

## Project Data Summary Sheet<sup>1</sup>

Project Number	AIR6000 Phase 2A/2B
Project Name	NEW AIR COMBAT CAPABILITY
First Year Reported in the MPR	2010-11
Capability Type	Replacement
Capability Manager	Chief of Air Force
Government 1st Pass Approval	Nov 06
Government 2nd Pass Approval	Nov 09 - Stage 1 Apr 14 - Stage 2
Budget at 2nd Pass Approval	\$13,264.1m
Total Approved Budget (Current)	\$16,424.6m
2022–23 Budget	\$933.4m
Complexity	ACAT I



### Section 1 – Project Summary

#### 1.1 Project Description

The AIR6000 Phase 2A/2B project is introducing the F-35A Joint Strike Fighter (JSF) capability that will meet Australia's air combat needs out to 2030 and beyond. The project is approved to acquire 72 Conventional Take Off and Landing (CTOL) F-35A JSF aircraft to establish three operational squadrons, a training squadron and necessary supporting/enabling elements to replace the F/A-18A/B Hornet capability.

Lockheed Martin Corporation is contracted to the United States (US) Government for the development and production of the F-35A JSF. The aircraft and associated support systems are being procured through a government to government co-operative agreement with the US and JSF partner nations, comprised of the United Kingdom, Canada, Italy, Denmark, Norway and the Netherlands. Additional nations are procuring the F-35 JSF via US Foreign Military Sales (FMS).

#### Note

In July 2019 the US Government made a unilateral decision to suspend Turkey from the F-35 Program. Turkey is no longer a member of the F-35 partnership.

#### 1.2 Current Status

##### Cost Performance

###### In-year

As at 30 June 2023, the year-end cost variance was 16.8% or \$156.4m (overspend) against 2022-23 Budget Estimates. The project net variation was primarily driven by earlier than expected Air Vehicle and Propulsion activity.

###### Project Financial Assurance Statement

As at 30 June 2023, project AIR6000 Phase 2A/2B 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 remaining for the project to complete against the agreed scope.

###### Contingency Statement

The project has not applied contingency in Financial Year (FY) 2022-23.

##### Schedule Performance

In the FY 2022-23, Australia accepted 10 aircraft bringing the total Australian fleet to 63. Australia Canada United Kingdom Reprogramming Laboratory (ACURL) Reprogramming Capability achieved a key operational milestone with the successful production of a 30P07 Mission Data File in August 2022. ACURL Phase 2 facility construction is six months behind schedule due to construction delays attributed to poor weather and workforce shortages. The delay will not impact capability, as the current ACURL infrastructure is sufficient to support F-35 reprogramming requirements in the medium term.

The Deployable Information and Communication Technology Facility and Deployable Duty Facility Mission System transitioned to sustainment under Air Training and Aviation Commons System Program Office in August 2022. Management of Support Equipment (Joint Program Office (JPO) Supplies) transitioned to Air Combat Systems Program Office (ACSPPO) and 81 Wing in November 2022. Weapons were delivered to support Verification and Validation (V&V) activities in October 2022. Delivery of Alternate Mission Equipment, Pilot Flight Equipment and Aircraft Life Support Equipment to support Operational Capability Three was finalised in January 2023.

Sustainment of the global F-35 fleet is provided through the Global Support Solution (GSS), which is still maturing as the global fleet grows. The Asia-Pacific F-35 Propulsion Initial Depot Capability was conditionally confirmed by Pratt & Whitney on 5 April 2022.

#### 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.

**Materiel Capability/Scope Delivery Performance**

Most of the capability requirements of Final Operational Capability (FOC) are delivered by the extant integrated F-35A Air System and new developments are on track for incorporation in Air Vehicle production Lot 13-15. The V&V Program has progressed well, mitigating risks to FOC, despite minor COVID-19 impacts.

**Note**

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

**1.3 Project Context****Background**

AIR6000 was established in 1999 to replace the air combat capabilities provided by the F/A-18A/B and F-111 fleets. In 2002, Government identified the Lockheed Martin Corporation F-35A JSF as the preferred option and joined the System Development and Demonstration (SDD) phase of the JSF Program as one of nine partner nations. The decision by Government to acquire the F-35A JSF has been taken progressively, including:

- In November 2006, First Pass Approval was achieved that included agreement to join the next phase of the JSF Program and funded project AIR6000 Phase 1B to conduct detailed definition and analysis activities to support Government Second Pass Approval for AIR6000 Phase 2A/2B.
- In December 2006, the Multilateral Production, Sustainment and Follow-on Development (PSFD) Memorandum of Understanding (MoU) was signed, this facilitated entry into the next stage of the JSF Program.
- In November 2009, AIR6000 Phase 2A/2B Stage 1 was approved to acquire 14 CTOL F-35A JSF aircraft, including support and enabling elements, commencing in 2014, and allowed commencement of Operational Test in the US and Australia.
- In April 2014, AIR6000 Phase 2A/2B Stage 2 was approved by Government to acquire an additional 58 CTOL F-35A JSF aircraft and enabling elements. The combined acquisition of 72 aircraft will achieve FOC in 2023 comprising of three operational squadrons of fifth generation F-35A JSF to replace the F/A-18A/B Hornet capability.
- In 2017, Defence advised Government of emerging issues associated with AIR6000 Phase 2A/2B affordability. In 2018 and 2019, Government agreed to Defence proposals to defer elements of project scope to later unapproved AIR6000 program phases. The majority of these scope items were no longer needed, as FOC requirements will be met without major upgrades.

