Project Data Summary Sheet[151]

Project Number	**AIR8000 Phase 2**
Project Name	**LIGHT TACTICAL FIXED WING**
First Year Reported in the MPR	2013-14
Capability Type	Replacement
Capability Manager	Chief of Air Force
Government 1st Pass Approval	Apr 12
Government 2nd Pass Approval	Apr 12
Budget at 2nd Pass Approval	$1,156.5m
Total Approved Budget (Current)	$1,421.6m
2021-22 Budget	$74.9m
Complexity	ACAT II

Section 1 – Project Summary

1.1 Project Description

This project was approved to replace the retired Caribou capability and provide an enhanced intra-theatre and regional airlift capability through acquisition of a fleet of ten new C-27J aircraft.

Project acquisition includes the ten aircraft, a training system, support system materiel elements, and three years of initial training and support services from the aircraft In-Service Date (ISD), through Initial Operational Capability (IOC) and Final Operating Capability (FOC).

The aircraft was operated by 35 Squadron at its Interim Main Operating Base (MOB) at Royal Australian Air Force (RAAF) Base Richmond and is now operated from its Final MOB at RAAF Base Amberley.

The project has delivered 10 aircraft, the initial training, system support services, an interim training system, and the support system materiel elements.

Government agreed in 2016 to delay FOC to 2019 and accept mature training system and Structural Substantiation Project (SSP) deliverables beyond FOC.

During 2020 Defence completed a capability revalidation activity for the C-27J. The outcomes have resulted in changes to the capability definition which are incorporated into updated arrangements between responsible units. Operational use of the aircraft has pivoted from Battlefield Airlifter to Light Tactical Fixed Wing (LTFW) capability with minor changes to acquisition scope for the simulator. A Missile Approach Warning system study completed in 2019 informed the LTFW decision.

The Project is currently meeting capability materiel requirements as per the Joint Project Directive, and Materiel Acquisition Agreement.

Future deliveries include; the flight training device simulator, further training aids, contracting for simulator sustainment, avionics upgrade, Military Type Certificate aligned with LTFW, and outcomes from the Structural Substantiation Program.

1.2 Current Status

Cost Performance

In-year

The end of financial year variance of $(16.0m) was driven in the main by global supply chain issues causing delays in milestone deliveries for spares procurements and training devices.

Project Financial Assurance Statement

As at 30 June 2022, project AIR8000 Phase 2 has reviewed the project's approved scope and budget for those elements required to be delivered by Defence. Having reviewed the current financial and 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 remaining for the project to complete against the agreed scope.

Contingency Statement

The project has not applied contingency in the financial year.

Schedule Performance

Initial Materiel Release (IMR) and IOC were declared with caveats in December 2016. The IOC declaration encompassed the materiel caveats described by the project at IMR. FOC at end of 2017, as originally planned, was unachievable as a result of: Leonardo aircraft production delays associated with the transfer of the fuselage assembly line; the delayed start to US-based training in 2014; reduced training throughput due to aircraft availability; and commensurate delays associated with establishing facilities at the Main Operating Base at RAAF Base Amberley. Under a revised schedule agreed by Government in 2016, FOC was to be achieved by December 2019 (24 months behind original schedule), noting the capability would continue to mature beyond FOC, including delivery of the mature

151 Notice to reader

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.

training system. Final Materiel Release (FMR) was not achieved in October 2019, and FOC was not declared in December 2019.
Key activity in 2021-22 was achievement of Final Materiel Release (FMR) in line with Governments 2020 capability decision; and support to Air force declaration of FOC. Specifically, this included contracting for the Flight Training Device, acceptance of a Propeller Training aid, acceptance of a Landing Gear Training aid, contracting of Aircrew and Loadmaster Training services, contracting of Training Systems Facility services, upgrade to IFF Mode 5, acceptance of the Flight Loads Test Program report, cancelation of the full scale fatigue test activity of SSP, and replanning the approach to SSP.
The project continues to work towards Materiel Release 3 (June 2025) and Materiel Release 4 (December 2032) acquisition scope as noted in Section 4.2 below.

