

## Project Data Summary Sheet<sup>163</sup>

Project Number	SEA1448 Phase 4B
Project Name	ANZAC AIR SEARCH RADAR REPLACEMENT
First Year Reported in the MPR	2018-19
Capability Type	Replacement
Capability Manager	Chief of Navy
Government 1st Pass Approval	Mar 15
Government 2nd Pass Approval	Jun 17
Budget at 2nd Pass Approval	\$427.8m
Total Approved Budget (Current)	\$429.2m
2021-22 Budget	\$22.0m
Complexity	ACAT II



### Section 1 – Project Summary

#### 1.1 Project Description

SEA1448 Phase 4B is replacing the SPS-49(V) 8 Air Search Radar on the 8 Anzac class frigates with a modern digital Long Range Air Search Radar. The project will also replace the existing Identification Friend or Foe (IFF) system with a new system. By replacing the existing air search radar and IFF system, the project will deliver an integrated and supportable modern Long Range Air Search Capability (LRASC) into the Anzac Class Frigates.

#### 1.2 Current Status

##### Cost Performance

###### In-year

As at 30 June 2022, the project had underspent by \$2.8m. The underachievement is primarily due to the late submission of invoices from CEA as a result of a delay in milestone completion, in addition to FMS payment recommendation requirements being less than what was forecast. The project achieved the milestones aligned with ANZAC Midlife Capability Assurance Program.

###### Project Financial Assurance Statement

As at 30 June 2022, project SEA1448 Phase 4B has reviewed the 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

The project has progressed through the Design phases and is now within the Delivery phase. The first mast was installed on HMAS *Arunta* in December 2018 and Sea Acceptance Trials were completed in February 2020, with all reports delivered in Q2 2020.

In March 2020 Government was advised of a schedule review with Industry that determined an additional 26 weeks was critical to the AMCAP realisation across the class. The schedule for ship availability to replace the Long Range Air Search Radar and integrated IFF system was amended as a consequence but did not affect the SEA1448 Phase 4B Final Operating Capability (FOC) date.

Initial Operating Capability (IOC) was delayed from the original planned date due to the complexities in achieving United States Identification Friend or Foe (IFF) certification requirements. Additionally COVID-19 international travel restrictions prevented United States IFF certification authorities from participating in certification activities as originally planned. Rescheduled certification activities concluded in October 2020. Notification of IFF certification was achieved in April 2021. IOC was achieved in July 2021.

Material Release 2 (MR2) was achieved in November 2021.

The third ship, HMAS *Warramunga*, commenced Sea Acceptance Trials in Apr 2021 and concluded in Jun 2021.

The fourth ship, HMAS *Perth*, commenced Sea Acceptance Trials in Feb 2022 and concluded in Apr 22.

##### Material Capability/Scope Delivery Performance

The project expects to deliver eight modern digital air search radars with integrated Identification Friend or Foe (IFF) system in the Anzac Class Frigates. The first mission system ship set capability with associated support systems was scheduled for acceptance in Quarter 1 2021, dependent on IFF certification.

163 Notice to reader

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

Initial Materiel Release (IMR) was split into two Initial Materiel Releases. The first release enabled the project to support acceptance of the radar to enable the RAN to utilise the capability on HMAS Arunta, realign the CEA Technologies payment schedule and commence the warranty period. The second release was aligned with IFF certification being sufficiently completed. IMR 1 was declared December 2020 and IMR2 was declared in April 21.

Initial Operational Capability (IOC) was declared in July 2021. Materiel Release (MR) 2 was the first release after declaration of IOC, and was declared in Nov 2021. MR 3 is scheduled for August 2022.

#### Note

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

### 1.3 Project Context

#### Background

SEA1448 Phase 4B was entered into the 2009 Defence Capability Plan (DCP) to replace the existing and ageing Anzac Class AN/SPS-49(V)8 Long Range Air Search Radar System with a modern, digital air search radar that complements the capabilities and functionality of the Phased Array Radar System delivered under the SEA1448 Phases 2A and 2B – Anti Ship Missile Defence (ASMD) Program. In addition, the current Identification Friend or Foe (IFF) does not support the next generation of encrypted military IFF (Mode 5) which is required to operate effectively with our Allies as deemed by Vice Chief of the Defence Force (VCDF).