**Uniqueness**

The JSF Program was established by the US Government as the first international collaborative development program for a US military aircraft. The program includes initial design, production, follow-on development and through life support of the JSF global fleet. The JSF Program is expected to deliver over 3,000 aircraft to the MoU Partners (with the US to acquire approximately 75 per cent of the total) with the potential for significant additional aircraft procurements by FMS customers. Due to strict US export restrictions imposed on the JSF Air System, direct commercial sale is not permitted. JSF aircraft and associated supporting systems will be acquired by Australia under the PSFD MoU arrangements. Key factors are:

- The US Government has contracted with Lockheed Martin Corporation and Pratt & Whitney on Australia's behalf in accordance with US contracting laws, regulations and procedures.
- The F-35 JPO acquisition strategy commenced with 11 annual Low Rate Initial Production (LRIP) contracts transitioning from a Fixed Price Incentive Fee to a Firm-Fixed Price at the appropriate time.
- The Australian F-35A JSF capability will be supported via an F-35 GSS that is progressively being implemented and a range of Australian sovereign sustainment contracts, with all arrangements planned to be performance-based.

**Major Risks and Issues**

Delivery of Air Force's capability requirements may be affected by technical deficiencies, delay in delivery schedule, funding or programming issues, or delays in delivery of an effective training system. As a partner nation, Australia is reliant on the International Cooperative Program through the JPO to develop and sustain the F-35 system and to develop the GSS. Australia's F-35A capability and standing in the Cooperative Program may be compromised by security or cyber breaches. Both are mitigated through active procedural controls and data gateway technologies.

Delays to software integration and flight testing of the Technical Refresh 3 (TR3) software are expected delay acceptance of Australia's final nine Air Vehicles. The US JPO is applying additional personnel and Air Vehicles to accelerate the test program schedule. The Capability Manager has confirmed delivery delays won't materially affect F-35A combat capability realisation in the medium term.

AIR6000 Phase 3 and Phase 5 may not delivery sufficient weapons inventory for FOC. The impact is being managed by Air Force and the risk was retired in March 2023.

Potential shortfalls in funding for the PSFD MoU payment in FY 2024-25, and Production Autonomic Logistics Support forecasts were addressed through project risk budget allocations in the May 2023 Financial Estimates activity. A cost risk for development of the Common Reprogramming Tool (CRT) (Increment 1) was remediated by allocation of additional funding by US F-35 JPO.

The issue of Air Force maintenance personnel needing practice fitting Alternate Mission Equipment and loading dummy rounds using Air Vehicles instead of a training aid has been resolved. Delivery of the Weapons Loading Trainer and Gun Module upgrades in Quarter 4, 2021 enabled Australian personnel to be trained using the Weapons Loading Trainer and Gun Module from Quarter 2, 2022.

Australia's ability to organically manage non-standard Low Observables maintenance from a zonal verification and validation perspective has been delayed. The impact is mitigated via the use of Lockheed Martin Corporation personnel and a policy waiver, while current actions to establish a permanent process are expected to conclude before FOC.

**Other Current Related Projects/Phases**

- **AIR JSF System Development and Demonstration.** Participation in the JSF SDD Program. In November 2018, Australia closed the Materiel Acquisition Agreement (MAA) for AIR JSF SDD – Participation in the JSF SDD Program, as all AIR JSF SDD financial milestones were completed. The US expects to formally complete the F-35 program SDD phase, following Operational Test and Evaluation and a US Department of Defense decision to go into full-rate aircraft production.

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<ul style="list-style-type: none"> <li>• <b>AIR6000 Phase 2C – New Air Combat Capability (NACC) Enablers.</b> This project is subject to Government consideration and seeks to provide support elements to ensure the air combat capability remains lethal, survivable, deployable and available throughout its Life of Type.</li> <li>• <b>AIR6000 Phase 5 – Air Combat Capability Air-to-Air Weapons.</b> This project was approved by Government in March 2016 and will acquire reserve stocks of air-to-air Within-Visual-Range and Beyond-Visual-Range missiles for the air combat capability including the F-35A JSF.</li> <li>• <b>AIR6000 Phase 3 – Air Combat Capability Air-to-Surface Weapons.</b> This project was approved by Government in May 2018 and will acquire the reserve stocks of air to ground weapons, new countermeasures and ammunition for the F-35A JSF.</li> <li>• <b>AIR6000 Phase 6 – F-35A Follow-On Modernisation.</b> This project was approved by Government in December 2021. This project will ensure that the Australian F-35A fleet will continue to be modernised through to its life of type.</li> </ul>
<b>Note</b>
Major risks and issues are excluded from the scope of the Auditor-General's Independent Assurance Report.

