

## Project Data Summary Sheet<sup>148</sup>

|                                 |  |
|---------------------------------|--|
| Project Number                  | <b>AIR555 Phase 1</b>  |
| Project Name                    | <b>Airborne Intelligence, Surveillance, Reconnaissance and Electronic Warfare (ISREW) Capability</b> |
| First Year Reported in the MPR  | 2021-22  |
| Capability Type                 | New  |
| Capability Manager              | Chief of Air Force   |
| Government 1st Pass Approval    | Dec 15   |
| Government 2nd Pass Approval    | Sep 17   |
| Budget at 2nd Pass Approval     | \$2,166.3m   |
| Total Approved Budget (Current) | \$2,233.6m   |
| 2021-22 Budget                  | \$306.5m   |
| Complexity                      | ACAT II  |



### Section 1 – Project Summary

#### 1.1 Project Description

AIR555 Phase 1 (AIR555PH1) will deliver four first of type MC-55A Peregrine aircraft, being modified Gulfstream Aerospace Corporation (GAC) G550 platforms. The aircraft will incorporate the next evolution of an operationally proven Airborne Intelligence, Surveillance, Reconnaissance and Electronic Warfare (ISREW) capability.

The capability will be a critical enabler for the Australian Defence Force's (ADF's) 5<sup>th</sup> generation war fighting platforms and will conduct routine and rapid surveillance in order to provide real time threat warning and intelligence support to the ADF, and will be a primary contributor of information to support Intelligence Mission Data (IMD) production.

AIR555PH1 is predominately a Foreign Military Sales (FMS) Program through the United States Air Force (USAF). The USAF's Prime Contractor for the acquisition of AIR555PH1 is L3Harris.

Three domestic delivery agencies are involved in the major systems and fundamental inputs to capability (FIC): Capability Acquisition & Sustainment Group (CASG), Estate & Infrastructure Group (E&IG) and Chief Information Officer Group (CIOG), with CASG acting as the Integrated Project Manager (IPM).

AIR555PH1 facilities will be located at four locations. The main operating base facilities will be built as a component of the ISREW Precinct at RAAF Base Edinburgh. Construction of the facilities commenced at RAAF Base Edinburgh in 2020. Facilities at three forward operating bases will also be delivered.

#### 1.2 Current Status

##### Cost Performance

###### In-year

Financial year 2021-22 expenditure was \$220.5m against the budget of \$306.5m. The variation is associated with Aircraft one Phase 1 modifications, Group B material buys, and Phase 2 modification, integration, testing and data (MITD) activities.

###### Project Financial Assurance Statement

As at 30 June 2022, project AIR555PH1 has reviewed the project's 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, there is sufficient budget including contingency remaining for the project to complete against the agreed scope

###### Contingency Statement

The project did not apply contingency in the financial year 2021-22.

The project applied \$78.3m contingency in the 20/21 financial year primarily for the treatment of technical performance issues outlined in Section 5.2 of this Project Data Summary Sheet.

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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.

### Schedule Performance

The FMS materiel delivery schedule has been impacted by risks realised through the Phase 1 engineering at the Gulfstream facility, workforce challenges and global supply issues.

In consultation with the Sponsor and USAF, the Project has assessed mitigation strategies to minimise schedule delays and interim milestone deliveries within the Materiel Acquisition Agreement (MAA). Based on the resultant schedule review, AIR555PH1 provided a re-baselined schedule for Sponsor and Government approval in November 2021. This has resulted in an adjustment to project schedule for Initial Operational Capability (IOC).

The updated MAA milestone dates were approved in the 2021 Bi-Annual Update to the Integrated Investment Plan (IIP). Following the November 2021 Government approval, the updated MAA was approved by Head of Air Force Capability (HAC) and Head of Air Services Division (HASD) in April 2022.