In March 2015, at Gate 1 (previously first pass) multiple options were presented to Government, spanning Militarily-Off-The-Shelf (MOTS) and Developmental options. The MOTS solution; an upgraded variant of the AN/SPS-49(V)8 was not progressed further as it did not resolve the obsolescence issues faced by the radar.

Government did approve Defence's proposal to select CEA Technologies Pty Limited (CEA) as the sole Australian provider of Phased Array Radars (PAR) to supply a replacement long range air search radar using the developmental technology successfully installed under the SEA1448 Phase 2A and 2B ASMD Program. This solution provided a three dimensional PAR with six fixed faces and an integrated IFF capability. The Mission System Integrator role would be undertaken by Industry Participants of the Anzac Warship Asset Management Agreement ((WAMA) (previously Anzac Ship Integration Materiel Support Program Alliance (ASIPA)).

The Project adopted the Smart Buyer Framework proceeding to Gate 2 Government Approval committees throughout the 2016-17 period. In November 2016, Government approved early access to Acquisition Phase funding, to enable the project to progress a number of time-critical activities prior to Second Pass Approval. This allowed the project to maintain schedule and continue to effectively mitigate 2016-17 key schedule risks (subsequently retired) that were identified during application of the Smart Buyer framework. Those activities included:

Advanced material purchases for CEA; and  
BAE to commence Mast production.

In June 2017, at Gate 2, Government approved Defence's proposal to act as the Prime integrator for the Long Range Air Search Capability (LRASC), and that the project has overall responsibility for procuring and managing the key components that make up the final Mission System:

A new Long Range Air Search Radar (LRASR) with integrated IFF, to be delivered by CEA;  
The integration of the LRASR and IFF system into the Anzac Platform and Combat Management System (CMS), to be delivered by the industry participants under the Anzac Warship Asset Management Agreement (WAMA); and  
Acquisition of supporting equipment (and services) under Foreign Military Sales (FMS).  
Production timings and integration of the mission system(s) into the Anzac Class is driven by the AMCAP schedule, managed by the ANZAC System Program Office.

#### Uniqueness

The CEA Phased Array Radar (PAR) technology on which SEA1448 Phase 4B is based is considered to be a Strategic Industry Capability (SIC). The acquisition of which will ensure the RAN has regionally superior technology into the future. The IFF system will be integrated into the PAR faces. This is a world leading technological step to have the IFF interrogator integrated into the PAR faces without a secondary system requirement.

#### Major Risks and Issues

The Major risks the project faces are:

The project delivery schedule will be affected by a delay in the acceptance of capability by Navy.

The AIMS Box and Platform level certified software will be impacted by the rectification of deficiencies identified by AIMS.

CEA data being passed from Commonwealth to Commonwealth interrelated projects may lead this information being disclosed to a non-authorised recipient.

There is a chance that the project schedule will be affected by an insufficient Commonwealth workforce leading to an impact on program performance.

The Major issues the project faces are:

Contractual deliverables impacting the forecast spend spread of the project.

Materiel Releases IMR1, IMR2 and MR2 were achieved with exceptions relating to outstanding electromagnetic testing and delivery of the Integrated Logistics Support matrix.

Certification for the IFF interrogator was not achieved in time to meet the original IOC date, however, this issue has closed with the achievement of IOC.

#### Other Current Related Projects/Phases

The deliverables provided by SEA1448 Phase 4B have been incorporated into the overall ANZAC Midlife Capability Assurance Program (AMCAP) schedule. The ANZAC AMCAP involves a suite of upgrades to the ANZAC platform being delivered by multiple projects, of which SEA1448 Phase 4B is one. Delays or issues with other AMCAP projects can delay the schedule of SEA1448 Phase 4B.

