|---|
| 1 | Early exit of the CDR with major deficiencies in the RZ Design still to be addressed. | Resolution of outstanding technical issues and through appropriate systems engineering approaches is the subject of POC remediation. |
| 2 | The increased cost of the project's MSP arrangement as a result of delays to the contractor's delivery schedules. | The project manages resources in accordance with contractor schedules to minimise inefficiencies. The project made a successful call on contingency to treat this issue and extend the workforce to FY 2027-28. |
| 3 | The OSA is not fit for purpose to manage the on-supply of sustainment supplies and services from Airservices Australia Pty Ltd. | Work with Airservices Australia Pty Ltd to update the OSA to incorporate an appropriate cost-sharing regime and governance arrangements for on-supply of sustainment supplies and services. |
| 4 | Through-life supportability of the INTAS product for ADOT may not be viable following NAV CANADA's announcement that they are ceasing system development of the INTAS product. | Re-validate the ADOT LOT with Airservices Australia Pty Ltd, supported by evidence from Saab, Inc. on the future INTAS product development path. |

| Note |
|---|
| Major risks and issues in Section 5 are excluded from the scope of the Auditor-General's Independent Assurance Report. |

## Section 6 – Lessons Learned

6.1 Key Lessons Learned

| Description | Categories of Systemic Lessons |
|---|---|
| In line with Defence instruction and CASG Lessons policy, the project conducts scheduled reviews of its captured lessons information (including any observations, insights and/or lessons identified) as well as lessons information contained within the Defence Lessons Repository. The project has captured seven lessons related to Contract Management, First of Type Equipment, Schedule Management, Governance, and Requirements Management. Three project lessons are provided below (note this does not include all project lessons): | The project has not categorised any of its lessons information as a whole-of-Defence Lesson Learned. |
| Lesson Type – Observation. 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 |

| | |
|---|---|
| Lesson Type – Observation. As a result of long-running schedule maturity issues, it is recommended that long-term planning beyond the nearest major milestone is essential to reducing program risk and sub-optimal short-term planning, and furthermore schedule logic applied to the CMS must reflect the logic identified in the contract to ensure activities are sequenced according to precedence and priority. | Schedule Management |
| Lesson Type – Observation. Aggressive timeframes to meet schedule milestones often results in compressed timeframes to engage stakeholders (operational, engineering/technical and strategic), leading to compromises to proper requirements management. Consequently, a schedule needs to be developed to include opportunities for specified periods of stakeholder consultation and alignment during the capability delivery life-cycle. | Schedule Management / Governance |

## Section 7 – Project Structure

7.1 Project Structure as at 30 June 2023

| Unit | Name |
|---|---|
| Division | Air Defence and Space Systems Division |
| Branch | Air and Space Surveillance and Control |