Materiel Capability/Scope Delivery Performance
The C-27J aircraft is a relatively mature and well tested in production aircraft. Notwithstanding, the project office has been working through a number of capability considerations identified post-establishment of the acquisition arrangements. These baseline issues are associated with the configuration and certification status of the USAF JCA C-27J program, which were not finalised by the USAF at the time of divestiture. All ten aircraft have been accepted, with the last aircraft accepted in December 2017.
Following Defence's capability revalidation activities in 2020, Air Force and CASG analysed the outcomes resulting in a change to aircraft operational profile and acquisition scope in the Materiel Acquisition Agreement (MAA).
During 2021-22 the project progressed activities in line with the MAA resulting in FMR – primarily contracting for a less complex flight simulator, acceptance of a number of training aids, contracting of training services and Training Support Facility management, completion of IFF Mode 5 modification to all ten aircraft, and a reduction in the Structural Substantial Program scope.

Note

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

1.3 Project Context

Background
A requirement to replace Defence's battlefield airlift capability was first identified in the 1980s. Defence ensured the battlefield airlift capability was maintained via a sustainment commitment to the Caribou until their retirement in 2009 and lease of additional B300 King Air aircraft until suitable replacement platforms and appropriate Defence Capability Plan funding could be allocated.
On 10 May 2012 Government announced it had approved the purchase of ten C 27J battlefield airlift aircraft via FMS from the US Government to replace the Caribou aircraft, at a total program cost of up to A$1.4 billion.
Leonardo manufactured the C 27J Military Industrial Baseline Aircraft configuration which was then flown to the US for modification. L 3 PID modified the aircraft to the US JCA configuration adding selected military equipment to improve the platform's Battlefield Airlift capabilities.
The USAF's potential to divest the C-27J was a known consideration that was factored into the business case presented to and approved by Government at project combined First and Second Pass in April 2012. In early 2013 the USAF confirmed its intention to divest their C-27J fleet and accelerated its schedule for withdrawal. Subsequently, in mid-2013, the USAF advised that it would not complete Military Type Certification (MTC) and that L-3 PID was, contrary to earlier advice, required by the Air National Guard to vacate the facilities occupied by the C-27J training school located at Robins Air Force Base, Georgia USA. This resulted in a late notice requirement for relocation of the L-3 training school to L-3 facilities in Arlington and Waco, Texas, which resulted in a three-month delay to ISD (achieved June 2015).
Military Type Certification (MTC) was leveraging the Federal Aviation Authority civilian certification and USAF work completed at the time of its decision to cease its MTC. The USAF decision not to complete MTC materially increased the cost, effort and schedule risk associated with the project achieving MTC. The Commonwealth secured significant Intellectual Property licensing rights to technical data from Leonardo and L-3 PID to aid in MTC and through-life support of the C-27J. A MTC covering basic flight operations was achieved in June 2020 albeit with some technical limitations which are the subject of further mitigation work.
Training Systems were impacted by the USAF's inability to acquire a suitable system for the Commonwealth. Consequently, the decision was made to manage and undertake training in Australia and acquire the mature training system via commercial arrangements. The accepted Interim Training System currently offers training to aircrew and maintenance personnel at a dedicated training facility at RAAF Base Amberley and in Italy.
Defence continues to build a close commercial and working relationship with Leonardo S.p.A., the original equipment manufacturer of the C-27J Spartan. In early 2019, Defence established a four-person C-27J Resident Project Team, located in Leonardo's facilities in Turin, Italy. This has contributed to the Project retiring numerous Risks and Issues associated with contracting, delivery of spares and support, Government approved aircraft upgrades, and OEM technical support. Following the LTFW decision the Resident Project Team was reduced to three persons.
The project was unable to achieve FOC as planned during 2019. Defence formally advised Government of the inability to achieve FOC and provided capability revalidation outcomes to the project for implementation.
In Dec 2020 Government decided to pivot the aircraft's role from Battlefield Airlifter to Light Tactical Fixed Wing, with the scope of acquisition changes documented in an updated MAA in 2021-22.
In Jun 2022 the CASG achieved FMR, and Air Force declared FOC.