## Section 2 – Financial Performance<sup>2</sup>

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

Date	Description	\$m	Notes
<b>Project Budget</b>			
Nov 09	Original Approved (Government Second Pass Approval – Stage 1)	2,751.6	
May 12	Real Cost Decrease	(204.4)	1
Sep 12	Real Cost Increase	201.5	1
Jun 14	Government Second Pass Approval – Stage 2	10,515.4	2
	<b>Total at Second Pass Approval</b>	<b>13,264.1</b>	
Jun 18	Real Variation – Transfer	(8.4)	3
Jun 23	Real Variation – Transfer	(31.0)	3
Jul 10	Price Indexation	351.0	4
Jun 23	Exchange Variation	2,848.9	
Jun 23	<b>Total Budget</b>	<b>16,424.6</b>	
<b>Project Expenditure</b>			
Prior to Jul 22	Contract Expenditure – US Government (Block Buy Contract Production)	(3,892.6)	5, 6
	Contract Expenditure – US Government (LRIP11 Production)	(883.8)	5
	Contract Expenditure – US Government (Block Buy Contract Propulsion)	(846.0)	5, 6
	Contract Expenditure – US Government (LRIP10 Propulsion)	(795.4)	5
	Contract Expenditure – US Government (PSFD MoU (FY 2014-15 – 2022-23))	(656.7)	5
	Contract Expenditure – US Government (LRIP10 Production)	(230.7)	5
	Contract Expenditure – US Government (LRIP10 Non-Annualised (NA) Sustainment)	(211.5)	5
	Contract Expenditure – US Government (FMS Cases AT-D-YAF, AT-P-AMN (Weapons))	(159.8)	5
	Contract Expenditure – US Government (LRIP11 Propulsion)	(148.4)	5
	Contract Expenditure – US Government (LRIP11 NA Sustainment)	(141.5)	5
	Contract Expenditure – US Government (Reprogramming Laboratory)	(121.1)	5
	Contract Expenditure – US Government (Lot 12-14 Indefinite Delivery Indefinite Quality (IDIQ))	(116.9)	5
	Contract Expenditure – US Government (Lot 15 Production)	(103.8)	5
	Contract Expenditure – US Government (LRIP8 Production and NA Sustainment)	(98.8)	5
	Contract Expenditure – US Government (Lot 15 Propulsion)	(11.9)	5

#### 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.

FY to Jun 23	Other Contract Payments/Internal Expenses	(2,324.2)	7
		(10,743.1)	
	Contract Expenditure – US Government (Lot 15 Production)	(298.6)	5
	Contract Expenditure – US Government (Block Buy Contract Production)	(283.0)	5, 6
	Contract Expenditure – US Government (Lot 15 Propulsion)	(135.0)	5
	Contract Expenditure – US Government (PSFD MoU (FY 2014-15 – 2022-23))	(130.4)	5
	Contract Expenditure – US Government (Lot 12-14 IDIQ)	(22.7)	5
	Contract Expenditure - US Government (LRIP11 Propulsion)	(16.6)	5
	Contract Expenditure – US Government (LRIP8 Production and NA Sustainment)	(11.5)	5
	Contract Expenditure – US Government (LRIP10 NA Sustainment)	(10.9)	5
	Contract Expenditure – US Government (LRIP10 Propulsion)	(4.5)	5
	Contract Expenditure – US Government (LRIP11 NA Sustainment)	(3.6)	5
	Contract Expenditure – US Government (LRIP10 Production)	(3.3)	5
	Contract Expenditure – US Government (FMS Cases AT-D-YAF, AT-P-AMN (Weapons))	(1.2)	5
	Contract Expenditure – US Government (LRIP11 Production)	(0.1)	5
Contract Expenditure – US Government (Block Buy Contract Propulsion)	15.0	5, 6	
Other Contract Payments/Internal Expenses	(183.4)	8	
Jun 23	<b>Total Expenditure</b>	(1,089.8)	
		<b>(11,833.0)</b>	
Jun 23	<b>Remaining Budget</b>	<b>4,591.6</b>	
<b>Notes</b>			
1	A May 2012 budget adjustment (\$204.4m) was applied to AIR6000 Phase 2A/2B based on an incorrect interpretation of the Government's decision to vary the NACC Program. In September 2012, a budget adjustment correction was applied (\$201.5m), using an updated exchange rate. As a result, the project's total approved budget has remained the same as intended by Government.		
2	Government approved AIR6000 Phase 2A/2B Stage 2 in April 2014 for an additional 58 CTOL F-35A JSF aircraft. Allocation of funding occurred in June 2014, following Government Second Pass Approval – Stage 2 in April 2014.		
3	Transfer to Security and Estate Group following request for funding scope changes for Royal Australian Air Force (RAAF) Base Tindal JSF facilities and transfer of scope to AIR6000 Phase 6.		
4	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was \$70.2m. In addition to this amount, the impact on the project budget as a result of out-turning was a further \$280.8m having been applied to the remaining life of the project.		
5	The scope of this contract is explained further in Section 2.3 – Details of Project Major Contracts.		
6	Previously reported as a single Block Buy Contract that combined the expenditure of the Production and Propulsion.		
7	Other expenditure for the period prior to July 2022 is associated with Mission Systems (\$615.8m), Support Systems (\$556.6m), LRIP Production (\$264.5m), PSFD MoU (FY 2009-10 – 2013-14) (\$180.9m), Project Office Services (\$136.1m), FMS Other (\$125.6m), Chief Information Officer Group (\$92.2m), Lot 12 Air Vehicle Initial Spares (\$89.7m), NACC Operating Expenditure (\$88.5m), FY 2017 Air Vehicle Initial Spares (\$86.9m), LRIP6 Propulsion (\$50.0m), Industry Grants (\$29.3m) and Non-Standard Mission Systems (\$8.0m).		
8	Other expenditure for the period July 2022 to June 2023 is associated with Support Systems (\$109.3m), Mission Systems (\$26.4m) and FMS Other (\$24.1m), Project Office Services (\$9.8m), FY 2017 Air Vehicle Initial Spares (\$9.8m), Industry Grants (\$3.3m), Non-Standard Mission Systems (\$2.2m), LRIP6 Production (\$0.3m), LRIP6 Propulsion (\$0.1m), NACC Operating Expenditure (\$0.6m) and Lot 12 Air Vehicle Initial Spares (\$1.1m).		

