

## Project Data Summary Sheet<sup>235</sup>

Project Number	JP 2072 Phase 2A
Project Name	BATTLESPACE COMMUNICATIONS SYSTEM
First Year Reported in the MPR	2012-13
Capability Type	Replacement
Acquisition Type	MOTS
Service	Joint Services (Army lead)
Government 1st Pass Approval	N/A
Government 2nd Pass Approval	Nov 11
Total Approved Budget (Current)	<b>\$461.9m</b>
2014-15 Budget	<b>\$17.1m</b>
Project Stage	Acceptance Into Service
Complexity	ACAT III



### Section 1 – Project Summary

#### 1.1 Project Description

Joint Project 2072 Battlespace Communications System (Land) (BCS(L)) Phase 2A is delivering Combat Radios and ancillary equipment to replace the Wagtail, Pintail and Raven fleets for the majority of the Land Force. Phase 2A **is** also **establishing** the mature support system for the new generation Combat and Tactical Data Radios.

#### 1.2 Current Status

##### Cost Performance

###### In-year

The project **achieved an overspend of \$2.9m for this financial year, with support contract achieved earlier than expected and the associated attrition spares brought forward to establish the support contract for Harris equipment.**

###### Project Financial Assurance Statement

As at 30 June 2015, Project JP 2072 Phase 2A has reviewed the approved scope and budget for those elements required to be delivered by the project. Having reviewed the current financial and contractual obligations of the 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.

#### 235 Notice to reader

Future dates and Sections: 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability Delivery Performance), 5.1 (Major Project Risks) and 5.2 (Major Project Issues) are out of scope for the ANAO's review of this Project Data Summary Sheet. Information on the scope of the review is provided in the *Independent Review Report by the Auditor-General* in **Part 3** of this report.

### Schedule Performance

Contract Signature (Acquisition) was achieved in March 2012. The first delivery of Phase 2A Combat Radios and ancillaries into service was achieved in November 2012. Contract Signature (Support) **was achieved May 2015 for Combat Radio, and forecast for October 2015 for Tactical Data Radio**. Initial Materiel Release (IMR) and Initial Operational Capability (IOC) were achieved on 30 April 2014. While the IMR and IOC signatures were delayed by seven months due to the acceptance process, the rollout of the capability to units **was unaffected**.

### Materiel Capability Delivery Performance

The radio equipment and components that form this capability were already introduced into service under JP 2072 Phase 1 as bearers for the Battle Management System (BMS); Phase 2A extends the utility of the radio equipment for dismounted voice communications. **The** rollout to end users is **effectively** complete according to the approved Basis of Issue (the schedule which identifies equipment entitlements by unit); **with some specialised ancillaries still being finalised and/or pending technical certification prior to release**.

### Note

The capability assessments and forecasts by the project are not subject to the ANAO's assurance review.

## 1.3 Project Context

### Background

#### Program Overview

- The overall JP 2072 program, BCS(L), will provide an integrated communications system to support forces deployed in the land environment through a combination of new equipment to replace ageing radio fleets and enhancements/upgrades to current communications systems. Phase 1 provided communication systems for integration into the Battle Group and Below Command, Control and Communications capability being delivered in conjunction with LAND 75 and LAND 125 (the three projects commonly known as LAND 200).

#### Phase 2A

- Phase 2A is continuing the rollout of products selected during Phase 1 to primarily provide voice services to dismounted users. Phase 2A will also establish a mature support system for ongoing sustainment of the Phases 1 and 2A materiel systems and contribute to ongoing Prime System Integration activities to evolve the BCS(L) design. Investigation and/or market survey activities will be conducted to specify and identify products for potential procurement in future phases.

#### Acquisition

- The primary objective of Phase 2A is to replace and enhance the existing dismounted voice communications capability currently provided by Wagtail, Pintail and Raven High Frequency (HF) and Ultra High Frequency/Very High Frequency (UHF/VHF) radios for Army, Air Force and Navy units. Phase 2A is also providing equipment for mounted (vehicle) installation and base station (RAAF) however the integration of mounted equipment into vehicles is outside the scope of JP 2072.
- To achieve this objective, Phase 2A **maximises** commonality and **minimises** ongoing support costs through delivery of 'more of the same' of the Phase 1 capability including: radios, ancillaries, cryptographic management equipment, load carriage equipment, training and interim support services.