The program has significant engineering, integration and flight test activities yet to be completed, which have the potential to impact the program schedule. The commencement of an initial series of flight test activities are scheduled in 2022. The completion of these critical milestone events will inform the Project on the residual schedule risks associated with achieving the IOC/Final Operational Capability (FOC) milestones.

### Materiel Capability/Scope Delivery Performance

As at 30 June 2022, this project has not delivered any materiel capability.

The AIR555PH1 facilities build at Edinburgh is being managed with consideration of the Intelligence, Surveillance and Reconnaissance (ISR) Enterprise at the RAAF Base. The Interim Operating Facility, the first facility to be delivered through E&IG, will be complete in Quarter 4 2022, which will support the integration and test of ground systems for AIR555PH1.

#### Note

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

### 1.3 Project Context

#### Background

AIR555PH1 will deliver an Airborne Intelligence Surveillance and Reconnaissance Electronic Warfare (ISREW) capability to Defence through a Foreign Military Sales (FMS) Case.

The initial (Government Gate Zero) project approval took place in July 2014. The scope for Gate 0 activities was to engage Defence Materiel Organisation (now Capability Acquisition and Sustainment Group (CASG)) contractor support to enable documentation production and risk reduction activities prior to AIR555PH1 First Pass consideration.

In November 2014, the Capability Gate Review Board (CGRB) delayed AIR555PH1 until the Force Structure Review (FSR) and Defence Capability Plan (DCP) 2015 were released.

The In-Service Date (ISD) of the AIR555PH1 solution was aligned with the Planned Withdrawal Date (PWD) of related capabilities; however, the CGRB-directed delay to First Pass resulted in an IOC date for AIR555PH1 which differed from the original project assumptions. This formed the basis of the project delivery schedule through the Government approval process.

The Smart Buyer Process was introduced to Defence during 2016 and became a mandatory requirement for Defence projects during 2017 and onwards. As the new process was introduced after AIR555PH1 had approached the market, it was not feasible to implement the guidelines within the timeframe available.

The Government Gate 1 (First Pass) project approval occurred in December 2015. AIR555PH1 First to Second Pass work included development of a detailed acquisition schedule, high quality cost estimate (HQCE) and technical risk reduction activities (RRAs). These were conducted under FMS Cases through the US Air Force (USAF) Big Safari ISREW program managed by the 645th Aeronautical Systems Group (AESG), with L3Harris Mission Integration as the prime contractor.

The costs developed through the HQCE, when combined with the inability to change the AIR555PH1 IIP allocation and phasings, necessitated a further review of the project by the Capability Manager Gate Review (CMGR) and Investment Committee (IC). The results of this review were a review of the number of aircraft, and a revised IOC and Final Operational Capability (FOC) dates.

The HQCE, including risk reduction activities and initial design effort to validate the rough order of magnitude (ROM) costs provided pre first pass, were higher than the ROM cost estimates. However, the cost fidelity was validated through the first to second pass activities and represented a higher quality of cost estimation based on initial engineering assessments and consideration of risk.

The CMGR and IC also agreed to purchase two unmodified G550 aircraft during First Pass activities, which in turn were to be delivered to L3Harris Mission Integration.

AIR555PH1 achieved Gate 2 (Second Pass) Government approval in September 2017. Government approved the production of four MC-55A Peregrine aircraft, two aircraft capability extension systems (ACES), two secure access control systems, one mission crew training system and one ground data processing system. CASG was also to arrange for four ACES crews, training and standardisation staff, maintenance crews, operational test and equipment, accredited main operating base and forward operating bases, achieve airworthiness requirements and establish a Systems Program Office.

#### Uniqueness

AIR555PH1 is a FMS acquisition program from the USAF, however, it is not a traditional FMS program. AIR555PH1 will deliver a first of type, complex, developmental program integrating new ISR systems, antennae, power system modifications, communications systems and extensive modifications to a commercial Gulfstream G550 outer mold line.