## 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
1,261.4	976.4	933.4	<u>Portfolio Budget Statement (PBS) to Portfolio Additional Estimates Statement (PAES):</u> Lot 15 Air Vehicle main contract phasings were reduced/deferred due to the delay in contract signature. Deliveries and invoicing of F-35A Spares and Depot Support Equipment experienced a general slowdown. Weapons production was also delayed.

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			PAES to Final Plan: The ACURL CRT was accepted by the US F-35 JPO as being a common development effort, which resulted in a real cost reduction for Australia. This saving was partially redirected to support ACURL Phase 2 cost increases and the JSF Australian Industry Program.
Variance \$m	(285.0)	(43.0)	Total Variance (\$m): (328.0)
Variance %	(22.6)	(4.4)	Total Variance (%): (26.0)

## 2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
		(2.5)	Australian Industry	30 June 2023 – The variation was driven by earlier than expected Air Vehicle and Propulsion invoicing and progression of reconciled historical invoices.
		158.9	Foreign Industry	
		-	Early Processes	
		-	Defence Processes	
		-	Foreign Government Negotiations/Payments	
		-	Cost Saving	
		-	Effort in Support of Operations	
		-	Additional Government Approvals	
933.4	1089.8	<b>156.4</b>	<b>Total Variance</b>	
		<b>16.8</b>	<b>% Variance</b>	

## 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			
US Government (PSFD MoU (FY 2014-15 – 2022-23))	Dec 06	180.3	791.4	Variable	MoU	1, 8, 9
US Government (LRIP10 Production)	Dec 14	79.2	1,013.1	Firm or Fixed	US Government Contract	2, 8, 9
US Government (LRIP10 Propulsion)	Mar 15	13.4	164.1	Firm or Fixed	US Government Contract	3, 8, 9
US Government (Reprogramming Laboratory)	Mar 15	119.0	136.5	Firm or Fixed	US Government Contract	4, 8, 9
US Government (LRIP8 Production and NA Sustainment)	Jun 15	99.9	116.2	Firm or Fixed	US Government Contract	5, 8, 9
US Government (LRIP11 Production)	Dec 15	88.2	926.1	Firm or Fixed	US Government Contract	6, 8, 9
US Government (AT-D-YAF)	Jun 16	111.9	116.6	Reimbursement (for FMS)	FMS	8, 9
US Government (LRIP10 NA Sustainment)	Jun 16	31.8	304.2	Variable	US Government Contract	8, 9, 11
US Government (AT-P-AMN)	Jul 16	132.3	147.1	Reimbursement (for FMS)	FMS	8, 9
US Government (LRIP11 Propulsion)	Jul 16	14.2	163.5	Firm or Fixed	US Government Contract	8, 9, 10
US Government (Block Buy Contract Production)	Feb 17	236.3	4,494.3	Variable	US Government Contract	7, 8, 9
US Government (Block Buy Contract Propulsion)	Aug 17	39.6	910.3	Variable	US Government Contract	7, 8, 9
US Government (LRIP11 NA Sustainment)	May 18	57.5	201.5	Variable	US Government Contract	8, 9, 11
US Government (Lot 12-14 IDIQ)	Jan 19	52.8	169.5	Variable	US Government Contract	8, 9, 11
US Government (Lot 15 Propulsion)	Dec 19	16.6	177.5	Variable	US Government Contract	9, 10, 13
US Government (Lot 15 Production)	Jan 20	125.3	957.2	Firm or Fixed	US Government Contract	8, 9, 12