#### In-Service Support Contract

- Under Phase 1, a three year interim support contract for the support of acquired materiel was executed early 2011. The interim support contract contained provisions for maintenance, training and capability introduction services from both Harris Corporation and Raytheon Australia as the Original Equipment Manufacturers. The mechanism for interim support **consisted** of Field Service Representatives, plus support staff and three facilities in Southern Queensland at Newstead, Pinkenba (Harris) and Amberley (Raytheon). The mature support acquisition strategy aligns with this interim support model due to United States (US) International Trade in Arms Regulations (ITAR) constraints.
- Phase 2A enhanced the contract with Harris Corporation to include management and storage of the increased equipment order. Phase 2A **is establishing** mature support contracts for the ongoing sustainment of the Phases 1 and 2A equipment. Phase 2A will also transition management of the mature support contracts to sustainment by Battlespace Communications Operations Group.

### Uniqueness

The radios delivered in Phase 2A are subject to US ITAR restrictions and other handling and management requirements. This has limited the options for sourcing of equipment suppliers; required change to the methodologies for supporting and maintaining equipment; affected the transfer of equipment into country and introduced different end user skills, training and working requirements.

Phase 2A **procured** 'more of the same' radios as originally delivered in Phase 1 and originally defined for interoperability with the BMS. However, the configurations of Phase 2A 'Nodes' or how the equipment **is** employed needed to be defined prior to achievement of IOC for the BMS, **therefore** changes to the **configurations or operation of BMS and communications equipment** may have follow on effects to the systems being rolled out under JP 2072. **The establishment of mature support therefore incorporates provision for** mass upgrades of equipment in minimal timeframes.

Unlike Phase 1, the equipment delivered under Phase 2A is mainly for use in a standalone voice communications role, which requires different ancillaries such as load carriage pouches, headsets and battery chargers. Many of these items required amendment/inclusion into existing design acceptance without affecting fundamental design or introducing new risks.

### Major Risks and Issues

While the equipment components are already introduced into service, the specific configurations or 'Nodes' for dismantled voice communications roles are **subject to** user requirements validation with Army and RAAF. This is reflected in the capability rollout progressing on schedule while the acceptance process for IMR was delayed. In lieu of a formal design acceptance prior to equipment selection, it is expected that this user validation of the baselined Nodes may result in some reconfiguration (limited within approved scope) to address fitness for purpose considerations.

The project is introducing a high volume of equipment that needs to be sustained in addition to continuing the sustainment of legacy fleets until such time as the legacy fleets are withdrawn. This pressure creates risks to the supportability of legacy, current and future phases by the System Program Office.

**The project has very high exposure to risk of key personnel loss and with limited resources is increasingly reliant on contractor support to achieve approved scope.**

### Other Current Sub-Projects

JP 2072 Phase 1, BCS(L): The initial phase of the JP 2072 program, this project is delivering communications bearers to the BMS, and enhancing communications for Australian Defence Force Land elements through the development of an holistic battlespace communications architecture for the Land environment.

**LAND 2072 Phase 2B, BCS(L): Phase 2B will provide the BCS(L) deployed, wide-band backbone by replacing and enhancing the existing Battlefield Telecommunications Network (BTN) capability within Army and Air Force. The end-state is a BTN which provides greater capacity, effective switching, wireless and wired network infrastructure supporting secure voice, data and video services. Phase 2B will also integrate the Second Generation Deployable Local Area Networks, including servers and user terminals, as well as deliver a Terrestrial Range Extension System to extend the range of Phase 1 networks.**

LAND 2072 Phase 3, BCS(L): This project will introduce into service a digital communication backbone for land based elements of the Australian Defence Force (ADF) and their enabling elements. The capability is aligned with LAND 75 Phase 4 as part of a second tranche of land networking with the capability being a vital function of the BMS. This phase will enhance the digital communications backbone delivered under previous phases, expand the provisioning to additional land forces and ADF elements, and provide a new capability to support the distribution and data management of the land Battlespace. Phase 3 particularly supports Command and Control, Communications and Battlespace awareness across all Land operations. Only Phase 3 Work Package A has achieved Second Pass Approval.