The program will incorporate multiple phases of the major modification at the aircraft manufacturer (Gulfstream), followed by a comprehensive mission system integration and test program at L3Harris. Both of these activities will require Federal Aviation Authority (FAA) airworthiness certification (Supplemental Type Certification (STC)). In addition, there will be a military certification process to follow for specialist military equipment installed during the modification program.

AIR555PH1 design changes to the outer mold line will require significant engineering to be compliant with the AIR555PH1 design requirements (size, weight, weight distribution and power). These extensive modifications include additional power within the aircraft and a modification of the Rolls Royce engine, cooling and an increase of maximum zero fuel weight for the airframe.

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| <b>Major Risks and Issues</b>   |
|---|
| The project is a developmental program with significant engineering, integration and flight test activities yet to be completed. These high risk activities have the potential to result in schedule delays to initial product delivery, with a high likelihood that additional contingency will be required.   |
| The major program risks are associated with: <ul style="list-style-type: none"> <li>- Phase 1 modification and flight test schedule;</li> <li>- platform aerodynamic stability and structural life;</li> <li>- Ground Mission System (GMS);</li> <li>- certification and accreditation;</li> <li>- hazardous substances being delivered within FMS items; and</li> <li>- the Flight Test Program identifying issues that require additional non-recurring engineering and testing.</li> </ul> |
| <b>Other Current Related Projects/Phases</b>  |
| Nil   |
| <b>Note</b>   |
| Major risks and issues are excluded from the scope of the Auditor-General's Independent Assurance Report.   |

## Section 2 – Financial Performance

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

| Date            | Description  | \$m            | Notes            |
|-----------------|--|----------------|------------------|
|                 | <b>Project Budget</b>  |                |                  |
| Aug 14          | Original Approved (Government Interim Approval)  | 3.2            |                  |
| Apr 15          | Real Variation (Real Cost Increase)  | 3.4            | 1                |
| Jan 16          | First Pass Approval (Government Approval)  | 102.1          | 2                |
| Jan 16          | Real Variation (Real Cost Increase)  | 149.7          | 2                |
| Feb 18          | Government Second Pass Approval  | 1,907.9        |                  |
|                 | <b>Total at Second Pass Approval</b>   | <b>2,166.3</b> |                  |
| May 19          | Real Variation (Budgetary Adjustments)   | (2.9)          | 3                |
| Aug 21          | Real Variation (Transfer)  | 0.4            | 4                |
| Sep 21          | Real Variation (Transfer)  | 2.0            | 5                |
| Jun 22          | Exchange Variation   | 67.8           |                  |
| <b>Jun 22</b>   | <b>Total Budget</b>  |                | <b>2,233.6</b>   |
|                 | <b>Project Expenditure</b>   |                |                  |
| Prior to Jul 21 | Contract Expenditure – ATDQCS  | (803.9)        |                  |
|                 | Contract Expenditure – ATDSAB  | (247.1)        |                  |
|                 | Contract Expenditure – ATDSAA  | (132.9)        |                  |
|                 | Contract Expenditure – ATDGCA  | (78.2)         |                  |
|                 | Other Contract Payments/Internal Expenses  | (15.9)         | 6                |
|                 |  |                | <b>(1,277.9)</b> |
| FY to Jun 22    | Contract Expenditure – ATDQCS  | (107.2)        |                  |
|                 | Contract Expenditure – ATDSAB  | (100.2)        |                  |
|                 | Contract Expenditure – ATDGCA  | (0.5)          |                  |
|                 | Contract Expenditure – Rolls Royce   | (8.1)          |                  |
|                 | Other Contract Payments/Internal Expenses  | (4.5)          | 7                |
|                 |  |                | (220.5)          |
|                 | <b>Total Expenditure</b>   |                | <b>(1,498.4)</b> |
| <b>Jun 22</b>   | <b>Remaining Budget</b>  |                | <b>735.2</b>     |
| <b>Notes</b>    |  |                |                  |
| 1               | Update to pre first pass Project Development Fund to progress the project through continued engagement with stakeholders.  |                |                  |
| 2               | Post 1st pass guidance transfer to procure two aircraft and conduct risk reduction activities to inform Second Pass. This amount is inclusive of the First Pass approval amount. |                |                  |
| 3               | Budgetary adjustment correction to re-profile journal.   |                |                  |
| 4               | Transfer of Air Force Head Quarters project administrative contingency budget to CASG to manage.   |                |                  |
| 5               | Transfer of Air Force Head Quarters project administrative budget to CASG to manage.   |                |                  |
| 6               | Includes project administration activities (\$1.3m), travel (\$1.8m), above the line contractor support (\$9.4m) and other ad hoc expenditure (\$3.4m).                          |                |                  |
| 7               | Includes project administration activities (\$0.0m), travel (\$0.4m), above the line contractor support (\$3.8m) and other ad hoc expenditure (\$0.3m).                          |                |                  |