Uniqueness
The C-27J is a mature aircraft acquisition requiring a limited number of changes to meet Australian requirements, such as: paint scheme; upgraded Radar Warning Receiver; updates to address obsolescence; and upgrade to the Mode 4 IFF system.
The uniqueness of the project can be measured by;
1. The degree of Australian-specific contracting effort that was conducted by the USAF C-27J FMS Program Office to establish initial FMS training and support services as a result of USAF C-27J divestiture (generally, FMS leverages off a contemporary US military procurement). USAF contracting of US-based initial training from L-3 PID utilising the ADF Airworthiness Management System is also atypical. Historically, the USAF airworthiness management system has been utilised for such training arrangements; however, due to USAF C-27J divestiture, this option was no longer possible. Both the USAF and L-3 were unfamiliar with Australian airworthiness management system requirements.
2. The degree of IFF system upgrade activities from Mode 4 to Mode 5 on a delivered in-service sustainment product that are required to meet project outcomes given the limited availability of an off-the-shelf design for the C-27J platform globally.

Major Risks and Issues
The 2012 Government endorsed acquisition strategy accepted a number of risks stemming from, or exacerbated by, the likelihood of USAF C-27J divestiture. Notwithstanding these risks, the benefits of acquiring the USAF JCA-configured C-27J via FMS were assessed to outweigh these risks, and their likelihood of occurring was taken into account when developing initial project strategies and plans. However, the accelerated pace of USAF C-27J divestiture resulted in greater impact to the program than originally anticipated.

The current major project residual risk relates to a possible late delivery of the Flight Training Device. The project has mitigated this risk by establishing a performance incentive for early delivery, and liquidated damages for late delivery in the acquisition contract. The project continues to actively review overall contractor performance including schedule on a monthly basis.
Other Current Related Projects/Phases
N/A
Note
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
	Project Budget			
Apr 12	**Original Approved (Second Pass Approval)**		**1,156.5**	
Nov 19	Real Variation – Transfer		(1.0)	4
Aug 21	Real Variation – Transfer		(2.3)	5
Jun 22	Exchange Variation		268.4	
Jun 22	**Total Budget**		**1,421.6**	
	Project Expenditure			
Prior to Jul 21	Contract Expenditure – US Government	(659.5)		1
	Contract Expenditure - Leonardo – Mode 5 IFF Upgrade	(21.7)		1
	Contract Expenditure – Leonardo – Flight Loads Test Program	(13.6)		1
	Contract Expenditure – Leonardo – Management of Services	(11.8)		1
	Other Contract Payments / Internal Expenses	(236.3)		2
			(942.9)	
FY to Jun 22	Contract Expenditure – Leonardo – Flight Training Device	(20.6)		1
	Contract Expenditure – Leonardo – Flight Loads Test Program	(5.6)		1
	Contract Expenditure – Leonardo – Mode 5 IFF Upgrade	(0.9)		1
	Contract Expenditure – Leonardo – Management of Services	(5.0)		1
	Other Contract Payments / Internal Expenses	(26.8)		3
			(58.9)	
Jun 22	**Total Expenditure**		**(1,001.9)**	
Jun 22	**Remaining Budget**		**419.7**	

Notes

1	The scope of these contracts is explained further in Section 2.3 – Details of Project Major Contracts. Note, the contractor is subject to performance incentive and liquidated damages clauses based on scheduled delivery performance.
2	Other expenditure comprises: $106.7m for Other Leonardo contract expenditure previously reported above (comprised of $72.1m for Leonardo Intellectual Property and Technical Data, $18.6m for Structural Substantiation Program Fuselage, and $15.9m for Avionics Risk Reduction Activity), $63.3m for Support and Test Equipment, spares and global freight costs, $35.4m for contractor support costs for Structural Substantiation Program, loadmaster seat development, aircraft modification and certification purposes, $8.4m for training devices related procurement and support costs, and $22.5m for other project management support and administrative costs.
3	Other expenditure comprises: Support and Test Equipment, spares and global freight costs ($1.7), contractor support costs for Structural Substantiation Program, loadmaster seat development, aircraft modification and certification purposes and Increment 4 spares and capability assurance items $15.2m), training devices related procurement and support costs ($5.4m), and other project management support and administrative costs ($4.5m) contribute to the other expenditure.
4	Transfer to Defence Science and Technology Group to fund FY19/20 and FY20/21 of a multi-year arrangement for the provision of ongoing contractor technical support for the Structural Substantiation Program.
5	Transfer to Defence Science and Technology Group to fund FY21/22 and FY22/23 of a multi-year arrangement for the provision of ongoing contractor technical support for the Structural Substantiation Program.