## Section 2 – Financial Performance

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

Date	Description	\$m	Notes
<b>Project Budget</b>			
Nov 11	Original Approved	436.4	
<b>Jun 15</b>	Exchange Variation	<b>25.5</b>	
<b>Jun 15</b>	Total Budget	<b>461.9</b>	
<b>Project Expenditure</b>			
Prior to Jul 14	Contract Expenditure – Harris Corp – Acquisition	<b>(239.4)</b>	1
	Contract Expenditure – Harris Corp – Support	<b>(10.6)</b>	
	<b>Contract Expenditure – Harris Corp – Follow on</b>	<b>(19.2)</b>	
	Other Contract Payments / Internal Expenses	<b>(10.5)</b>	
		<b>(279.7)</b>	
FY to Jun 15	Contract Expenditure – Harris Corp – Support	<b>(7.3)</b>	2
	<b>Contract Expenditure – Harris Corp – Mature Support</b>	<b>(7.0)</b>	
	Contract Expenditure – Harris Corp – Acquisition	<b>(0.8)</b>	
	Other Contract Payments / Internal Expenses	<b>(4.9)</b>	
		<b>(20.0)</b>	
Jun 15	<b>Total Expenditure</b>	<b>(299.7)</b>	
Jun 15	<b>Remaining Budget</b>	<b>162.2</b>	
<b>Notes</b>			
1	Other expenditure <b>comprised</b> : travel, introduction into service training expenses, contractor support and JP 2072 Prime Systems Integrator capability studies.		
2	Other expenditure <b>comprises</b> : Key Loaders and Cable Test Set (\$1.3m), Training equipment (\$0.5m), freight (\$0.4m), minor contractors (\$0.3m), Effective Date to Operative Date Support (\$0.3m), Interagency Work (\$0.3m), travel (\$0.3m), and other minor orders (\$1.5m).		

### 2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
73.5	16.8	17.1	<b>PBS to PAES: All Shipments were successfully delivered by Harris ahead of schedule (in earlier years) to align with Commonwealth priorities. In year procurements delayed by commercial activities to seek lower cost of support contracts and training equipment.</b> <b>PAES to Final Plan: Due to exchange rate update for Financial Year 2015-16.</b>
Variance \$m	<b>(56.7)</b>	<b>0.3</b>	Total Variance (\$m): <b>(56.4)</b>
Variance %	<b>(77.1)</b>	<b>1.8</b>	Total Variance (%): <b>(76.7)</b>

## 2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
			FMS	Training aids took longer than anticipated and radio test sets were delayed due to the priority of establishing mature support contracts; however this was offset by achievement of accelerated support contract initial payment and delivery of attrition spares for Combat Net radio equipment. Internal study related to Vehicle Adaptive Antenna System was delayed with refined requirement re-released to industry.
		0.8	Overseas Industry	
		2.6	Local Industry	
			Brought Forward	
			Cost Savings	
			FOREX Variation	
		(0.5)	Commonwealth Delays	
			Additional Government Approvals	
17.1	20.0	2.9	<b>Total Variance</b>	
		17.0	<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 15 \$m			
Harris Corporation (Acquisition)	Jan 12	226.3	240.2	Firm	ASDEFCON	1, 2
Harris Corporation (Support)	Mar 12	14.6	20.4	Firm	ASDEFCON	1, 2
Harris Corporation (Follow on)	Oct 12	12.2	19.2	Firm	ASDEFCON	1, 2
<b>Harris Corporation (Mature Support)</b>	<b>May 15</b>	<b>6.6</b>	<b>7.0</b>	<b>Firm</b>	<b>ASDEFCON</b>	<b>1, 2, 3</b>
<b>Notes</b>						
1	The contract with Harris Corporation already established under Phase 1 was utilised to order the Phase 2A supplies. Two key orders were placed under the standing offer provisions of this contract to acquire the Phase 2A equipment and extend the Phase 1 interim support to Phase 2A equipment, including: <ul style="list-style-type: none"> <li>Order for acquisition of Phase 2A equipment;</li> <li>Order for extension of interim support to cover Phase 2A equipment. Harris Corporation utilise US expatriate personnel and an Australian Subsidiary combined to meet requirements; and</li> <li>Follow-on orders placed against the same contract with Harris, including Waveform upgrade and ancillaries including radio pouches/backpacks and waterproof variants.</li> </ul>					
2	Contract value as at 30 June 2015 is based on actual expenditure to 30 June 2015 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).					
3	<b>The total value of this mature support contract is \$69.8m, with \$7.0m initial costs funded by the project and the remaining expenditure to be funded out of the ongoing sustainment budget.</b>					
Contractor	Quantities as at		Scope			Notes
	Signature	30 Jun 15				
Harris Corporation	11,638	11,638	Combat ancillaries support.	Net and	Radios, interim	1
Major equipment received and quantities to 30 Jun 15						
11,638 radios (100 per cent of total Phase 2A radios) comprising:						

- 9,157 AN/PRC 152 VHF/UHF radios; and - 2,481 AN/PRC 150 HF radios.	
Notes	
1	Figures include number of radios and exclude number of ancillary items (e.g. antennas, headsets, batteries etc).
3	This value is for the Mature Support Contract Mobilisation payments which are being funded by the project. The total value of the contract is 69.8 with the remainder coming out of sustainment funds.