### 2.2A In-year Budget Estimate Variance

| Estimate PBS \$m | Estimate PAES \$m | Estimate Final Plan \$m | Explanation of Material Movements  |
|------------------|-------------------|-------------------------|--|
| 294.5            | 310.0             | 306.5                   | The increase in estimate from PBS to PAES is primarily due to the acceleration of Aircraft 2 modifications and Aircraft 3 induction and updated payment schedules from sub-contractors.<br><br>The reduction in estimate from PAES to Estimate Final Plan is due to exchange fluctuations change to PBS 22/23. |

|              |      |       |                            |
|--------------|------|-------|----------------------------|
| Variance \$m | 15.5 | (3.5) | Total Variance (\$m): 12.0 |
| Variance %   | 5.3  | (1.1) | Total Variance (%): 4.2    |

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

| Estimate Final Plan \$m | Actual \$m | Variance \$m | Variance Factor                          | Explanation  |
|-------------------------|------------|--------------|--|--|
|                         |            |              | Australian Industry                      | Financial year 2021-22 expenditure was \$220.5m against the budget of \$306.5m. The variation is associated with Aircraft one Phase 1 modifications, Group B material buys, and Phase 2 modification, integration, testing and data (MITD) activities. |
|                         |            | (86.0)       | Foreign Industry                         |  |
|                         |            |              | Early Processes                          |  |
|                         |            |              | Defence Processes                        |  |
|                         |            |              | Foreign Government Negotiations/Payments |  |
|                         |            |              | Cost Saving                              |  |
|                         |            |              | Effort in Support of Operations          |  |
|                         |            |              | Additional Government Approvals          |  |
| 306.5                   | 220.5      | (86.0)       | <b>Total Variance</b>                    | See para 1.2   |
|                         |            | (28.1)       | <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 22 \$m   |                    |                           |       |
| FMS Case - ATDGCA                                    | Dec 15  | 81.8          | 79.4  | Reimbursement      | FMS                       | 1     |
| FMS Case - ATDSAA                                    | Dec 15  | 134.4         | 133.0   | Reimbursement      | FMS                       | 1     |
| FMS Case - ATDQCS                                    | Aug 17  | 0.4           | 1,100.1   | Reimbursement      | FMS                       | 1,2   |
| FMS Case - ATDSAB                                    | Jan 18  | 546.5         | 692.4   | Reimbursement      | FMS                       | 1,3   |
| Rolls Royce – Spare Engine                           | Aug 21  | 18.3          | 18.1  | Firm               | Standard Defence Contract | 1,4   |
| <b>Notes</b>   |   |               |   |                    |                           |       |
| 1  | Variations due to exchange rate fluctuations.   |               |   |                    |                           |       |
| 2  | Original FMS Case ~\$0.4m to engage USAF contractors to commence contractual documentation in anticipation of executable contract at AIR555PH1 Second Pass. Amendment 1 ~\$1,032.0m update includes modification and delivery of the first two MC-55A aircraft, associated ground systems, long lead items and period of performance extensions to comply with new IOC date agreed to by National Security Committee of Cabinet. Amendments 2 and 3 were administrative changes to the contract, nil increase in value. Amendment 4 ~\$41.4m was to account for a Flight Simulator Training Device. ~\$40.8m of this Purchase Order is funded from Sustainment. |               |   |                    |                           |       |