The AMCAP projects consist of:

SEA1448 Phase 4A – this Phase delivered a contemporary Electronic Support Measures (ESM) system as part of the ASMD upgrade program and is being re-installed under the SEA1448 Phase 4B program. SEA1442 Phase 4 – this Phase will upgrade the communication capability in the eight Anzac Class Frigates and address communications system obsolescence in the Anzac Class. Anzac Platform System Remediation (PSR) program – the PSR will see the upgrade of on board systems that includes ventilation, the propulsion control system to improve power and efficiency, waste management and water production systems

## Project Data Summary Sheets

Auditor-General Report No.12 2022–23  
2021–22 Major Projects Report

<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>			
Oct 13	Original Approved	3.0	1
Jun 14	Real Variation – Scope	5.9	2
Mar 15	<b>Government First Pass Approval</b>	<b>45.2</b>	3
Jan 17	Real Variation –Scope	20.4	4
Aug 17	Government Second Pass Approval	353.3	
	<b>Total at Second Pass Approval</b>	<b>427.8</b>	
Jun 22	Exchange Variation	1.5	
Jun 22	<b>Total Budget</b>	<b>429.2</b>	
<b>Project Expenditure</b>			
Prior to Jul 21	Contract Expenditure - CEA	(158.1)	5
	Contract Expenditure - WAMA	(125.7)	
	Other Contract Payments/Internal Expenses	(28.3)	
		<b>(312.1)</b>	
FY to Jun 22	Contract Expenditure - CEA	(3.6)	5
	Contract Expenditure - WAMA	(14.8)	
	Other Contract Payments/Internal Expenses	(0.8)	
		<b>(19.2)</b>	
Jun 22	<b>Total Expenditure</b>	<b>(331.3)</b>	
Jun 22	<b>Remaining Budget</b>	<b>97.9</b>	

Notes	
1	The project's original approved budget was the amount received for project initiation prior to Government Second Pass Approval.
2	To advance the L-Phased Array Radar Risk Reduction Program
3	Government First Pass approval to advance the progress of the risk reduction program to Gate 2.
4	Early release of funding to commence activities in advance of Gate 2 Approval.
5	Other expenses comprises FMS payments, operating expenditure and other capital expenditure not attributable to the listed contracts.

### 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Defence's Explanation of Material Movements
33.0	22.0	22.0	PBS - PAES: The variation is due to the late delivery of milestones from CEA, driven by COVID-19 lockdowns which have impeded milestone completion. This is in addition to amendments to forecasted escalation payments. PAES – Final Plan: There is no variation.
Variance \$m	(11.0)	0.0	Total Variance (\$m): (11.0)
Variance %	(33.3)	0.0	Total Variance (%): (33.3)

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

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
22.0	19.2	(2.0)	Australian Industry	The underachievement is primarily due to the late submission of invoices from CEA as a result of a delay in milestone completion, in addition to FMS payment recommendation requirements being less than what was forecast
		(0.8)	Foreign Industry	
			Early Processes	
			Defence Processes	
			Foreign Government Negotiations/Payments	
			Cost Saving	
			Effort in Support of Operations	
			Additional Government Approvals	
	(2.8)	<b>Total Variance</b>		
	(12.7)	<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			
CEA	Sep 17	166.6	165.0	Fixed with indices escalation	Standard Defence Contract	1,2
WAMA	Aug 17	136.1	144.9	Variable with Pain/Gain Share	Alliance	2,3

Notes	
1	SEA1448 Phase 4B contract execution date is official order under the Head Contract DMO/ESD/00297/2013 Standing Offer for Phased Array Radar Development Services, executed 30 October 2013. CCP01 reduced the contract price by removing the performance security as the technology had been demonstrated.

2	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).			
3	WAMA consists of Commonwealth of Australia, BAE Systems Maritime Australia (BAE), Saab Australia Pty Ltd (Saab) and Naval Ship Management Pty Ltd (NSM). The primary Industry Partners for SEA1448 Phase 4B tasking is BAE and Saab.			
Contractor	Contracted Quantities as at		Scope	Notes
	Signature	30 Jun 22		
CEA	1	1	Qualification and Verification System	
	8	8	Mission System Ship Sets	
	2	2	Depot Spare Systems	
	4	8	Training Simulators	1
WAMA	8	8	Mast, Ship Systems and integration	
	8	8	Combat Management System (CMS) upgrades and integration	
<b>Major equipment accepted and quantities to 30 Jun 22</b>				
As at 30 June 2022, three ships have been fully accepted (which includes aft mast installation, integration, harbour acceptance trials and sea acceptance trials). They are: HMAS Arunta, HMAS ANZAC, and HMAS Warramunga.				
<b>Notes</b>				
1	CEA contract change proposal was accepted to modify the number of training simulators from (4) to (8) to support the training requirements solution put forward by the WAMA.			