### Section 3 – Schedule Performance

#### 3.1 Design Review Progress

Review	Major System /Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Requirements	N/A	N/A	N/A	N/A	N/A	1
Preliminary Design	N/A	N/A	N/A	N/A	N/A	1
Critical Design	N/A	N/A	N/A	N/A	N/A	1
Support System Detailed Design	N/A	N/A	N/A	N/A	N/A	1
Notes						
1	As Phase 2A is procuring 'more of the same' radios as originally delivered in Phase 1 there is no design review.					

#### 3.2 Contractor Test and Evaluation Progress

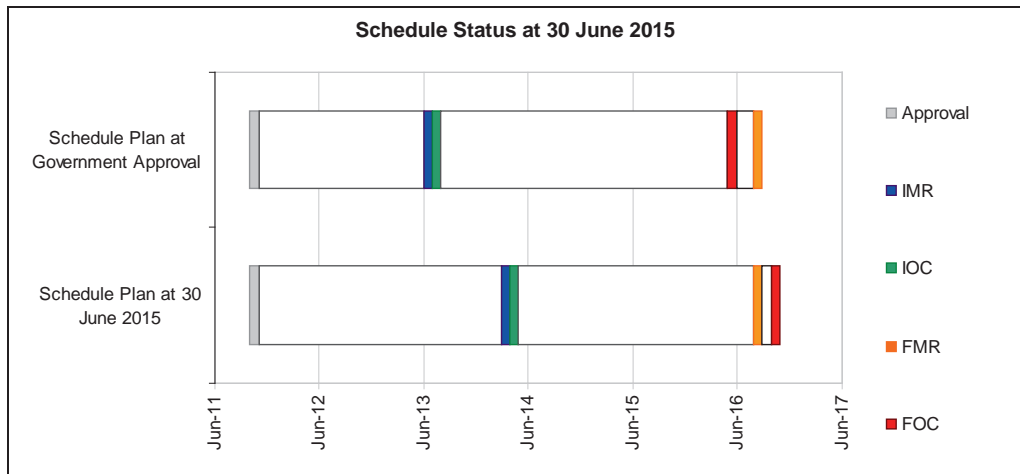
Test and Evaluation	Major System / Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Integration	N/A	N/A	N/A	N/A	N/A	1
Acceptance	N/A	N/A	N/A	N/A	N/A	1
Notes						
1	As Phase 2A is procuring 'more of the same' radios as originally delivered in Phase 1 there is no contractor test and evaluation.					

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

Item	Original Planned	Achieved /Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Jul – Sep 13	Apr 14	7	1
Initial Operational Capability (IOC)	Jul – Sep 13	Apr 14	7	1
Final Materiel Release (FMR)	Jul – Sep 16	Aug 16	0	
Final Operational Capability (FOC)	Apr – Jun 16	Oct 16	4	2
Notes				
1	Equipment was delivered on schedule to IMR units in March 2013, however Capability Manager declaration of IMR and IOC was delayed by extended user acceptance of supporting documentation.			
2	Forecast date is to the project's best knowledge due to the limited visibility of Capability Manager milestones.			