Notes	
1	Contribution to PSFD MoU shared costs based on proportionality principle: i.e. number of aircraft foreshadowed for purchase as a percentage of entire partner fleet. Commitment via MoU signature in December 2006 and again in March 2021 with price re-baselined from 2002 to 2012 per US Government update. Covers period from 2014–15 to 2022–23 as approved by Government in April 2014. The PSFD MoU contract is a Variable Priced contract in that it is updated annually to reflect both estimated shared costs and escalation. Contract Price increase since signature due to increased tooling replacement cost not previously included; inclusion of scope previously considered country unique; and updated estimates for shared sustainment, follow-on development and F-35 JPO administration.
2	LRIP10 Production contract for Australia's next tranche of eight F-35A aircraft for initial Long Lead items. This contract is progressively modified with approved work scope and forms the basis of the Air System contract for the complete system – per Section 1.3 'Uniqueness'.
3	LRIP10 Propulsion contract for eight engines for installation on Australia's next tranche of eight F-35A aircraft. This contract is progressively modified with approved work scope and forms the basis of the propulsion contract for the complete system – per Section 1.3 'Uniqueness'. Subsequent to full funding being awarded for this contract further modifications (contract changes) have occurred. These include: (1) Long Lead funding for Lot 12 (15 aircraft); (2) initial sparring for operating units, maintenance depots and the Global Spares Pool; and, (3) the migration of Autonomic Logistics Information System (ALIS) propulsion data.
4	Contract for Reprogramming Laboratory hardware and software tools.
5	LRIP8 Production and NA Sustainment contract for the provision of training devices, support equipment, non-aircraft spares and an aircrew fitting service.
6	LRIP11 Production contract for Australia's next tranche of eight F-35A aircraft. This contract includes Long Lead items and is progressively modified, forming the basis of the Air System contract for the complete system – per Section 1.3 'Uniqueness'. This contract has met full funding award with the increase in contract value a result of the staged procurement and provision of funding for the F-35 production line to build the aircraft.
7	Lot 12-14 Production and Propulsion are procured under separate Block Buy Contracts, Air Vehicle Production via Lockheed Martin Corporation and Propulsion via Pratt & Whitney. Both contracts encompass Long Lead items for the procurement of aircraft under Lot 12-14 and Economic Order Quantities for the production contract only. Both production and propulsion are also contracted under Undefined Contract Action (UCA) for Lot 12. These contracts were previously combined and reported as a single Block Buy Contract. Australia will commit to aircraft purchases on an annual basis via these two contracts, subject to annual approvals by Government.
8	Contract value as at 30 June 2023 is based on actual expenditure to 30 June 2023 and remaining commitment at current exchange rates. This includes adjustments for indexation (where applicable).
9	LRIP11 Propulsion contract for eight engines for installation on Australia's tranche of eight F-35A aircraft being procured through the LRIP11 Production Lot. This contract is progressively modified with approved work scope and forms the basis of the propulsion contract for the complete system – per Section 1.3 'Uniqueness'.
10	LRIP10 and 11 NA Sustainment contracts consist of one-time tasks and infrastructure stand up activities. The contracts undergo discrete modifications for each individual good and/or service being procured which in turn dictates the 'type' of contract. The majority of each discrete procurement is acquisition related, examples being initial non-aircraft spares, site activation, depot stand-up, hardware procurement and delivery, training systems, support equipment and ALIS.
11	FY 2019-20 Air Vehicle Initial Spares, Lot 12 - 14 Generation III Heavy Helmet Mounted Display Systems (HMDS) and Lot 13-14 Ancillary Mission Equipment (AME) and Pilot Fit Equipment (PFE) have been placed on the Lockheed Martin Corporation IDIQ contract. The IDIQ contract allows flexibility in both quantities and delivery scheduling and allow the ordering of supplies and goods to be delayed until after requirements materialise. The JPO have stated that placing spares, AME and PFE requirements on the IDIQ contract allows for more agile procurement for F-35 Enterprise, aligning delivery schedule with aircraft deliveries.
12	Lot 15 Production contract for Long Lead and Economic Order Quantity (EOQ) funding associated with the procurement of nine F-35A aircraft. The purpose of EOQ funding is to allow for the procurement of extra-long lead components that will reduce the procurement cost of the aircraft by taking advantage of economy of scale orders. Allocated funding was advanced in May 2022 to shore up continued production of Lot 15 aircraft ahead of the definitised Lot 15 Air Vehicle Production Full Funding Contract, which occurred in December 2022.
13	Lot 15 Propulsion Contract for the procurement of nine F135 engines for installation on Australia's nine F-35A Aircraft procured through the Lot 15 Production Contract. This contract commenced with Long Lead funding and was later modified as an UCA to include the remaining production funding (full funding). As the total price for Australia's Lot 15 F135 Propulsion Production was known, commitment approval was sought for the full estimate 100% not-to-exceed value minus previous Long Lead commitments. Definitisation of the Lot 15 Propulsion contract occurred on 26 January 2023.

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

Contractor	Contracted Quantities as at		Scope	Notes
	Signature	30 Jun 23		
US Government (PSFD MoU)	N/A	N/A	Australia's contribution to shared costs from 2010 to 2023 based on the purchase of 100 aircraft. Includes contribution to production tooling, US overhead cost of running program, follow on development and shared sustainment activities.	1
US Government (LRIP10 Production)	8	8	Procurement of Advanced Acquisition items associated with the next eight F-35A aircraft procurement.	-
US Government (LRIP10 Propulsion)	8	8	Procurement of Advanced Acquisition items and spares associated with propulsion systems for the next eight F-35A aircraft procurement. This contract has also been modified to include Long Lead items to support Lot 12 aircraft.	-

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US Government (Reprogramming Laboratory)	N/A	N/A	Reprogramming Laboratory Hardware and Software tools.	-
US Government (LRIP8 Production and NA Sustainment)	N/A	N/A	Training devices, support equipment and non-aircraft spares.	-
US Government (LRIP11 Production)	8	8	Procurement of Advanced Acquisition items associated with the next eight F-35A aircraft procurement.	-
US Government (AT-D-YAF)	N/A	N/A	Procurement of Small Diameter Bombs and associated racks.	-
US Government (AT-P-AMN)	N/A	N/A	Procurement of Radio Frequency Counter measures.	-
US Government (Block Buy Contract Production)	N/A	45	Procurement of Long Lead items and Economic Order Quantities for Lot 12-14, with full funding contract awarded in Quarter 4, 2019, for procurement of 45 F-35A aircraft.	2
US Government (FY 2017 Air Vehicle Initial Spares & ACURL Spares)	N/A	N/A	F-35 Global Spares Pool, Deployable Spares Pack and spares for the Reprogramming Lab.	-
US Government (Block Buy Contract Propulsion)	N/A	45	Procurement of Long Lead items for Lot 12-14, with full funding contract awarded in Quarter 4, 2019 for procurement of 45 F135 propulsion systems.	2
US Government (LRIP11 Propulsion)	8	8	Procurement of propulsion systems required for the eight F-35A aircraft being procured through the LRIP11 Production Lot.	-
US Government (LRIP10 NA Sustainment Contract)	N/A	N/A	Procurement of initial non-aircraft spares, site activation, depot stand-up, hardware procurement and delivery, training systems, support equipment and ALIS.	-
US Government (LRIP11 NA Sustainment)	N/A	N/A	Procurement of initial non-aircraft spares, site activation, depot stand-up, hardware procurement and delivery, training systems, support equipment and ALIS.	-
US Government (Lot 12-14 IDIQ)	N/A	N/A	Procurement of Lot 13-14 AME and PFE and HMDS Spares, Lot 12-14 HMDS, and FY 2019-20 Air Vehicle Spares.	-
US Government (Lot 15 Production)	9	9	Procurement of Advanced Acquisition items associated with the next nine F-35A aircraft procurement.	-
US Government (Lot 15 Propulsion)	9	9	Procurement of Advance Acquisition items and full funding production costs for nine F135 engines associated with Lot 15 F-35A Production.	-
Major equipment accepted and quantities to 30 Jun 23				
63 F-35A aircraft have been received by Australia.				
Notes				
1	No equipment delivered as part of this contract.			
2	These contracts were previously reported as Lot 12 Long Lead and EOQ.			