### 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	CEA Radar System Performance Specification	N/A	N/A	Aug 17	N/A	
Preliminary Design	Mast	N/A	N/A	Apr 17	N/A	1
	Platform	N/A	N/A	Sep 17	N/A	1
	Whole of Ship	N/A	N/A	Nov 17	N/A	1
Critical Design	Mast	N/A	N/A	Sep 17	N/A	1
	Platform	N/A	N/A	Jun 18	N/A	1
	Whole of Ship	N/A	N/A	Jun 18	N/A	1
<b>Notes</b>						
1	Original Planned dates for completion of Preliminary and Critical Design activities not disclosed within the Integrated Master Schedule as these dates were determined prior to Second Pass Approval.					

#### 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	HMAS Arunta – CAT1 (Factory Acceptance Testing)	Nov 18	N/A	Apr 19	5	1
	HMAS Arunta – CAT2 (Environmental Qualifications) and CAT3 (Integration)	Jan 19	May 20	Jul 20	18	2,3
	HMAS Arunta – CAT4 (Harbour Acceptance Trials)	Feb 19	N/A	Oct 19	8	4
	HMAS Anzac – CAT4 (Harbour Acceptance Trials)	Aug 19	N/A	May 20	9	4,5
	HMAS Warramunga – CAT4 (Harbour Acceptance Trials)	Jul 20	Mar 21	Jun 21	11	6
	HMAS Perth – CAT4 (Harbour Acceptance Trials)	Dec 20	Dec 21	Feb 22	14	6
	HMAS Toowoomba – CAT4 (Harbour Acceptance Trials)	Nov 21	Jul 22	Oct 22	11	6
	HMAS Stuart – CAT4 (Harbour Acceptance Trials)	May 22	Feb 23	Mar 23	10	6
	HMAS Ballarat – CAT4 (Harbour Acceptance Trials)	Feb 23	Aug 23	Jun 23	4	6
	HMAS Parramatta – CAT4 (Harbour Acceptance Trials)	Aug 23	Mar 24	Apr 24	8	6
Acceptance	HMAS Arunta – CAT5 (Sea Acceptance Trials)	Sep 19	N/A	Mar 20	6	4
	HMAS Anzac – CAT5 (Sea Acceptance Trials)	May 20	N/A	Oct 20	5	6
	HMAS Warramunga – CAT5 (Sea Acceptance Trials)	Feb 21	May 21	Jul 21	5	6
	HMAS Perth – CAT5 (Sea Acceptance Trials)	Sep 21	Mar 22	Apr 22	7	6
	HMAS Toowoomba – CAT5 (Sea Acceptance Trials)	Jun 22	Sep 22	Nov 22	5	6
	HMAS Stuart – CAT5 (Sea Acceptance Trials)	Dec 22	May 23	May 23	5	6
	HMAS Ballarat – CAT5 (Sea Acceptance Trials)	Oct 23	Sep 23	Aug 23	(2)	6

### Project Data Summary Sheets

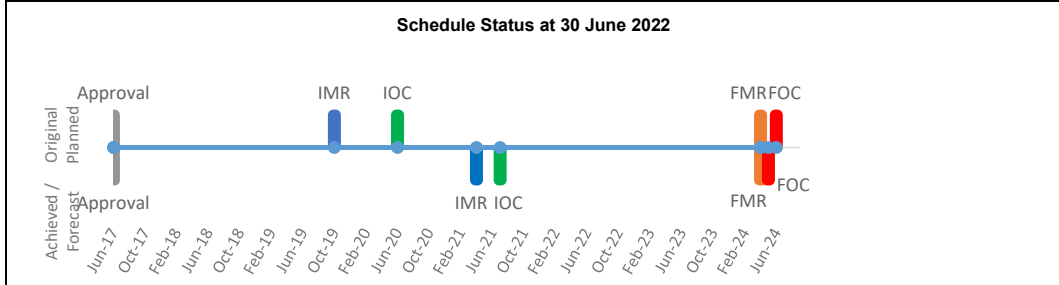
Auditor-General Report No.12 2022–23  
2021–22 Major Projects Report