| 3  | Original FMS Case ~\$546.5m to procure, modify and deliver remaining two MC-55A aircraft, also delivery of remaining ground systems and integrated logistics support to meet FOC requirements. Amendment 1 ~\$222.1m for spares, support and test equipment, fly away kits and initial training for airborne and ground based operator crews. ~\$87.5m of this Purchase Order is funded from Sustainment.   |               |   |                    |                           |       |
| 4  | Direct Commercial Sale for the procurement of a GAC spare engine.   |               |   |                    |                           |       |
| Contractor   | Contracted Quantities as at   |               | Scope   | Notes              |                           |       |
|  | Signature   | 30 Jun 22     |   |                    |                           |       |
| FMS Case - ATDGCA                                    | N/A   | N/A           | To provide First to Second Pass program management, technical and engineering services to support AIR555PH1 schedule and technical Risk reduction activities.       |                    |                           |       |
| FMS Case - ATDSAA                                    | 2   | 2             | Procure two (2) green unmodified Gulfstream G550 aircraft   |                    |                           |       |
| FMS Case - ATDQCS                                    | 2   | 2             | Modification of two (2) aircraft and associated support equipment   |                    |                           |       |
| FMS Case - ATDSAB                                    | 2   | 2             | Procure, modify & deliver two (2) green unmodified Gulfstream G550 aircraft including remaining ground mission systems, Integrated Logistics Support to support FOC | 1                  |                           |       |
| Rolls Royce  | 1   | 1             | Procurement of Spare Engine.  |                    |                           |       |
| Major equipment accepted and quantities to 30 Jun 22 |   |               |   |                    |                           |       |
| Nil  |   |               |   |                    |                           |       |
| <b>Notes</b>   |   |               |   |                    |                           |       |
| 1  | A Flight Simulator Training Device is procured under this FMS Case but funded and accounted for within the Sustainment Budget and therefore is not included in this table.  |               |   |                    |                           |       |

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**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 | Aircraft Phase 1  | N/A              | N/A                | Oct 16            | N/A               | 1     |
|                     | Aircraft Phase 2  | N/A              | N/A                | Dec 16            | N/A               | 1     |
| Preliminary Design  | Aircraft Phase 1  | N/A              | N/A                | Jun 17            | N/A               | 1     |
|                     | Aircraft Phase 2  | N/A              | N/A                | Jun 19            | N/A               | 1     |
| Critical Design     | Aircraft Phase 1  | N/A              | N/A                | Nov 17            | N/A               | 1     |
|                     | Aircraft Phase 2  | N/A              | N/A                | Sep 20            | N/A               | 1     |
| <b>Notes</b>        |   |                  |                    |                   |                   |       |
| 1                   | The Commonwealth is not in contract for the above major reviews, nor similar reviews with the USAF due to being a FMS Case arrangement. The USAF (prime) and L3Harris (subcontractor) have contractual arrangements in place with each other that does include similar major reviews. However, the Commonwealth is not privy to these contractual arrangements. |                  |                    |                   |                   |       |