2.2A In-year Budget Estimate Variance

Estimate PBS $m	Estimate PAES $m	Estimate Final Plan $m	Explanation of Material Movements
61.3	75.5	74.9	PBS - PAES: The variation is primarily due to adjustments to the training device delivery schedule, the replanning of the Structural Substantiation Program and the Avionics Block Upgrade, and procurement of increment 4 spares and capability assurance items. Other minor changes apply.

			PAES - Final Plan: Variance is due to further refinement of Increment 4 spares & capability assurance items requirements, latest training device delivery schedules and further updates the Structural Substantiation Program schedule.
Variance $m	14.2	(0.6)	Total Variance ($m): 13.6
Variance %	23.2	(0.8)	Total Variance (%): 22.2

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan $m	Actual $m	Variance $m	Variance Factor	Explanation
			Australian Industry	The end of financial year variance of $(16.0m) was driven in the main by global supply chain issues causing delays in milestone deliveries for spares procurements and training devices.
		(1.7)	Foreign Industry	
			Early Processes	
		(13.9)	Defence Processes	
		(0.4)	Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
74.9	58.9	(16.0)	**Total Variance**	
		(21.3)	**% Variance**	

2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature $m	30 Jun 22 $m			
US Government	May 12	882.4	664.1	Reimbursement	FMS	1,2,3
Leonardo Flight Training Device	Dec 21	85.3	84.7	Firm Price	Standard Defence Contract	1
Leonardo Management of Services	Feb 19	27.4	26.9	Firm price	Standard Defence Contract	1
Leonardo Flight Loads Test Program	Mar 19	19.8	19.7	Firm price	Standard Defence Contract	1
Leonardo Mode 5 IFF	Sept 17	18.7	24.1	Firm Price	Standard Defence Contract	1,4
Other Leonardo Contracts	Various	95.1	107.3	Frim Price	Standard Defence Contract	1,5

Notes

1	Prevailing budget exchange rates at contract signature used to calculate Price at Signature. Contract value as at 30 June 2022 is based on actual expenditure to 30 June 2022 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).
2	Amendment 4 to FMS case AT-D-SGU was approved in May 2017 reducing the case value to USD655.5m. The Amendment reflects removal of training device acquisition funding and an overall release of management reserve funding no longer require under the case. The amendment also reflects the CoA's intention to close the case early.
3	Amendment 5 to FMS case AT-D-SGU was approved on 2 July 2018 reducing the FMS Case value to USD617.7m. The Amendment releases further management reserve funding no longer required under the case. The amendment also reflects the CoA's intention to close the case early. Amendment 6, was approved in May 19 and has further reduced the FMS case to a value of USD601.9m. There were no amendments to the case in the **2021-22** financial year. The change to the contract value from the prior year is due to foreign exchange movements.
4	Mode 5 IFF upgrade contract. Contract Change 1 was approved in October 2018 updating the milestone payment schedule introducing new maintenance related activities and DASR certification requirements.
5	'Other Leonardo Contracts" is a consolidation of completed contracts for IP Tech Data, Aircraft Fuselage and Avionics Risk Reduction contracts previously identified as Major Contracts in Sec 2.1. Contracts have been fully delivered and expended in prior financial years and are now closed.

Contractor	Contracted Quantities as at		Scope	Notes
	Signature	30 Jun 22		
US Government	10	10	10 C-27J Aircraft and associated training, training equipment, spares, ground support equipment and initial support	
Leonardo Mode 5 IFF	10	10	Mode 5 IFF modification for 10 C-27J aircraft	
Leonardo Management of Services	N/A	N/A	Provision of Project Management Services in support of the Enduring Leonardo Contract (ELC)	
Leonardo Flight Loads Test Program	1	1	Provision of a Flight Loads Test Program in support of the C-27J Structural Substantiation Program	
Leonardo Flight Training Device	1	1	Provision of a C-27J Flight Training Device	

Major equipment accepted and quantities to 30 Jun 22

Ten aircraft including supplies, support and test equipment, a fuselage trainer, a propeller trainer, a landing gear trainer, SSP fuselage, nacelle and wing test articles, IFF Mode 5 hardware and software have been accepted plus a substantial amount of the IP rights and Technical data including Avionics Risk Reduction information and the SSP flight loads test plan report.

Notes	
1	N/A

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	Flight Training Device	Apr 22	N/A	May 22	1	1
Preliminary Design	Flight Training Device	Sep 22	N/A	Oct 22	1	1
Detailed Design	Flight Training Device	Feb 23	N/A	Mar 23	1	1

Notes	
1	Delays were experienced with the System Requirements Review taking longer to finalise that planned which are expected to be made up over the balance of the project.