	HMAS Parramatta – CAT5 (Sea Acceptance Trials)	Apr 24	Apr 24	Apr 24	0	6
<b>Notes</b>						
1	A manufacturing delay with CEA resulted in the Factory Acceptance Testing from November to December 2018. Test Reports were accepted in April 2019.					
2	CEA Contract Change Proposal approved the delay in which CEA are to obtain Environmental Qualification for the LRASR.					
3	CAT 3 integration activities were completed in May 2019. Acceptance of CAT 3 reports occurred in September 2019. The CAT 2 test results were received in July 2020. This delay was caused by the limited number of appropriately certified third party test facilities and longer than anticipated test durations.					
4	Delays in the AMCAP Schedule for HMAS Arunta and HMAS Anzac has resulted in delays to CAT 4 and CAT 5.					
5	HMAS Anzac CAT4 testing was undertaken in Apr 2020, with acceptance of the test reports in May 2020.					
6	Forecast dates for ship availability based on the approved AMCAP Ship Maintenance Availability Master Plan (SMAMP).					

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

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release 1 (IMR1)	Oct 19	Dec 20	14	1, 2, 3, 4, 5
Initial Materiel Release 2 (IMR2)	Mar 21	Apr 21	1	2, 3, 4, 6
Initial Operational Capability (IOC)	Jun 20	Jul 21	13	1, 4
Final Materiel Release (FMR)	Apr 24	Apr 24	0	4, 7
Final Operational Capability (FOC)	Jun 24	May 24	(1)	

<b>Notes</b>	
1	Initial Materiel Release (IMR) and Initial Operating Capability (IOC) dates are dependent on Identification Friend or Foe (IFF) certification, which was impacted by COVID-19 travel restrictions.
2	IMR1 with radar acceptance occurred December 2020 and IRM2 IFF certification was completed by April 2021.
3	Delays in the AMCAP Schedule for HMAS Arunta and HMAS Anzac has resulted in delays to CAT 4 and CAT 5.
4	These milestone definitions are aligned with Section 4.2
5	IMR1 was achieved with three exceptions. One of these exceptions had not been resolved at 30 June 2022. This is disclosed as an issue in Section 5.2 of this PDSS.
6	IMR2 was achieved with four exceptions. Two of these exceptions had not been resolved at 30 June 2022. This is disclosed as an issue in Section 5.2 of this PDSS.
7	Delay is due to alignment with Ship availability and the testing milestones in Section 3.2.



<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**

<b>Traffic Light Diagram: Percentage Breakdown of Materiel Capability/Scope Delivery Performance</b>	
	<b>Green:</b> The project is currently meeting capability requirements as expressed in the Joint Project Directive and Materiel Acquisition Agreement.
	<b>Amber:</b> N/A
	<b>Red:</b> N/A