### Project Data Summary Sheets

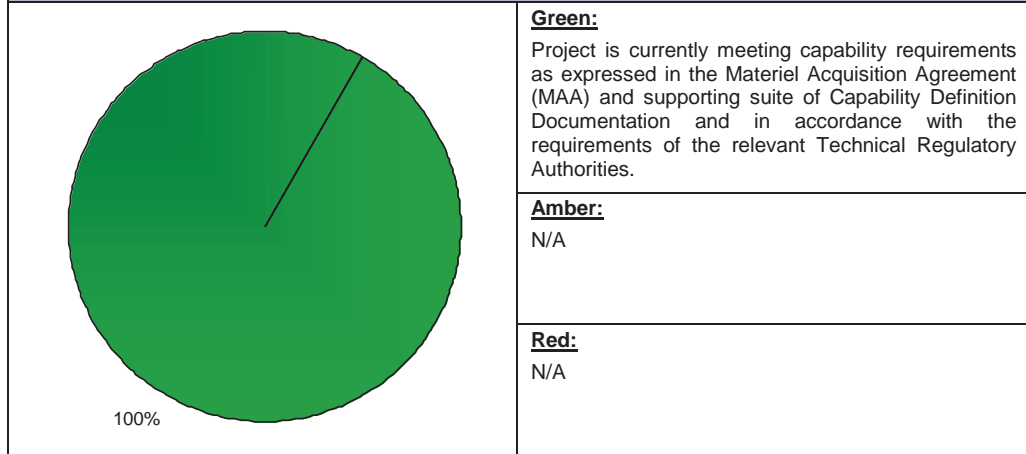
ANAO Report No.16 2015–16  
2014–15 Major Projects Report



### Section 4 – Materiel Capability Delivery Performance

#### 4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Capability Delivery Performance



**Note**

This Pie Chart does not necessarily represent capability achieved. The capability assessments and forecasts by the project are not subject to the ANAO's assurance review.

## 4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	<b>IMR comprises the delivery of 1,332 radios and ancillaries to 7 Brigade and selected Training Establishments in accordance with Basis of Provisioning (BoP) to support Capability Manager IOC activities.</b>	<b>Achieved</b>
Final Materiel Release (FMR)	<b>Final delivery of 11,638 radios and ancillaries, development and provision of initial training in accordance with full JP 2072 Phase 2A BoP to support Capability Manager FOC activities. Further, the transition of the mature support contract to the support agencies. FMR is a future dated milestone forecast for August 2016.</b>	<b>Not achieved</b>

## 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 transition of mature support to the sustainment organisation will be affected by its capacity to accept management of mature support contracts in addition to existing contracts for legacy fleets, leading to an impact on supportability.	<b>Continue to work</b> with the sustainment office <b>to address emergent issues through a Transition Working Group</b> . Provide JP 2072 resources as far as possible to assist optimal transition to sustainment. Communicate mature support management requirements to ensure new responsibilities understood whilst maintaining legacy contracts.
There is a chance that loss/exit of key personnel within JP 2072 program will impact on Phase 2A core responsibilities due to limited project staffing.	Introduction Into Service was delayed as far as allowable within defined IMR and FMR timeframes to alleviate pressure on staff. <b>Contractor personnel were/are being engaged (5 to date) and liaising with other projects for potential access to Integrated Support Contracts. Early transition of activities to sustainment being pursued as far as possible (eg involvement in establishing support contracts). Responsibilities shared to promote cross skilling and reduce reliance on key persons.</b>
There is a chance that the <b>remaining</b> mature support contract is not signed in advance of the interim support contract expiry dates due to reliance on contractor acceptance and availability of program, contracting and commercial support.	Interim Support Contract extension documentation <b>was</b> prepared, <b>however, risk downgraded to Medium with one contract signed (and the other progressing) prior to contract expiry dates.</b>
There is a chance that some Nodes need re-configuration to address fitness for purpose and safety considerations as part of Validation and Verification process.	Engagement with end users to determine intended/actual use and any deficiencies. Army and RAAF user requirements validation workshops <b>were</b> conducted with essential and desirable change requests documented for either: rectification of the nodes, or submission of enhancements to change approval process.
Emergent Risks (risk not previously identified but has emerged during 2014-15)	
Description	Remedial Action
N/A	N/A