#### 2.4 Australian Industry Capability

<b>Summary</b>	
The project has no contracted Australian Industry Capability (AIC) targets or an AIC Plan for its US Government acquisition due to the F-35 Program being a US Department of Defense collaborative program contracted under the Federal Acquisition Regulations and Defense Federal Acquisition Regulation Supplement framework.	
<b>Note</b>	
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
Preliminary Design	JSF Air System (CTOL Variant)	Mar 03	N/A	Jul 03	4	1
Critical Design	JSF Air System (CTOL Variant)	Apr 04	Feb 06	Feb 06	22	2

Notes	
1	Aircraft weight was the major issue that delayed the closure of the Preliminary Design Review (PDR) by four months.
2	Additional design effort was required to achieve the weight savings expected after PDR. The CTOL Critical Design Review was delayed as a result from April 2004 to February 2006 until the re-design was complete and included the 'roll up' of many lower-tiered reviews.

### 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	Block 2B Fleet Release (against Integrated Master Schedule (IMS) 7 Baseline)	Jun 15	Jun 15	Jul 15	1	1
	Block 3i Initial Release to support LRIP6 (against IMS 7 Baseline)	Mar 14	Nov 14	Sep 14	6	2
	Block 3F Fleet Release (against IMS 7 Baseline) – for F-35A (full envelope with weapons)	Aug 17	Oct 17	Aug 17	0	3, 4, 5
Acceptance	Accept and deliver two (LRIP6) aircraft to US Pilot Training Centre	Mar 14	Nov 14	Nov 14	8	6
	Accept and deliver aircraft 3-14	Dec 16	Jun 19	Jun 19	30	7
	Accept and deliver aircraft 15-72	Dec 23	Sep 23	Not For Publication (NFP)	NFP	8
Notes						
1	Block 2B supported the US Marine Corps IOC declaration which occurred on 31 July 2015.					
2	Block 3i Initial Release software provides initial pilot training capability for the LRIP6 aircraft configuration. The six month variance was due to delays in earlier software deliveries and compounded by integration into the updated computer architecture delivered in LRIP6 aircraft.					
3	F-35 aircraft software is developed and released in capability blocks. Block 3F software is the final release under the SDD phase of the program and is the requirement for Australian IOC declaration. It is noteworthy; all Block 3F software is developed to support full Australian weapons requirements, where Australia's weapons approval is dependent on US and Australian clearances.					
4	Block 3F software was fleet released August/October 2017 onto late LRIP9 US and Partner aircraft. Fleet release dates indicate software has finished development, while the release of partner nation specific loads follows with minor adjustments to meet sovereign requirements. The priority for the release of partner specific loads is driven by a nation's aircraft delivery schedules.					
5	Australia accepted its first three Block 3F aircraft March 2018. Acceptance, initially planned February 2018 as contracted Bed Down Plan, was delayed to remediate non-software related production issues. All new aircraft are to be accepted in Block 3F (or later) configuration.					
6	The March 2014 original delivery date was based on Australian IOC in December 2018. The November 2014 delivery date reflects a deferral in production to align with the US re-baselining of JSF production, and verification of a new software load for LRIP6 aircraft to assure an appropriate training capability.					
7	The final remaining 12 Stage 1 aircraft were originally scheduled for delivery by December 2016 leading to Australian IOC in 2018. In March 10, the JSF Program experienced a Nunn-McCurdy breach of the critical cost growth statutory threshold. Based on subsequent delays to SDD completion and the US aircraft buy profile, the Australian Government initiated a two year deferral in production and IOC, with Aircraft 14 accepted in June 2019. This will achieve a revised Australian IOC by December 2020.					
8	Air Vehicle COVID-19 re-baselined deliveries were delayed by approximately six weeks due to temporarily suspended factory acceptance flight operations following the US F-35B crash in December 2022. Deliveries resumed in March 2023 and all Australian Lot 12-14 contracted aircraft have now been accepted. Delays to software integration and flight testing of the TR3 software are expected to delay acceptance of Australia's final nine Air Vehicles.					