**3.2 Contractor Test and Evaluation Progress**

| Test and Evaluation | Major System/Platform Variant   | Original Planned | Current Contracted | Achieved/Forecast | Variance (Months) | Notes |
|---------------------|---|------------------|--------------------|-------------------|-------------------|-------|
| System Integration  | Completion of Ground System #2 ICT Integration in Australia                           | NFP              | N/A                | NFP               | NFP               | 1     |
|                     | Completion of Ground System #1A ICT Integration in Australia                          | NFP              | N/A                | NFP               | NFP               | 1     |
|                     | Completion of Ground System #3 ICT Integration in Australia                           | NFP              | N/A                | NFP               | NFP               | 1     |
|                     | Completion of Ground System #1B ICT Integration in Australia                          | NFP              | N/A                | NFP               | NFP               | 1     |
| Acceptance          | Completion of CIOG AT&E   | NFP              | N/A                | NFP               | NFP               | 1,2   |
| <b>Notes</b>        |   |                  |                    |                   |                   |       |
| 1                   | NFP - Dates associated with capability realisation are not for public release         |                  |                    |                   |                   |       |
| 2                   | AT&E acceptance by CIOG is an internal Defence milestone, with no associated contract |                  |                    |                   |                   |       |

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

| Item                                 | Original Planned  | Achieved/Forecast | Variance (Months) | Notes |
|--------------------------------------|---|-------------------|-------------------|-------|
| Initial Materiel Release (IMR)       | NFP   | NFP               | NFP               | 1,2,4 |
| Initial Operational Capability (IOC) | NFP   | NFP               | NFP               | 2,4   |
| Final Materiel Release (FMR)         | NFP   | NFP               | NFP               | 3,4   |
| Final Operational Capability (FOC)   | NFP   | NFP               | NFP               |       |
| <b>Notes</b>                         |   |                   |                   |       |
| 1                                    | IMR definition was expanded from only being arrival of Aircraft #1, to include initial operating ground systems and a Forward Operating Base, which resulted in a forecast variance required to achieve the milestone.                                    |                   |                   |       |
| 2                                    | IMR & IOC have been re-baselined due to Phase 1 engineering and COVID-19 workforce issues. An updated Material Acquisition Agreement was approved by the Capability Sponsor in April 2022.  |                   |                   |       |
| 3                                    | FMR definition was expanded from only being arrival of Aircraft #4, to include operating ground systems, 3 forward operating bases, one deployable system and completion of OT&E, which resulted in a forecast variance required to achieve the milestone |                   |                   |       |
| 4                                    | NFP - Dates associated with capability realisation are not for public release   |                   |                   |       |
| <b>Not For Publication</b>           |   |                   |                   |       |

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| <b>Note</b>  |
| 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 |  |
|---|--|
|   | <b>Green:</b> The AIR555PH1 Project Office expects to provide all deliverables and capability requirements as per agreement with Government. |
|   | <b>Amber:</b> N/A  |
|   | <b>Red:</b> 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)       | <ul style="list-style-type: none"> <li>One MC-55A Peregrine aircraft available for Training and Operations;</li> <li>Ground Systems installed, integrated, and available to support one MC-55A; and</li> <li>One Forward Operating Base (FOB) sufficient to support operations.</li> </ul>  | <p>Not yet achieved</p> <p>Forecast is NFP, as dates associated with capability realisation are not for public release</p> |
| Initial Operational Capability (IOC) | <ul style="list-style-type: none"> <li>Two MC-55A crews;</li> <li>One ground based mission crew;</li> <li>Two Maintenance Crews;</li> <li>In Service Support available to support operation of one MC-55A;</li> <li>Established project office; and</li> <li>One MC-55A Flight Simulation Training Device (FSTD) 'Stage 1' Available for Training.</li> </ul>   | <p>Not yet achieved</p> <p>Forecast is NFP, as dates associated with capability realisation are not for public release</p> |
| Final Materiel Release (FMR)         | <ul style="list-style-type: none"> <li>Total of Four MC-55A Peregrine aircraft available for training and operations;</li> <li>Ground Systems installed, integrated, and available to support one MC-55A;</li> <li>Accredited Forward Operating Base facilities;</li> <li>One Modular Processing System (MPS) available to deploy from the Main Operating Base (MOB); and</li> <li>Completion of operational test and evaluation (OT&amp;E).</li> </ul>   | <p>Not yet achieved</p> <p>Forecast is NFP, as dates associated with capability realisation are not for public release</p> |
| Final Operational Capability (FOC)   | <ul style="list-style-type: none"> <li>MC-55A crews available to support operation of four MC-55A;</li> <li>ACES Crews available to support operation of one MC-55A;</li> <li>Maintenance Crews available to support operation of four MC-55A;</li> <li>Training and Standardisation staff;</li> <li>Achievement of all airworthiness requirements to support scope of intended operations;</li> <li>Establishment of all initial operational support, logistics &amp; commercial maintenance arrangements to support the scope of intended operations;</li> <li>Established SPO to support the full capability; and</li> <li>MC-55A Flight Simulation Training Device (FSTD) Upgrade to 'Stage 2' Available for Training.</li> </ul> | <p>Not yet achieved</p> <p>Forecast is NFP, as dates associated with capability realisation are not for public release</p> |