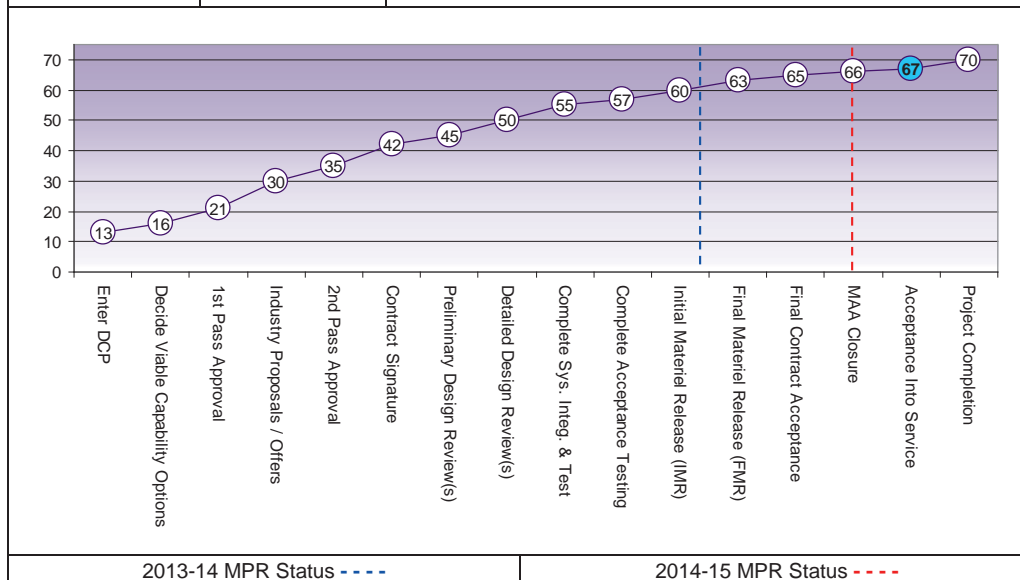
5.2 Major Project Issues

Description	Remedial Action
The rollout of equipment as Nodes (that were identified under LAND 200 pre-IOC) have been affected by the absence of formal design acceptance prior to Phase 2A equipment selection and rollout. This was reflected in the delayed declarations of IMR/IOC and risks to the Technical Certification schedule.	Some ancillaries were withheld from the planned IMR rollout to address issues, however there was no impact on the fundamental function of the capability. Preliminary Design Acceptance was delivered to ensure the safe use of equipment while the user workshops and Nodal Technical Certification process progressed to see the configurations completed. Note that all relevant equipment is already in service as components of other capabilities.

Section 6 – Project Maturity

6.1 Project Maturity Score and Benchmark

Maturity Score		Attributes							Total
		Schedule	Cost	Requirement	Technical Understanding	Technical Difficulty	Commercial	Operations and Support	
Project Stage	Benchmark	10	9	10	10	10	9	9	67
Acceptance Into Service	Project Status	9	<b>9</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>9</b>	9	<b>66</b>
	Explanation	<ul style="list-style-type: none"> <li>Schedule: Rollout schedule was based on rate of equipment availability however was brought back to minimum MAA requirements due to lack of project resources to process and sustain equipment going into service.</li> </ul>							



## Section 7 – Lessons Learned

### 7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
JP 2072 is required to provide extensive support and advice to other projects procuring or integrating communications equipment via JP 2072 contracts. New project approvals need to include adequate resources for integration and support of communications systems within their own platforms. The sustainment organisation will need to be prepared to provide program, engineering and logistics support beyond the completion of JP 2072 phases.	Resourcing
Phase 2A delivery of More of the Same equipment required Design Acceptance under Phase 1, which was not achieved. Provisional Design Acceptance was put in place however some minor ancillary equipment defined in the capability baseline was withheld due to fitness for purpose issues. New project approvals should consider the necessary design inputs to ensure they are in place before projects proceed and engineering scope then resourced appropriately.	Requirements Management
There was very limited detail on the levels of support agreed or articulated in the Capability Definition Documentation. Adequate support system was therefore not established in time for delivery of materiel. Future phases require the support system better defined prior to approval, and implemented earlier in the project lifecycle.	Requirements Management
The contracted Field Service Representative (FSR) teams have provided high quality service that has been well received by users and the Capability Manager. For example, in most cases it is more cost effective to locate/move FSR around to units than to send high volumes of equipment back to the Original Equipment Manufacturer facilities (domestic and international) for repairs or bulk upgrades. FSR have developed from an Introduction Into Service function into an increasing, ongoing support requirement for the foreseeable future.	Off-The-Shelf Equipment

## Section 8 – Project Line Management

### 8.1 Project Line Management in 2014-15

Position	Name
General Manager	Ms Shireane McKinnie
Division Head	Mr Michael Aylward (to Nov 14) Mr Ivan Zlabur (Acting Dec 14) Mr Brad Flux (Acting Jan 15) Mr Ivan Zlabur (Acting Feb 15) Ms Myra Sefton (Acting Mar 15–May 15) Mr Brad Flux (Acting Jun 15–current)
Branch Head	Ms Myra Sefton (to Feb 15) Mr Michael Garrety (Acting Feb 15) Ms Lynsey Johnstone (Acting Mar 15) Ms Thea Huber (Acting Apr 15–May 15) Ms Myra Sefton (Jun 15–current)
Program Director	Mr Peter Henrick
Project Manager	Mr Steve Wardle