<b>Note</b>
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 (IMR1)	Integration of one (1) Air Search Radar and partial IFF System into the first ship, including installation of a new aft-mast and reinstallation of all extant systems. Delivery of on-board spares and training packages. Establishment of Initial Support Contracts for both Radar and Integration.	Achieved with exceptions
Initial Materiel Release (IMR2)	Integration of one (1) Air Search Radar and full IFF System into the second Anzac Class Frigate, including installation of a new aft-mast and reinstallation of all extant systems. Delivery of on-board spares.	Achieved with exceptions
Initial Operational Capability (IOC)	Installation of equipment onto ships completed to date, development of operator and maintainer training package and initial package completed, tactical doctrine updated, completion of acceptance trials on the first ship completed, and the logistics support arrangements in place.	Achieved
Final Materiel Release (FMR)	Integration of one (1) Air Search Radar and IFF System into the final ship. Delivery of all outstanding logistic documentation. Delivery of a Support system. Final delivery of on-board spares and depot spares. Achievement of FMR is scheduled for Apr 2024.	Not Yet Achieved
Final Operational Capability (FOC)	Installation of equipment onto all ships is complete, training facilities have been set to work, operator and maintainer trainer is in a steady state, tactical doctrine is mature, full logistics support arrangements are in place, establishment and other Fundamental Inputs to Capability arrangements are complete. Achievement of FOC is scheduled for May 2024.	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
There is a chance that the project delivery schedule will be affected by a delay in the acceptance of capability by Navy leading to an impact on both schedule and reputation	To advise all key stakeholders of delays and request assistance as required.
There is a chance that the recipients of CEA data being passed from Commonwealth to Commonwealth interrelated projects may lead this information being disclosed to a non-authorized recipient, who may inadvertently expose the data therefore impacting sovereign capability leading to an impact on cost, schedule and reputation.	Limit access to data through the application of the Defence records management policy.
There is a chance that the AIMS Box and Platform level certified software will be impacted by the rectification of deficiencies identified by AIMS leading to an impact on engineering approvals, cost and schedule of Follow-On ships using the updated certified software	The United States Air Traffic Control Radar Beacon System Identification Friend or Foe Mark XIIA electronic identification System (AIMS) Program Office (PO) is the IFF certification authority. Maintain software at baseline approved by AIMS until software rectification has been made, tested and evidence provided to AIMS, and is certified by AIMS for installation.
Emergent Risks (risk not previously identified but has emerged during 2021–22)	
Description	Remedial Action
There is a chance that the project schedule will be affected by an insufficient Commonwealth workforce leading to an impact on program performance.	The most likely cause of this risk is slow recruitment and/or poor retention, to which the team is governed by standard processes and no additional mitigation strategies can be applied (other than the creation of a positive working environment).

## 5.2 Major Project Issues

Description	Remedial Action
Contractual deliverables are impacting the forecast spend spread of the project.	This issue has closed as IMR has been achieved and schedule delays are managed by the project office.
Certification for the Identification Friend or Foe (IFF) interrogator was not achieved in time to meet the original IOC date due. This is due to the complexities in meeting requirements for United States IFF certification, with Australia unable to certify the equipment internally.	This issue has closed as IOC has been achieved and schedule delays managed by the project office.

## Project Data Summary Sheets

Auditor-General Report No.12 2022–23  
2021–22 Major Projects Report

IMR1 was achieved with three exceptions. One of these exceptions was pertaining to the delivery of the final Integrated Logistics Support (ILS) matrix.	This issue is now closed with the delivery and acceptance of the ILS matrices.
IMR2 was achieved with four exceptions. Two of the three exceptions address Electromagnetic Interference testing (EMI) and delivery of the final ILS matrix.	ILS matrices have been delivered and accepted. However, EMI testing is still outstanding until the end of December 2022.
MR2 was achieved with two exceptions. These exceptions, relating to EMI testing and the final ILS matrix.	ILS matrices have been delivered and accepted. However, EMI testing is still outstanding until the end of December 2022.

#### 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 Phased Array Radar and IFF technology used in SEA1448-4B is the same as intended to be used in other vessels. The experience gained and achievements made in SEA1448-4B will reduce the risks to the delivery schedule for future projects.	First of Type Equipment
Understanding of certification authority test requirements to ensure sufficient resources, facilities and personnel can be scheduled to minimise the chance of delays.	Schedule Management
Understanding of Operational Security requirements prior to the development of the acceptance program to minimise the chance of delays.	Requirements Management
Improved project assurance and governance oversight requirements, due to the uniqueness of the CEA technology, has necessitated a non-traditional approach to requirements specification and acceptance.	Governance
Establishing Two-Star review boards to ensure the project's priority is maintained, particularly noting there are other Commonwealth and overseas customers vying for priority on CEA resources.	Governance

### Section 7 – Project Structure

#### 7.1 Project Structure as at 30 June 2022

Unit	Name
Division	Ships Division
Branch	Maritime Integrated Warfare Systems Branch