### 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 the MC-55A Phase 2 modification will be impacted by unforeseen design and integration complications, leading to an impact on cost and schedule.  | The AIR555 RPT will conduct a review of the L3Harris design against the AIR555PH1 FPS and will monitor system performance through insight into laboratory test activities.   |
| There is a chance that MC-55A BFOB capability may be limited at FOC, leading to additional expenditure in order to achieve the required capability.  | The AIR555 PO will continue to investigate existing ADF deployable solutions and work through issues to develop a suitable Beyond Forward Operations Base (BFOB) capability. The PO will also maintain engagement with ASD regarding deployable secure facilities. |
| There is a chance that the communications design will not meet operational needs, leading to an impact on sustainment costs IOT achieve the capability.  | The AIR555 RPT is engaging with USAF to understand current system design limitations, with a design review to be completed to inform future decisions. The RPT will review Ph2 Flight Test data to understand any additional CIOG support requirements.            |
| There is a chance that ICT network availability will be affected by a lack of help desk support, leading to a degraded capability.   | The AIR555 PO will maintain engagement with related projects and look to retain current contractor support. This Risk was rated High, but has been downgraded to Medium due to reduction of likelihood   |
| There is a chance the Australian airworthiness authorities will require additional information to satisfy Australian Defence Aviation Safety Regulations, requiring rectification that impacts on schedule and cost. | The AIR555 PO has regular engagement with the regulator and USAF certification authorities to understand where issues might present. The PO will provide a dedicated workforce to cover the high intensity review period between flight testing and certification. |

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| There is a chance that the AIR555PH1 Workplace Health and Safety compliance will be affected by a misalignment between Australian and American safety standards, culture and programs, leading to an impact on system compliance and safety. | FPS requirements reflect Australian WHS requirements. AIR555 has also provided additional guidance to L3 on Australian WHS requirements. AIR555 PO participates in quarterly US led System Safety meetings to ensure key stakeholders understand the full scope of effort required to identify all hazardous material in the delivered system. Australian reviews of deliverables will ensure requirements have been met across the entire modified aircraft and ground systems. |
| There is a chance that the AIR555PH1 ICT integration will be affected by differences between the US and Australian certification and accreditation standards, leading to schedule delays in approvals.                                       | The AIR555 PO has initiated a Certification and Accreditation Working Group with L3H/MPI/CASG/ASD to work through the differences. Also, CIOG-MPI are developing Certification & Accreditation (C&A) timelines and resourcing requirements. CIOG-MPI are also engaging with certification agencies at senior levels to improve engagement and response.  |
| There is a chance that the AIR555PH1 Ground Mission Systems operation will be affected by inadequate design information, leading to delayed integration with Australian networks.  | The AIR555 PO has re-established Technical Interchange Meetings (TIM's) to increase data exchange between the US and CIOG to ensure CoA has access to the required design information.   |
| There is a chance that the MC55 Publications manuals and technical Data will contain some deficiencies during initial in-service, leading to an impact on capability and aircraft delivery.  | The AIR555 RPT is working with L3 on the content, look and feel of the Aircraft's Flight Manuals to ensure an adequate solution is delivered. The RPT is also working to ensure that any L3H Publication Management System meet CoA Requirements. During the training period in 2023, Australian staff will review the manuals and procedures to ensure they are fit for purpose.  |
| Emergent Risks (risk not previously identified but has emerged during 2021–22)   |  |
| <b>Description</b>   | <b>Remedial Action</b>   |
| There is a chance that the MC-55A Simulator certification and accreditation may not meet Air Force requirements leading to an impact on Tactics, Training and Procedures (TTPs).   | The AIR555 RPT to continue liaising with USAF/L3H to ensure CoA certification and accreditation requirements are included in the USAF contracts to meet the CoA MC-55A Simulator certification and accreditation requirements.   |
| There is a chance that Mission Crew training System (MCTS) will be impacted by a lack of available scenarios, resulting in inadequate crew training.   | The AIR555 PO will engage with USAF regarding agreement to access existing scenarios.<br>This Risk was rated High but has been downgraded to Medium due to reduction of consequence  |