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	Flight Training Device	N/A	N/A	N/A	N/A	1,3
	Fuselage Trainer	May 20	N/A	Dec 20	7	2,7,8
Acceptance	C-27J Aircraft 1 (A34-001)	Jul 14	N/A	Nov 14	4	
	C-27J Aircraft 2 (A34-002)	Sep 14	N/A	Dec 14	3	
	C-27J Aircraft 3 (A34-003)	Nov 14	N/A	Aug 15	9	4
	C-27J Aircraft 4 (A34-004)	Feb 15	N/A	Mar 16	13	5
	C-27J Aircraft 5 (A34-005)	Aug 15	N/A	Aug 16	12	6
	C-27J Aircraft 6 (A34-006)	Oct 15	N/A	Nov 16	13	6
	C-27J Aircraft 7 (A34-007)	Dec 15	N/A	Mar 17	15	6
	C-27J Aircraft 8 (A34-008)	Feb 16	N/A	Aug 17	18	4,6
	C-27J Aircraft 9 (A34-009)	Apr 16	N/A	Oct 17	18	4,6
	C-27J Aircraft 10 (A34-010)	May 16	N/A	Dec 17	19	4,6
	Flight Training Device	Dec 24	N/A	Mar 25	3	2,3
	Fuselage Trainer	May 20	N/A	Dec 20	7	2,7,8

Notes	
1	The LTFW C-27J capability does not require any integration of the Flight Training Device with other training assets or networks.
2	The acquisition contract for the Fuselage Trainer was established on 29 July 2019. The Fuselage Trainer was a commercial off the shelf purchase, no design reviews were required. Contracts for the acquisition of the remaining training devices were established during 2021-22.
3	The project completed tender evaluation of the Leonardo Full Flight Mission Simulator and advised Leonardo the proposal was unsuitable. From 30 June 2021 and as a result of the capability revalidation outcomes, collaborative development of detailed requirements for a reduced scope Flight Training Device acquisition has resulted in a refined Statement of Work submission to Leonardo S.p.A. Contract negotiations were completed during 2021 with contract signature in December 2021.
4	Delivery of Aircraft was delayed due to the requirement for repair of the life raft door following damage sustained during the acceptance test flight, and the requirement for delivery of minor waiver data to support aircraft acceptance (later rectified through a contract change proposal).
5	Delivery of Aircraft 4 was delayed due to availability of required spares from Leonardo to rectify a number of discrepancies and the prioritisation of aircraft components for use on other aircraft.
6	Leonardo's decision to close its Naples fuselage production facility and consolidate all C-27J production at its Turin facility resulted in a delay to delivery of Aircraft 5 through 10. However, Leonardo's production consolidation was beneficial to the overall production of aircraft. From Aircraft 5, there were considerable improvements in aircraft build quality and the project was able to recover some lost production schedule. Improvements continued as a result of Leonardo's consolidation decision and management of its supply chain.
7	Variance due to delays in shipment of the Fuselage Trainer from the United States (e.g. quarantine delays), and delayed completion of installation activities and documentation. Acceptance was planned to be completed by May 20 prior to COVID-19.
8	COVID-19 travel restrictions came into force in March 20 immediately prior to the commencement of formal acceptance testing which was paused subject to interstate travel restrictions. Once travel restrictions were lifted, there was 2 months of activity to achieve acceptance.

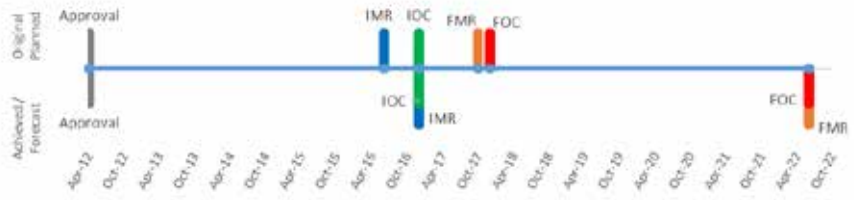
3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
In-Service Date (ISD)	Mar 15	Jun 15	3	1
Initial Materiel Release (IMR)	Jun 16	Dec 16	6	2
Initial Operational Capability (IOC)	Dec 16	Dec 16	0	3
Final Materiel Release (FMR)	Oct 17	Jun 22	57	4,5
Final Operational Capability (FOC)	Dec 17	Jun 22	54	4,5
Materiel Release 3	Jun 25	Jun 25	0	6
Materiel Release 4	Dec 32	Dec 32	0	6

Notes	
1	Variance due to delays in establishing FMS support and training arrangements in the US.
2	Variance due to delay in delivery of Aircraft and adequate support. IMR was declared with caveats relating to deficiencies in supply support and training courseware.