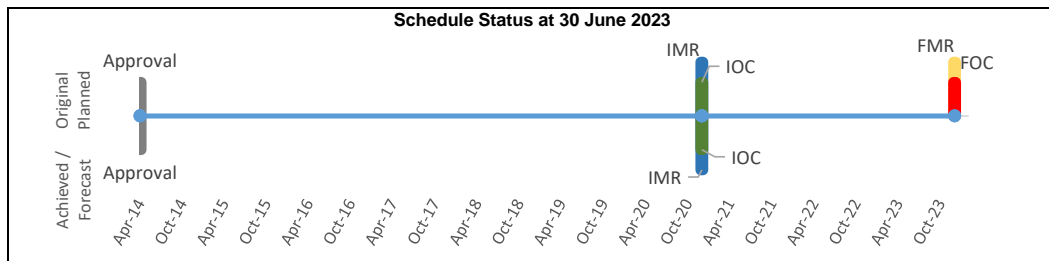
### 3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Oct – Dec 20	Dec 20	0	1
Initial Operational Capability (IOC)	Dec 20	Dec 20	0	1
Final Materiel Release (FMR)	Oct - Dec 23	NFP	NFP	1
Final Operational Capability (FOC)	Dec 23	NFP	NFP	1, 2
Notes				
1	The Capability Manager declared IOC on schedule acknowledging a number of known acceptable deficiencies with the aircraft and support systems. This is not unusual for capabilities being introduced into service. Delivery of aircraft remains largely in line with the Capability Manager's expectation, noting the expected delay to Australia's final nine Air Vehicles due to delays in TR3 software integration testing. Air Force monitoring closely, including consequential impacts to FOC.			
2	While this milestone represents the completion of Phase 2A/2B requirements, the aircraft will continue to develop under the Continuous Capability Development and Delivery (C2D2) program through future phases of the AIR6000 program managed by ACSPO.			

## Project Data Summary Sheets

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**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	
	<b>Green:</b> The project expects to meet the majority of capability requirements as expressed in the MAA and supporting suite of Capability Definition Documentation with delivery in accordance with requirements of the relevant Technical Regulatory Authorities.
	<b>Amber:</b> N/A
	<b>Red:</b> On 5 April 2023 Government approved the transfer of the completion of limited capability from AIR6000 Phase 2A/2B to AIR6000 Phase 6.
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)	Acceptance and delivery of 33 aircraft to RAAF Base Williamtown between 2018 and 2020 to support Australian V&V and stand-up of No.3 Squadron (SQN) and No.2 Operational Conversion Unit; No.3 SQN facilities fully fitted, accredited, staffed and ready to support flying operations. Materiel delivery, V&V, training, support and transition activities required for IOC completed. IMR was achieved in December 2020.	Achieved
Initial Operational Capability (IOC)	The JSF system shall be capable of performing and sustaining one squadron capable of Defensive Counter Air, and Offensive Counter Air roles (though not concurrently) for a 30 day period. The JSF system shall be deployable to Forward Operating Bases within Australia and Overseas. Aircraft are available to support the start of pilot training in Australia. IOC was achieved in December 2020.	Achieved
Final Materiel Release (FMR)	Delivery of final aircraft between 2021 and 2023, resulting in all 72 F-35A aircraft in Australia. All aircraft will be upgraded in accordance with the C2D2 plan (noting that this is an ongoing program of capability enhancement). Delivery and acceptance, commissioning or contracting in Australia of the aircraft, spares, support systems, and personnel, training, weapons, equipment, contracts and facilities necessary for ongoing operations of three Operational Squadrons and one Training Squadron at FOC. Materiel delivery, V&V, training, support and transition activities required for FOC completion.	Not yet Achieved
Final Operational Capability (FOC)	The JSF system shall be capable of performing and sustaining three operational squadrons and one training squadron, as per strategic and capability guidance.	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	<p>The F-35A capability may be impacted:</p> <ul style="list-style-type: none"> <li>by failure to deliver air system elements to meet the capability requirements of Air Force as a result of a technical deficiency or a delay in delivery schedule.</li> <li>by overall funding or programming issues arising from internal cost growth/forecasting inaccuracies, production cost increases, future development of the common reprogramming laboratory and COVID-19 induced workforce and supply chain effects.</li> <li>due to security or cyber breaches leading to potential disclosure of sensitive information to potential adversaries.</li> </ul>	<p>AIR6000 Phase 2A/2B has established a risk management framework to ensure that any risks to establishing a credible air combat capability are identified and resources can be allocated to mitigate these risks to ensure they do not impact the system which is being delivered. The inclusion of Cooperative Project Personnel positions within the JPO gives Australia early insight into emergent potential issues. AIR6000 Phase 2A/2B project office will conduct on-going engagement with the F-35 JPO and major project suppliers to facilitate improved cost data to allow the F-35 Program to meet budgeting and programming expectations. The Capability Manager is a key informed stakeholder in this process, who will ensure the systems being delivered will meet Air Forces evolving capability needs and assist in prioritising requirements to deliver project capability within the approved project budget. AIR6000 Phase 2A/2B continue to train, practice and promote efficient application of security policy, practices and procedures across the physical, information and personnel security domains and ensure that effective and appropriate sovereign data mitigations are maintained to address identified issues. In addition to the promotion and enforcement of the Defence Industry Security Program, engagement continues with Defence and Government cyber security agencies to develop an Information and Communications Technology Protection Program which would assist our industry partners. This risk will be managed by Aerospace Combat Systems Branch from July 2023.</p>
2	AIR6000 Phase 3 and Phase 5 may not deliver sufficient weapon inventory for FOC.	Consequential impact to FOC is being actively managed by Aerospace Explosive Ordnance Systems Program Office and Air Force. This risk was retired on 29 March 2023.
3	The Australian F-35A sustainment solution may be impacted by the JPO ongoing development and evolution to a mature and effective GSS, leading to an impact on Australia's sustainment performance.	The F-35 Program has not yet reached Full Rate Production but is simultaneously executing Development, Production and Sustainment lines. The F-35 GSS performance is currently lower than anticipated but is still maturing and developing. AIR6000 Phase 2A/2B and ACSPO will continue to provide feedback on the GSS performance at F-35 JPO governance fora to make it effective for the Australian F-35A capability. This risk was retired as a sustainment risk managed by ACSPO.
4	The capability requirements for an integrated fifth generation Air Force may be impacted due to delays in delivery of an effective training system. This may include service release of training devices and equipment, workforce provisioning and contractual arrangements resulting in possible delays to capability outcome declarations.	The JSF training system is evolving and work continues with the key stakeholders on understanding the capabilities and aligning expectations. Additional personnel have been engaged to deliver the Australian training system and the associated support contracts. Influential representation by Defence at critical and essential F-35 JPO meetings and periodic technical interchange meetings with Lockheed Martin Corporation will burn-down the risk through persistent and consistent education. This risk was closed due to establishment of domestic F-35A training capability.
Emergent Risks (risk not previously identified but has emerged during 2022–23)		
Ref#	Description	Remedial Action
1	Lack of funding for Production Autonomic Logistics Support (PALS) (Annual Cost Estimate years 2023, 2024 and 2025)	The project reviewed forecast PALS procurement activities in detail with respect to the budget Work Breakdown Structure to confirm affordability. The risk was downgraded to Medium following allocation of appropriate funding from the Project Risk Budget.
2	CRT Increment 1 Development Cost Risk	The US F-35 JPO agreed to allocate funding to enable development of the CRT Increment 1, resulting in a cost saving for reallocation during November 2022 Financial Estimates activity. The risk was downgraded to Very Low.