#### 5.2 Major Project Issues

| Description   | Remedial Action   |
|---|---|
| The MC-55A Ph1 design has been affected by unforeseen complications, with the CoA unique design requirements requiring additional non-recurring engineering, leading to an impact on cost and schedule  | The project applied contingency in the 20/21 financial year for the treatment of technical performance issues.<br>The AIR555 Resident Project Team (RPT) will maintain engagement with the USAF/L3/GAC during testing to understand the impacts of any design shortfalls and how to minimise the cost and schedule impacts.<br>The RPT has sought additional structural substantiation data in order to support risk characterisation and understand potential impacts for the in-service structural life limits (ongoing airworthiness). |
| The MC-55A design has been impacted by airframe structural exceedances, which required additional structural analysis and aircraft modifications leading to an impact on cost and schedule  | The project applied contingency in the 20/21 financial year for the treatment of technical performance issues.<br>Gulfstream Aircraft Corporation (GAC) has conducted analysis and is incorporating design changes where necessary.   |
| American Government and/or Contractors deliverables have been affected by the COVID-19 pandemic leading to the delayed delivery of Aircraft 1 & 2 and therefore delayed achievement of IOC.<br>(Note - The risk pertains primarily to prime contractors L3Harris, Gulfstream and sub-contractors) | Due to being an FMS acquisition, there is little the CoA can do to mitigate this issue. Though a detailed review of schedule to IOC has been conducted, minimal mitigation actions have been determined. IOC has been delayed from the original date.<br>Note that analysis of the schedule identified delays only impacting IOC and FOC is not impacted at this stage due to AIR555PH1 being an FMS acquisition.   |

#### 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 |
|--|--------------------------------|
| Have a well-established Workforce Plan (based on the resourced schedule scope) in place for current and future demands depending on the stage of the Capability Life Cycle and project requirements. Allow for contingencies in your plan in the event that the specified resources are unavailable within the APS or ADF. These contingencies can include reservists, contractors, shared resources with similar organisations, etc. Additional funding within the budget should be factored in for some of these contingencies, such as contractors. | Resourcing                     |
| Maintaining collaboration, transparent communication and disciplined engagement with all stakeholders is critical for managing technical requirements and facilitating risk management across the program.   | Governance                     |



|  |            |
|--|------------|
| Ensure the project scope is represented by a well maintained Work Breakdown Structure. Improving the maturity of project management artefacts (Work Breakdown Structure, schedule, risk register), and maintaining consistent tracking and reporting against these. Layers of analysis of the schedule and risk register has allowed a consistent forecasting and reporting framework. | Governance |
| Maintain a robust, consistent configuration management system to ensure project activities remain within project scope, including cost and schedule.   | Governance |

**Section 7 – Project Structure**

7.1 Project Structure as at 30 June 2022

| Unit     | Name                              |
|----------|-----------------------------------|
| Division | Aerospace Systems Division        |
| Branch   | Airlift and Tanker Systems Branch |