3	IOC was declared with caveats in December 2016 with four aircraft delivered to Australia. The IOC caveats encompassed the limitations described by the project at IMR, which have been resolved.
4	Variance due to delays in aircraft production and construction of facilities at RAAF Amberley. In 2016 and in 2020 Government agreed to delay Final Operating Capability (FOC). In 2020 Air Force advised CASG of the capability revalidation outcomes for the project which re-defined FMR and FOC. The project achieved FMR/FOC during 2021-22 in accordance with Government approval.
5	Defence formally proposed revised C-27J capability options and FMR/FOC schedule to Government after reviewing available options during 2020. The revalidated FMR and FOC requirements are; 10 aircraft modified with an upgraded IFF system; all supplies; all support, test and role equipment; all publications; a fuselage trainer; a Landing Gear training aid, a Propeller Training aid; aircrew training services contracted; maintenance training services contracted, acceptance of Structural Substantiation Program items; updated Type Certificate; and ability to conduct revised capability roles and missions. Post FOC scheduled deliveries include; a Flight Training Device; an Engine Training aid; a Virtual Maintenance Training system; Mode 5 IFF software update; Avionics Safety of Flight update; an updated Type Certificate; and final Structural Substantiation Program outcomes. Progress as of 30 June 2022 is; 10 aircraft delivered; all support, test and role equipment; all publications; accepted the fuselage trainer and the Structural Substantiation Program test articles. The project continues activities to complete all outstanding requirements.
6	Products requiring long lead time to acquire or achieve, such as the Flight Training Device and Structural Substantiation Program data, are planned for delivery and employment post FOC. The Full Scale Fatigue Test component of Structural Substantiation Program was cancelled in lieu of an analytical approach. Delivery of artefacts post FOC as part of MR3 and MR4 have no impact to the operational capability of the platform.

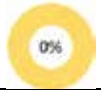
Schedule Status at 30 June 2022



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 is currently meeting capability materiel requirements as per the Materiel Acquisition Agreement.
	**Amber:** N/A
	**Red:** 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)	Delivery of three aircraft and sufficient logistics support (including trained personnel) to support initial operations. IMR was declared with caveats in December 2016. Caveats were resolved Quarter 2 2017.	Achieved
Initial Operational Capability (IOC)	Initial operations from interim Main Operating Base (MOB) (RAAF Richmond). Three C-27J aircraft delivered to the Interim MOB with sufficient operational crews, maintenance teams, training, and support infrastructure. The squadron will conduct air logistics support and airborne operational roles.	Achieved

Final Materiel Release (FMR)	The project achieved FMR in 2021-22 The project successfully executed activities towards the FMR date of June 2022. Key FMR requirements include delivery of all 10 aircraft delivered to RAAF Amberley with the upgraded Mode 5 IFF fitted, all supplies identified in FMS/DCS, all S&TE and role equipment, publications and technical data/IP, the Fuselage Trainer and selected training aids and training service contracts, and acceptance of test article and flight loads plans to support SSP.	Achieved
Final Operational Capability (FOC)	The project achieved FMR enabling Air force to declare FOC. The project executed activities towards achievement of revised FOC capabilities and schedule of June 2022. Key requirements included ability to conduct effective and sustained Operations, Roles and Missions. 10 C-27J Aircraft operating from RAAF Amberley. All 10 aircraft fitted with Mode 5 IFF. Mature operational support, maintenance and training system. Infrastructure to support LTFW operations.	Achieved
Materiel Release 3 (MR3)	The following MR3 items are due to be delivered by June 2025: • Flight Training Device, supportability upgrade to the Fuselage Trainer, various training aids, and support contracts. • IFF Mode 5 software upgrade. • Military Type Certificate aligned with LTFW. • Commonwealth Avionics Upgrade. • Structural Substantiation Project analysis of loads and crack models.	Not yet achieved
Materiel Release 4 (MR4)	The following MR4 items are due to be delivered by December 2032: • Structural Substantiation Project final directions for ongoing airworthiness.	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
Training. There is a risk the Flight Training Device will not be delivered by MR3.	The project has entered into a fixed priced contract with an incentivised delivery schedule resulting in final acceptance before MR3. The post mitigation risk is assessed as low.
Emergent Risks (risk not previously identified but has emerged during 2021–22)	
Description	Remedial Action
N/A	N/A