### 5.2 Major Project Issues

Ref#	Description	Remedial Action
1	COVID-19 is affecting the supply chains and production efforts of the F-35 prime contractors Lockheed Martin Corporation and Pratt & Whitney, resulting in delays to delivery of aircraft and support elements.	The project has largely addressed the COVID-19 impacts to the delivery schedule. Cost was not significantly impacted. Lockheed Martin Corporation and the US F-35 JPO re-baselined the aircraft production schedule to accommodate a reduced production workforce. Australian international and domestic travel restrictions that limited the ability of specialist installation and verification personnel were overcome through close engagement with Australian Border Force to ensure compliance with all entry requirements. This issue was retired with the delivery of Lot 14 aircraft.

2	The upgrade of the Weapons Loading Trainer to the 3.2 and 3.2.1 configurations was affected by delays in contracting, resulting in the delivery schedule being late to need.	Delivery of the Weapons Loading Trainer and Gun Module upgrades in Quarter 4, 2021 enabled Australian personnel to be trained using the Weapons Loading Trainer and Gun Module from Quarter 2, 2022. This issue was retired with the delivery of the Weapons Loading Trainer.
3	Australia's ability to organically manage non-standard Low Observables maintenance from a zonal verification and validation perspective have been delayed.	Downgraded to Medium due to mitigations in place using a Lockheed Martin Corporation embedded Low Observable Field Service Representative and contracted field teams.
4	Delays to software integration and flight testing of the TR3 software are expected to delay acceptance of Australia's final nine Air Vehicles.	Air Force and AIR6000 Phase 2A/B Project Office executives remain engaged with embedded Australian staff continue to discuss the risk at relevant fora to ensure that the production schedule meets Australian FMR requirements. AIR6000 Phase 2A/B Project staff continue to engage at working level forums to maintain visibility of any schedule movements.
5	PSFD MoU obligation for FY 2024-25 is unfunded.	Funding for the PSFD MoU obligation in FY 2024-25 was identified and allocated during Financial Estimates activities in April to June 2023. A Medium rating was applied pending approval of the project's FY 2023-2024 Additional Estimate Budget.

<b>Note</b>
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 Capability Acquisition and Sustainment Group 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 eight lessons related to Requirements Management and Governance. Three project lessons are provided below (note this does not include all project lessons):	The project has not categorized any of its lessons information as a whole-of-Defence Lesson Learned.
Lesson Type – Observation. JSF Production, Sustainment and Follow-on Development MoU is run by the Joint Program Office and it is difficult to predict cost, schedule and associated budgeting impact on Australian Defence Force processes and procurement.	Governance
Lesson Type – Observation. Allowing industry to come up with innovative solutions, without the Commonwealth being too prescriptive in requirements definition, can provide improved outcomes. Through the Turbine Engine Maintenance Facility negotiations a maintenance organisation proposed the renovation of a disused Masters Hardware facility, rather than building a new facility on a green-field site. This resulted in significant schedule reduction.	Requirements Management
Lesson Type – Observation. The ongoing sustainment costs of information and communications technology intensive projects is expensive - hardware refresh, software licensing, upgrades, personnel (administrators) - and cannot be underestimated.	Requirements Management

## Section 7 – Project Structure

### 7.1 Project Structure as at 30 June 2023

Unit	Name
Division	Aerospace Systems Division
Branch	Aerospace Combat Systems Branch