5.2 Major Project Issues

Description	Remedial Action
N/A	N/A

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
The level of risk and complexity contained in an FMS Letter of Offer and Acceptance is often understated and poorly understood. Whilst an FMS program for in production equipment and associated support affords a number of advantages, the transfer of a significant amount of project and technical management to the US Government implementing agency, and the weak bargaining position of the Commonwealth, increases the project's exposure to technical, schedule and cost risk. For an FMS program the level of Commonwealth contract and financial management involvement and oversight of industry is very low in comparison to that mandated for Direct Commercial Sale contracts, yet both procurement methods confront similar issues. This accords the FMS customer a 'Best Endeavours' approach to business.	Contract Management

Adequate Commonwealth participation in key project management and technical oversight activities in the US, as provided for in the Government Combined First and Second Pass submission, is critical to providing the necessary level of project and contract management. In the case of C-27J, divestiture has further accentuated project risk and complexity, increasing the need for ongoing engagement of the USAF FMS program office and L-3 PID to ensure Commonwealth requirements and risks are adequately understood and managed. The planned downsizing and closing of the USAF's project office and cessation of USAF C-27J activities and contracts further reduces the ability of the USG to achieve customer requirements normally delivered under the FMS system. This drives the Commonwealth's approach to deliver certain outputs via Direct Commercial Sales.	
The practice of approving projects with staffing to be found from within existing Divisional resourcing can result in 'late to need' or understaffing at critical project planning and execution phases that is counterproductive to achieving project outcomes. Further, the recruitment process lead times for candidates not already within the ADF or Australian Public Service can create significant extended vacancies within the Project workforce, with this being exacerbated by the relatively short notice that personnel are obliged to provide for internal transfers. This is exacerbated when the Department imposes a recruiting freeze on the workforce. Whilst outsourced services may be suitable in some instances to mitigate this risk, in such circumstances they are not always available, the most efficient, or affordable, and come with an additional administrative overhead. In particular, rapidly approved projects, such as AIR8000 Phase 2, which gained combined Government Pass approval, should be priority staffed as outlined in the approved project workforce plan, on which the Materiel Acquisition Agreement schedule was developed.	Resourcing
Accelerated project approval, through a combined Government 1st and 2nd Pass, carries additional project execution risk given the likelihood that data fidelity and planning maturity will be otherwise inherently lower. As such, all effort should be made to understand the associated risk premium versus the benefit an accelerated project approval offers. In the case of AIR8000 Phase 2 the potential impact of USAF divestiture was not fully appreciated across the full breadth and depth of the project. Any assumption that because procurement is via FMS it is low risk must be fully tested.	Off-The-Shelf Equipment
Contracting with commercial entities that have had no previous experience with how the Commonwealth contracts, manages, controls, and reviews contract performance requires significant awareness, education and adjusting by both parties. Commonwealth acknowledgement that outcomes can be achieved without following the Commonwealth's usual or embedded processes requires substantial effort by Commonwealth personnel to accept the change, mentor and educate other Commonwealth entities, and to act with restraint towards the contractor. Commonwealth personnel having largely only worked with or in one system, the Commonwealth system, and are challenged to accept other ways to achieve the same outcome. Similarly, processes judiciously established in Defence are not always easily mapped to a civilian entity's system. This requires substantial detailed communication and time commitment to map dissimilar system outcome points between the two organisations' systems by Subject Matter Experts in that field - this takes time and effort that may not have been foreseen.	Contract Management
Although C-27J is a mature in production aircraft the project was required to update a number of systems to achieve the directed outcomes for FMR/FOC. Where a project has a challenging acquisition and implementation period, the Sponsor and Capability Manager must be closely engaged to ensure the requirements set maintains relevance over time, especially leading up to key capability milestones.	Requirements Management

Section 7 – Project Line Management

7.1 Project Structure as at 30 June 2022

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